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Bequest of
S. Stillman Berry
BRITISH ZOOLOGY.

CLASS II. BIRDS.

DIV. II. WATER FOWL.

LONDON.
Printed for Benj. White,
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PLATES TO
BRITISH ZOOLOGY.

VOL. II. OCTAVO.

Plates.

LX. FRONTISPIECE, Tame Swan, to face the Title

LXI. Common Heron - Page 421
LXII. White Heron - 427
LXIII. Curlew - 429
LXIV. Whimbrel - 430
LXV. Red Shank
Woodcock

LXVI. Cinereous Godwit - 442
LXVII. Red Godwit - 443
LXVIII. Jack Snipe
Snipe

LXIX. Ruff
Reeve

LXX. Gambet - 465

Vol. II. E e LXXII.
Plates.

LXXI. Purr Sandpiper - Page 470
LXXII. Red Sandpiper Golden Plover - 474
LXXIII. Sanderling Dotterel - 477
LXXIV. Oyster-Catcher - 482
LXXV. Water-Rail Crake Gallinule - 484
LXXVI. Red and Grey Scalloptoe Sandpiper - 491
LXXVII. Common Gallinule Coot - 494
LXXVIII. Dusky Grebe Tippet Grebe - 496
LXXIX. Black-chin Grebe Eared Grebe - 500
LXXX. Avoset - 504
LXXXI. Great Auk - 507
LXXXII. Little Auk Razor Bill - 509
LXXXIII. Lesser Guillemot Spotted Guillemot - 520
LXXXIV. Imber Northern Diver - 523
LXXXV. Red-throated Diver Black-throated Diver - 526
LXXXVI. Winter Gull Black-toed Gull - 532
LXXXVII. Arctic Gulls - 533

LXXXVIII.
Plates.

LXXXVIII. Herring Gull

Page 535

Wagel

LXXXIX. Kittiwake

Common Gull

XC. Great and Lesser Terns

XCI. Stormy Petrel

Fulmar

XCII. M. and F. Goosander

XCIII. M. and F. Red-breasted Goosander

XCIV. Bean Goose

White-fronted Wild Goose

XCV. Eider Duck and Drake

XCVI. M. and F. Velvet Duck

XCVII. Wild Ducks

XCVIII. Long-tailed Duck

White-throated Duck

XCIX. Ferruginous Duck

Long-tailed Duck, a Variety

C. Scaup Duck

Bimaculated Duck

Cl. Garganey

Female Garganey

CII. Shag

CIII. Gannet

APPENDIX.
# APPENDIX.

Plates.

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Rough-legged Falcon</td>
<td>623</td>
</tr>
<tr>
<td>II</td>
<td>Roller</td>
<td>624</td>
</tr>
<tr>
<td>III</td>
<td>Nutcracker</td>
<td>625</td>
</tr>
<tr>
<td>IV</td>
<td>M. and F. Oriole</td>
<td>626</td>
</tr>
<tr>
<td>V</td>
<td>Rose-coloured Ouzel</td>
<td>627</td>
</tr>
<tr>
<td>VI</td>
<td>Crane</td>
<td>629</td>
</tr>
<tr>
<td>VII</td>
<td>Egret</td>
<td>631</td>
</tr>
<tr>
<td>VIII</td>
<td>Little Bittern</td>
<td>633</td>
</tr>
<tr>
<td>IX</td>
<td>Spoonbill</td>
<td>634</td>
</tr>
</tbody>
</table>

Compositions for Two Piping Bullfinches 708
DIVISION II.

WATER-FOWLS.

Vol. II.  Ff
The COMMON HERON.
Div. II. Water Fowls.

Sect. I. With Cloven Feet.

II. With Finned Feet.

III. With Webbed Feet.

Bill long, strong and pointed.

NoseTrils linear.

Tongue pointed.

Toes connected as far as the first joint by a strong membrane.

Male.

Heron cendrè. Belon. av. 182.

Ardea cinerea major. Aldr. av. iii. 157. Scopoli, No. 117.

Common Heron, or Heronshaw. Wil. orn. 277.

Ardea cinerea major feu pellè. Raii syn. av. 98.


Le Heron hupé. Brissìn av. v. 296. tab. 35.

Reyger. Freisch II. 199.


Hager. Faun. Suec. sp. 59.


Female.

Ardea Pella five cinerea. Gefner av. 211.

Ardea cinerea tertia. Aldr. av. III. 159. Wil orn. 279. & Raii syn. av. 98.

Ardea cinerea. Lin. syg. 236.

Danis et Norvegis Heyre v.


Le Heron. Brissìn av. v. 292. tab. 34.

Reyger Freisch, II. 198.


This bird is remarkably light in proportion to its bulk; scarce weighing three pounds and a half; the length is three feet.
feet two inches; the breadth five feet four inches. The body is very small, and always lean; and the skin scarce thicker than what is called gold-beater's skin. It must be capable of bearing a long abstinence, as its food, which is fish and frogs, cannot be readily got at all times. It commits great devastation in our ponds; but being unprovided with webs to swim, nature has furnished it with very long legs to wade after its prey. It perches and builds in trees, and sometimes in high cliffs over the sea, commonly in company with many others, like rooks. At Cressé Hall near Gosberton in Lincolnshire I have counted above eighty nests in one tree. It makes its nest of sticks, lines it with wool; and lays five or six large eggs of a pale green color. During incubation, the male passes much of its time perched by the female. They desert their nests during winter, excepting in February, when they resort to repair them. It was formerly in this country a bird of game, heron-hawking being so favourite a diversion of our ancestors, that laws were enacted for the preservation of the species, and the person who destroyed their eggs was liable to a penalty of twenty shillings, for each offence. Not to know the Hawk from the Heron-shaw was an old proverb *, taken originally from this diversion; but in course of time served to ex-

* In after times this proverb was absurdly corrupted to, He does not know a hawk from a hand-saw.
press great ignorance in any science. This bird was formerly much esteemed as a food; made a favourite dish at great tables, and was valued at the same rate as a Pheasant. It is said to be very long lived; by Mr. Keyler’s account it may exceed sixty years*: and by a recent instance of one that was taken in Holland by a hawk belonging to the stadtholder, its longevity is again confirmed, the bird having a silver plate fastened to one leg, with an inscription, importing it had been before struck by the elector of Cologne’s hawks in 1735.

The male is a most elegant bird: the weight about three pounds and a half, the length, three feet three; the breadth, five feet four; the bill six inches long, very strong and pointed: the edges thin and rough; the color dusky above, yellow beneath; nostrils linear; the irides of a deep yellow; orbits and space between them and the bill covered with a bare greenish skin.

The forehead and crown white, the hind part of the head adorned with a loose pendent crest of long black feathers waving with the wind; the upper part of the neck is of a pure white, and the coverts of the wings of a light grey; the back clad only with down, covered with the scapulars; the fore part of the neck white spotted with a double row of black: the feathers are white, long, narrow,

* Keyler’s Travels, I. 70.
unwebbed, falling loose over the breast; the scapulars of the same texture, grey streaked with white.

The ridge of the wing white, primaries and bastard wing black; along the sides beneath the wings is a bed of black feathers, very long, soft and elegant; in old times used as egrets for the hair, or ornaments to the caps of Knights of the garter; the breast, belly, and thighs white: the last dashed with yellow. The tail consists of twelve short cinereous feathers: the legs are of a dirty green: the toes long, the claws short, the inner edge of the middle claw finely serrated.

The head of the female is grey: it wants the long crest, having only a short plume of dusky feathers: the feathers above the breast short; the scapulars grey and webbed: the sides grey. This has hitherto been supposed to be a distinct species from the former; but later observations prove them to be the same.

**Female**

| Le Butor. | Belon av. 192. |
| The Myredromble. | Turner. |
| Trombone, Terrabuso. | Aldr. av. III. 164. |
| Bittour, Bittern, or Miredrum. | Wil. orn. 282. |
| Rauifyn. av. 100. |
| Botaurus, le Butor. | Briffon av. V. 444; tab. 37. |

The bittern is a very retired bird, concealing itself in the midst of reeds and rushes in marshy
marshy places. It is with great difficulty provoked to flight, and when on wing has so dull and flapping a pace, as to acquire among the Greeks the title of *omós* or the lazy. It has two kinds of notes; the one croaking, when it is disturbed: the other bellowing, which it commences in the spring and ends in autumn. Mr. Willughby says, that in the latter season it soars into the air with a spiral ascent to a great height, making at the same time a singular noise. From the first observation, we believe this to be the species of heron that Virgil alludes to among the birds that forbode a tempest,

In sicco ludunt fulicae, notasque paludes
Deserit, atque altam supra volat Ardea nubem †.

For the antients mention three kinds ‡; the *Leucon*, or white heron; the *Pellos*, supposed to be the common sort; and the *Asterias*, or bittern; which seems to have acquired that name from this circumstance of its aspiring flight, as it were attempting, at certain seasons, the very stars; though at other times its motion was so dull, as to merit the epithet of lazy.

Some commentators have supposed this to have been the *Taurus* of Pliny; but as he has expressly declared that to be a small bird, remarkable for

* Arist. hist. an. 1056.
† Georg. I. 363.
‡ Arist. hist. an. 1006. Plin. lib. x. c. 60.
imitating the lowing of oxen, we must deny the explanation; and wait for the discovery of the Roman naturalist's animal from some of the literati of Arles, in which neighbourhood Pliny says the bird was found*. In size it is inferior to the heron: the bill is weaker, and only four inches long: the upper mandible a little arched; the edges of the lower jagged: the rictus or gape is so wide, that the eyes seem placed in the bill: the irides are next the pupil yellow; above the yellow incline to hazel: the ears are large and open. The crown of the head is black; the feathers on the hind part form a sort of short pendent crest: at each corner of the mouth is a black spot: the plumage of this bird is of very pale dull yellow, spotted, barred, or striped with black: the bastard wing, the greater coverts of the wings, and the quil-feathers are of a bright ferruginous color, regularly marked with black bars: the lower belly is of a whitish yellow: the tail is very short, and consists of only ten feathers. The feathers on the breast are very long, and hang loose: the legs are of a pale green. All the claws are long and slender: the inner side of the middle claw finely ferrated to hold its prey the better; its hind claw is remarkably long, and being a supposed preservative for the teeth, is sometimes set in silver and used as a tooth-pick. Besides this common species, Mr. Edwards mentions a

* Lib. x. c. 42.
Class II. White Heron.

Small one of the size of a lapwing, shot near Shrewsbury. He adds no more than that the crown of the head was black: as this answers the description of a kind frequent in Switzerland and Austria*, we imagine it to be a strayed bird from those parts.

It builds its nest with the leaves of water plants on some dry clump among the reeds, and lays five or six eggs, of a cinereous green color. This bird and the heron are very apt to strike at the fowler's eyes, when only maimed. The food of the bittern is chiefly frogs; not that it rejects fish, for small trouts have been met with in their stomachs. In the reign of Henry VIII. it was held in much esteem at our tables; and valued at one shilling. Its flesh has much the flavour of a hare; and nothing of the fishiness of that of the heron.

Le Heron blanc. Belon av. 191.
Wil. orn. 279.
Raii syn. av. 99.

Ardea candida, le Heron 175. White, blanc. Brisson av. V. 428.
Ardea alba. Lin. s. 239.
Faun. Suec. sp. 166.
Br. Zool. 117.

This bird has not fallen within our observation; therefore we must give Mr. Willughby's

account of it. The length to the end of the feet is fifty-three inches and a half, to that of the tail only forty; the breadth sixty inches; the weight forty ounces.

The bill is yellowish; the naked skin between that and the eyes green; the edges of the eye-lids, and the irides, are of a pale yellow; the legs are black; the inner edge of the middle claw serrated: the whole plumage is of a snowy whiteness. This bird is very common in many parts of Europe; Turner says, that in his time this species bred (though rarely) in the same places with the common sort: but we believe it to be seldom found with us at present, any more than the small species of crested white heron mentioned by Leland, under the name of Egritte, in one of the bills of fare in the magnificent feasts of our ancestors.*

CURLEW.
BILL long, slender, incurvated.
NOSTRILS' linear, placed near the base.
TONGUE short, sharp pointed.
TOES connected as far as the first joint by a strong membrane.

THERESE birds frequent our sea coasts and marshes in the winter time in large flocks, walking on the open sands; feeding on shells, frogs, crabs, and other marine insects: in summer they retire to the mountainous and unfrequented parts of the country, where they pair and breed. Their eggs are of a pale olive color, marked with irregular but distinct spots of pale brown. Their flesh is very rank and fishy, notwithstanding an old English proverb in its favour.

Curlews differ much in weight and size; some weighing thirty-seven ounces, others not twenty-two: the length of the largest to the tip of the tail...
W H I M B R E L. Class II.

tail twenty-five inches; the breadth three feet five inches; the bill is seven inches long: the head, neck, and coverts of the wings are of a pale brown; the middle of each feather black; the breast and belly white, marked with narrow oblong black lines: the back is white, spotted with a few black strokes: the quil-feathers are black, but the inner webs spotted with white: the tail white, tinged with red and beautifully barred with black; the legs are long, strong, and of a bluish grey color: the bottoms of the toes flat and broad, to enable it to walk on the soft mud, in search of food.

T H E whimbrel is much less frequent on our shores than the curlew; but its haunts, food, and general appearance are much the same. It is observed to visit the neighbourhood of Spalding (where it is called the Curlew knot) in vast flocks
WHIMBREL.
flocks in April, but continues there no longer than May; nor is it seen there any other time of year: it seems at that season to be on its passage to its breeding place, which I suspect to be among the Highlands of Scotland.

The specific difference is the size; this never exceeding the weight of twelve ounces. The bill is two inches three quarters long; dusky above, red below: the feathers on the head and neck are brown tinged with red, marked in the middle with an oblong black spot: the cheeks of a paler color: the upper part of the back, the coverts of the wings, the scapulars, and the farthest quil-feathers, are of the same color with the neck, but the black spots spread out transversely on each web: the quil-feathers dusky; their shafts white; and their exterior webs marked with large semicircular white spots. The breast, belly, and lower part of the back are white: the coverts of the tail, and the tail itself, are of a very pale whitish brown, crossed with black bars. The legs and feet are of a dull green, and formed like those of the curlew.

I received one from Invercauld, shot on the Grampian Hills, whose length was sixteen inches; the bill two: the head round, black on the top, divided length-ways by a white line: chin white: cheeks, neck, breast, and upper part of the belly whitish brown, marked with streaks of black pointing down, with narrow streaks on the neck; broad on the belly: lower belly and vent white: back and,
and coverts of the wings dusky: the sides of each feather spotted with reddish white: lower part of the back white: rump white barred with black: tail barred with dusky and white: quil-feathers black, with large white spots on the inner webs; the secondaries on both webs: legs black.
B. long, flender, weak and ftrait.
NOSTRILS linear, lodged in a furrow.
TONGUE pointed, flender.
TOES divided, or very slightly connected, back toe very small.


Fauna Scotica. No. 142.

THESE birds during summer are inhabitants of the Alps *, of Norway, Sweden, Polish Prusfia, the march of Brandenburg †, and the northern parts of Europe: they all retire from those countries the beginning of winter, as soon as the frosts commence; which force them into milder climates, where the ground is open, and adapted to their manner of feeding. The time of their

* Wil. orn. 290.
† Frisch, II. 226.
appearance and disappearance in Sweden; coincides most exactly with that of their arrival in, and their retreat from Great Britain*. They live on worms and insects, which they search for with their long bills in soft ground and moist woods. Woodcocks generally arrive here in flocks, taking advantage of the night, or a mist: they soon separate; but before they return to their native haunts, pair. They feed and fly by night; beginning their flight in the evening, and return the same way, or through the same glades to their day retreat. They leave England the latter end of February, or beginning of March; not but they have been known to continue here accidentally. In Case-wood, about two miles from Tunbridge, a few breed almost annually: the young having been shot there the beginning of August, and were as healthy and vigorous as they are with us in the winter, but not so welltailed: a female with egg was shot in that neighbourhood in April; the egg

* M. de Geer's and Dr. Wallerius's letters to myself. M. de Geer expressës himself thus; La Becasse (Scolopax rusticola) part d'ici vers l'automne, Je ne sais pas au juste dans quel mois. On la trouve ici assez en abondance dans l'été. Elle a coutume au soleil couchant de faire sa volée en cercle ou toujours en rond en l'air revenant toujours dans le même endroit à plusieurs reprises, et c'est alors qu'on peut la tirer a coup de fusil. En hiver où ne voit aucune, elle partent alors toutes.

M. Wallerius gave me this account of them. Scolopaces rusticola peues nos nidificant. Sed autumnali tempore abeunt, ac vernali redeunt.
was the size of that of a pigeon. They are remarkably tame during incubation; a person who discovered one on its nest, has often stood over, and even stroaked it: notwithstanding which it hatched the young; and in due time disappeared with them.

These birds appear in Scotland first on the eastern coasts, and make their progress from East to West. They do not arrive in Breadalbane, a central part of the kingdom till the beginning or middle of November: and the coasts of Nether Lorn, or of Rossshire, till December or January: are very rare in the more remote Hebrides, or in the Orkneys. A few stragglers now and then arrive there. They are equally scarce in Caithness. I do not recollect that any have been discovered to have bred in North Britain.

Their autumnal and vernal appearances on the coast of Suffolk have been most accurately marked by Sir John Cullum, Bart. who favoured me with the following curious account.

From some old and experienced sportsmen, who live on the coast, I collected the following particulars. They come over sparingly in the first week of October, the greater numbers not arriving till the months of November and December, and always after sun-set. It is the wind and not the moon that determines the time of their arrival: and it is probable that this should be the case, as they come hither in quest of food, which fails then in the places
places they leave. If the wind has favoured their flight, their stay on the coast, where they drop, is very short, if any: but if they have been forced to struggle with an adverse gale (such as a ship can hardly make way with) they take a day’s rest, to recover their fatigue: and so greatly has their strength been exhausted, that they have been taken by hand in Southwold streets. They arrive not gregarious, but separate and dispersed. When the Red wing appears on the coast in autumn, it is certain the Woodcocks are at hand; when they Royston Crow, they are come. Between the twelfth and twenty-fifth of March they flock towards the coast to be ready for their departure: the first law of nature bringing them to us, in autumn; the second carrying them from us in spring. If the wind be propitious, they are gone immediately; but if contrary, they are detained in the neighboring woods, or among the ling and furze on the coast. It is in this crisis that the sportsman finds extraordinary diversion: the whole country around echoes with the discharge of guns; even seventeen brace have been killed by one person in a day: but if they are kept any time on the dry heaths, they become so lean, that they are a prey hardly worth pursuing, at least eating. The instant a fair wind springs up, they seize the opportunity, and where the sportsman has seen hundreds one day, he will not find a single bird the next. As this extraordinary diversion depends on the winds, it must
must necessarily be precarious; and it accordingly sometimes happens, that the sportsmen on the coast, for some years together know not precisely the time of the Woodcocks departure. They have the same harbingers (the Red wings) in spring, as in autumn.

In the same manner we know they quit France, Germany and Italy; making the northern and cold situations their general summer rendezvous. They visit Burgundy the latter end of October, but continue there only four or five weeks; it being a dry country they are forced away for want of sustenance by the first frosts. In the winter they are found in vast plenty as far south as Smyrna and Aleppo*, and in the same season in Barbary†, where the Africans call them, the as of the partridge: and we have been told, that some have appeared as far south as Egypt, which are the remotest migrations we can trace them to on that side the eastern world; on the other side, they are found very common in Japan‡. The birds that resort into the countries of the Levant, probably come from the deserts of Siberia or Tartary§, or the cold mountains of Armenia.

Our species of woodcock is unknown in North

* Russel's hist. Aleppo. 64.
† Shaw's travels, 253.
‡ Kämpfer's hist. Japan. I. 129.
§ Bell's travels, I. 198.
WOODCOCK. Class II.

America; but a kind is found there that has the general appearance of it; but is scarce half the size, and wants the bars on the breast and belly.

The weight of the woodcock is usually about twelve ounces: the length near fourteen inches: the breadth twenty-six: the bill is three inches long, dusky towards the end, reddish at the base: tongue slender, long, sharp, and hard at the point: the eyes large, and placed near the top of the head, that they may not be injured when the bird thrusts its bill into the ground: from the bill to the eyes is a black line: the forehead is a reddish ash-color: the crown of the head, the hind part of the neck, the back, the coverts of the wings, and the scapulars are prettily barred with a ferruginous red, black and grey; but on the head the black predominates: the quill-feathers are dusky, indented with red marks.

The chin is of a pale yellow: the whole underside of the body is of a dirty white, marked with numerous transverse lines of a dusky color. The tail consists of twelve feathers, dusky, or black on the one web, and marked with red on the other: the tips above are ash-colored, below white; which, when shooting on the ground was in vogue, was the sign the Fowler discovered the birds by. The legs and toes are livid; the latter divided almost to their very origin, having only a very small web between the middle and interior toes; as are those of the two species of snipes found in England.

Godwit
Godwit, Yarwhelp, or Yar-wip. Wil. orn. 290.  
*Limosa grisea major.* La grande.  
*Rall syn. av. 105.*  
*Bargre. Brisson av. V.*  
*Scolopax ægocephala. Lin.*  
*Br. Zool. 120. Tab.*  
*Til. 246.*

**Descrip.**

This species weighs twelve ounces and a half; the length is sixteen inches; the breadth twenty-seven; the bill is four inches long, turns up a little, black at the end, the rest a pale purple: from the bill to the eye is a broad white stroke: the feathers of the head, neck, and back, are of a light reddish brown, marked in the middle with a dusky spot: the belly and vent feathers white: the tail regularly barred with black and white.

The six first quil-feathers are black; their interior edges of a reddish brown: the legs in some are dusky, in others of a greyish blue; which perhaps may be owing to different ages: the exterior toe is connected as far as the first joint of the middle toe, with a strong serrated membrane. The male is distinguished from the female by some black lines on the breast and throat; which in the female are wanting.

These birds are taken in the fens, in the same season, and in the same manner with the ruffs and reeves, and when fattened are esteemed a great delicacy, and sell for half a crown, or five shillings a piece,
a piece. A stake of the same species is placed in the net. They appear in small flocks on our coast in September, and continue with us the whole winter; they walk on the open sands like the curlew, and feed on insects.

M. Brisson has figured this bird very accurately, but has given it the synonym of our greenbanks. Turner suspects this bird to have been the attagen or attagas of the antients. Aristophanes names it in an address to the birds that inhabit the fens; therefore some commentators conclude it to be a water-fowl; though in a line or two after he speaks of those that frequent the beautiful meadows of Marathon. He then describes the bird in very striking terms, under the title of the attagas, the bird with painted wings; and in another place he styles it the spotted attagas*. This alone would be insufficient to prove what species the poet intended; we must therefore have recourse to Athenæus, who is particular in his description of the attagas, and evinces it to be of the partridge tribe.

He says it is less than that bird; that the back is spotted with different colors, some of a pot color, but more red; that by reason of the shortness of the wings and heaviness of the body, it is taken

* Ὄρνις τε πλεοποίηματι

attagás.

Ἀτταγάς οτι παρ' ἡμιν ποιήματι νεκρόσεται.

Ap. 249, 762.
Class II. Godwit.

easily by the fowlers. That it rolls in the dust, brings many young, and feeds on seeds.

We are sorry to own our small acquaintance with the zoology of Attica, considering the various opportunities our countrymen have had of informing themselves of it. We therefore cannot pronounce, that the attagas still exists on the plains of Marathon; but we discover it in Samos, an island of Ionia, a country celebrated by the antients for producing the finest kinds:

Inter sapores fertur alitum primus
Ionicerum gustus attagenarum,

Is the opinion of Martial*; and Horace†, and Pliny ‡, both speak of it with applause. Tournefort § has given us the figure of the bird itself, which he found in the marshes of Samos, whose painted and spotted plumage exactly answers the descriptions of Aristophanes and Athenæus. It is of the partridge genus, and known to the Italians by the name of Francolino. Those who wish to see it in its proper colors, and to be satisfied how well they agree with the descriptions of the antients, need only consult the 246th plate of the works of our ingenious friend the late Mr. Edwards.

* Epig. Lib. XIII. Ep. 61.
† Epod. II.
‡ Lib. X. c. 48.
THIS species was shot near Spalding, and the description communicated to me by the Rev. Doctor Buckworth.

The bill was two inches and a half long. The head, neck, and back variegated with ash-color and white: the tail slightly barred with cinereous. The throat and breast white: the last marked with a few ash-colored spots. The legs long, slender, and ash-colored.

This was about the size of my Green-shanks: approaches it nearly in colors: but the bill was so much thicker, as to form a specific distinction.

The red godwit is superior in size to the common kind: the bill is three inches three-quarters long; not quite strait, but a little reflected upwards: the lower half black, the upper yellow: the head, neck, breast, sides, scapulars, and upper part of the back, are of a bright ferruginous color: the head marked with oblong dusky lines: the neck is plain: the breast, sides, scapulars, and back varied with transverse black bars, and
CENEREOUS GODWIT.
RED GODWIT.
and the edges of the feathers with a pale cinereous brown: the middle of the belly is white, marked sparingly with similar spots.

The lesser coverts of the wings are of a light brown: the greater tipt with white: the shafts and lower interior webs of the greater quil-feathers are white: the exterior webs and upper part of the interior black: the upper half of the secondary feathers are of the same color: the lower half white: the coverts, and the lower part of the feathers of the tail are white; the upper part black; the white gradually lessening from the outmost feathers on each side: the legs are black, and four inches long: and the thighs above the knees are naked for the space of an inch and three-quarters.

These birds vary in their colors, some that we have seen being very slightly marked with red, or only marbled with it on the breast: but the reflected form of the bill is ever sufficient to determine the species. This is not a very common species in England; we have known it to have been shot near Hull; and have once met with it in a poulterer's shop in London. Mr. Edwards has figured a bird from Hudson's Bay, that seems related to this; but the difference in the colors of the tail, forbids our placing it among the synonyms. And Linnaeus omitting a description of that part, in his Fauna Suecica, obliges us to question whether it be the same with the above.
LESSER GODWIT. CLASS II.

182. LESSER. La Barge. Belon av. 205. Fedoanoftra secunda, the Stone Plover Rall syn. av. 105. The second fort of Godwit, the Totanus of Aldrowand; called at Venice, Vetola. Limosa, la Barge. Brisson av. Wil. orn. 293. V. 262. Br. Zool. 120.

MR. Ray (for we are not acquainted with this species) describes it thus. Its weight is nine ounces; the length to the tail seventeen inches; to the toes twenty-one; its breadth twenty-eight: the bill like that of the former: the chin white, tinged with red: the neck ash-colored: the head of a deep ash-color, whitish about the eye; the back of a uniform brownness, not spotted like that of the preceding: the rump encompassed with a white ring: the two middle feathers of the tail black: the outmost, especially on the outside web, white almost to the tips; in the rest the white part grew less and less to the middlemost.

Besides these, Mr. Willughby mentions a third species, ealled in Cornwall the Stone Curlew; but describes it no farther than saying it has a shorter and slenderer bill than the preceding.
THESE birds are not so common as the former: appearing on our coasts and wet grounds in the winter time in small flocks. The length to the end of the tail is fourteen inches, to that of the toes twenty; its breadth twenty-five. The bill is two inches and a half long: the upper mandible black, strait, and very slender; the lower reflects a little upwards: the head and upper part of the neck are ash-colored, marked with small dusky lines pointing down: over each eye passes a white line: the coverts of the wings, the scapulars, and upper part of the back are of a brownish ash-color: the quil-feathers dusky, but the inner webs speckled with white: the breast, belly, thighs, and lower part of the back are white: the tail white, marked with undulated dusky bars: the inner coverts of the wings finely crossed with double and treble rows of a dusky color.

It is a bird of an elegant shape, and small weight in proportion to its dimensions, weighing only six ounces.

The
RED SHANK. CLASS II.

The legs are very long and slender, bare above two inches higher than the knees. The exterior toe is united to the middle toe, as far as the second joint, by a strong membrane which borders their sides to the very end.

These birds are the Chevaliers aux pieds verts of the French; as the spotted redshanks are the Chevaliers aux pieds rouges.

184. RED SHANK.

Redshank, or Pool-snipe. Kleiner grau-und-weißbunter
Wil. orn. 299.
Raii syn. av. 107.
Totanus, le Chevalier. Brisson
av. V. 188. Tab. 17. fig. 1.
Scolopax Calidris. Lin. Syst.
245.

THIS species is found on most of our shores: in the winter time it conceals itself in the gutters; and is generally found single, or at most in pair.

Descrip.

It weighs five ounces and a half: the length is twelve inches: the breadth twenty-one: the bill near two inches long, red at the base, black towards the point. The head, hind part of the neck, and scapulars, are of a dusky ash-color, obscurely spotted with black: the back is white, sprinkled with
with black spots: the tail elegantly barred with black and white: the cheeks, under side of the neck, and upper part of the breast are white, streaked downward with dusky lines: the belly white: the exterior webs of the quill-feathers are dusky: the legs long, and of a fine bright orange color: the outmost toe connected to the middle toe by a small membrane; the inmost by another still smaller.

It breeds in the fens, and marshes; and flies round its nest when disturbed, making a noise like a lapwing. It lays four eggs, whitish tinged with olive, marked with irregular spots of black chiefly on the thicker end.

I DISCOVERED this in the collection of the Rev. Mr. Green, shot near Cambridge.

It is larger than the common redshank. The head, upper part of the neck, and the back are of a cinerous brown: the lesser coverts of the wings brown edged with dull white, and barred with black: the primaries dusky, whitish on their inner sides: secondaries barred with dusky and white: under side of neck and breast of a dirty white: belly and vent white: tail barred with cinereous and black: legs of an orange red.
COMMON SNIPE.  CLASS II.

186. Spotted Redshank. Le chevalier rouge. Belon av. 207.
Aldr. av. III. 171.

Le Chevalier rouge. Brisson av. V. 192.

Descrip.

This species we found in the collection of Taylor White, Esq. In size it is equal to the greenshank: the head is of a pale ash-color, marked with oblong streaks of black: the back dusky, varied with triangular spots of white: the coverts of the wings ash-colored, spotted in the same manner: the quil-feathers dusky; breast, belly, and thighs white, the first thinly spotted with black: the middle feathers of the tail are ash-colored; the side feathers are whitish, barred with black: the legs very long, and of a bright red.


La Becassine ou Becasseau. Scolopax gallinago. Lin. 244.
Belon av. 215.
Gallinago, feu rustica minor. Gesner av. 503.
Aldr. av. III. 184.
The Snipe, or Snite. Wil. orn. 290.
Raii str. av. 105.
Moofs schnepf. Kram. 352.
Frisch, II. 229.

In the winter time snipes are very frequent in all our marshy and wet grounds, where they lie concealed
concealed in the rushes, &c. In the summer they disperse to different parts, and are found in the midst of our highest mountains, as well as our low moors: their nest is made of dried grass; they lay four eggs of a dirty olive color, marked with dusky spots; their young are so often found in England, that we doubt whether they ever entirely leave this island. When they are disturbed much, particularly in the breeding season, they soar to a vast height, making a singular bleating noise; and when they descend, dart down with vast rapidity: it is also amusing to observe the cock (while his mate sits on her eggs) poise himself on his wings, making sometimes a whistling and sometimes a drumming noise. Their food is the same with that of the woodcock; their flight very irregular and swift, and attended with a thrill scream. They are most universal birds, found in every quarter of the globe, and in all climates.

This species weighs four ounces; the length, to the end of the tail, is near twelve inches: the breadth about fourteen: the bill is three inches long, of a dusky color, flat at the end, and often rough like shagrin above and below. The head is divided lengthways with two black lines, and three of red, one of the last passing over the middle of the head, and one above each eye: between the bill and the eyes is a dusky line: the chin is white: the neck is varied with brown and red.

The scapulars are beautifully striped lengthways with
with black and yellow: the quil-feathers are dusky, but the edge of the first is white, as are the tips of the secondary feathers: the quil-feathers next the back are barred with black and pale red: the breast and belly are white: the coverts of the tail are long, and almost cover it: they are of a reddish brown color. The tail consists of fourteen feathers; black on their lower part, then crossed with a broad bar of deep orange, another narrow one of black; and the ends white, or pale orange. The vent feathers a dull yellow: the legs pale green: the toes divided to their origin.

THIS species is rarely found in England. A fine specimen, shot in Lancashire, is preserved in the Museum of Ashton Lever, Esq.

The weight eight ounces. The head divided lengthways by a teftaceous line, bounded on each side by another of black: above and beneath each eye is another: neck and breast of a yellowish white, finely marked with semicircular lines of black: belly, with cordated spots: sides undulated with black.

Back, coverts of wings, and scapulars teftaceous, spotted with black and edged with white. Primaries dusky. Tail rust-colored, barred with black. Legs black?
THE haunts and food of this species are the same with those of the former; it also feeds on small snails: it is much less frequent among us, and very difficult to be found, lying so close as to hazard being trod on before it will rise: the flight is never distant, and its motion is more sluggish than that of the larger kind.

Its weight is less than two ounces, inferior by half to that of the snipe; for which reason the French call them deux pour un, we the half snipe.

The dimensions bear not the same proportion; the length of the snipe being twelve inches; this eight and a half: the bill an inch and a half long: crown of the head black, tinged with rust color: over each eye is a yellow stroke: the neck varied with white, brown, and pale red. The scapular feathers narrow, very long, brown, bordered with yellow. The rump a glossy bluish purple: the belly
belly and vent white; the greater quil-feathers dusky: the tail brown, edged with tawny; consisting of twelve pointed feathers: the legs are of a cinerous green.
BILL straight, slender, not an inch and half long.

NOSTRILS small.

TONGUE slender.

TOES divided; generally the two outmost connected at the bottom by a small membrane.

This elegant species inhabits most of the heaths and marshy grounds of this island. It lays four eggs, making a slight nest with a few bents. The eggs have an olive cast, and are spotted with black. It is worthy of notice, that among water fowl, congenerous birds lay the same number of eggs; for example, all of this tribe, also of the plo-

* This genus, the Tringa of Linnaeus, wanting an English name, we have given it that of the Sandpipers; most of the species being conversant about shores; and their note whistling or piping.
L A P W I N G. Class II.

vers, lay four a-piece; the puffin genus only one; and the duck tribe, in general, are numerous layers, producing from eight to twenty.

The young as soon as hatched, run like chickens: the parents shew remarkable solicitude for them, flying with great anxiety and clamour near them, striking at either men or dogs that approach, and often flutter along the ground like a wounded bird, to a considerable distance from their nest, to elude their pursuers; and to aid the deceit, become more clamorous when most remote from it: the eggs are held in great esteem for their delicacy; and are sold by the London poulterers for three shillings the dozen. In winter, lapwings join in vast flocks; but at that season are very wild: their flesh is very good, their food being insects and worms. During October and November, they are taken in the fens in nets, in the same manner that Ruffs are, but are not preserved for fattening, being killed as soon as caught.

Their weight is about eight ounces: the length thirteen inches and a half: the breadth two feet and a half. The bill is black, and little more than an inch long: the crown of the head of a shining blackness: the crest of the same color, consisting of about twenty slender unwebbed feathers of unequal lengths, the longest are four inches: the cheeks and sides of the neck are white; but beneath each eye is a black line: the throat and fore part of the neck are black: the plumage on the hind part mixed
mixed with white, ash-color and red: the back and scapulars are of a most elegant glossy green; and the latter finely varied with purple: the lesser covert feathers of the wings are of a resplendent black blue and green: the greater quil-feathers black, but the ends of the four first are marked with a white spot: the upper half of the lesser quil-feathers are black, the lower white: those next the body of the same colors with the scapulars: the breast and belly are white: the vent-feathers and the coverts of the tail orange color: the tail consists of twelve feathers; the outmost on each side is white, marked on the upper end of the inner web with a dusky spot; the upper half of all the others are black, tipt with a dirty white; their lower half of a pure white: the legs are red: the irides hazel.

The female is rather less than the male.

Merret, in his Pinax, p. 182. says, that there is in Cornwall a bird related to this; but less than a thrush, having blue feathers, and a long crest.

Pivier montano. Aldr. av. III. 

207. 

Wil. orn. 309. 

Piviero montano. Zinac. 102. 

Barnamis Floyte-Tyten, Dolken, Brunnicb, 176. 

Raii fyn. av. III. 


Faun. Suec. sp. 186. 

**Descrip.**

It weighs seven ounces: the length to the tip of the tail is twelve inches: the breadth twenty-four: the bill black, about an inch long, strong and thick: the head, back, and coverts of the wings black, edged with greenish ash-color, and some white: cheeks and throat white, marked with oblong dusky spots: the belly and thighs white: the exterior webs of the quilt-feathers black: the lower part of the interior webs of the four first white: the rump white: the tail marked with transverse bars of black and white: the legs of a dirty green: the back toe very small.

These appear in small flocks in the winter time, but are not very common: their flesh is very delicate.
167. Danis Bruushane. Brunnich,
Wil. orn. 302. 168.
Raij Jyn. av. 107. Streitschnepfe, Rampfhaehn-
Bruushane. Faun. Suec. fp. 175. 140.
Le Combattant, ou Paon de

The males, or Ruffs, assume such variety of
colors in several parts of their plumage,
that it is scarce possible to see two alike; but the
great length of the feathers on the neck, that gives
name to them, at once distinguishes these from all
other birds. On the back of their necks is a singular
tuft of feathers spreading wide on both sides.
The, and the former, in some are black; in
others white, yellow, or ferruginous; but this tuft
and the ruffs frequently differ in colors in the same
bird. The feathers that bear an uniformity of color-
ing through each individual of this sex, are the
coverts of the wings, which are brown inclining to
ash-color: the feathers on the breast, which are
often black or dusky: the four exterior feathers
of the tail, which are of a cinereous brown; and
the four middle, which are barred with black and
brown: the bill is black towards the end; red at
the base. The legs in all, are yellow. In moulting
they lose the character of the long neck-feathers,
nor do they recover it till after their return to the 
fens the spring following. It is then they regain 
that ornament, and at the same time a set of small 
pear shaped yellow pimples break out in great 
numbers on their face above the bill.

The Stags or male birds of the first year want 
these marks, and have sometimes been mistaken 
for a new species of Tringa; but they may be 
easily known by the colors of the coverts of the 
wings, and the middle feathers of the tail.

The older the birds are, the more numerous 
the pimples, and the fuller and longer the ruffs.

The length of the male to the tip of the tail 
is one foot, the breadth two; of the Reeve ten in-
ches, the breadth nineteen: the weight of the former 
when just taken is seven ounces and a half; of the 
latter only four.

The Reeves never change their colors, which 
are pale brown: the back spotted with black, slight-
ly edged with white: the tail brown; the middle 
feathers spotted with black: the breast and belly 
white: the legs of a pale dull yellow.

These birds appear in the fens in the earliest 
spring, and disappear about Michaelmas. The 
Reeves lay four eggs in a tuft of grass, the first 
week in May, and sit about a month. The eggs 
are white, marked with large rusty spots. Fowlers 
avoid in general the taking of the females, not 
only because they are smaller than the males; but 
that they may be left to breed.

Soon
Soon after their arrival, the males begin to bill, that is to collect on some dry bank near a splash of water, in expectation of the females, who resort to them.

Each male keeps possession of a small piece of ground, which it runs round till the grass is worn quite away, and nothing but a naked circle is left. When a female lights, the ruffs immediately fall to fighting. I find a vulgar error, that ruffs must be fed in the dark lest they should destroy each other by fighting on admission of light. The truth is, every bird takes its stand in the room as it would in the open fen. If another invades its circle, an attack is made, and a battle ensues. They make use of the same action in fighting as a cock, place their bills to the ground and spread their ruffs. I have set a whole room full a fighting by making them move their stations; and after quitting the place, by peeping through a crevice, seen them resume their circles and grow pacific.

When a fowler discovers one of those bills, he places his net over night, which is of the same kind as those that are called clap or day nets, only it is generally single, and is about fourteen yards long and four broad.

The fowler resorts to his stand at day break, at the distance of one, two, three, or four hundred yards from the nets, according to the time of the season; for the later it is, the flyer the birds grow. He then makes his first pull, taking such birds
birds that he finds within reach: after that he places hisstuff birds or stales to entice those that are continually traversing the fen. An old fowler told me, he once caught forty-four birds at the first hawl, and in all six dozen that morning. When the stales are set, seldom more than two or three are taken at a time. A fowler will take forty or fifty dozens in a season.

These birds are found in Lincolnshire, the Isle of Ely, and in the east riding of Yorkshire*; where they are taken in nets, and fattened for the table, with bread and milk, hempseed, and sometimes boiled wheat; but if expedition is required, sugar is added, which will make them in a fortnight's time a lump of fat: they then sell for two shillings or half a crown a piece. Judgement is required in taking the proper time for killing them, when they are at the highest pitch of fatness, for if that is neglected, the birds are apt to fall away. The method of killing them is by cutting off their head with a pair of scissors: the quantity of blood that issues is very great, considering the size of the bird. They are dressed like the woodcock, with their intestines; and, when killed at the critical time, say the Epicures, are reckoned the most delicious of all morsels.

* They visit a place called Martin-Mere in Lancashire, the latter end of March or beginning of April, but do not continue there above three weeks.

Wil.
Class II. Knot.

Wil. orn. 302.
Raii syn. av. 108.
Edw. av. 276.
Le Canut. Briffon av. V. 258.
Tringa canutus. Lin. 251.
Faun. Succ. sp. 183.

wegis FiærPift. Fiær-Kurv,
Fiær-Muus. Bornholmis
Rytteren.

Brunnich, Tringa maritima.

The specimens that we had opportunity of examining, differ a little in colors, both from Mr. Willughby's description, and from Mr. Edwards's figure: the forehead, chin, and lower part of the neck in ours were brown, inclining to ash color: the back and scapulars deep brown, edged with ash color: the coverts of the wings with white, the edges of the lower order deeply so, forming a white bar: the breast, sides, and belly white; the two first streaked with brown: the coverts of the tail marked with white and dusky spots alternately: the tail ash colored, the outmost feather on each side white: the legs were of a bluish grey; and the toes, as a special mark, divided to the very bottom: the weight four ounces and a half.

These birds, when fattened, are preferred by some to the ruffs themselves. They are taken in great numbers on the coasts of Lincolnshire, in nets such as employed in taking ruffs; with two or three
ASH COLORED SANDPIPER.  

Class II.

three dozens of stales of wood painted like the birds, placed within: fourteen dozens have been taken at once. Their seasion is from the begin-
ing of August to that of November. They disapp-
pear with the first frosts. Camden* says they de-
rive their name from king Canute, Knute, or Knout, as he is sometimes called; probably because they were a favorite dish with that monarch. We know that he kept the feast of the purification of the Virgin Mary with great pomp and magnificence at Ely, and this being one of the fen birds, it is not unlikely but he met with it there †. Shakespeare in his Othello, speaking of Roderigo (if Mr. The-
bald's reading is just) makes the Knot an emblem of a dupe:

“I have rubb'd this young Knot almost to the senfe;
“And he grows angry.”

Othello.

194. Ash  
Colored.  

Tringa cinerea. Brunnich, Braun und Weisbunter Sand-
ornith. 53.  

Descrip.  

THIS species weighs five ounces: the length is ten inches: the breadth nineteen: the head is of a brownish ash color, spotted with black: the

* Camden Brit. 971.  
† Dugdale on embanking, 185.
whole neck ash color, marked with dusky oblong streaks: the back and coverts of the wings elegantly varied with concentric semicircles of ash color, black and white: the coverts of the tail barred with black and white: the tail ash colored, edged with white: the breast and belly of a pure white: the legs of a greenish black: the toes bordered with a narrow membrane, finely scoloped.

These birds appear on the shores of Flintshire, in the winter time, in large flocks.

This species is in the collection of Mr. Tunshal, is of the size of a jack-snipe. The bill is black: the head, upper part of the neck, and back, are of a pale brown, spotted with black: coverts of the wings dusky, edged with dirty white: under side of the neck white, streaked with black: the belly white: tail cinereous: legs black.

Bought in the London market.

Spotted Tringa. Edw. av. Tringa macularia. Lit. fict. 196. Spot-

Turdus aquaticus, la Grive Br. Zool. 124.
d'Eau. Brisson av. V. 255.

This bird is common to Europe and America; according to Mr. Edwards's figure, it is less than the preceding.
The bill is of the same colors with that of the red shank: the head, upper part of the neck, the back and coverts of the wings, are brown, inclining to olive, and marked with triangular black spots: above each eye is a white line: the greater quil-feathers are wholly black, the lesser tipt with white: the middle feathers of the tail are brown: the side feathers white, marked with dusky lines: the whole under side, from neck to tail, is white, marked with dusky spots: the female has none of these spots, except on the throat: the legs of a dusky flesh color. Mr. Edwards imagines these to be birds of passage; the bird he took his description from was shot in Essex.

Mr. Bolton favored us with a description of this species shot in Lincolnshire.

It was the size of a thrush: the beak short, blunt at the point and dusky: the nostrils black: the irides yellow: the head small and flatted at top: the color white, most elegantly spotted with grey: the neck, shoulders, and back mottled in the same manner, but darker, being tinged with brown; in some lights these parts appeared of a perfect black and glossy: the wings were long: the quil-feathers black, crossed near their base with a white line: the throat, breast, and belly white, with faint brown and black spots of a longish
GAMBIT.
Class II. **TURNSTONE.**

*longish form, irregularly dispersed; but on the belly become larger and more round; the tail short, entirely white, except the two middle feathers, which are black: the legs long and slender, and of a reddish brown color.*


This species is of the size of the *Green-shank:* the head, back, and breast cinereous brown, spotted with dull yellow: the coverts of the wings, scapulars, cinereous, edged with yellow: the primaries dusky: the shaft of the first feather white: belly white: tail dusky, bordered with yellow: legs yellow.

This species has been shot on the coast of Lincolnshire.

**Turnstone, or Sea Dottrel.** La Coulon-chaud, Arenaria. *199. Turnstone, Wil. orn.* 311.


Morinellus Marinus. *Raii 249.*


This species is about the size of a thrush: the bill is an inch in length, a little prominent
on the top; is very strong; black at the tip, and at the base whitish: the forehead and throat are ash colored: the head, whole neck and coverts of the wings are of a deep brown, edged with a pale reddish brown: the scapular feathers are of the same color, very long, and cover the back: that and the rump are white; the last marked with a large triangular black spot: the tail consists of twelve feathers, their lower half is white, the upper black, and the tips white: the quil-feathers are dusky, but from the third or fourth the bottoms are white, which continually increases, till from about the nineteenth the feathers are entirely of that color: the legs are short and of an orange color.

These birds take their name from their method of searching for food, by turning up small stones with their strong bills to get at the insects that lurk under them. The bird we take our description from was shot in Shropshire. Mr. Ray observed them flying three or four in company on the coasts of Cornwall and Merionethshire: and Sir Thomas Brown of Norwich discovered them on the coast of Norfolk; communicating the picture of one to Mr. Ray, with the name of Morinellus marinus, or sea dottrel.
Turnstone from *Hudson’s Bay.* *Brisson, V.* 132.

This species is often shot in the north of Scotland, and its islands; also in *North America.*

Is of the size of a thrush: forehead, throat, and belly white: breast black: neck surrounded with a black collar; from thence another bounds the sides of the neck, and passes over the forehead: head and lower part of the neck behind white: the first streaked with dusky lines: back ferruginous, mixed with black: covert of the tail white, crossed with a black bar: tail black, tippt with white: covert of the wings cinereous brown: the lower order edged with white: primaries and secondaries black: the ends of the last white: tertials ferruginous and black: legs rather short, and of a full orange.
201. **Green.** Cinclus. *Bélon av. 216.*

Gallinæaquaticæ species de nov. *Gessner av. 511.*

Giarolo, Gearoncello. *Aldr. av. III. 185.*

The *Tringa* of Aldrovand. *Wil. orn. 300.*

*Raii syn. av. 108.*

*Tringa ochropus. Lin. syst. 251.*


*Frisch, II. 239.*

**T**his beautiful species is not very common in these kingdoms. The head and hind part of the neck are of a brownish ash color, streaked with white; the under part motled with brown and white: the back, scapulars, and coverts of the wings are of a dusky green, glossy and resplendent as silk, and elegantly marked with small white spots: the lesser quill-feathers of the same colors: the under sides of the wings are black, marked with numerous white lines, pointing obliquely from the edges of the feather to the shaft, representing the letter V: the rump is white; the tail of the same color: the first feather plain, the second marked near the end with one black spot, the third and fourth with two, the fifth with three, and the sixth with four.

Except in pairing time, it is a solitary bird: it is never found near the sea; but frequents rivers, lakes, and other fresh waters. In France it is highly
Class II. ABERDEEN SANDPIPER.

highly esteemed for its delicate taste; and is taken
with limed twigs placed near its haunts.

Mr. Fleischer favored us with a bird from Denmark, which, in all respects, resembled this, except that the spots were of a pale rufus color: Linnaeus describes it under the title of Tringa literotaroe, Faun. Suec. sp. 185. but we believe it does not differ specifically from that above described.

inter addenda. No. 180.
Tringa ferruginea Islandis

BIRDS of this species have appeared in great flocks on the coast of Essex, on the estate of Col. Schutz.

Crown of the head spotted with black and ferruginous. The lower side of the neck, the breast, and belly of a full ferruginous color: back marked with black and rufus color: coverts of the wings ash color: legs black: bill strong, an inch and a half long: the whole length of the bird ten inches.

La Maubeche tachetée. Brisson V. 229?

THIS was communicated by the late Doctor David Skene of Aberdeen.

Bill
COMMON SANDPIPER. Class II,

Bill slender and black: head, back, lesser coverts of the wings, and the scapulars, of a dull ferruginous color, spotted with black: the greater coverts tipt with white: quil-feathers dusky, edged on the exterior side with white: breast reddish brown, mixed with dusky: belly and vent white: tail cinereous; two middle feathers longer than the rest: legs black; size of the former.

Tringa hypoleucos. Lin. syf. 250.
Snappa, Strandsfåtare. Faun.
Succ. sp. 182.

THIS species agrees with the former in its manners and haunts; but is more common: its note is louder and more piping than others of this genus. Its weight is about two ounces: the head is brown, streaked with downward black lines; the neck an obscure ash color: the back and coverts of the wings brown, mixed with a glossy green, elegantly marked with transverse dusky lines: over each eye is a white stroke: the breast and belly are of a pure white: the quil-feathers are brown, the first entirely so, the nine next marked on the inner web.
SANDPIPER
web with a white spot: the middle feathers of the tail brown; edges spotted with black and pale red: the exterior tipt and barred with white: the legs of a dull pale green.

THIS species is at once distinguished from the others by the singularity of its colors. The back, head, and upper part of the neck are ferruginous, marked with large black spots: the lower part of the neck white, marked with short dusky streaks: the coverts of the wings ash color: the belly white, marked with large black spots, or with a black crescent pointing towards the thighs: the tail ash colored, the two middle feathers the darkest: legs black: toes divided to their origin. In size it is superior to that of a lark. These birds are found on our sea coasts; but may be reckoned among the more rare kinds. They lay four eggs of a dirty white color, blotched with brown round the thicker end, and marked with a few small spots of the same color on the smaller end. I received the eggs from Denmark; but as I have shot these birds in May, and again in August, on the shores of Flintshire,

Class II. D U N L I N.


Flintshire, suppose they breed with us; but I never discovered their nest. They are common on the Yorkshire coasts, and esteemed a great delicacy.

Cinclus five Motacilla Maritima, Lyfsklicker. Gesner av. 616.
Giarolo. Aldr. av. III. 183.
The Stint. Wil. orn. 305.
Stint, in Suffix the Ox-eye. Raii syn. av. 110.
N. Com. Petr. IV. 428.
L'Allouette de Mer, Cinclus. Brisson av. V. 211. tab. 19. fig. 1.
Tringa cinclus. Lin. fys. 251.
Br. Zool. 126.

Descrip.

THIS bird weighs about an ounce and a half; length seven inches and a half; extent fourteen inches: the head and hind part of the neck are ash colored, marked with dusky lines: a white stroke divides the bill and eyes: the chin white: underside of the neck mottled with brown: the back is of a brownish ash color: the breast and belly white: the coverts of the wings and tail a dark brown, edged with light ash color or white: the greater coverts dusky, tipt with white: the upper part of the quil-feathers dusky, the lower white: the two middle feathers of the tail dusky, the rest of a pale ash color, edged with white: the legs of a dusky green; the toes divided to their origin. The bill an inch and a half long, slender and black; irides dusky.

These birds come in prodigious flocks on our sea
sea coasts during the winter: in their flight they perform their evolutions with great regularity; appearing like a white, or a dusky cloud, as they turn their backs or their breasts towards you. They leave our shores in spring, and retire to some unknown place to breed.

They were formerly a well known dish at our tables; known by the name of Stints.

This is the left of the genus, scarcely equaling a hedge sparrow in size. The head, upper side of the neck, the back, and coverts of the wings brown, edged with black and pale ruf ty brown. Breast and belly white.

The greater coverts dusky, tipt with white: the primaries and secondaries of the same colors. The tail dusky. Legs black.

This specimen was communicated to me by the Rev. Mr. Green, of Trinity College, Cambridge; and was shot near that place in September. It is common to North America and Europe.
XXXII. PLOVER.

BILL strait, no longer than the head.

NOSTRILS linear.

TONGUE

TOES, wants the hind toe.

       Pluvialis. Gesner av. 714.
Pivier. Aldr. av. III. 206.
       Wil. orn. 308.
       Rallif. av. 111.
       Rechter Brachvogel. Frisch, II. 217.
       Charadius Pluvialis. Lin.
       Syst. 254.

Dalekarlis Akerhona, Lappis Huttii. Faun. Suec. sp. 190.
       Pluvialis aurea, le Pluvier doré.
       Brisson av. V. 43. Tab. 4. fig. 1.
Piviero verde. Zinan. 102.
       Br. Zool. 128.

This elegant species is often found on our moors and heaths, in the winter time, in small flocks. Its weight is nine ounces: its length eleven inches: its breadth twenty-four: the bill is short and black: the feathers on the head, back, and coverts of the wings are black, beautifully spotted on each side with light yellowish green: the breast brown, marked with greenish oblong strokes: the belly white: the middle feathers of the tail barred with black and yellowish green: the rest with black and brown: the legs black.

We have observed some variety in these birds, but cannot determine whether it is owing to age or sex:
LXXII.

RED SAND-PIPER.

GOLDEN PLOVER.
we have seen some with black bellies, others with a mixture of black and white; others with bluish legs, and some with a small claw in the place of the hind toe.

They lay four eggs, sharply pointed at the lesser end, of a dirty white color, and irregularly marked, especially at the thicker end, with black blotches and spots. It breeds on several of our unfrequented mountains; and is very common on those of the isle of Rum, and others of the loftier Hebrides. They make a shrill whistling noise: and may be inticed within shot by a skilful imitator of the note.

This species, on account of its spots, has been supposed to have been the Pardalis of Aristotle: but his account of the bird makes no mention of that distinction: perhaps he thought that the name implied it. The Romans seem to have been unacquainted with the plover: for the name never once occurs in any of their writings. We derive it from the French Pluvier, pource qu'on le prend mieux en temps pluvieux qu'en nulle autre saison*.

* Belon Oyseaux. 260.
Aldr. av. III. 176.
Raii syn. av. 106.

L'Echaffe. Briiffin av. V. 33.
Tab. 3. fig. 1.
Charadrius himantopus. Lin.
Lyft. 255. Scopoli, No. 148.

THIS is the most singular of the British birds.

The legs are of a length, and weakness greatly disproportioned to the body, which is inferior in size to that of the green plover: this, added to the defect of the back toe, must render its paces awkward and infirm. The naked part of the thigh is three inches and a half long; the legs four and a half: these, and the feet are of a blood red: the bill is black, above two inches long. The length from its tip to the end of the tail is thirteen inches: the breadth from tip to tip of the wing twenty-nine inches: the forehead, and whole under side of the body are white: the crown of the head, back, and wings black: on the hind part of the neck are a few black spots: the tail is of a greyish white: the wings when closed extend far beyond it. These birds are extremely rare in these islands: Sir Robert Sibbald records a brace that were shot in Scotland: another was shot a few years ago on Stanton-Harcourt common near Oxford, and we have seen them
Class II. DOTTREL. 477

them often in the cabinets of the curious at Paris, taken on the French coasts.

Morinellus avis anglica. Géf-
ner av. 615. Charadrius morinellus. Lin. 210. Dot-
ner. 188. trel.


Rail syn. av. III. Cimbris Pomerants Fugl. Nor-
Camden. Brit. I. 570. vegis Bold Ticet. Mindre
Pluvialis minor, five mori-

The female dottrel, according to Mr. Willugh-

by, weighs more than four ounces; the male

above half an ounce less. The length of the female
ten inches; the breadth nineteen and a half: the

male not so large. The bill black, slender, de-

pressed in the middle, and not an inch long: the

forehead, top and back of the head black, the

former spotted with white; a broad white stroke

that presses over the eyes, surrounds the whole:

the cheeks and throat are white: the neck of a

cinereous olive color: the middle of the feathers of

the back, and coverts of the wings and tail olive;

but their edges of a dull deep yellow: the quil-

feathers are brown, with brown shafts; but the ex-

terior side and the shaft of the first feather is

white. The tail consists of twelve feathers of a

brown olive color, barred near their ends with

black,
DOTTREL. Class II.

black, and tipped with white. The breast and sides are of a dull orange color; but immediately above that is a line of white, bounded above with a very narrow one of black. The belly (in the male) is black: thighs and vent-feathers white: legs yellowish green: toes dusky.

Female.

The colors of the female in general are duller: the white over the eye is less; and the crown of the head is mottled with brown and white. The white line crosses the breast is wanting. The belly is mixed with black and white.

Place.

These birds are found in Cambridgeshire, Lincolnshire, and Derbyshire: on Lincoln-beath, and on the moors of Derbyshire they are migratory, appearing there in small flocks of eight or ten only in the latter end of April, and stay there all May and part of June, during which time they are very fat, and much esteemed for their delicate flavor. In the months of April and September they are taken on the Wiltshire and Berkshire downs: they are also found in the beginning of the former month on the sea side at Meales in Lancashire, and continue there about three weeks, attending the barley fallows: from thence they remove northward to a place called Leyton Haws, and stay there about a fortnight; but where they breed, or where they reside during winter, we have not been able to discover. They are reckoned very foolish birds, so that a dull fellow is proverbially called a Dottrel. They were also believed to mimic the action of the
Class II. RINGED.

the fowler; to stretch out a wing when he stretched out an arm, &c. continuing their imitation, regardless of the net that was spreading for them.

To this method of taking them, Michael Drayton alludes in his panegyrical verses on Coryate's Crudities:

Most worthy man with thee it is even thus,  
As men take Dottrels, so hast thou ta'en us;  
Which as a man his arme or leg doth set,  
So this fond bird will likewise counterfeit.

At present, sportsmen watch the arrival of the Dottrels, and shoot them; the other method having been long difused.

Descrip.

It weighs near two ounces. The length is seven inches and a half; the breadth sixteen: the bill is half an inch long; the upper half orange color; the lower black; from it to the eyes is a black
black line; the cheeks are of the same color; the forehead white, bounded by a black band that passes over from eye to eye; the crown of the head is of a fine light brown; the upper part of the neck is incircled with a white collar; the lower part with a black one; the back and coverts of the wings of a light brown; the breast and belly white; the tail brown, tipt with a darker shade; the legs yellow.

These birds frequent our shores in the summer, but are not numerous. They lay four eggs of a dull whitish color, sparingly sprinkled with black: at approach of winter they disappear.

212. Sanderling, or Curwillet.  
Sanderling, or Curwillet.  
Wil. orn. 303.  
Rait syn. av. 109.  
Calidris grisea minor, la petite Maubeche grise. Briffon av. V. 236. Tab. 20.  
fig. 2.  
Charadrius Caladris. Lin.fyst.  
255.  

We have received this species out of Lancashire; but it is found in greater plenty on the Cornish shores, where they fly in flocks. The sanderling weighs little more than one ounce three quarters. Its length is eight inches; extent fifteen. Its body is of a more slender form than others of the genus. The bill is an inch long, weak and black. The head, and hind part of the neck are ash-
ash-colored, marked with oblong black streaks; the back and scapulars are of a brownish grey, edged with dirty white; the coverts of the wings, and upper parts of the quil-feathers dusky; the whole under side of the body is white; in some slightly clouded with brown. The tail consists of twelve sharp pointed feathers of a deep ash color; the legs are black.
OYSTER CATCHER.  Class II.

BILL long, compressed, the end cuneated.
NOSTRILS linear.
TONGUE, a third the length of the bill.
TOES, only three.

213. PIED. La Pie, Becasse de mer. Bélon av. 203.
Hæmatopus. Gesner av. 548.
Aldr. av. III. 176.
Wil. orn. 297.
Raii syn. av. 105.
L'Hutrier, Pie de mer. Brifin av. V. 38. tab. 3. fig. 1.
The Oyster Catcher. Cat.
Marßpitt, Strand斯基ura, Faun.
Suec. fift. 192.

N. Com. Petr. IV. 425.
Tirma, or Trilichan. Martin's voy. St. Kilda. 35.

SEA Pies are very common on most of our coasts; feeding on marine insects, oysters, limpets, &c. Their bills, which are compressed sideway, and end obtusely, are very fit instruments to insinuate between the limpet and the rock those shells adhere to; which they do with great dexterity to get at the fish. On the coast of France, where the tides recede so far as to leave the beds of oysters bare, these birds feed on them; forcing the shells open with their bills. They keep in summer time in pairs, laying their eggs on the bare ground: they
OYSTER-CATCHER.
they lay four of a whitish brown hue, thinly spotted and striped with black: when any one approaches their young, they make a loud and shrill noise. In winter they assemble in vast flocks, and are very wild.

Weight sixteen ounces; length seventeen inches. Bill three inches, compressed, obtuse at the end, of a rich orange color: irides crimson: edges of the eye-lids orange; beneath the lower a white spot. Head, neck, scapulars, and coverts of the wings a fine black; in some the neck marked with white: wings dusky, with a broad transverse band of white: the back, breast, belly, and thighs white: tail short, consists of twelve feathers; the lower half white; the end black: legs thick and strong; of a dirty flesh color: middle toe connected to the exterior toe as far as the first joint by a strong membrane: the claws dusky, short and flat.
THE water rail is a bird of a long slender body, with short concave wings. It delights less in flying than running; which it does very swiftly along the edges of brooks covered with bushes: as it runs, every now and then it flirts up its tail; and in flying hangs down its legs: actions it has in common with the water hen.

Descrip. Its weight is four ounces and a half. The length to the end of the tail twelve inches: the breadth sixteen. The bill is slender, slightly incurvated, one inch three quarters long: the upper mandible black, edged with red; the lower orange colored:
WATER-RAIL.

CRAKE GALLINULE.
the irides red: the head, hind part of the neck, the back, and coverts of the wings and tail are black, edged with an olive brown; the base of the wing is white; the quill-feathers and secondaries dusky: the throat, breast, and upper part of the belly are ash-colored: the sides under the wings as far as the rump finely varied with black and white bars. The tail is very short, consists of twelve black feathers; the ends of the two middle tipt with rust-color; the feathers immediately beneath the tail white. The legs are placed far behind, and are of a dusky flesh-color. The toes very long, and divided to their very origin; though the feet are not webbed, it takes the water; will swim on it with much ease; but oftener is observed to run along the surface.

This bird is properly sui generis, agreeing with no other, so forms a separate tribe. M. Brisson and Linnaeus place it with the land Rail, and Mr. Ray with the water hens, which have their peculiar characters, so very distinct from the Rail, as to constitute another genus, as may be observed in the generical table preceding this class.
SPOTTED GALLINULE.  

BILL thick at the base sloping to the point, the upper mandible reaching far up the forehead, callous.

WINGS short and concave.

BODY compressed.

TOES long, divided to the origin.

Gallinula ochra (Wynkernell).  
Porcellana, Porzana, Grugnetto.  
Grinetta.  
Rallus syn. av. 115. sp. 7.  
Rallus aquat. minor, var.  
Maruette, le petit Raile d'Eau, ou la Marouette.

This species is not very frequent in Great Britain, and is said to be migratory. Inhabits the sides of small streams, concealing itself among the bushes. Its length is nine inches; its breadth fifteen: its weight four ounces five drachms. The head is brown, spotted with black; the neck a deep olive, spotted with white; from the bill beyond the eyes is a broad grey bar: the feathers of the back are black next their shafts, then olive colored, and edged with white: the scapulars are olive, finely
Class II. CRAKE GALLINUML.

finely marked with two small white spots on each web: the legs of a yellowish green.

Le Rafle rouge ou de Genet. Belon av. 212.
Ortygometra, Crex. Geffner av. 361, 362.
Aldr. av. III. 179.
Rail, or Daker Hen. Wil. orn. 170. Phil. Trans. II. 853.
Raië iyn. av. 58.
Corn-crek. Sib. Scot. 16.
Corn-craker. Martin’s West. Illis, 71.
Rallus genitatum, le Rafle de Genet, ou Roi des Cail-

Tab. 13. fig. 2.
Rallus Crex. Lin. Sup. 201.
Angfnarpa, Korknarr, Sey- dreifwer. Faun. Suec. sp. 194.
Danis & Norw. Vagtel-Konge.
Aker-Rixe. Skov-Snarre.
Norwegis quibusdam Ager- hoene. Brunnich, 192.
Br. Zoel. 131.
Rositz. Scopoli, No. 154.

THIS species has been supposed by some to be the same with the water rail, and that it differs only by a change of color at a certain season of the year: this error is owing to inattention to their characters and nature, both which differ entirely. The bill of this species is short, strong, and thick; formed exactly like that of the water hen, and makes a generical distinction. It never frequents watery places, but is always found among corn, grasfs, broom, or furze. It quits this kingdom before winter; but the water rail endures our sharpest seasons. They agree in their aversion to flight; and the legs, which are remarkably long for the size of the bird, hang down whilst
they are on the wing; they trust their safety to their swiftness of foot, and seldom are sprung a second time but with great difficulty. The land rail lays from twelve to twenty eggs, of a dull white color, marked with a few yellow spots; notwithstanding this, they are not very numerous in this kingdom. Their note is singular, resembling the word Crex often repeated. They are in greatest plenty in Anglesea, where they appear about the twentieth of April, supposed to pass over from Ireland, where they abound: at their first arrival it is common to shoot seven or eight in a morning. They are found in most of the Hebrides, and the Orknies. On their arrival they are very lean, weighing only six ounces; but before they leave this island, grow so fat as to weigh above eight.

**Descrip.**

The feathers on the crown of the head, hind part of the neck, and the back, are black, edged with bay color: the coverts of the wings of the same color; but not spotted: the tail is short, and of a deep bay: the belly white: the legs ash-colored.
THE male of this species weighs about fifteen ounces. Its length to the end of the tail fourteen inches: the breadth twenty-two. The crown of the head, hind part of the neck, the back, and coverts of the wings are of a fine, but very deep olive green. Under side of the body cinereous: the chin and belly mottled with white: quil-feathers and tail dusky: exterior side of the first primary feather, and the ridge of the wings white: vent black: feathers just beneath the tail white: legs dusky green. The colors of the plumage in the female, are much less brilliant than that of the male: in size it is also inferior. Mr. Wil-lughby in his description takes no notice of the beautiful olive gloss of the plumage of these birds; nor that the bill assumes a fuller and brighter red in the courting season.

It gets its food on grassy banks, and borders near fresh
COMMON GALLINULE. Class II.

fresh waters, and in the very waters, if they be weedy. It builds upon low trees and shrubs by the water side; breeding twice or thrice in the summer; and when the young are grown up, drives them away to shift for themselves. They lay seven eggs of a dirty white color, thinly spotted with rust color. It strikes with its bill like a hen; and in the spring has a shrill call. In flying it hangs down its legs: in running often flirts up its tail, and shews the white feathers. We may observe, that the bottoms of its toes are so very flat and broad (to enable it to swim) that it seems the bird that connects the cloven-footed aquatics with the next tribe; the fin toed.
RED AND GREY, SCOLLOP TOED SAND-PIPER.
SEC. II. FIN-FOOTED BIRDS.

BILL straight and slender.
NOSTRILS minute.
BODY and LEGS like the Sandpiper.
TOES furnished with scalloped membranes.

VI. 12.

THIS is about the size of the common Purre, weighing one ounce. The bill black, not quite an inch long, flatted on the top, and channelled on each side; and the nostrils are placed in the channels: the eyes are placed remarkably high in the head: the forehead white: the crown of the head covered with a patch of a dusky hue, spotted with white and a pale reddish brown; the rest of the head, and whole under part of the neck and body are white: the upper part of the neck of a light grey: the back and rump a deep dove color, marked with dusky spots: the edges of the scapulars
pulars are dull yellow: the coverts dusky; the lower or larger tipt and edged with white: the eight first quil-feathers dusky; the shafts white; the lower part of the interior side white: the smaller quil-feathers are tipt with white: the wings closed, reach beyond the tail: the feathers on the back are either wholly grey or black, edged on each side with a pale red: the tail dusky, edged with ash-color: the legs are of a lead color: the toes extremely singular, being edged with scolloped membranes like the coot: four scollops on the exterior toe, two on the middle, and the same on the interior; each finely ferrated on their edges.

This bird was shot in Yorkshire, and communicated to us by Mr. Edwards.


This species was shot on the banks of a fresh water pool on the isle of Stronsa, May 1769. It is of the size of the Purre. The bill is an inch long, black, very slender, and strait almost to the end which bends downwards: the crown of the head, the hind part of the neck and the coverts of the wings are of a deep lead color; the back and scapulars
Class II.  Red Phalarope.

Scapulars the same, striped with dirty yellow: the quil-feathers dusky; the shafts white: cross the greater coverts is a stripe of white: the chin and throat white: the under part and sides of the neck bright ferruginous: the breast dark, cinereous: belly white: coverts of the tail barred with black and white; tail short, cinereous: legs and feet black.

Mr. Ray saw this species at Brignal in Yorkshire: Mr. Edwards received the same kind from North America, being common to the North of Europe and America.
Short thick BILL, with a callus extending up the forehead.

NOSTRILS narrow and pervious.

TOES furnished with broad scalloped membranes.

These birds weigh from twenty-four to twenty-eight ounces. Their belly is ash-colored; and on the ridge of each wing is a line of white: every part besides is of a deep black: the legs are of a yellowish green; above the knee is a yellow spot.

Coots frequent lakes and still rivers: they make their nest among the rushes, with grass, reeds, &c. floating on the water, so as to rise and fall with it. They lay five or six large eggs, of a dirty whitish hue, sprinkled over with minute deep rust color spots; and we have been credibly informed that they
COMMON GALLINULE.

COOT.
they will sometimes lay fourteen and more. The young when just hatched are very deformed, and the head mixed with a red coarse down. In winter they often repair to the sea: we have seen the channel near Southampton covered with them: they are often brought to that market, where they are exposed to sale, without their feathers, and scalded like pigs. We once saw at Spalding, in Lincolnshire, a coot shot near that place that was white, except a few of the feathers in the wings, and about the head.


This species differs from the preceding only in its superior size; and the exquisite blackness of the plumage.

Discovered in Lancashire and in Scotland.
XXXVIII. BILL strong, strait, sharp pointed.
TAIL, none.
LEGs flat, thin, and ferrated behind with a double row of notches.

TIPPET. Colymbus major. Gesner AV. Rall fyn. AV. 123.
Aldr. AV. III. 104.
Greater Loon, or Arsfoot. Colymbus urinatoR Lin. Syst.
Wil. orn. 339.
360. fig. 2.

This differs from the great crested Grebe in being rather less; and wanting the crest and ruff. The sides of the neck are striped downwards from the head with narrow lines of black and white: in other respects the colors and marks agree with that bird.

This species has been shot on Roserene Mere in Cheshire; is rather scarce in England, but is common in the winter time on the lake of Geneva. They appear there in flocks of ten or twelve: and are killed for the fake of their beautiful skins.

* The Grebes and Divers are placed in the same genus, i.e. of Colymbi, by Mr. Ray and Linnaeus; but the difference of the feet, forbade our judicious friend, M. Brissén, from continuing them together; whose example we have followed.
DUSKY GREBE.

TIPPET GREBE.
The under side of them being drest with the feathers on, are made into muffts and tippets; each bird sells for about fourteen shillings:

Avis pugnax Sva. Aldr. 169. Daniis Topped og Halkraved
Greater crested and horned
Doucher. Will. orn. 340. Dykker, Topped Hav
Ash-colored Loon of Dr.
Plett's hist. Staff. 229. tab. 22. Gehoernter Schahnh, Noerike.
Colymbus cristatus. Lin. ff.

This species weighs two pounds and a half.

Its length is twenty-one inches: the breadth thirty: the bill is two inches one-fourth long; red at the base; black at the point: between the bill and the eyes is a stripe of black naked skin: the irides are of a fine pale red: the tongue is a third-part shorter than the bill, slender, hard at the end, and a little divided: on the head is a large dusky crest, separated in the middle. The cheeks and throat are surrounded with a long pendent ruff, of a bright tawny color, edged with black: the chin is white: from the bill to the eye is a black line,
line, and above that a white one: the hind part of the neck, and the back are of a footy hue: the rump, for it wants a tail, is covered with long soft down.

The covert feathers on the second and third joints of the wing, and the under coverts are white: all the other wing feathers, except the secondaries, are dusky, those being white: the breast and belly are of a most beautiful silvery white, glossy as fattin, and equal in elegance to those of the Grebe of Geneva; and are applied to the same uses: the plumeage under the wings is dusky, blended with tawny: the outside of the legs, and the bottom of the feet are dusky: the inside of the legs, and the toes of a pale green.

These birds frequent the Meres of Shropshire and Cheshire, where they breed; and in the great East Fen in Lincolnshire, where they are called Gaunts. Their skins are made into tippets, which are fold at as high a price as those that come from Geneva.

This species lays four eggs, white, and of the size of those of a pigeon: the nest is formed of the roots of bugbane, stalks of water lilly, pond weed and water violet, floating independent among the reeds and flags; the water penetrates it, and the bird fits and hatches the eggs in that wet condition; the nest is sometimes blown from among the flags into the middle of the water: in these circumstances, the fable of the Halyon's nest, its

flutivage
Class II. GREAT CRESTED GREBE.

*fluctivaga domus*, as *Statius* expresses it, may in some measure be vindicated.

*Fluctivagam sic sepe domum, madidosque penates Halcyone deserta gemit; cum pignora favus Auster, et algentes rapuit Thetis invida nidos.*

_Thebaid. lib. ix. 360._

It is a careful nurse of its young, being observed to feed them most assiduously, commonly with small ells; and when the infant brood are tired, will carry them either on its back or under its wings. This bird preys on fish, and is almost perpetually diving: it does not shew much more than the head above water, and is very difficult to be shot, as it darts down on the appearance of the least danger. It is never seen on land; and though disturbed ever so often, will not fly farther than the end of the lake. Its skin is out of season about *February*, losing then its bright color: and in the breeding time its breast is almost bare. The flesh of this bird is excessively rank: but the fat is of great virtue in rheumatic pains, cramps and paralytic contractions.
E A R E D  G R E B E.  C L A S S  I I.

La Grebe a Oreilles. Brisson av. VI. 54.
223. Scopoli, No. 100.

Descrip. The length of this species to the rump is one foot; the extent twenty-two inches: the bill black, slender and very slightly recurvated: the irides crimson: the head and neck are black: the throat spotted with white: the whole upper side of a blackish brown, except the ridge of the wing about the first joint, and the secondary feathers, which are white: the breast, belly, and inner coverts of the wings are white: the subaxillary feathers, and some on the side of the rump, furruginous: behind the eyes, on each side, is a tuft of long loose rust colored feathers, hanging backwards: the legs of a dusky green.

These birds inhabit the fens near Spalding, where they breed. I have seen both male and female, but could not observe any external difference. They make their nest not unlike that of the crested grebe; and lay four or five small white eggs.
BLACK CHIN GREBE.

EARED GREBE.
The black and white Dob-chick. *Edw. av. 96. fig. 1.* Colymbus minor, la petite Grebe. *Brison av. VI. 56.*

**THE** length from the bill to the rump eleven inches: the extent of wings twenty: the bill was little more than an inch long. The crown of the head, and whole upper side of the body dusky: the inner coverts, the ridge of the wing, and the middle quilt-feathers were white; the rest of the wing dusky: a bare skin of a fine red color joined the bill to the eye: the whole underside from the breast to the rump was a silvery white: on the thighs were a few black spots. In some birds the whole neck was ash colored: so probably they might have been young birds, or different in sex. Inhabits the Fens of Lincolnshire.

Le Caftagneux, ou Zoucet. *Belon av. 177.*
Mergulus fluviatilis (Duchelin, Arsfuys). *Gesner av. 141.*
Trapazorola arzauolo, Piombin. *Aldr. av. III. 105.*
Didapper, Dipper, Dobchick, small Doucker, Loon, or Arsfoot. *Wil orn. 340.*

**THE** weight of this species is from six to seven ounces. The length to the rump ten inches: **L 12**
to the end of the toes thirteen: the breadth sixteen. The head is thick set with feathers, those on the cheeks, in old birds, are of a bright bay: the top of the head, and whole upper side of the body, the neck and breast, are of a deep brown, tinged with red: the greater quil-feathers dusky: the interior webs of the lesser white: the belly is ash colored, mixed with a silvery white, and some red: the legs of a dirty green.

The wings of this species, as of all the other, are small, and the legs placed far behind: so that they walk with great difficulty, and very seldom fly. They trust their safety to diving; which they do with great swiftness, and continue long under water. Their food is fish, and water plants. This bird is found in rivers, and other fresh waters. It forms its nest near their banks, in the water; but without any fastening, so that it rises and falls as that does. To make its nest it collects an amazing quantity of grass, water-plants, &c. It lays five or six white eggs; and always covers them when it quits the nest. It should seem wonderful how they are hatched, as the water rises through the nest, and keeps them wet; but the natural warmth of the bird bringing on a fermentation in the vegetables, which are full a foot thick, makes a hot bed fit for the purpose.
Class II. Black Chin.

G R. with a black chin. Fore part of the neck ferruginous: hind part mixed with dusky.

Belly cinereous and silver intermixed. Rather larger than the last.

Inhabits Tiree, one of the Hebrides.
Section III. Web-Footed Birds.

XXXIX. AvoSET.

Bill long, slender, very thin, depressed, bending upwards.

NOSTRILS narrow, pervious. TONGUE short.

LEGs very long. FEET palmed. Back toe very small.

228. Scoop-ING.

Recurvirostra. Gesner av. 231.
Avoletta, Beccoftorto, Bec-coroella, Spinzago d'acqua.

Aldr. av. III. 114.

Wil. orn. 321.
Raii syn. av. 117.
The Scooper. Charlton ex. 102.
The crooked Bill. Dale's hist.
Harwich, 402.

Plott's hist. Staff. 231.

Avofetta, L'Avocette. Briffon av. VI. 538. Tab. 47. fig. 2.

Recurvirostra Avoletta. Lin.

Sp. 256. Scopoli, No. 129.


An AvoSET that we shot weighed thirteen ounces. Its length to the end of the tail was eighteen inches, to that of the toes twenty-two: the breadth thirty. This bird may at once be distinguished from all others, by the singular form of its bill; which is three inches and a half long, slender, compressed very thin, flexible, and of a substance like whalebone; and contrary to the bills of
of other birds, is turned up for near half its length. The nostrils are narrow and pervious: the tongue short: the head very round: that, and half the hind part of the neck black; but above and beneath each eye is a small white spot: the cheeks, and whole under side of the body from chin to tail is of a pure white: the back, exterior scapular feathers, the coverts on the ridge of the wings, and some of the lesser quil-feathers, are of the same color; the other coverts, and the exterior sides and ends of the greater quil-feathers, are black: the tail consists of twelve white feathers: the legs are very long, of a fine pale blue color, and naked far above the knees: the webs dusky, and deeply indented: the back toe extremely small.

These birds are frequent in the winter on the shores of this kingdom: in Gloucestershire, at the Severn's Mouth; and sometimes on the lakes of Shropshire. We have seen them in considerable numbers in the breeding season near Fosslake Wash in Lincolnshire. Like the lapwing when disturbed they flew over our heads, carrying their necks and long legs quite extended, and made a shrill noise (Twit) twice repeated, during the whole time. The country people, for this reason, call them Yelpers; and sometimes distinguish them by the name of Picarini. They feed on worms and insects that they scoop with their bills out of the sand; their search after food is frequently to be discerned on
on our shores by alternate semicircular marks in the sand, which shew their progress. They lay two eggs about the size of those of a pigeon, white tinged with green, and marked with large black spots.
Class II. GREAT AUK.

BILL strong, thick, compressed.
NOSTRILS linear; placed near the edge of the mandible.
TONGUE almost as long as the bill.
TOES, no back toe.

Goirfugel. Clufii exot. 367.
Penguin. Wormii, 300.
Wil. orn. 323.
Raii syn. av. 119.
Edw. av. 147.
Martin's voy. St. Kilda. 27.
Avis, Gare diéta. Sib. Scot.
III. 22.
Alca major, le grand Pingoin.
Brisson av. VI. 85. Tab. 7.

Eforokitsok*. Crantz's Greenl. 229. Great. 1. 82.
Faun. Suec. sp. 140.
Islandis Gyr-v Geyrfugl. Norvegis Fiart, Anglemaage,

ACCORDING to Mr. Martin, this bird breeds on the isle of St. Kilda; appearing there the beginning of May, and retiring the middle of June. It lays one egg, which is six inches long, of a white color; some are irregularly marked with purplish lines crossing each other, others blotched with black and ferruginous about the thicker end: if the egg is taken away, it will not lay another

* Or little wing.
that season. A late writer* informs us, that it does not visit that island annually, but sometimes keeps away for several years together; and adds, that it lays its egg close to the sea-mark; being incapable, by reason of the shortness of its wings, to mount higher.

The length of this bird, to the end of its toes, is three feet; the bill, to the corner of the mouth, four inches and a quarter: part of the upper mandible is covered with short, black, velvet-like feathers; it is very strong, compressed and marked with several furrows that tally both above and below: between the eyes and the bill on each side is a large white spot: the rest of the head, the neck, back, tail and wings, are of a glossy black: the tips of the lesser quil-feathers white: the whole under side of the body white: the legs black. The wings of this bird are so small, as to be useless for flight: the length, from the tip of the longest quil-feathers to the first joint, being only four inches and a quarter.

This bird is observed by seamen never to wander beyond soundings; and according to its appearance they direct their measures, being then assured that land is not very remote. Thus the modern sailors pay respect to auguries, in the same manner

LITTLE AUK.

RAZOR BILL.
as Aristophanes tells us those of Greece did above two thousand years ago.

Προφετεύει τις ἄει τῶν ὀρφίδων μαντευομένω περὶ τῷ πλῆ,
Νοῦι μὴ πλεῖ, χείμων ἐσται, νοῦ πλεῖ, περὶδος εἴπεσαι.

Aves. 597.

From birds, in failing men instructions take,
Now lye in port; now fail and profit make.


Edw. av. 358. fig. 2.
Alca, le Pingoin. Brisson av. VI. 89. Tab. 8. fig. 1.


**Razor-bill.**

These species weigh twenty-two ounces and a half. The length about eighteen inches: the breadth twenty-seven. The bill is two inches long, arched, very strong and sharp at the edges; the color black: the upper mandible is marked with four transverse grooves; the lower with three; the widest of which is white, and crosses each mandible. The inside of the mouth is of a fine pale yellow: from the eye to the bill is a line of white: the head, throat, and whole upper side of the body are black; the wings of the same color, except

**Descrip.**

...
RAZORBILL. Class II.

cept the tips of the lesser quil-feathers, which are white: the tail consists of twelve black feathers, and is sharp pointed: the whole under side of the body is white: the legs black.

These birds, in company with the Guillemot, appear in our seas the beginning of February; but do not settle on their breeding places till they begin to lay, about the beginning of May. They inhabit the ledges of the highest rocks that impend over the sea, where they form a grotesque appearance; sitting close together, and in rows one above the other. They properly lay but one egg a piece, of an extraordinary size for the bulk of the bird, being three inches long: it is either white, or of a pale sea green, irregularly spotted with black: if this egg is destroyed, both the auk and guillemot will lay another; if that is taken, then a third: they make no nest, depositing their egg on the bare rock: and though such multitudes lay contiguous, by a wonderful instinct each distinguishes its own. What is also matter of great amazement, they fix their egg on the smooth rock, with so exact a balance, as to secure it from rolling off; yet should it be removed, and then attempted to be replaced by the human hand, it is extremely difficult, if not impossible to find its former equilibrium.

The eggs are food to the inhabitants of the coasts they frequent; which they get with great hazard; being lowered from above by ropes, trusting to the
Class II. BLACK BILLED AUK.

the strength of their companions, whose footing is often so unstable that they are forced down the precipice, and perish together.


Br. Zool. 137.

fig. 2.


THIS weighs only eighteen ounces: the length fifteen inches and a half: the breadth twenty-five inches. The bill is of the same form with the Auk's, but is entirely black. The cheeks, chin, and throat are white; in all other respects it agrees with the former species: we can only observe, that this was shot in the winter, when the common fort have quitted the coasts.

When this bird was killed, it was observed to have about the neck abundance of lice, resembling those that infest the human kind, only they were spotted with yellow.

The Alca Balthica of Brunnich, No. 115, a variety in all respects like the common kind, only the under side of the neck white, is sometimes found on our coasts.
Puffin, Coulterneb, &c. Wil. orn. 325.
Raii syn. av. 120.
Edw. av. 358. fig. 1.
The Bowger. Martin's voy.
St. Kilda. 34.
Fratercula, le Macareux. Bris-
son av. VI. 81. Tab. 6. 
fig. 1.

Descrip. THIS bird weighs about twelve ounces: its
length is twelve inches: the breadth from
tip to tip of the wings extended, twenty-one inch-
es: the bill is short, broad at the base, compressed
on the sides, and running up to a ridge, triangular
and ending in a sharp point: the base of the upper
mandible is strengthened with a white narrow pro-
minent rim full of very minute holes: the bill is of
two colors, the part next the head of a bluish grey,
the lower part red: in the former is one transverse
groove or furrow, in the latter three: the size of
the bills of these birds vary: those of Priestholm Isle
are one inch and three quarters long; and the base
of the upper mandible one inch broad: but in the
birds from the Isle of Man these proportions are
much less.

Nostrils. The nostrils are very long and narrow; com-
mence
mence at the above-mentioned rim, terminate at the first groove, and run parallel with the lower edge of the bill.

The irides are grey, and the edges of the eye-lids of a fine crimson: on the upper eye-lid is a singular callous substance, grey, and of a triangular form: on the lower is another of an oblong form: the crown of the head, whole upper part of the body, tail, and covert feathers of the wings are black; but in some the feathers of the back are tinged with brown: the quil-feathers are of a dusky hue.

The cheeks are white, and so full of feathers as to make the head appear very large and almost round: the chin of the same color; bounded on each side by a broad bed of grey: from the corner of each eye is a small separation of the feathers terminating at the back of the head. The neck is encircled with a broad collar of black: but the whole lower part of the body as far as is under water is white, which is a circumstance in common with most of this genus.

Tail black, composed of sixteen feathers: legs small, of an orange color, and placed so far behind as to disqualify it from standing, except quite erect: resting not only on the foot, but the whole length of the leg: this circumstance attends every one of the genus, but not remarked by any naturalist, except Wormius, who has figured the Penguin, a bird of this genus, with great propriety: this makes the rise
rise of the Puffin from the ground very difficult, and it meets with many falls before it gets on wing; but when that is effected, few birds fly longer or stronger.

Place.

These birds frequent the coasts of several parts of Great Britain and Ireland; but no place in greater numbers than Priestholm Isle*, where their flocks may be compared to swarms of bees for multitude. These are birds of passage; resort there annually about the fifth or tenth of April, quit the place (almost to a bird) and return twice or thrice before they settle to burrow and prepare for ovation and incubation. They begin to burrow the first week in May; but some few save themselves that trouble, and dislodge the rabbets from their holes, and take possession of them till their return from the isle. Those which form their own burrows, are at that time so intent on the work as to suffer themselves to be taken by the hand. This task falls chiefly to the share of the males, for on dissection ten out of twelve proved of that sex. The males also assist in incubation; for on dissection several males were found sitting.

The first young are hatched the beginning of July, the old ones shew vast affection towards them; and seem totally insensible of danger on the breeding season. If a parent is taken at that time, and suspended by the wings, it will in a sort of despair

* Off the coast of Anglesea.
treat itself most cruelly by biting every part it can reach; and the moment it is loosed, will never offer to escape, but instantly resort to its unfledged young: but this affection ceases at the stated time of migration, which is most punctually about the eleventh of August, when they leave such young as cannot fly, to the mercy of the Peregrine Falcon, who watches the mouths of the house for the appearance of the little deserted puffins which forced by hunger are compelled to leave their burrows. The Rev'd Mr. Hugh Davies, of Beaumaris, to whom I am indebted for much of this account, informed me that on the twenty-third of August, so entire was the migration, that neither Puffin, Razor-Bill, Guillemot, or Tern was to be seen there.

I must add, that they lay only one egg, which differ much in form; some have one end very acute; others have both extremely obtuse; all are white.

Their flesh is excessive rank, as they feed on sea weeds and fish, especially Sprats: but when pickled and preserved with spices, are admired by those who love high eating. Dr. Caius tells us, that in his days the church allowed them in lent, instead of fish: he also acquaints us, that they were taken by means of ferrets, as we do rabbits: at present they are either dug out, or drawn from their burrows by a hooked stick: they bite extremely hard, and keep such fast hold on whatsoever they fasten, as not to be easily disengaged. Their noise, when
PUFFIN.  Class II.

Note of Sea Fowl.

taken, is very disagreeable; being like the efforts of a dumb person to speak.

The notes of all the sea birds are extremely harsh or inharmonious: we have often rested under the rocks attentive to the various sounds above our heads, which, mixed with the solemn roar of the waves swelling into and retiring from the vast caverns beneath, have produced a fine effect. The sharp voice of the sea gulls, the frequent chatter of the guillemots, the loud note of the auks, the scream of the herons, together with the hoarse, deep, periodical croak of the corvorants, which serves as a base to the rest; has often furnished us with a concert, which, joined with the wild scenery that surrounded us, afforded, in a high degree, that species of pleasure which arises from the novelty, and we may say gloomy grandeur of the entertainment.

The winter residence of this genus, and that of the guillemot, is but imperfectly known: it is probable they live at sea, in some more temperate climate, remote from land; forming those multitudes of birds that navigators observe in many parts of the ocean: they are always found there at certain seasons, retiring only at breeding time: repairing to the northern latitudes; and during that period are found as near the Pole as navigators have penetrated.

During winter Razor-bills and Puffins frequent the coast of Andalusia, but do not breed there.
THE bird our description was made from was taken in Lancashire; its bulk was not superior to that of a blackbird. The bill convex, short, thick, and strong; its color black. That of the crown of the head, the hind part of the neck, the back, and the tail black; the wings the same color; but the tips of the lesser quill-feathers white: the inner coverts of the wings grey: the cheeks, throat, and whole under side of the body white: the scapular feathers black and white: the legs and feet covered with dirty greenish white scales; the webs black.

Mr. Edwards has figured a bird that varies very little from this: and has added another, which he imagines differs only in sex: in that, the head and neck are wholly black; and the inner coverts of the
LITTLE AU K.  CLASS II.

wings barred with a dirty white. We met with the last in the cabinet of Doctor David Skene at Aberdeen; it was shot on the coast north of Slains in the spring of the year.
BILL slender, strong, pointed. The upper mandible slightly bending towards the end. Base covered with soft short feathers.

NOSTRILS lodged in a hollow near the base.

TONGUE slender, almost the length of the bill.

TOES, no back toe.

THIS species weighs twenty-four ounces: the length seventeen inches: the breadth twenty-seven and a half: the bill is three inches long; black, strait, and sharp pointed: near the end of the lower mandible is a small process; the inside of the mouth yellow: the feathers on the upper part of the bill are short, and soft like velvet: from the eye to the hind part of the head is a small division of the feathers. The head, neck, back, wings, and tail are of a deep mouse color;
LESSER GUILLEMETOT. CLASS II.

the tips of the lesser quilt-feathers white: the whole under part of the body is of a pure white: the sides under the wings marked with dusky lines. Immediately above the thighs are some long feathers that curl over them. The legs dusky.

These birds are found in amazing numbers on the high cliffs on several of our coasts, and appear at the same time as the auk. They are very simple birds; for notwithstanding they are shot at, and see their companions killed by them, they will not quit the rock. Like the auk, they lay only one egg, which is very large; some are of a fine pale blue, others white, spotted, or most elegantly streaked with lines crossing each other in all directions. The Rev. Mr. Low of Birsa affirms me, that they continue about the Orknies the whole winter.


DESCRIPT. THE weight is nineteen ounces: the length sixteen inches: the breadth twenty-six. The bill two inches and a half long, shaped like the Guillemot's, but weaker. The top of the head, the whole upper part of the body, wings and tail are of a darker color than the former: the cheeks, throat,
LESSER GUILLEMOT.

SPOTTED GUILLEMOT.
 throat, and all the lower side of the body are white: from the corner of the eye is a dusky stroke, pointing to the hind part of the head: the tips of the secondary feathers white: the legs are black: the tail very short, and consists of twelve feathers.

These birds frequent the Welch coasts in the winter time; but that very rarely: where they breed is unknown to us; having never observed them on the rocks among the congenerous birds. These and the black-billed Auks haunt the Firth of Forth during winter in flocks innumerable, in pursuit of sprats. They are called there Morrots: they all retire before spring.

Greenland-dove, or Sea-turtle. Wil. orn. 326. 
Raii syn. av. 121. 
Ray's itin. 183, 192. 
Feffe. Gmitter. tab. 4. 
The Scraber. Martin's voy. 
St. Kilda. 32. 
Cajour, Pynan. N. Com. Petr. 
IV. 418. 
Uria minor nigra, le petit 
Guillemot noir. Brifon av. 236. Black. VI. 76. 
Colymbus Grylle. Lin. hist. 
220. 
Faun. Suec. sp. 148. 
Brunnich, 113. 
Groenlandische Taube. 
Frisch, II. 185. 

THE length of this species is fourteen inches: the breadth twenty-two: the bill is an inch and a half long; strait, slender, and black: the inside of the mouth red: on each wing is a

\[ M \, m \, 4 \] large
large bed of white, which in young birds is spotted: the tips of the lesser quil-feathers, and the inner coverts of the wings, are white: except these, the whole plumage is black. In winter it is said to change to white: and a variety spotted with black and white* is not uncommon in Scotland. The tail consists of twelve feathers: the legs are red.

These birds are found on the Bass isle in Scotland; in the isle of St. Kilda; and, as Mr. Ray imagines, in the Farn islands off the coast of Northumberland; we have also seen it on the rocks of Llandidno in Caernarvonshire. Except at breeding time, it keeps always at sea; and is very difficult to be shot, diving at the flash of the pan. The Welsh call this bird Cafgan Longwr, or the sailor's hatred, from a notion that its appearance forebodes a storm. It visits St. Kilda's in March: makes its nest far under ground; and lays a grey egg; or, as Steller says, whitish spotted with ruf, and speckled with ash color.

* The spotted Greenland Dove of Mr. Edwards, plate 508
BILL strong, strict, pointed. Upper mandible longest; edges of each bending in.

NOSTRILS linear.

TONGUE pointed, long, ferrated near the base.

LEGs thin and flat.

TOES, exterior the longest: back toe joined to the interior by a small membrane.

TAIL short, consisting of twenty feathers.

THE length of this species is three feet five inches: its breadth four feet eight: the bill to the corners of the mouth four inches long; black and strongly made. The head and neck are of a deep black: the hind part of the latter is marked with a large semilunar white band: immediately under the throat is another; both marked with black oblong strokes pointing down: the lower part of the neck is of a deep black, glossed with
with a rich purple: the whole under side of the body is white: the sides of the breast marked with black lines: the back, coverts of the wings, and scapulars, are black, marked with white spots: those on the scapulars are very large, and of a square shape; two at the end of each feather.

The tail is very short, and almost concealed by the coverts, which are dusky spotted with white: the legs are black. These birds inhabit the northern parts of this island, live chiefly at sea, and feed on fish: we do not know whether they breed with us, as they do in Norway; which has many birds in common with Scotland. In the last it is called Mur-buachail, or the Herdsman of the sea, from its being so much in that element.

THIS species inhabits the seas about the Orkneys; but in severe winters visits the southern parts of Great Britain. It lives as much at sea as the former; so that credulity believed that it never quitted the water, and that it hatched its young in a hole.
a hole formed by nature under the wing for that end.

It is superior in size to a goose. The head dusky: the back, coverts of the wings, and tail clouded with lighter and darker shades of the same. Primaries and tail black: under side of the neck spotted with dusky: the breast and belly silvery: legs black.

The skins of the birds of this genus are uncommonly tough; and in the northern countries have been used as leather.

This species weighs two pounds and a half: its length twenty-seven inches: its breadth three feet nine. The bill three inches long, and turns a little upwards; the mandibles, when closed at the points, do not touch at the sides. The head is of a dusky grey, marked with numerous white spots: the hind part of the neck an uniform grey: the whole upper part of the body, and greater coverts of the wings dusky, speckled with white: the lesser coverts dusky, and plain. The tail consists of about twenty black feathers; in some tipt with white.
RED THROATED DIVER. Class II.

white. The cheeks and whole under side of the body of a fine glossy white: and the feathers, as in all this genus, which resides almost perpetually on the water, are excessively thick, and close set: the legs are dusky.

These birds frequent our seas, lakes and rivers in the winter. On the Thames they are called sprat loons, for they attend that fish during its continuance in the river. They are subject to vary in the disposition and form of their spots and colors: some having their necks surrounded with a speckled ring: in some the spots are round, in others oblong.


This species breeds in the northern parts of Scotland, on the borders of the lakes: but migrates southward during winter. It lays two eggs. The sexes do not differ in colors; and are a distinct kind from the black throated, the Lumme of the Norwegians. Its shape is more elegant than that of the others. The weight is three pounds: the length, to the tail end, two feet; to that of the toes, two feet four inches: the breadth three feet

Descrip.
RED THROATED DIVER.

BLACK THROATED DIVER.
feet five inches. The head small and taper: the bill straight, and less strong: the size about a fourth less than the preceding. The head and chin are
of a fine uniform grey: the hind part of the neck marked with dusky and white lines, pointing downwards: the throat is of a dull red: the whole upper part of the body, tail and wings of a deep grey almost dusky; but the coverts of the wings, and the back, are marked with a few white spots: the under side of the body white: the legs dusky.


A SPECIES somewhat larger than the last. Bill black: front black: hind part of the head and neck cinereous: sides of the neck marked with black and white lines pointing downwards: fore part of a glossy variable black, purple and green.

Back, scapulars, and coverts of wings black, marked (the two first with square) the last with round spots of white: quill feathers dusky: breast and belly white. Tail short and black: legs partly dusky, partly reddish.

BILL
XLIII. GULL.  
BILL strong, strait, bending near the end; an angular prominency on the lower mandible.  
NOSTRILS linear.  
TONGUE a little cloven.  
BODY light, wings large.  
LEG and back toe small, naked above knee.

Wil. orn. 344.  
Raii syn. av. 127.  
Le Goiland noir. Brisson av.  
VI. 158.  
Larus marinus. Lin. fyn. 225.  
Br. Zool. 140.

Descrip.  
THE weight of this species is near five pounds: the length twenty-nine inches: the breadth five feet nine. The bill is very strong and thick, and almost four inches long; the color a pale yellow; but the lower mandible is marked with a red spot, with a black one in the middle. The irides yellow: the edges of the eye-lids orange color: the head, neck, whole under side, tail and lower part of the back, are white: the upper part of the back, and wings, are black: the quill-feathers tipt with white: the legs of a pale flesh color.

This kind inhabits our coasts in small numbers; and breeds in the highest cliffs. It feeds not only on fish: but like the Raven, very greedily devours carrion:
Class II. SKUA GULL.

carrion. Its egg is very blunt at each end; of a dusky olive color, quite black at the greater end; and the rest of it thinly marked with dusky spots.

I have seen on the coast of Anglesea, a bird that agrees in all respects with this except in size, in wanting the black spot on the bill, and in the color of the legs, which in this are of a bright yellow: the extent of wings is only four feet five: the length only twenty-two inches: the weight one pound and a half. This species, or perhaps variety (for I dare not assert which) rambles far from the sea, and has been shot at Bulstrode, in Middlesex.

Our Cataracta, I suppose the Cornish Gannet. Wil. orn. 348.
Ratti syn. av. 123.
Le Stercoraire rayè. Brisson av. VI. 152.
Pontopp. Norav. II. 96.

Skua Hoirei. Clusii Exot. 368, 243. SKUA.
Skua. Brunnich, ornith. 33.

THE length of this singular Gull is two feet:
the extent four feet and a half: the weight three pounds: the bill two inches one fourth long, very much hooked at the end, and very sharp: the upper mandible covered more than half way with:
with a black cere or skin as in the hawk kind: the nostrils placed near the bend, and are pervious.

The feathers on the head, neck, back, scapulars and coverts of the wings are of a deep brown, marked with rust color, (brightest in the male). The shafts of the primaries are white: the end and exterior side of the first is deep brown; the ends only of the rest brown: the lower parts on both sides being white; the secondaries marked in like manner; forming a great bar of white. The breast, belly and vent ferruginous, tinged with ash color. The tail when spread is circular, of a deep brown, white at the root; and with shafts of the same color.

The legs are covered with great black scales: the talons black, strong and crooked; the interior remarkably so.

**History.**

This bird inhabits Norway, the Ferroe isles, Shetland, and the noted rock Foula, a little west of them. It is also a native of the South sea. It is the most formidable Gull, its prey being not only fish, but what is wonderful in a web-footed bird, all the lesser sort of water fowl, such as teal, &c. Mr. Schroter, a Surgeon in the Ferroe isles, relates that it likewise preys on ducks, poultry, and even young lambs*. It has all the fierceness of the eagle in defending its young; when the inhabitants of those islands visit the nest, it attacks them with

*Heier in Clus. exot. 369. Brunnich, 35.
great force, so that they hold a knife erect over their heads, on which the Skua will transfix itself in its fall on the invaders.

The Rev. Mr. Low, minister of Birsa, in Orkney, from whom an accurate history of those islands, and of Shetland may be expected, confirmed to me part of the above. On approaching the quarters of these birds, they attacked him and his company with most violent blows; and intimidated a bold dog of Mr. Low's in such a manner, as to drive him for protection to his master. The natives are often very rudely treated by them, while they are attending their sheep on the hills; and are obliged to guard their heads by holding up their sticks, on which the birds often kill themselves. In Foula it is a privileged bird, because it defends the flocks from the eagle, which it beats and pursues with great fury; so that even that rapacious bird seldom ventures near its quarters. The natives of Foula on this account lay a fine on any person who destroys one: they deny that it ever injures their flocks or poultry, but imagine it preys on the dung of the Arctic, and other larger gulls, which it persecutes till they mute for fear.

Mr. Ray and Mr. Smith* suppose this to be the Cornish Gannet; but in our account of that bird we shall shew that it is a different species. Mr. Macauly† mentions a gull that makes great ha-

* Hist. Kerry.
voke among the eggs and sea fowl of St. Kilda; it is there called _Tuliac_: his description suits that of the _herring Gull_, but we suspect he confounds these two kinds, and has transferred the manners of this species to the latter.

_Linnaeus_ involves two species in the article _Larus Cataraæta_; this, and the _arctic_ bird of Mr. _Edwards_, birds of very different characters. M. _Brisson_ does not seem perfectly acquainted with this bird; for the synonym of the _Skua_, given by him to his fifth gull (our brown and white gull) belongs to this species; and his print of the _Stercoraire rayé_, p. 152. _tab 13. tom. VI._ to which he has given the synonym of Mr. _Edwards_’s _arctic_ bird, seems to be the very same which we have here described.

244. Black _Cephus_. _Aldr. av. III._ 38. The _Cephus_. _Phil. Transact._ 
_Wil. orn._ 351. 
_Raii syn. av._ 129. 
_Catharacta Cephus_, _Strandhoeg_. _Brunnich, ornith._ 126.

_Descrip._

_THis_ species weighs eleven ounces: its length is fifteen inches: its breadth thirty-nine: the bill is one inch and a half long, the upper part covered with a brown cere: the nostrils like those of the former; the end black and crooked. _The feathers_ of the forehead come pretty low on the bill: the head and neck are of a dirty white: the hind
WINTER GULL.

BLACK TOED GULL.
Class II. ARCTIC GULL.

hind part of the latter plain, the rest marked with oblong dusky spots.

The breast and belly are white, crossed with numerous dusky and yellowish lines: the feathers on the sides and the vent, are barred transversely with black and white: the back, scapulars, coverts of the wings and tail, are black, beautifully edged with white or pale rust color: the shafts and tips of the quill-feathers are white: the exterior web, and upper half of the interior web black, but the lower part of the latter white: the tail consists of twelve black feathers tipped with white; the two middle of which, are near an inch longer than the others: the shafts are white; and the exterior webs of the outmost feather is spotted with rust color. The legs are of a bluish lead color: the lower part of the toes and webs black.

A bird of this kind was taken near Oxford, and communicated to the Royal Society by Dr. Lysons of Gloucester.

The Struntjagger, or Dung-hunter. Larus Parafiticus. Lin. Syst. 245. ARCTIC

226. Swartlaflè, Labben, Elof.


Brunnich, 127.

These birds are very common in the Hebrides. I saw numbers in Jura, Ilay and Rum, where
where they breed in the heath; if disturbed they fly about like the lapwing, but soon alight. They are also found in the Orkneys, where they appear in May, and retire in August. It is also found on the coast of Yorkshire, where it is known by the name of Feafer. All writers that mention it agree, that it has the property of pursuing the lesser gulls so long, that they mute for fear, and that it catches up and devours their excrement before they drop into the water; from which the name. Linneus wittily calls it the Parafite, alluding to its fordid life.

The length of this species is twenty-one inches: the bill is dusky, about an inch and a half long, pretty much hooked at the end, but the strait part is covered with a sort of cere. The nostrils are narrow, and placed near the end, like the former. In the male, the crown of the head is black: the back, wings, and tail dusky; but the lower part of the inner webs of the quil-feathers white: the hind part of the neck, and whole underside of the body white: the tail consists of twelve feathers, the two middlemost near four inches longer than the others: the legs black, small, and scaly.

The female is entirely brown; but of a much paler color below than above: the feathers in the middle of the tail only two inches longer than the others. The specimen from which Mr. Edwards toke the figure of his female Arctic bird, had lost those
those long feathers, so he has omitted them in the print.

Linnaeus has separated this from its mate, his Larus parasiticus, and made it a synonym to his Larus Catarrhæs, a bird as different from this as any other of the whole genus.

Burgermeister Martin’s Spitzbergen. 84.
Herring Gull. Wil. orn. 345.
Larus cinereus maximus. Raiti syn av 127.
Le Goiland gris. Briffon av. VI. 162.

Larus fuscus. Lin. Syst. 125.
Danis Silde-Maage. Islandis Veydebjalla, Brunnich, 142.
Grosse Staff Moeur. Frisch, II. 218.
Br. Zool. 141.

This gull weighs upwards of thirty ounces: the length twenty-three inches; its breadth fifty-two. The bill yellow, and the lower mandible marked with an orange colored spot: the irides straw color: the edges of the eye-lids red: the head, neck, and tail white: the back, and coverts of the wings ash colored: the upper part of the five first quill-feathers are black, marked with a white spot near their end: the legs of a pale flesh color. These birds breed on the ledges of rocks that hang over the sea: they make a large nest of dead grass, and lay three eggs of a dirty white, spotted with black. The young are ash colored, spotted with brown: they do not come to their proper color the first year: this is common to other gulls; which has greatly 

multiplied
multiplied the species among authors, who are inattentive to these particulars. This gull is a great devourer of fish, especially of that from which it takes its name: it is a constant attendant on the nets, and so bold as to seize its prey before the fishermen faces.


Descrip. THESE birds vary much in their size; one we examined weighed three pounds seven ounces: the length was two feet two inches: the breadth five feet six: others again did not weigh two pounds and a half: the irides are dusky: the bill black, and near three inches long. The whole plumage of the head and body, above and below, is a mixture of white, ash color, and brown: the last color occupies the middle of each feather; and in some birds is pale, in others dark: the quil-feathers black: the lower part of the tail is mottled with black and white; towards the end is a brown black bar, and the tips are white: the legs are of a dirty white.

Some have supposed this to be the young of the preceding
preceding species, which (as well as the rest of the gull tribe) scarce ever attains its true colors till after the first year: but it must be observed, that the first colors of the irides, of the quill-feathers, and of the tail, are in all birds permanent; these, as we have remarked, differ in each of these gulls so greatly, as ever to preserve unerring notes of distinction.

This species is likewise called by some the *Dung Hunter*; for the same reason as the last is styled so.


This weighs from fourteen to seventeen ounces: the length eighteen inches; the breadth three feet nine. The irides are hazel: the bill two inches long, but the slendest of any gull: it is black at the tip, whitish towards the base. The crown of the head, and hind part, and sides of the neck, are white, marked with oblong dusky spots; the forehead, throat, middle of the breast, belly, and rump, are white; the back and scapulars are of a pale grey; the last spotted with brown; the coverts of the wings are of a pale brown, edged

Very
COMMON GULL: Class II.

with white; the first quill-feather is black; the succeeding are tipt with white: the tail is white, crossed near the end with a black bar; the legs of a dirty bluish white.

This kind frequents, during winter, the moist meadows in the inland parts of England, remote from the sea. The gelatinous substance, known by the name of Star Shot, or Star Gelly, owes its origin to this bird, or some of the kind; being nothing but the half digested remains of earth-worms, on which these birds feed, and often discharge from their stomachs.

Linnaeus, p. 224. makes this species synonimous with the Larus tridactylus or Tarrock; but as we have had opportunity of examining several of each species, and find in all those strong distinctions remarked in our descriptions, we must decline assenting to the opinion of that eminent naturalist.

Galedor, Crocata, Galetra. La Mouette cendrée. Brifon Altr. av. III. 34.
345.
104.

THIS is the most numerous of the genus. It breeds on the ledges of the cliffs that im-

Kittiwake

Common Gull.
PEND over the sea: in winter they are found in vast flocks on all our shores. They differ a little in size; one we examined weighed twelve ounces and a half: its length was seventeen inches: its breadth thirty-six: the bill yellow: the head, neck, tail, and whole under side of the body, a pure white: the back, and coverts of the wings, a pale grey: near the end of the greater quil-feathers was a black spot: the legs a dull white, tinged with green.

**The length of this species is fourteen inches:**
the extent three feet two. When arrived at full age, the head, neck, belly, and tail are of a snowy whiteness; behind each ear is sometimes a dusky spot: the back and wings grey: the exterior edge of the first quil-feather, and tips of the four or five next, are black: the bill yellow, tinged with green; inside of the mouth orange: legs dusky, with only a knob instead of the back toe.

It inhabits the romantic cliffs of Flamborough-head (where it is called Petrel) the Bafs Isle, the vast rocks near the Castle of Slains, in the county of Aberdeen, and Priestholm Isle.

The young of these birds are a favorite dish.
in North Britain, being served up roasted, a little before dinner, in order to provoke the appetite; but, from their rank taste and smell, seem much more likely to produce a contrary effect.

251. TarrocK.  

av. 169. 224.
Gavia cinerea alia. Aldr. av. 
III. 35.
Wil. orn. 346.
Rall syn. av. 128.

Descrip.  

THE length is fourteen inches; the breadth three feet: the weight only seven ounces. The bill is black, short, thick, and strong; the head large: the color of that, the throat, neck, and whole under side are white: near each ear, and under the throat, is a black spot: on the hind part of the neck is a black crescent, the horns pointing to the throat.

The back and scapulars are of a bluish grey: the lesser coverts of the wings dusky, edged with grey; the larger next to them of the same color; the rest grey: the exterior sides, and ends of the four first quil-feathers are black: the tips of the two next black; all the rest wholly white: the ten middle feathers of the tail white, tipt with black; the two outmost quite white: the legs of a dusky ash color.
**CLASS II. BLACK HEAD GULL.**

In lieu of the back toe, it has only a small protuberance.

This species breeds on *Priestholme Isle*, also among the former in *Scotland*. I must retract my opinion of its being the young of that species.

<table>
<thead>
<tr>
<th><strong>Class</strong></th>
<th><strong>Species</strong></th>
<th><strong>Author</strong></th>
<th><strong>Page</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>II</td>
<td><em>Cephus Turneri</em></td>
<td>Gesner av.</td>
<td>249</td>
</tr>
<tr>
<td></td>
<td><em>Larus cinereus tertius</em></td>
<td>Aldr.</td>
<td>III. 35</td>
</tr>
</tbody>
</table>

Pewit, or Black Cap, Sea Crow, Mire Crow. *Wil. orn.* 347.

*Baiji* *av.* 128. *itin.* 217.

Pewit. *Plott’s hist. Staff.* 231.

<table>
<thead>
<tr>
<th><strong>Page</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>252</td>
</tr>
</tbody>
</table>

**THESE** birds breed in vast numbers in the islands of certain pools in the county of *Stafford*; and, as Dr. *Fuller* tells us, in another on the *Essex* shores; also in the Fens of *Lincolnshire*. They are birds of passage; resort there in the spring; and after the breeding season disperse to the sea coasts: they make their nest on the ground, with rushes, dead grass, and the like; and lay three eggs of a dirty olive color, marked with black. The young were formerly highly esteemed, and numbers were annually taken and fattened for the table. *Plott* gives a marvellous account of their attachment to the lord of the soil they inhabit; insomuch, that on
on his death, they never fail to shift their quarters for a certain time.

Whitelock, in his annals, mentions a piece of ground near Portsmouth, which produced to the owner forty pounds a year by the sale of Pewits, or this species of gull. These are the See-gulles that in old times were admitted to the noblemens tables*.

The notes of these gulls distinguish them from any others; being like a hoarse laugh. Their weight is about ten ounces: their length fifteen inches; their breadth thirty-seven: their irides are of a bright hazel: the edges of the eye-lids of a fine scarlet; and on each, above and below, is a spot of white feathers. Their bills and legs are of a sanguine red: the heads and throats black or dusky: the neck, and all the under side of the body, and the tail, a pure white: back and wings ash colored: tip, and exterior edge of the first quill-feather black; the rest of that feather white; the next to that tipt with black, and marked with the same on the inner web.


This was taken in a trap near my house, January 25th, 1772, and seemed only a varie-

* Vide Appendix.
ty of the former. It differed in having the edges of the eye-lids covered with white soft feathers. The forepart of the head white; the space round the eyes dusky: from the corner of each eye is a broad dusky bar, surrounding the hind part of the head; behind that is another reaching from ear to ear: the ends, interior and exterior edges of the three first quil-feathers black; the ends and interior sides only of the two next black, but the shafts and middle part white; the tips of the two next white; beneath a black bar: the rest, as well as the secondaries, ash color.

In all other respects it resembled the common pewit gull. The fat was of a deep orange color.


Mr. Ray has left us the following obscure account of this bird; communicated to him by Mr. Johnson, a Yorkshire gentleman. "The whole under side is white; the upper brown: the wings partly brown, partly ash color: the head black: the tail not forked: these birds fly in companies."

From
BROWN GULL. Class II.

From the description, we suspect this bird to be the young of the greater Tern, that had not yet attained its proper colors, nor the long feathers of the tail, which it does not acquire till mature age.
GREAT & LESSER T ERNS.
BILL straight, slender, pointed.
NOSTRILS linear.
TONGUE slender and sharp.
WINGS very long.
TAIL forked.
TOES, a small back toe.

* A name these birds are known by in the North of England; and which we substitute instead of the old compound one of Sea Swallow; which was given them on account of their forked tails.

** THIS kind weighs four ounces, one-quarter: the length is fourteen inches; the breadth thirty: the bill and feet are of a fine crimson; the former tipt with black, straight, slender, and sharp pointed: the crown, and hind part of the head, black: the throat, and whole under side of the

XLIV. TERN*.

Sterna (Stirn, Spyrer, Schnir- ring) Gfesner av. 586.
Aldr. av. III. 35.
The Sea Swallow. Wil. orn. 352.
Rall. av. 131.
Sterna major, la grande Hirondelle de mer. Brifson av.
VI. 203. tab. 19. fig. 1.
Sterna hirundo. Lin. fift. 227.
Tarna. Faun. Suec. sp. 159.
The Kirmew. Marten’s Spitz- berg. 92.
Schwartzplattige Schwalben Moewe. Frisch, II. 219.
Br. Zool. 144.
Makauka. Scopoli, No. 3.

Descr.
body, white: the upper part, and the coverts of the wings, a fine pale grey: the tail consists of twelve feathers; the exterior edges of the three outmost are grey, the rest white: the exterior, on each side, is two inches longer than the others: in flying, the bird frequently closes them together, so as to make them appear one slender feather.

These birds frequent the sea shores, banks of lakes and rivers: they feed on small fish, and water insects; hovering over the water, and suddenly dashing into it, catch up their prey. They breed among small tufts of rushes; and lay three or four eggs, of a dull olive color, spotted with black. All the birds of this genus are very clamorous.


Descrip. THE weight is only two ounces five grains: the length eight inches and a half; the breadth nineteen and a half. The bill is yellow, tipt with black: the forehead and cheeks white: from the eyes to the bill is a black line: the top of the head, and hind part black: the breast, and under side of the body cloathed with feathers so closely set together,
ther, and of such an exquisite rich gloss, and so fine a white, that no satin can be compared to it: the back and wings of a pale grey: the tail short, less forked than that of the former, and white: the legs yellow: the irides dusky.

These two species are very delicate, and seem unable to bear the inclemency of the weather on our shores* during winter: for we observe they quit their breeding places at the approach of it; and do not return till spring.

The manners, haunts, and food of this are the same with those of the former; but these are far less numerous.

Larus niger (Meyvogelin) Gefner av. 588. fig. 589.
Aldr. av. III. 35.
The Scare Crow. Will. orn. 353.
Raijyn. av. 131. Idem. 132.

This is of a middle size, between the first and second species. The usual length is ten inches; the breadth twenty-four; the weight two ounces and a half. The head, neck, breast, and

* North Wales.
belly, as far as the vent, are black; beyond is white: the male has a white spot under its chin: the back and wings are of a deep ash color: the tail is short and forked; the exterior feather on each side is white; the others ash colored: the legs and feet of a dusky red. Mr. Ray calls this a cloven-footed gull; as the webs are depressed in the middle, and form a crescent. These birds frequent fresh waters; breed on their banks, and lay three small eggs of a deep olive color, much spotted with black.

They are found during spring and summer in vast numbers in the Fens of Lincolnshire; make an incessant noise, and feed as well on flies as water insects and small fish.

Birds of this species are seen very remote from land. *Kalm* saw flocks of hundreds in the Atlantic ocean, midway between England and America; and a later voyager assured me he saw one 240 leagues from the Lizard, in the same ocean.
STORMY PETREL.

FULMAR.
BILL strait, hooked at the end.
NOSTRILS cylindric, tubular.
LEGS naked above the knees.
BACK TOE none: instead, a sharp SPUR pointing downwards.

**Fulmer.** Macaulay’s hist. St. Kilda. 145.
**Haffheft.** Clusii exot. 368. Norvegis Hav-Heft, Malle-
**Procellaria cinerea, le Pe-
trel cendre. Brifon av. VI. 143. tab. 12. fig. 2.**

**Liu. lyfr. 213. Martin’s Spitzberg. 93.**
**Hav-Heft.** Gunner, tab. 1.
**Procellaria glacialis. Brunnich ornith. 118.**
**Norvegis Hav-Heft, Malle-
moke V. Mallemuke. Bruns-
nich, 118.**
**Br. Zool. 145.**

**PI. enl. 59.**

**XLV. PETRELL.**

**257. FUL. MAR.**

T HIS species inhabits the isle of St. Kilda; makes its appearance there in November, and continues the whole year, except September and October; it lays a large, white, and very brittle egg; and the young are hatched the middle of June. No bird is of such use to the islanders as this: the Fulmar supplies them with oil for their lamps, down for their beds, a delicacy for their tables, a balm for their wounds, and a medicine for their distempers. The Fulmar is also a certain prognosticator of the change of the wind; if it comes

O o 2
to land, no west wind is expected for some time; and the contrary when it returns and keeps the sea.

The whole genus of Petrels have a peculiar faculty of spouting from their bills, to a considerable distance, a large quantity of pure oil; which they do by way of defence, into the face of any that attempts to take them: so that they are, for the sake of this panacea, seized by surprise; as this oil is subservient to the above-mentioned medical uses. Martin tells us, it has been used in London and Edinburgh with success, in Rheumatic cases.

Descrip.

The size of this bird is rather superior to that of the common gull: the bill very strong, much hooked at the end, and of a yellow color. The nostrils are composed of two large tubes, lodged in one sheath: the head, neck, whole under side of the body, and tail, are white; the back, and coverts of the wings ash colored: the quil-feathers dusky: the legs yellowish. In lieu of a back toe, it has only a sort of spur, or sharp strait nail. These birds feed on the blubber or fat of whales, &c. which, being soon convertible into oil, supplies them constantly with means of defence, as well as provision for their young, which they cast up into their mouths. They are likewise said to feed on sorrel, which they use to qualify the unctious diet they live on.

Frederick Martens, who had opportunity of seeing vast numbers of these birds at Spitzbergen, observes, that they are very bold, and resort after the whale fishers
fishers in great flocks, and that when a whale is taken, will, in spite of all endeavours, light on it and pick out large lumps of fat, even when the animal is alive. That the whales are often discovered at sea by the multitudes of Mallemuckes flying, and that when one of the former are wounded, prodigious multitudes immediately follow its bloody track. He adds, that it is a most gluttonous bird, eating till it is forced to disgorgé its food.

Manks Puffin. Wil. orn. 333. Puffinus, le Puffin. Briffon av. VI. 131. tab. 12. fig. 1. is a variety of it.
Shear water. Idem. 133. Feroensibus Skrabe. Norvegis
Wil. orn. 334. Skraap, Pullus. Feroensibus
Edw. av. 359.

The length of this species is fifteen inches; the breadth thirty-one; the weight seventeen ounces: the bill is an inch and three-quarters long; nostrils tubular, but not very prominent: the head, and whole upper side of the body, wings, tail, and thighs, are of a footy blackness; the under side from chin to tail, and inner coverts of the wings, white: the legs weak, and compressed sideways; dusky behind, whitish before.

These birds are found in the Calf of Man: and
as Mr. Ray supposes in the Scilly-isles: they ressort to the former in February; take a short possession of the rabbit burrows, and then disappear till April: they lay one egg, white and blunt at each end; and the young are fit to be taken the beginning of August; when great numbers are killed by the person who farms the isle: they are salted and barelled; and when they are boiled, are eaten with potatoes. During the day they keep at sea, fishing; and towards evening return to their young; whom they feed, by discharging the contents of their stomachs into their mouths; which by that time is turned into oil: by reason of the backward situation of their legs they sit quite erect. They quit the isle the latter end of August, or beginning of September; and, from accounts lately received from navigators, we have reason to imagine, that like the Storm-finch, they are dispersed over the whole Atlantic ocean.

This species inhabits also the Orkney isles, where it makes its nest in holes on the earth near the shelves of the rocks and headlands; it is called there the Lyre; and is much valued there, both on account of its being a food, and for its feathers. The inhabitants take and salt them in August for winter provisions, when they boil them with cabbage. They also take the old ones in March; but they are then poor, and not so well tasted as the young: they appear first in those islands in February.
This bird is about the bulk of the house swallow: the length six inches; the extent of wings thirteen. The whole bird is black, except the coverts of the tail and vent-feathers, which are white: the bill is hooked at the end: the nostrils tubular: the legs slender, and long. It has the same faculty of spouting oil from its bill as the other species; and Mr. Brunnicb tells us, that the inhabitants of the Ferroes isles make this bird serve the purposes of a candle, by drawing a wick through the mouth and rump, which being lighted, the flame is fed by the fat and oil of the body. Except in breeding time it is always at sea; and is seen all over the vast Atlantic ocean, at the greatest distance from land; often following the vessels in great flocks, to pick up any thing that falls from on board: for trial fake chopped straw has been flung.
STORMY PETREL. Class II.

flung over, which they would stand on with expanded wings; but were never observed to settle on, or swim in the water: it presages bad weather, and cautions the seamen of the approach of a tempest, by collecting under the stern of the ships: it braves the utmost fury of the storm, sometimes skimming with incredible velocity along the hollows of the waves, sometimes on the summits: Clusius makes it the Camilla of the sea.

Vel mare per medium fluëtu suspensa timenti
Ferret iter, celeres nec tingeret æquore plantas.  
Virgil.

She swept the seas, and as she skim’d along,
Her flying feet unbath’d on billows hung.  
Dryden.

These birds are the Cypseli of Pliny, which he places among the Apodes of Aristotle; not because they wanted feet, but were καλπόδα *, or had bad, or useless ones; an attribute he gives to these species, on a supposition they were almost always on the wing. Hardouin, a critic quite unskilled in natural history, imagines them to be martins, the Cypseli of Aristotle †: but a little attention to the text of each of those antient naturalists, is sufficient to evince that they are very different birds; the latter very accurately describes the characters of that species of swallow: while Pliny expresses the very manner of life of our Petrel.

* Arist. 17.
† P. 1667.  
" Nidificant
Class II. STORMY PETREL.

"Nidificant in scopulis, hæ sunt quæ *toto mari cernuntur*: nec unquam tam longo naves, tamque continuo cursu recedunt a terra, ut non circumvolutent eas Apodes." *Lib. x. c. 39.*

In August 1772, I found them on the rocks called Macdonald's Table, off the north end of the Isle of Skie; so conjecture they breed there. They lurked under the loose stones, but betrayed themselves by their twittering noise.
**GOOSANDER. Class II.**

**XLVI. MERCAN-**

**SER.**

BILL slender, furnished at the end with a crooked nail. Edges of each mandible sharply serrated.

NOSTRILS near the middle of the mandible.

Small, sub-ovated.

TONGUE slender.

FEET, exterior slender, toe longer than the middle.

**260. Goosander.**

Mergus cirratus (fam.) Gef-

ner av. 134. Merganfer

(Merrach) 135.

Aldr. av. III. 113.

Goosander. Wil. orn. 335.

Dun diver, or Sparling-fowl.

ibid.

Raii syn. av. 134.

Merganfer, l’ Harle. Brisson

av. VI. 231. Tab. 22.


See-Rache. Frisch, II. 190,

191.

Mergus merganfer. Lin. syst.

208.

Wrafkogel, Kjorkfogel, Ard,

Skraka. Fann. Suec. sp. 135.


Ilslandis Skior. And. Davis

Skallefluger. Brunnich, 92,

& 93.

Br. Zool. 147.

**THESE** birds frequent our rivers, and other fresh waters, especially in hard winters; they are great divers, and live on fish. They are never seen in the southern parts of Great Britain during summer; when they retire far north to breed; for in that season they have been shot in the Hebrides. They are uncommonly rank, and scarcely eatable.

**Descrip.**

The male weighs four pounds: its length is two feet four inches; the breadth three feet two.

The
The bill is three inches long, narrow, and finely toothed, or ferrated: the color of that, and the irides, is red.

The head is large, and the feathers on the hind part long and loose: the color black, finely glossed with green: the upper part of the neck the same: the lower part, and under side of the body of a fine pale yellow: the upper part of the back, and inner scapulars are black: the lower part of the back, and the tail are ash colored: the tail consists of eighteen feathers: the greater quill-feathers are black, the lesser white, some of which are edged with black: the coverts at the setting on of the wing are black; the rest white: the legs of a deep orange color.

The dun Diver, or female, is less than the male: the head, and upper part of the neck are ferruginous; the throat white: the feathers on the hind part are long, and form a pendent crest: the back, the coverts of the wings, and the tail are of a deep ash color: the greater quill feathers are black, the lesser white: the breast, and middle of the belly are white, tinged with yellow.

We believe that Belon* describes this sex under the title of Bieure oyseau, and affirms, that it builds its nest on rocks and in trees like the Corvorant.

* Belon av. 163.
261. Red Breasted.  
Anas Longirostra. Gesch. av. 135.  
Braun kopfger Tilger,  
Class II.  
Mergus ferrator. Lin. Syll. 203.  
L' Harle hupé. Briffon av. 96.  
VI. 237.  
Aldr. av. III. 113.  
Mergus ferrator. Lin. Syl.  
Raii lyn. av. 135.  
Danis Fisk-And. Brunich,  
Norton's Northampt. 429.  
Descr.  
THIS species weighs two pounds: the length  
is one foot nine inches; the breadth two feet  
seven: the bill is three inches long; the lower mandible red: the upper dusky: the irides a purplish red: head and throat a fine changeable black and green: on the first a long pendent crest of the same color: upper part of the neck, of the breast, and the whole belly white: lower part of the breast ferruginous, spotted with black: upper part of the back black: near the setting on of the wings some white feathers, edged and tipt with black: the exterior scapulars black; the interior white: lower part of the back, the coverts of the tail, and feathers on the sides under the wings and over the thighs grey; elegantly marked with zigzag lines of black: coverts on the ridge of the wings dusky:  
then succeeds a broad bar of white: the greater coverts half black, half white: the secondaries next the quil feathers marked in the same manner; the rest white, edged on one side with black: the quil feathers
M. & F. RED-BREASTED GOOSANDER.
feathers dusky. Tail short and brown: legs orange colored.

The head and upper part of the neck of the female of a deep rust color: the crest short: throat white: fore part of the neck and breast marbled with deep ash color: belly white: great quil-feathers dusky: lower half of the nearest secondaries black: the upper white: the rest dusky: back, scapulats, and tail ash colored. The upper half of the first secondary feathers white: the lower half black: the others dusky.

These birds breed in the northern parts of Great Britain; we have seen them and their young on Loch Mari in the county of Ross, and in the isle of Ilay.

La Piette. Belon av. 171.
Mergus rhenanus. Geffner av. 131.
Aldr av. III. 111.
White Nun. Wil. orn. 337.
Lough Diver. 338.
Raii syn. av. 135.
Mergus albellus. Lin. syst. 209.
Faun. Suec. sp. 137.

I T S weight is thirty-four ounces: the length eighteen inches; the breadth twenty-six. The bill is near two inches long, and of a lead color: the
the head is adorned with a long crest, white above, black beneath: from a little beyond the eye to the bill, is a large oval black spot, glossed with green; the head, neck, and whole under side of the body are of a pure white; on the lower part of the neck are two semilunar black lines pointing forward: the inner scapulars, the back, the coverts on the ridge of the wing, and the greater quil-feathers are black; the middle rows of coverts are white; the next black, tipt with white; the lesser quil feathers the same; the scapulars next the wings white: the tail deep ash color: the legs a bluish grey.

The female, or lough diver, is less than the male. The marks in the wings are the same in both sexes: the back, the scapulars, and the tail are dusky: the head, and hind part of the neck ferruginous: chin, and fore part of the neck white: the breast clouded with grey: the belly white: the legs dusky.

This bird weighs fifteen ounces: the length is one foot four inches; the breadth one foot eleven inches: the bill is of a lead color: the head
is slightly crested, and of a russet color: from beyond the eyes to the bill is an oval black spot: the cheeks and throat are white: the hind part of the neck is of a deep grey; the fore part clouded with a lighter: the belly white: the back and tail are of a dusky ash color: the legs of a pale ash color: the wings have exactly the same marks and colors with the fme: and as the spaces between the eyes and bill are marked with a similar spot in both, if authors did not agree to make the 

*Bill diver* the female of that bird, we should suppose this to be it.
**XLVII. DUCK.**

**BILL** strong, flat, or depressed, and commonly furnished at the end with a nail. Edges divided into sharp *lamellae*.

**NOSTRILS** small and oval.

**TONGUE** broad, edges near the base fringed.

**FEET**; middle toe the longest.

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**THE wild swan frequents our coasts in hard winters in large flocks, but as far as we can inform ourselves does not breed in Great Britain. Martin* acquaints us, that swans come in October in great numbers to Lingeý, one of the Western Isles; and continue there till March, when they retire more northward to breed. A few continue in Mainland, one of the Orknies, and breed in the little isles of the fresh water lochs; but the multitude retires at approach of Spring. On that account, swans are there the country man's almanack: on**

---

* Deocr. West. Isles, 71.*

their
their quitting the island, they presage good weather; on their arrival, they announce bad. These, as well as most other water fowl, prefer for the purpose of incubation those places that are left frequented by mankind: accordingly we find that the lakes and forests of the distant Lapland are filled during summer with myriads of water fowl, and there swans, geese, the duck tribe, goosanders, divers, &c. pass that season; but in autumn return to us, and to other more hospitable shores.*

This species is less than the tame swan: length five feet to the end of the feet; to that of the tail four feet ten inches: extent of wing seven feet three inches: weight from thirteen to sixteen pounds. The lower part of the bill is black; the base of it, and the space between that and the eyes, is covered with a naked yellow skin; the eyelids are bare and yellow: the whole plumage in old birds is of a pure white; the down is very soft and thick: the legs black. The cry of this kind is very loud, and may be heard at a great distance, from which it is sometimes called the Hooper.

* Flora Lapponica, 273. Oeuvres de M. de Maupertuis. Tom. III. p. 141, 175. According to the observation of that illustrious writer, the Lapland lakes are filled with the larvae of the Knat (culex pipiens. Lin. Sys. 602.) or some other insect, that depôtes its eggs in the water; which being an agreeable food to water fowl, is another cause of their resort to those deserts.
265. TAME SWAN.

Le Cygne. Belou av. 151.
Gesner av. 371.
Cygno, Cifano. Aldr. av. III. 1.
Wil. orn. 355.
Raii syn. av. 136.
Edw. av. 150.
Plott's hist. Staff. 228.

Le Cygne. Brißon av. VI. 288.
Anas Cygnus manfuetus. Lin. 151.
Schwan. Frisch, II. 152.
Danis Tam Svane. Brunnich, 44.
Br. Zool. 149. add. plates.

Descrip. THIS is the largest of the British birds. It is distinguished externally from the wild swan; first, by its size, being much larger: secondly, by the bill, which in this is red, and the tip and sides black, and the skin between the eyes and bill is of the same color. Over the base of the upper mandible projects a black callous knob: the whole plumage in old birds is white; in young ones ash colored till the second year: the legs dusky: but Dr. Plott mentions a variety found on the Trent near Rugely, with red legs. The swan lays seven or eight eggs, and is near two months in hatching: it feeds on water plants, insects and shells. No bird perhaps makes so inelegant a figure out of the water, or has the command of such beautiful attitudes in that element as the swan: almost every poet has taken notice of it, but none with that justice of description, and in so picturesque a manner, as our Milton.
T A M E S W A N.

The swan with arched neck
Between her white wings mantling, proudly rows
Her state with oary feet. Par. Lost, B. VII.

But we cannot help thinking that he had here an eye to that beautiful passage in Silius Italicus on the same subject, though the English poet has greatly improved on it.

Haud secus Eridani flagnis, ripâve Cayßri
Innatat albus oior, pronoue immobile corpus
Dat fluvio, et pedibus tacitas eremigat undas. Lib, XIV.

In former times it was served up at every great feast, when the elegance of the table was measured by the size and quantity of the good cheer. Cygnets are to this day fattened at Norwich about Christmas, and are sold for a guinea a piece.

Swans were formerly held in such great esteem in England, that by an act of Edward IV. c. 6, "no one that possessed a freehold of less clear yearly value than five marks, was permitted to keep any, other than the son of our sovereign lord the king." And by the eleventh of Henry VII. c. 17. the punishment for taking their eggs was imprisonment for a year and a day, and a fine at the king's will. Though at present they are not so highly valued as a delicacy, yet great numbers are preserved for their beauty; we see multitudes on the Thames and Trent, but nowhere greater numbers than on the salt water inlet of the sea, near Abotsbury in Dorsetshire.
These birds were by the ancients consecrated to Apollo and the Muses:

And Callimachus, in his hymn upon the island of Delos, is still more particular:

When from Paestolus' golden banks
Apollo's tuneful songsters, snowy swans
Steering their flight, seven times their circling course
Wheel round the island, caroling mean time
Soft melody, the favourites of the Nine,
Thus ushering to birth with dulcet sounds
The God of harmony, and hence sev'n strings
Hereafter to his golden lyre he gave,
For ere the eighth soft concert was begun
He sprung to birth.  Dod's Callimachus, p. 115.
which arose from the Pythagorean doctrine of the transmigration of the soul into the bodies of animals; from the belief, that the body of the swan was allotted for the mansion of departed poets. Thus Plato makes his prophet say, ἵθεν μὲν γὰρ θυχήν ἐπὶ τὴν ποτὲ Ὀρφέως γενόμενην νομίζει βίον αὐτομενην. "I saw the soul of Orpheus prefer the life of a swan."

After the antients had thus furnished these birds with such agreeable inmates, it is not to be doubted but they would attribute to them the same powers of harmony, that poets possessed, previous to their transmigration: but the vulgar not distinguishing between the sweetness of numbers, and that of voice, ignorantly believed that to be real, which philosophers and poets only meant metaphorically.

In time a swan became a common trope for a Bard; Horace calls Pindar Dirceum Cygnum, and in one ode even supposes himself changed into a swan; Virgil speaks of his poetical brethren in the same manner,

\[
\text{Vare, tuum nomen}
\]
\[
\text{Cantantes sublime serent ad styera cygni. Eclog. IX.}
\]

when he speaks of them figuratively, he ascribes to them melody, or the power of music; but when he talks of them as birds, he lays aside fiction, and like a true naturalist gives them their real note,

\[
\text{Dant sonitum rauci per stagna loquacia cygni. Æneid. Lib. X. I.}
\]

* De Republ. Lib. X. sub finem.
Thus he, as well as Pliny*, in fact, gave no credit to the musick of swans. Aristotle speaks of it only by hearsay †, but, when once an error is started, it is not surprizing that it is adopted, especially by poets, geniuses of all others of the most unbounded imaginations. For this reason poets were said to animate swans, from the notion that they flew higher than any other birds, and Hesiod distinguishes them by the epithet of ἄνων ἀερονυκτωτας ‡, "the lofty flying swans"; Thus Horace, whilst he humbly compares himself to a bee, contenting itself with the creeping thyme, sends his Dircaum Cygnum into the clouds

Multa Dircaum levat aura cygnum,
Tendit, Antoni, quoties in altos
Nubium tractus. Ode. II. Lib. 4.

but when he finds himself struck with a true poetical spirit, he at once assumes the form of this favourite bird,

Non usitata nec tenui seror
Penna, biformis per liquidum æthera
Vates:
— et album mutor in alitem. Ode. XX. Lib. 2.

And doubtless he was on the wing in his first ode,

Sublimi seriam sydera vertice.

* Lib. X. c. 33.
† Hist. an. 1045.
‡ Scut. Herc. I. 316.

Besides
Besides these opinions, the antients held another still more singular, imagining that the swan foretold its own end: to explain this we must consider the twofold character of the poet, *Vates* and *Poeta*, which the fable of the transmigration continue to the bird, or they might be supposed to derive that faculty from *Apollo* their patron deity, the god of prophecy and divination.

As to their being supposed to sing more sweetly at the approach of death, the cause is beautifully explained by *Plato*, who attributes that unusual melody, to the same sort of *Elysia* that good men are sometimes said to enjoy at that awful hour, foreseeing the joys that are preparing for them on putting off mortality, *Μαθηματικὰ τε εὐσί, καὶ προεδώτες τα ἐν Ἀδειαγαδα, ἀδει τε, καὶ τερπονταί εἰκείνυ τὴν ημέραν διαφέρουσι, εν τῷ προσδεν χρόνω*. "They become prophetic, and foreseeing the happiness which they shall enjoy in another state, are in greater ecstasy than they have before experienced".

This notion, tho' accounted for by *Plato*, seems to have been a popular one long before his time, for *Aeschylus* alludes to it in his *Agamemnon*; * Clytemnestra* speaking of *Cassandra*, says,

*ν δέ τοι, κυκνι διὰν, Τον νυκαιν μελφασα θανασιμον γοον, Κειται. She like the swan Expiring, dies in melody.*


† *Ibid.*
**Descrip.**

This is our largest species; the heaviest weigh ten pounds: the length is two feet nine; the extent five feet.

The bill is large and elevated; of a flesh color, tinged with yellow: the nail white: the head and neck cinereous, mixed with ochraceous yellow: the the hind part of the neck very pale; and at the base of a yellowish brown.

Breast and belly whitish, clouded with grey or ash color: back grey: lesser coverts of the wings almost white; the middle row, deep cinereous slightly edged with white: the primaries grey, tipt with black, and edged with white: secondaries entirely black; grey only at their base: the scapulars of a deep ash color, edged with white.

The coverts of the tail, and the vent feathers of a pure white: the middle feathers of the tail dusky, tipt with white; the exterior feathers almost wholly white. The legs of a flesh color.

**History.**

This species resides in the fens the whole year: breeds there, and hatches about eight or nine young which are often taken, easily made tame, and esteemed most excellent meat, superior to the
domestic goose. The old geese which are shot, are plucked and sold in the market as fine tame ones; and readily bought, the purchaser being deceived by the size, but their flesh is coarse. Towards winter they collect in great flocks, but in all seasons live and feed in the fens.

The Grey Lag is the origin of the domestic goose; it is the only species that the Britons could take young, and familiarize: the other two never breed here, and migrate during summer. The mallard comes within the same description, and is the species to which we owe our tame breed of ducks: both preserve some of the marks of their wild state; the goose the whiteness of the coverts of the tail and vent-feathers; the drake its curled feathers. The goose in other colors sports less in the tame kind than the other.

Tame geese are of vast longevity. Mr. Willughby gives an example of one that attained eighty years.

Tame geese are of vast multitudes in the fens of Lincolnshire; a single person will keep a thousand old geese, each of which will rear seven; so that towards the end of the season he will become master of eight thousand. I beg leave to repeat here part of the history of their economy from my tour in Scotland, in order to complete my account.

During the breeding season these birds are lodged in the same houses with the inhabitants, and even
even in their very bed-chambers: in every apartment are three rows of coarse wicker pens, placed one above another; each bird has its separate lodge divided from the other, which it keeps possession of during the time of fitting. A person, called a Gozzard, i.e. Goose-herd, attends the flock, and twice a day drives the whole to water; then brings them back to their habitations, helping those that live in the upper stories to their nests, without ever misplacing a single bird.

Feathers.

The geese are plucked five times in the year: the first plucking is at Lady-Day, for feathers and quills, and the same is renewed, for feathers only, four times more between that and Michaelmas. The old geese submit quietly to the operation, but the young ones are very noisy and unruly. I once saw this performed, and observed, that goslings of six weeks old were not spared; for their tails were plucked, as I was told, to habituate them early to what they were to come to. If the season proves cold, numbers of the geese die by this barbarous custom. At the time, about ten pluckers are employed, each with a coarse apron up to his chin.

Vast numbers of geese are driven annually to London to supply the markets, among them all the superannuated geese and ganders (called here Cagmags) which, by a long course of plucking, prove uncommonly tough and dry.

The feathers are a considerable article of commerce;
merce; those from Somersetshire are esteemed the best; and those from Ireland the worst.

It will not here be foreign to the subject to give some account of the feathers that other birds and other countries supply our Island with, which was communicated to us by an intelligent person in the feather trade.

Eider down is imported from Denmark, the ducks that supply it being inhabitants of Hudson's-Bay, Greenland, Iceland and Norway; our own islands west of Scotland breed numbers of these birds, and might turn out a profitable branch of trade to the poor inhabitants. Hudson's-Bay also furnishes a very fine feather, supposed to be of the goose kind.

The down of the swan is brought from Dantzick. The same place also sends us great quantity of the feathers of the cock and hen. The London poulterers sell a great quantity of the feathers of those birds, and of ducks and turkies; those of ducks being a weaker feather, are inferior to those of the goose; turkey's feathers are the worst of any.

The best method of curing feathers is to lay them in a room in an exposure to the sun, and when dried to put them in bags, and beat them well with poles to get the dirt off.

We have often been surprized that no experiments had been made on the feathers of the Auk tribe, as such numbers resort to our rocks annually,
ally, and promise, from the appearance of their plumage, to furnish a warm and soft feather; but we have lately been informed, that some unsuccessful trials have been made at Glasgow: a gentleman who had made a voyage to the western isles, and brought some of the feathers home with a laudable design of promoting the trade of our own country, attempted to render them fit for use, first by baking, then by boiling them; but their stench was so offensive, that the Glasgow people could not be prevailed on to leave off their correspondence with Dantzick. The disagreeable smell of these feathers must be owing to the quantity of oil that all water fowls use from the glandules of their rump to preserve and smooth their feathers; and as sea birds must expend more of this unctious than other water fowl, being almost perpetually on that element, and as their food is entirely fish, that oil must receive a great rankness, and communicate it to the plumage, so as to render it absolutely unfit for use.
THE length of this species is two feet seven inches: the extent four feet eleven: the weight six pounds and a half. The bill which is the chief specific distinction between this and the former is small, much compressed near the end, whitish and sometimes pale red in the middle; and black at the base and nail: head and neck are cinereous brown, tinged with ferruginous: breast and belly dirty white, clouded with cinereous: sides and scapulars dark ashy color, edged with white: the back of a plain ashy color: coverts of the tail white: lesser coverts of the wings light grey, nearly white; the middle deeper tipt with white: primaries and secondaries grey, tipt with black: feet and legs saffron color: claws black.

This species arrives in Lincolnshire in autumn.
and is called there the bean goose, from the likeness of the nail of the bill to a horse bean. They always light on corn fields, and feed much on the green wheat.

They never breed in the fens; but all disappear in May. They retreat to the sequestred wilds of the north of Europe: in their migration they fly a great height, cackling as they go. They preserve a great regularity in their motions, sometimes forming a strait line, at others assume the shape of a wedge, which facilitates their progress; for they cut the air the readier in that form than if they flew pell-mell.

THE weight of this kind is about five pounds and a half: the length two feet four: the extent four feet six: the bill elevated, of a pale yellow color, with a white nail. The forehead white: head and neck of the same color with those of the former: the coverts of the wing; the primaries and secondaries darker: in the tail the ash color predominates: it is like the two preceding, surrounded
rounded with a white ring. The breast and belly of a dirty white, marked with great spots of black: the legs yellow: the nails whitish.

These visit the fens and other parts of England during winter, in small flocks: they keep always in marshy places, and never frequent the corn lands. They disappear in the earliest spring, and none are seen after the middle of March. Linnaeus makes this goose the female of the Bernacle; but we think his opinion not well founded.

Doctor Lister adds two other species to the list of English geese; one he calls the great Black Goose or Wbilk; the other the small Spanish Goose, which he says is of the same color with the common goose; but is no larger than the Brent; but each species has hitherto eluded our most diligent enquiry.

I must conclude this subject with observing that the goose was one of the forbidden foods of the Britons in the time of Caesar.
feet five inches; the bill is black, and only one inch three-eights long; the head is small; the forehead and cheeks white; from the bill to the eyes is a black line; the hind part of the head, the whole neck, and upper part of the breast and back are of a deep black; the whole underside of the body, and coverts of the tail are white; the back, scapulars and coverts of the wings, are beautifully barred with grey, black, and white; the tail is black, the legs of the same color, and small.

These birds appear in vast flocks during winter, on the north west coasts of this kingdom: are very shy and wild; but on being taken, grow as familiar as our tame geese in a few days; in February they quit our shores, and retire as far as Lapland, Greenland and even Spitzbergen to breed.*

They live to a great age: the Rev, Doctor Buckworth of Spalding had one which was kept in the family above two and thirty years; but was blind during the two last: what its age was when first taken was unknown.

These are the birds that about two hundred years ago were believed to be generated out of wood, or rather a species of shell that is often found flicking to the bottoms of ships, or fragments of them; and were called Tree-geese †. These were also

† The shell here meant is the lepas anatifera. Lin. s. 668. Argenville Conch. tab. 7. the animal that inhabits it is furnished with a feathered beard; which, in a credulous age, was believed to be part of the young bird.
thought by some writers to have been the *Chenalopeces* of *Pliny*: they should have said *Chenerotes*; for those were the birds that naturalist said were found in *Britain*; but as he has scarce left us any description of them; it is difficult to say which species he intended. I should imagine it to be the following; the *Brent-goose*, which is far inferior in size to the wild goose, and very delicate food *: in both respects suiting his account of the *Cheneros*.

Les Canes de Mer. Bellow av. 166.
Aldr. av. III. 73.
Wil. avn. 360.
Raii syn. av. 137.
Brenta, le Cravant. Brifon av. VI. 304. tab. 31.
Anas Bernicla. Lin. syst. 198.

**THIS** is inferior in size to the former: the bill is one inch and an half long; the color of that, the head, neck, and upper part of the breast is black; on each side the slenderest part of the neck is a white spot; the lower part of the breast, the scapulars, and coverts of the wings are ash colored, clouded with a deeper shade; the feathers

* Anserini generis sunt *Chenalopeces*: et quibus lautoires epulas non novit Britannia *Cheneretes*, fere anfere minores. Lib. x. c. 22.
above and below the tail are white; the tail and quil-feathers black; the legs black.

These birds frequent our coasts in the winter: in Ireland they are called Bernacles, and appear in great quantities in August, and leave it in March. They feed on a sort of long grass growing in the water; preferring the root and some part above it, which they dive for, bite off and leave the upper part to drive on shore. They abound near Londonderry, Belfast, and Wexford; and are taken in flight time in nets placed a-cross the rivers; and are much esteemed for their delicacy. The Rat or Roadgoose, of Mr. Willughby*, agrees in so many respects with this kind, that we suspect it only to be a young bird not come to full feathers: the only difference consisting in the feathers next the bill, and on the throat and breast being brown. We have the greater reason to imagine it to be so as Mr. Brunnich informs us that the Danish and Norwegian names for this bird are Radgaas and Raatgaas, which agree with those given it by Mr. Willughby. Mr. Willughby, Mr. Ray, and M. Brisson very properly describe the Bernacle and Brent as different species, but Linnaeus makes these synonymous, and describes the true Bernacle as the female of the white fronted wild goose. Vide Faun. Suec. 116.

Page 361.
This useful species is found in the western isles of Scotland, particularly on Oransa, Barra, Rona, and Heïsker, and on the Farn isles; but in greater numbers in Norway, Iceland, and Greenland: from whence a vast quantity of the down, known by the name of Eider or Edder, which these birds furnish, is annually imported: its remarkably light, elastic, and warm qualities, make it highly esteemed as a stuffing for coverlets, by such whom age or infirmities render unable to support the weight of common blankets. This down is produced from the breast of the bird in the breeding season. It lays its eggs among the stones or plants, near the shore: and prepares a soft bed for them, by plucking the down from its own breast; the natives watch the opportunity, and take away both eggs and nest: the duck lays again, and repeats the plucking of its breast; if she is robbed after
EIDER DUCK. CLASS II.

After that, she will still lay; but the drakes must supply the down, as her flock is now exhausted; but if her eggs are taken a third time, she wholly deserts the place.

When I visited the Farn isles*, I found the ducks sitting, and took some of the nests, the base of which were formed of sea plants, and covered with the down. After separating it carefully from the plants, it weighed only three quarters of an ounce, yet was so elastic as to fill a larger space than the crown of the greatest hat. These birds are not numerous on the isles; and it was observed that the drakes kept on those most remote from the sitting places. The ducks continue on their nests till you come almost close to them, and when they rise are very slow fliers. The number of eggs in each nest were from three to five, warmly bedded in the down; of a pale olive color, and very large, glossy and smooth.

This kind is double the size of the common duck: its bill is black; the feathers of the forehead and cheeks advance far into the base, so as to form two very sharp angles: the forehead is of a full velvet black: from the bill to the hind part of the head is a broad black bar, passing across the eyes on each side: on the hind part of the neck, just beneath the ends of these bars, is a broad pea-green mark, that looks like a stain:

*July 15th, 1769.
Class II. Velvet Duck.

the crown of the head, the cheeks, the neck, back, scapulars and coverts of the wings are white; the lower part of the breast, the belly, tail, and quil feathers are black; the legs are green.

The female is of a reddish brown, barred transversely with black; but the head and upper part of the neck are marked with dusky streaks pointing downward; the primary feathers are black; the greater or left row of coverts of the wings, and the lesser row of quil feathers tipt with white: the tail is dusky; the belly of a deep brown, marked obscurely with black. One I weighed was three pounds and a half.

Anas nigra, rostro nigro rubro et luteo. Aldr. av. III. 97. Female.

The black Duck. Wil. orn. 363.

Rall. syn. av. 141.

Dale’s hist. Harwich, 405.


La grande Macreufe. Brisson av. VI. 423.

Anas fusca. Lin. syst. 190.

Descrit.

The male of this species is larger than the tame duck. The bill is broad and short, yellow on the sides, black in the middle, and the hook red: the head, and part of the neck is black tinged with green: behind each ear is a white spot.
S C O T E R. C l a s s II.

Spot; and in each wing is a white feather; all the rest of the plumage is of a fine black, and of the soft and delicate appearance of velvet: the legs and feet are red; the webs black. The female is entirely of a deep brown color; the marks behind each ear and on the wings excepted: the bill is of the same colors with that of the male; but wants the protuberance at the base of it, which Linnaeus gives the male*.

De s c r i p. T H I S species weighs two pounds nine ounces: the length is twenty-two inches; the breadth thirty-four: the middle of the bill is of a fine yellow, the rest is black: both male and female want the hook at the end; but on the base of the bill of the former is a large knob, divided by a fissure in the middle. The tail consists of sixteen sharp pointed feathers, of which the middle are the longest. The color of the whole plumage is black, that of the head and neck glossed over with purple: the legs are black.

* Faun. Succ. last edit. 39. This
This bird is allowed in the Romish church to be eaten in Lent, and is the macreufe of the French. It is a great diver, said to live almost constantly at sea, and to be taken in nets placed under water.

His scarcely weighs two pounds: the length is fifteen inches and a half: the bill is broad, of a bluish grey, the hook black: the irides of a fine yellow. The head is adorned with a thick, but short pendent crest. The belly, and under coverts of the wings are of a pure white: the quill feathers dusky on their exterior sides and ends; part of their interior webs white; the secondaries white tipt with black. The rest of the plumage is black, varied about the head with purple: the tail is very short, and consists of fourteen feathers: the legs of a bluish grey; the webs black. The female wants the crest.

When young, this sex is of a deep brown; and the sides of the head next the bill of a pale yellow.
low: but it preserves the other marks of the old duck. In this state it has been described in the *Ornith. boreal.* 91, under the title of *anas latirostra.*

**Descrip.**

This we described from some stuff skins very well preserved *. It seemed less than the common duck. The bill was broad, flat, and of a greyish blue color: the head and neck black glossed with green: the breast black: the back, the coverts of the wings, and the scapulars finely marked with numerous narrow transverse bars of black and grey: the greater quil feathers are dusky: the lesser white, tipt with black: the belly is white: the tail and feathers, both above and below, are black; the thighs barred with dusky and white strokes: the legs dusky.

Mr. *Willughby* acquaints us, that these birds take their name from feeding on *scaup,* or broken shell fish: they differ infinitely in colors; so

* When this happens, we have recourse to Mr. *Willughby* for the weight and measurements, whenever he hath noted them.
that in a flock of forty or fifty there are not two alike.

Clangula. Gesner av. 119.  
Aldr. av. III. 94.  
Wil. orn. 368.  
Raii syn. av. 142.  
Le Garrot. Briffen av. VI. 416. Tab. 37. fig. 2.  
Schwartzkopfge Enten-Tau-  
cher. Frisch, II. 183, 184.  
Eis Ente. Kram. 341.  
Anas clangula. Lin. siff. 201.  

This species weighs two pounds: the length is nineteen inches; the breadth thirty-one. The bill is black, short, and broad at the base: the head is large, of a deep black glossed with green: at each corner of the mouth is a large white spot; for which reason the Italians call it Quatt’occhii, or four eyes: the irides are of a bright yellow: the upper part of the neck is of the same color with that of the head: the breast and whole under side of the body are white.

The scapulars black and white: the back, tail, and the coverts on the ridge of the wings, black: the fourteen first quil feathers, and the four last are black; the seven middlemost white, as are the coverts immediately above them: the legs of an orange color.

The
MORILLON.  CLASS II.

FEMALE.

The head of the female* is of a deep brown, tinged with red: the neck grey: breast and belly white: coverts and scapulars dusky and ash colored: middle quil feathers white; the others, together with the tail, black: the legs dusky. These birds frequent fresh water, as well as the sea; being found on the Shropshire meres during winter.


T HIS species is rather less than the last. The bill of a yellowish brown: the irides gold color: the head of a dusky rust color: round the upper part of the neck is a collar of white; beneath that a broader of grey. The back and coverts dusky, with a few white lines: the greater coverts dusky, with a few great spots of white: the primaries black: the secondaries white. Breast and belly white: tail dusky: the sides above the thighs black: the legs yellow.

This was bought in the London market. I am doubtful of the sex. Consult Brisson, VI. 406. tab. XXXVI.

* The smaller red headed Duck. Wil. orn. 369. Rall syn. av. 143.

Mr.
Mr. Cockfield, of Stratford in Essex, favored me with an account of two birds of this species, shot near the same time. Both agreed in colors; but one weighed twenty-six ounces, the other only nineteen.

**THE** male of this elegant species weighs two pounds ten ounces: the length is two feet; the breadth three and a half. The bill is of a bright red, and at the base swells into a knob, which is most conspicuous in the spring: the head and upper part of the neck is of a fine blackish green; the lower part of the neck white: the breast, and upper part of the back is surrounded with a broad band of bright orange bay: the coverts of the wings, and the middle of the back are white; the nearest scapulars black, the others white; the greater quil feathers are black; the exterior webs...
webs of the next are a fine green, and those of the three succeeding orange; the coverts of the tail are white; the tail itself of the same color, and except the two outmost feathers tipt with black; the belly white, divided lengthways by a black line; the legs of a pale flesh color.

These birds inhabit the sea coasts, and breed in rabbit holes. When a person attempts to take their young, the old birds shew great address in diverting his attention from the brood; they will fly along the ground as if wounded, till the former are got into a place of security, and then return and collect them together. From this instinctive cunning, Turner, with good reason, imagines them to be the chenalopex*, or fox-goose of the antients: the natives of the Orknies to this day call them the flygoose, from an attribute of that quadruped. They lay fifteen or sixteen eggs, white, and of a roundish shape. In winter they collect in great flocks. Their flesh is very rank and bad.

* Plinii, Lib. X. c. 22.
Les Canards et les Canes.
Belon av. 160.
Anas fera torquata minor.
Anas domestica. Gesner av. 113, 96.
Aldr. av. III. 83, 85.
Raii syn. av. 145, 150.
Le Canard domestique, le Canard sauvage. Bristen av. VI. 308, 318.

Le Canard dömeftique, le Canard fauvage. Bristen av. VI. 308, 318.

Anita, Anitra falvatica, Cifone. Zinac. 103, 106.
Domeftica, Danis Tam-And. ibid. 88.
Wilde Ente. Frisch, II. 158. femina. 159.
Ratza. Scopoli, No. 77.

The mallard usually weighs two pounds and an half: the length is twenty-three inches; the breadth thirty-five: the bill is of a yellowish green: the head and neck are of a deep and shining green: more than half round the lower part of the neck is an incomplete circle of white: the upper part of the breast is of a purplish red; and the beginning of the back of the same color: the breast and belly of a pale grey, marked with transverse speckled lines of a dusky hue.

The scapulars white, elegantly barred with brown: the spot on the wing is of a rich purple: the tail consists of twenty-four feathers. What distinguishes the male of this species from all others are the four middle feathers, which are black and strongly
strongly curled upwards; but the females want this mark. Their plumage is of a pale reddish brown, spotted with black. The legs are of a saffron color.

The common tame species of ducks take their origin from these, and may be traced to it by unerring characters. The drakes, howsoever they vary in colors, always retain the curled feathers of the tail: and both sexes the form of the bill of the wild kind. Nature sports in the colors of all domestic animals; and for a wise and useful end; that mankind may the more readily distinguish and claim their respective property. Wild ducks pair in the spring, and breed in all marshy grounds, and lay from ten to sixteen eggs. They abound in Lincolnshire, the great magazine of wild fowl in this kingdom; where prodigious numbers are taken annually in the decoys.

**Decoys.**

A decoy is generally made where there is a large pond surrounded with wood, and beyond that a marshy and uncultivated country: if the piece of water is not thus surrounded, it will be attended with the noise and other accidents, which may be expected to fright the wild fowl from a quiet haunt, where they mean to sleep (during the daytime) in security.

If these noises or disturbances are wilful, it hath been held, that an action will lye against the disturber.

As soon as the evening sets in, the decoy *rises* (as
Class II. MALLARD.

(as they term it) and the wild fowl feed during the night. If the evening is still, the noise of their wings, during their flight, is heard at a very great distance, and is a pleasing, though rather melancholy sound. This rising of the decoy in the evening, is in Somersetshire called rodding.

The decoy ducks are fed with hempseed, which is flung over the screens in small quantities, to bring them forwards into the pipes, and to allure the wild fowl to follow, as this feed is so light as to float.

There are several pipes (as they are called) which lead up a narrow ditch, that closes at last with a funnel net. Over these pipes (which grow narrower from the first entrance) is a continued arch of netting, suspended on hoops. It is necessary to have a pipe or ditch for almost every wind that can blow, as upon this circumstance it depends which pipe the wild fowl will take to; and the decoy-man always keeps on the leeward side of the ducks, to prevent his effluvia reaching their fagacious nostrils. All along each pipe, at certain intervals, are placed screens made of reeds, which are so situated, that it is impossible the wild fowl should see the decoy-man, before they have passed on towards the end of the pipe, where the purse-net is placed. The inducement to the wild fowl to go up one of these pipes is, because the decoy-ducks, trained to this, lead the way, either after hearing the whistle of the decoy-man, or enticed by
MALLARD. CLASS II.

by the hempseed; the latter will dive under water, whilst the wild fowl fly on, and are taken in the purse.

It often happens, however, that the wild fowl are in such a state of sleepiness and dozing, that they will not follow the decoy-ducks. Use is then generally made of a dog, who is taught his lesson: he passes backwards and forwards between the reed screens (in which are little holes, both for the decoy-man to see, and for the little dog to pass through) this attracts the eye of the wild fowl, who not chusing to be interrupted, advance towards this small and contemptible animal, that they may drive him away. The dog, all this time, by direction of the decoy-man, plays among the screens of reeds, nearer and nearer to the purse-net; till at last, perhaps, the decoy-man appears behind a screen, and the wild fowl not daring to pass by him in return, nor being able to escape upwards on account of the net-covering, rush on into the purse-net. Sometimes the dog will not attract their attention, if a red handkerchief, or something very singular, is not put about him.

The general season for catching fowl in decoys, is from the latter end of October till February; the taking of them earlier is prohibited by an act 10. George II. c. 32. which forbids it from June 1, to October 1, under the penalty of five shillings for each bird destroyed within that space.

The Lincolnshire decoys are commonly set at a certain
certain annual rent, from five pounds to twenty pounds a year: and we have heard of one in Somersetshire that pays thirty. The former contribute principally to supply the markets of London. Amazing numbers of ducks, wigeons, and teal are taken: by an account sent us of the number caught, a few winters past, in one season, and in only ten decoys, in the neighborhood of Wainfleet, it appeared to amount to thirty-one thousand two hundred, in which is included several other species of ducks; it is also to be observed, that in the above particular, wigeon and teal are reckoned but as one, and consequentially fell but at half the price of the ducks. This quantity makes them so cheap on the spot, that we have been assured several decoy-men would be glad to contract for years to deliver their ducks at Boston for ten-pence the couple. The account of the numbers here mentioned, relates only to those that were sent to the Capital.

It was customary formerly to have in the fens an annual driving of the young ducks before they took wing. Numbers of people assembled, who beat a vast tract, and forced the birds into a net placed at the spot where the sport was to terminate. A hundred and fifty dozens have been taken at once: but this practice being supposed to be detrimental, has been abolished by act of parliament.
SHOVELER.  Class II.

280. SHOVELER.  Anas latirostra (ein Breitschnabel.) Gesner av. 120.
Aldr. av. III. 94.
Wil. orn. 370.
Rain syn. av. 143.
Phaianus marinus.  Charlot ex. 105.
Blue-winged Shoveler (fæm.)  Cat. Carol. I. 96.
Le Souchet.  Brisson av. VI.
329. Tab. 32 fig. 1.
342.

Anas clypeata.  Lin. sff. 205.
Faun. Suec. fβ. 119.
Danis Krop-And, Norvegis Stok-And.  Cimbris Loeffl-And.  Brunnich, 67. 68.
Schield-Ente, Loeffl-Ente.  Frisch, II. 161, 162. fæm. 163.
70.

Descrip.  This weighs twenty-two ounces: its length twenty-one inches. The bill is black, three inches long, spreads near the end to a great breadth, is furnished with a small hook, and the edges of each mandible are pectinated, or supplied with thin laminae, that lock into each other when the mouth is closed. The irides are of a bright yellow: the head and upper part of the neck of a blackish green: the lower part of the neck, the breast, and the scapulars are white: the back brown: the coverts of the wings of a fine sky blue; those next the quill feathers tipt with white: the greater quill feathers are dusky; the exterior webs of those in the middle, are of a glossy green. The tail consists of fourteen feathers; the outmost are white;

* i.e. Broad bill.
Class II. RED BREASTED SHOVELER.

those in the middle black, edged with white: the belly is of a bay color: the vent feathers black: the legs red. The female has the same marks in the wings as the male, but the colors are less bright: the rest of the plumage resembles that of the common wild duck.

We are indebted to Mr. Bolton for the description of this bird, who informed us that it was sometimes taken in the decoys in Lincolnshire.

It is the size of a common duck. The bill large, broad, ferrated at the sides, and entirely of a brownish yellow color: the head large: eyes small: irides yellow: the breast and throat of a reddish brown, the latter paler, but both quite free from any spots. The back is brown, growing paler towards the sides. The tips and pinions of the wings grey: the quil-feathers brown; the rest of a greyish brown: the speculum or spot purple, edged with white: in the female, the spot is blue, and all the other colors are fainter. The tail is short and white: the vent feathers of a bright brown, spotted with darker: the legs short and slender: the feet small, of a reddish brown color.
THE form of this species is slender, and the neck long: its weight twenty-four ounces: its length twenty-eight inches; its breadth one yard two inches. The bill is black in the middle, blue on the sides: the head is ferruginous, tinged behind the ears with purple; from beneath the ears commences a white line, which runs some way down the neck; this line is bounded by black: the hind part of the neck, the back, and sides are elegantly marked with white and dusky waved lines: the fore part of the neck, and belly are white.

The scapulars striped with black and white: the coverts of the wings ash colored; the lowest tipt with dull orange: the middle quil-feathers barred on their outmost webs with green, black and white: the exterior feathers of the tail are ash colored: the two middle black, and three inches longer than the others: the feet of a lead color. The female is of a light brown color, spotted with black. Mr. Hartlib, in the appendix to his Lega-
LONG TAILED DUCK.

WHITE THROATED DUCK.
Class II. LONG TAILED DUCK.

*Cy*, tells us that these birds are found in great abundance in Connaught in Ireland, in the month of February only; and that they are much esteemed for their delicacy.


THIS is inferior in size to the former. The bill is short, black at the tip and base, orange colored in the middle; the cheeks are of a pale brown: the hind part of the head, and the neck both before and behind are white; the sides of the upper part of the neck are marked with a large dusky bar, pointing downwards; the breast and back are of a deep chocolate color; the scapulars are white, long, narrow, and sharp pointed. The coverts of the wings, and greater quil feathers dusky; the lesser of a reddish brown: the belly white: the four middle feathers of the tail are black; and two of them near four inches longer than the others, which are white: the legs dusky. These birds breed in the most northern parts of the world, and only visit our coasts in the severest winters.
284. Pochard. La Cane à teste rousse. Belon
av. 173.
Anas fera fusca, vel media (ein wilte grauwe ente,
Rotent.) Gesner av. 116.
Aldr. av. III. 93.
Poker, Pochard, or red headed Wigeon. Wil. orn. 367.
Raii syn. av. 143.

Anas ferina. Lin. sysf. 203.
Faun. Suec. sp. 127.
Penelope, le Millouin. Briffon
av. VI. 384. tab. 35. fig. 1.
Dons Brun-Nakke. Norve-
gis Rod-Nakke. Brunnich,
80.
Br. Zool. 156.

Descrip.

I T S weight is about one pound twelve ounces: its length nineteen inches; its breadth two feet and a half. The bill is of a deep lead color: the head and neck are of a bright bay color: the breast and part of the back where it joins the neck, are black: the coverts of the wings, the scapulars, back and sides under the wings are of a pale grey, elegantly marked with narrow lines of black: the quil feathers dusky: the belly ash colored and brown: the tail consists of twelve short feathers, of a deep grey color: the legs lead colored: the irides of a bright yellow, tinged with red.

Female.
The head of the female is of a pale reddish brown: the breast is rather of a deeper color: the coverts of the wings a plain ash color: the back marked like that of the male: the belly ash colored. These birds frequent fresh water as well as the sea; and being very delicate eating, are much sought for in the London markets, where they are known by the name of Dun birds.

Anas

The description of this species was sent to us by Mr. Bolton. The weight was twenty ounces: the bill is long and flatted, rounded a little at the base, ferrated along the edges of each mandible, and furnished with a nail at the end of the upper. The color a pale blue. The head, neck, and whole upper part of the bird is of an agreeable reddish brown: the throat, breast and belly of the same color, but paler: the legs of a pale blue; but the webs of the feet black.

This species, he informed us, was killed in Lincolnshire. We do not find it mentioned by any writer, except Linnaeus, who took his description from Rudbeck’s paintings; and adds, that it is found, though rarely, in the Swedish rivers.


The wigeon weighs near twenty-three ounces: the length is twenty inches; the breadth

\[ R \neq 4 \]

two
two feet three. The bill is lead colored; the end of it black; the head, and upper part of the neck is of a bright light bay; the forehead paler, in some almost white: the plumage of the back, and sides under the wings are elegantly marked with narrow, black and white undulated lines: the breast is of a purplish hue, which sometimes though rarely is marked with round black spots: the belly white: the vent feathers black. In some birds the coverts of the wings are almost wholly white; in others of a pale brown, edged with white: the greater quill feathers are dusky: the outmost webs of the middle feathers of a fine green, the tips black; the last are elegantly striped with black and white. The two middle feathers of the tail are longer than the others, black and sharp pointed; the rest ash colored: the legs dusky. The head of the female is of a rusty brown, spotted with black; the back is of a deep brown, edged with a paler: the tips of the lesser quill feathers white: the belly white.

**Female.**

**BIMACULATED.**

The length is twenty inches; extent twenty-five and a half. Bill a deep lead color: nail black.

Crown, brown changeable with green, ending in a streak of brown at the hind part of the head, with a small crest. Between the bill and the eye, and
Scaup Duck.

Bimaculated Duck.
and behind each ear, a ferruginous spot. The first round: the last oblong and large. Throat of a fine deep purple. The rest of the head of a bright green, continued in streaks down the neck. Breast a light ferruginous brown, spotted with black: hind part of the neck, and back, dark brown waved with black.

Coverts of the wings ash colored: lower coverts streaked with rust color: scapulars cinereous: quil feathers brownish cinereous. Secondaries of a fine green, ending in a shade of black, and edged with white.

Coverts of the tail a deep changeable green. Twelve feathers in the tail: two middlemost black; the others brown edged with white. Belly dusky, finely granulated. Legs small, and yellow. Webs dusky.

Taken in a decoy near in 1771. Communicated to me by Poore, Esq.

*Anas strepera* (ein Leiner).

*Gesner av. 121.*

*Aldr. av. III. 97.*

*Gadwall,* or Gray. *Wil. orn. 374.*

*Raii syn. av. 145.*

*Le Chipeau. Brisson av. VI. 339. tab. 33. fig. 1.*
and flat; the head, and upper part of the neck, are of a reddish brown, spotted with black; the lower part, the breast, the upper part of the back, and the scapulars, are beautifully marked with black and white lines; the belly is of a dirty white; the rump above and below is black; the tail ash colored, edged with white; the coverts on the ridge of the wing are of a pale reddish brown; those beneath are of purplish red, the lowest of a deep black: the greater quil-feathers are dusky: the inner web of three of the lesser quil-feathers are white; which forms a conspicuous spot; the legs are orange colored. The breast of the female is of a reddish brown, spotted with black: the back of the same color; and though it has the same marks on the wings, they are far inferior in brightness to those of the male.

289. Garga-ney.  
La Sarcelle. Belon av. 175.  
Querquedula varia. Gesner  
Av. 107.  
Scavolo, Certevolo, Garganello. Aldr. av. III. 89, 90.  
Wil. orn. 377.  
Querquedula prima. Aldr.  
Raif. syn. av. 148*.  
La Sarcelle. Brisson av. VI.  
427. tab. 39.  
Krickantl. Kram. 343.  
Anas Querquedula. Lin. syst.  
203.  
Faun. Suec. sp. 128.  
Kriech-Ente. Friesch, II. 176.  
Norwegis Krek-And. Quibusd.  
Saur-And. Brunnich, 81.  
Br. Zool. 158. Scopoli, No. 75.

Descrip.  
The length of this species is seventeen inches; the extent twenty-eight. The bill is of

* Mr. Ray, in his syn. av. 147. describes a duck under the name of Phaean; in Yorkshire it is called the widgeon: he says,
GARGANEY.

FEMALE GARGANEY.
of a deep lead color; the crown of the head is dusky, marked with oblong streaks; on the chin is a large black spot; from the corner of each eye is a long white line, that points to the back of the neck: the cheeks, the upper part of the neck, are of a pale purple, marked with minute oblong lines of white, pointing downwards; the breast is of a light brown, marked with semicircular bars of black: the belly is white; the lower part and vent varied with specks, the bars of a dusky hue; the coverts of the wings are grey; but the lowest are tipt with white; the first quil-feathers are ash colored; the exterior webs of those in the middle green; the scapulars are long and narrow, and elegantly striped with white, ash color, and black; the tail dusky: the legs lead color.

The female has an obscure white mark over the eye; the rest of the plumage is of a brownish ash color, not unlike the hen teal, but the wing wants the green spot, which sufficiently distinguishes these birds.

In many places these birds are called the Summer Teal.

...fays, the head and neck are brown, spotted with triangular black marks: the body, wings, and tail dusky, edged with a paler color: in the wings is a double line of white; belly white: bill and legs blue. We suspect it to be a young bird of this species, but wait for further information before we can determine it,

**Descrip.**

THE Teal weighs about twelve ounces; the length is fourteen inches; the breadth twenty-three; the weight of a drake twelve ounces; of a duck nine; the bill black; the head, and upper part of the neck are of a deep bay; from the bill to the hind part of the head is a broad bar of glossy changeable green, bounded on the lower side by a narrow white line: the lower part of the neck, the beginning of the back, and the sides under the wings, are elegantly marked with waved lines of black and white.

The breast and belly are of a dirty white; the first beautifully spotted with black: the vent black; the tail sharp pointed, and dusky: the coverts of the wings brown; the greater quil-feathers dusky; the exterior webs of the lesser marked with a glossy green spot; above that another of black, and the tips white: the irides whitish; the legs dusky. The female is of a brownish ash color, spotted with
Class II. Teal.

with black; and has a green spot on the wing like the male.

By the description Mr. Willughby has left of the Summer Teal, p. 378. we suspect that it differs not in the species from the common kind, only in sex. Linnaeus hath placed it among the birds of his country*; but leaves a blank in the place of its residence; and hath evidently copied Mr. Willughby’s imperfect description of it: and to confirm our suspicion that he has followed the error of our countryman; we observed that a bird sent us from the Baltic sea, under the title of anas circia, the Summer Teal of Linnaeus, was no other than the female of our teal.

* Fauna Suecica, p. 130.
BILL strong, strait; end either hooked or sloping.
NOSTRILS, either totally wanting, or small, and placed in a longitudinal furrow.
FACE naked.
GULLET naked, capable of great distension.
TOES, all four webbed.

I HAVE weighed a bird of this species that exceeded seven pounds: the length three feet four: the extent four feet two: the bill dusky, five inches long, destitute of nostrils; the base of the lower mandible is covered with a naked yellowish skin, that extends under the chin, and forms a sort of pouch: a loose skin of the same color

* The learned Dr. Kay, or Caius, derives the word Corvorant, from Corvus vorans, from whence corruptly our word Cormorant. Caii opusc. 99.

reaches
reaches from the upper mandible round the eyes, and angles of the mouth: the head and neck are of a footy blackness; but under the chin of the male the feathers are white: and the head in that sex is adorned with a short loose pendent crest; in some the crest and hind part of the head are streaked with white. The coverts of the wings, the scapulars, and the back, are of a deep green, edged with black, and glossed with blue: the quill-feathers and tail dusky: the last consists of fourteen feathers: the breast and belly black: in the midst of the last is often a bed of white: on the thighs of the male is a tuft of white feathers: the legs are short, strong, and black; the middle claw serrated on the inside: the irides are of a light ash color.

These birds occupy the highest parts of the cliffs that impend over the sea: they make their nests of sticks, sea tang, grass, &c. and lay six or seven white eggs of an oblong form. In winter they disperse along the shores, and visit the fresh waters, where they make great havoc among the fish. They are remarkably voracious, having a most sudden digestion, promoted by the infinite quantity of small worms that fill their intestines. The corvorant has the rankest and most disagreeable smell of any bird, even when alive. Its form is disagreeable; its voice hoarse and croaking, and its qualities base. No wonder then that Milton should make Satan personate this bird, to survey

undelighted
undelighted the beauties of Paradise: and fit devising death on the tree of life.*

These birds have been trained to fish like falcons to fowl. Whitelock tells us, that he had a cast of them manned like hawks, and which would come to hand. He took much pleasure in them, and relates, that the best he had was one presented him by Mr. Wood, Master of the Corvorants to Charles I. It is well known that the Chinese make great use of these birds, or a congenerous sort, in fishing; and that not for amusement, but profit†.

**THE Shag is much inferior in size to the corvorant: the length is twenty-seven inches; the breadth three feet six; the weight three pounds three quarters. The bill is four inches long, and more slender than that of the preceding: the head is adorned with a crest two inches long, pointing**

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* Paradise Lost, Book IV. 1. 194, &c.
† Dubalde I. 316.
backward: the whole plumage of the upper part of this bird is of a fine and very shining green, the edges of the feathers a purplish black; but the lower part of the back, the head, and neck, wholly green: the belly is dusky: the tail consists of only twelve feathers, of a dusky hue, tinged with green; the legs are black, and like those of the corvornant. During my voyage among the Hebrides, I saw several birds of this species shot: they agreed in all respects, but in being destitute of a crest; whether they were females, a variety, or distinct species, must be left to future naturalists to determine.

Both these kinds agree in their manners, and breed in the same places: and, what is very strange in webbed footed birds, will perch and build in trees: both swim with their head quite erect, and are very difficult to be shot; for, like the Grebes and Divers, as soon as they see the flash of the gun, pop under water, and never rise but at a considerable distance.

We are indebted for this bird to the late Mr. William Morris of Holyhead, with whom we had a constant correspondence for several years, receiving from that worthy man and intelligent naturalist, regular and faithful accounts of the various animals frequenting that vast promontory.
239. **Gannet.**

Anser Baffanus five Scoticus. Gefner av. 163.
Aldr. av. 68.
Sula. Hoier Clus. ex. 367.
Héctor Boeth. 6.
Soland Goose. Wil. orn. 328.
Raii syn. av. 122.
Itin. 101. 269. 279.
Sibb. hist. Scot. 20. tab. 9.
Sibb. hist. Fife. 45. 47.
Jaen van Gent. Martin's Spitzberg. 97.

**Solan Goose.** Martin's voy. St. Kilda. 27.
Descript. West. Isles. 281.
Macaulay's hist. St. Kilda. 133.
Sula Baffana, le Fou de Baf- fan. Briffon av. VI. 503.
tab. 44.

**Descrip.**

This species weighs seven pounds: the length is three feet one inch; the breadth six feet two inches. The bill is six inches long, straight almost to the point, where it inclines down; and the sides are irregularly jagged, that it may hold its prey with more security: about an inch from the base of the upper mandible is a sharp process pointing forward; it has no nostrils; but in their place a long furrow, that reaches almost to the end of the bill: the whole is of a dirty white, tinged with ash color. The tongue is very small, and placed low in the mouth: a naked skin of a fine blue surrounds the eyes, which are of a pale yellow, and are full of vivacity: this bird is remarkable for the quickness of its flight: Martin tells us that Solan is derived from an Irish word expressive of that quality.

From
From the corner of the mouth is a narrow flip of black bare skin, that extends to the hind part of the head: beneath the chin is another, that like the pouch of the *Pelecan*, is dilatable, and of size sufficient to contain five or six entire herrings; which, in the breeding season, it carries at once to its mate or young.

The neck is very long: the body flat, and very full of feathers: the crown of the head, and a small space on the hind part of the neck is buff colored: the rest of the plumage is white: the bastard wing and greater quil-feather excepted, which are black; the legs and toes are black; but the fore part of both are marked with a stripe of fine pea green. The tail consists of twelve sharp pointed feathers, the middle of which is the longest.

The young birds, during the first year, differ greatly in color from the old ones; being of a dusky hue, speckled with numerous triangular white spots; and at that time resemble in colors the *speckled Diver*. Each bird, if left undisturbed, would only lay one egg in the year; but if that be taken away, they will lay another; if that is also taken, then a third; but never more that season. A wise provision of nature, to prevent the extinction of the species by accidents, and to supply food for the inhabitants of the places where they breed; their egg is white, and rather less than that of the common goose: the nest is large, and formed of any thing the bird finds floating on the
G A N N E T.  C L A S S  II.

water, such as grass, sea plants, shavings, &c. These birds frequent the Isle of Ailsa, in the Firth of Clyde; the rocks adjacent to St. Kilda, the Stack of Souликery, near the Orkneys; the Skelig Isles, off the coasts of Kerry, Ireland*, and the Bass Isle, in the Firth of Edinburgh: the multitudes that inhabit these places are prodigious. Dr. Harvey's elegant account of the latter, will serve to give some idea of the numbers of these, and of the other birds that annually migrate to that little spot.

"There is a small island, called by the Scotch, "Bass Island, not more than a mile in circumference; the surface is almost wholly covered during the months of May and June with nests, eggs, "and young birds; so that it is scarcely possible to "walk without treading on them: and the flocks of "birds in flight are so prodigious, as to darken the "air like clouds; and their noise is such, that you can-
"not, without difficulty, hear your next neighbour's "voice. If you look down upon the sea, from the "top of the precipice, you will see it on every side "covered with infinite numbers of birds of different "kinds, swimming and hunting for their prey: if in "sailing round the island you survey the hanging cliffs, "you may see in every cragg or fissure of the broken

* This information we owe to that worthy prelate, the late Dr. Percock, Bishop of Meath; who had visited the Skeligs. Mr. Smith, in his histories of Cork and Kerry, confounds this bird with the Gull described by Mr. Willughby; from whom he has evidently borrowed the whole description.
rocks, innumerable birds of various sorts and sizes, more than the stars of heaven when viewed in a "serene night: if from afar you see the distant "flocks, either flying to or from the island, you would "imagine them to be a vast swarm of bees*.

Nor do the rocks of St. Kilda seem to be less frequently visited by these birds; for Martin assures us, that the inhabitants of that small island consume annually no less than 22,600 young birds of this species, besides an amazing quantity of their eggs; these being their principal support throughout the year; they preserve both eggs and fowls in small pyramidal stone buildings, covering them with turf ashes, to preserve them from moisture. This is a dear bought food, earned at the hazard of their lives, either by climbing the most difficult and

narrow paths, where (to appearance) they can barely cling, and that too, at an amazing height over the raging sea: or else being lowered down from above, they collect their annual provision, thus hanging in midway air; placing their whole dependence on the uncertain footing of one person who holds the rope, by which they are suspended at the top of the precipice. The young birds are a favorite dish with the North Britons in general: during the season they are constantly brought from the Bass Isle to Edinburgh, sold at 20d. a piece, are roasted, and served up a little before dinner as a whet.

The Gannets are birds of passage. Their first appearance in those islands is in March; their continuance there till August or September, according as the inhabitants take or leave their first egg; but in general, the time of breeding, and that of their departure, seems to coincide with the arrival of the herring, and the migration of that fish (which is their principal food) out of those seas. It is probable that these birds attend the herring and pilchard during their whole circuit round the British islands; the appearance of the former being always esteemed by the fishermen as a sure presage of the approach of the latter. It migrates in quest of food as far south as the mouth of the Tagus, being frequently seen off Lisbon during the month of December, plunging for Sardine, fish resembling, if not the same with our Pilchard.

I have
I have in the month of August observed in Cathness their northern migrations: I have seen them passing the whole day in flocks, from five to fifteen in each: in calm weather they fly high; in storms they fly low and near the shore; but never cross over the land, even when a bay with promontories intervenes, but follow, at an equal distance, the course of the bay, and regularly double every cape. I have seen many of the parties make a sort of halt for the sake of fishing: they soared to a vast height, then darting headlong into the sea, made the water foam and spring up with the violence of their descent; after which they pursued their route. I enquired whether they ever were observed to return southward in the spring, but was answered in the negative; so it appears that they annually encircle the whole island.

They are well known on most of our coasts but not by the name of the Soland-Goose. In Cornwall and in Ireland they are called Gannets; by the Welsh Gan. The excellent Mr. Ray supposed the Cornish Gannet to be a species of large Gull; a very excusable mistake, for during his six months residence in Cornwall, he never had an opportunity of seeing that bird, except flying; and in the air it has the appearance of a gull. On that supposition he gave our Skua, p. 417. the title of Cataraëta, a name borrowed from Aristote*, and which admirably expresses the rapid descent of this bird on

* Page 1045; 
S f 4
its prey. Mr. Moyle first detected this mistake*; and the Rev. Doctor William Borlase, by presenting us with a fine specimen of this bird, confirms the opinion of Mr. Moyle; at the same time he favored us with so accurate an account of some part of the natural history of this bird, that we shall use the liberty he indulged us with, of adding it to this description.

"The Gannet comes on the coasts of Cornwall in the latter end of summer, or beginning of autumn; hovering over the shoals of pilchards that come down to us through St. George's Channel from the northern seas. The Gannet seldom comes near the land, but is constant to its prey, a sure sign to the fishermen that the pilchards are on the coasts; and when the pilchards retire, generally about the end of November, the Gannets are seen no more. The bird now sent was killed at Chandour, near Mountsbay, Sept. 30, 1762, after a long struggle with a water spaniel, assisted by the boatmen; for it was strong and pugnacious. The person who took it observed that it had a transparent membrane under the eye-lid, with which it covered at pleasure the whole eye, without obscuring the sight or shutting the eye-lid; a gracious provision for the security of the eyes of so weighty a creature, whose method of taking its prey is by darting headlong on it..."

* Moyle's Works, I. 424.
from a height of a hundred and fifty feet or more into the water. About four years ago, one of these birds flying over Penzance, (a thing that rarely happens) and seeing some pilchards lying on a fir-plank, in a cellar used for curing fish, darted itself down with such violence, that it struck its bill quite through the board (about an inch and a quarter thick) and broke its neck.”

These birds are sometimes taken at sea by a deception of the like kind. The fishermen fasten a pilchard to a board, and leave it floating; which inviting bait decoys the unwary Gannet to its own destruction.

In the Cataracta of Juba* may be found many characters of this bird: he says, that the bill is toothed: that its eyes are fiery; and that its color is white: and in the very name is expressed its furious descent on its prey. The rest of his accounts favors of fable.

We are uncertain whether the Gannet breeds in any other parts of Europe besides our own islands; except (as Mr. Ray suspects, the Sula, described in Clusius's Exotics, which breeds in the Ferroe Isles) be the same bird. In America there are two species of birds of this genus, that bear a great resemblance to it in their general form and their manner of preying. Mr. Catesby has given the figure of the head of one, which he calls the Greater

* Plinii, lib. x. c. 44.
Booby; his description suits that of the young Gannet; but the angle on the lower mandible made us formerly suspect that it was not the same bird; but from some late informations we have been favored with, we find it is common to both countries, and during summer frequents North America. Like the Penguin, it informs navigators of the approach of soundings, who on sight of it drop the plummet. Linnaeus classés our bird with the Pelecan; in the tenth edition of his system, he confounds it with the bird described by Sir Hans Sloane, hist. Jam. vol. I. p. 31. preface, whose colors differ from the Gannet in each stage of life: but in his last edition he very properly separates them. We continue it in the same class, under the generical name of Corvorants, as more familiar to the English ear than that of Pelecan.
ROUGH LEG'D FALCON.
APPENDIX.

Birds now extinct in Great Britain, or such as wander here accidentally.

LAND BIRDS.

I. ROUGH LEG'D FALCON.

This species is a native of Denmark, but was shot in and is preserved in the Leverian Museum.

Its length is two feet two inches: that of the wing, when closed, eighteen inches: the bill dusky; the cere yellow: the head, neck, and breast of a yellowish white, marked in some parts with oblong brown strokes: the belly of a deep brown: thighs and legs of a pale yellow, marked with brown: the scapulars blotched with brown and yellowish white: coverts of the wings brown, edged with rust: ends of the primaries deep brown; the lower parts white: the extreme half of the tail brown, tipt with dirty white: that next to the body white. Legs covered with feathers as low as the feet: the feet yellow.

II. ROLLER.
Of these birds we have heard of only two being seen at large in our island; one was shot near Helston-bridge, Cornwall, and an account of it transmitted to us by the Reverend Doctor William Borlase. They are frequent in most parts of Europe, and we have received them from Denmark.

In size it is equal to a jay. The bill is black, strait, and hooked at the point; the base beset with bristles: the space about the eyes is bare and naked: behind each ear is also another bare spot, or protuberance: the head, neck, breast, and belly are of a light bluish green: the back, and feathers of the wings next to it, are of a reddish brown: the coverts on the ridge of the wings are of a rich blue; beneath them of a pale green: the upper part and tips of the quil-feathers are dusky; the lower parts of a fine deep blue; the rump is of the same color: the tail consists of twelve feathers, of which the outmost on each side are considerably longer
longer than the rest; are of a light blue, and tipt with black, beneath that a spot of deep blue; as is the case with such part of the quil-feathers that are black above: the other feathers of the tail are of a dull green: the legs short, and of a dirty yellow.

It is remarkable for making a chattering noise, from which it is by some called *Garrulus*.

**III. NUTCRACKER.**

*Notwecka, Notkraka. Fawr.*

*Raii syn. av.* 42.  
*Suec. sp.* 19.

*Nucifraga, le Castle-noix.*  
*Tannen-Heker (Pine-Jay)*

*Brisson av.* II. 59. *tab.* 5.  
*Frieb, 1. 56.*

*Corvus Caryocatactes.* *Lin.*  

The specimen we toke our description from, is the only one we ever heard was shot in these kingdoms; is was killed near *Moslyn, Flintshire, October 5, 1753.*

It was somewhat less than the jackdaw: the bill strait, strong, and black: the color of the whole head and neck, breast and body, was a rufy brown: the crown of the head and the rump were plain: the other parts marked with triangular white spots: the wings black: the coverts spotted in
APPENDIX.

in the same manner as the body: the tail rounded at the end, black tipt with white: the vent-feathers white: the legs dusky.

This bird is also found in most parts of Europe. We received a specimen from Denmark, by means of Mr. Brunnich, author of the Ornithologia Borealis, a gentleman to whose friendship we owe a numerous collection of the curiosities of his country.

It feeds on nuts, from whence the name.

IV. The ORIOLE.


History. THIS beautiful bird is common in several parts of Europe; where it inhabits the woods, and hangs its nest very artificially between the slender branches on the summits of antient oaks. Its note is loud, and resembles its name. I have heard of only one being shot in Great Britain, and that in South Wales.

Descrip. It is of the size of a thrush: the head and whole body of the male is of a rich yellow: the bill red; from
THE ORIOLE M.& F.
The ROSE COLORED OUZEL.
from that to the eye a black line: the wings black, marked with a bar of yellow: the ends of the feathers of the same color: the two middle feathers of the tail black; the rest black, with the ends of a fine yellow: the legs dusky.

The body of the female is of a dull green: the wings dusky: the tail of a dirty green: the ends of the exterior feathers whitish.

V. The ROSE COLORED OUSEL.

Merula rosea. Rall, syn. av. Brisson av. II. 250.
Wil. orn. 194. Faun. Suec. sp. 219.
Le Merle Couleur de Rose. Edw. 20.

Mr. Edwards discovered this beautiful bird twice in our island, near London, at Norwood, and another time in Norfolk. The figure of this and the preceding, were copied, by permission, from his beautiful and accurate designs, which we gratefully acknowledge, as well as every other assistance from our worthy friend; whose pencil has done as much honor to our country, as the integrity of his heart, and communicative disposition, has procured him esteem from a numerous and respectable acquaintance.

The size of this bird appears by the print to be equal
equal to that of a stare. The bill at the point is black, at the base a dirty flesh color: the head is adorned with a crest hanging backwards. The head, crest, neck, wings, and tail are black, glossed with a changeable blue, purple and green: the breast, belly, back, and lesser coverts of the wings, are of a rose color, mixed with a few spots of black: the legs of a dirty orange color.

This bird is found in Lapland, Italy, and Syria. About Aleppo it is called the locust bird, possibly from its food; and appears there only in summer*. In Italy it is styled the sea-stare; and as Aldrovandus says, frequents heaps of dung †. And Mr. Ekmarck ‡ informs us, that it resides in Lapland, never passing beyond the limits of that frozen region. We have mentioned very opposite climates, but believe it to be a scarce bird in all, at least in Europe.

* Russel's hist. Alep. 70. Taurnier, 146.
† Aldr. av. II. 283.
‡ Migr. av. Aman. acad. IV. 594.
The CRANE.
WATER FOWL.

VI. The CRANE.

Le Grue. Belon av. 187.
Grus. Gesner av. 528.
A Crane. Turner.
Gru, Grua. Aldr. av. III. 132.
Wil. orn. 274.
Raill. syn. av. 95.
La Grue. Brisson av. V. 374.

This species was placed, in the folio edition of the Zoology, among the British birds, on the authority of Mr. Ray; who informs us, that in his time, they were found during the winter in large flocks in Lincolnshire and Cambridgeshire; but on the strictest enquiry we learn, that at present the inhabitants of those counties are scarcely acquainted with them; we therefore conclude, that these birds have forsaken our island. A single bird was killed near Cambridge about three years ago, and is the only instance I ever knew of the crane being seen in this island in our time. They were formerly in high esteem at our tables, for the delicacy of their flesh; for they feed only on grain, herbs, or insects; so have nothing of the rankness of the piscivorous birds of this genus.
APPENDIX.

Descrip. Its weight is about ten pounds; the length six feet; the bill of a darkish green, four inches long; and a little depressed on the top of the upper mandible: the top of the head covered with black bristles; the back of the head bald and red, beneath which is an ash colored spot: from the eyes, of each side, is a broad white line the whole length of the neck: the fore part as far as the breast is black: the quil-feathers are black: the tail ash colored, tipt with black: all the rest of the plumage is ash colored. The legs are black.

No author, except Gesner, takes notice of a large tuft of feathers that spring out of one pinion on each wing: they are unwebbed, and finely curled at the ends, which the birds have power to erect or depress; when depressed they hang over and cover the tail. Gesner tells us, that these feathers used in his time to be set in gold, and worn as ornaments in caps. Though this species seems to have forsaken these islands at present, yet it was formerly a native, as we find in Willughby, p. 52. that there was a penalty of twenty-pence for destroying an egg of this bird; and Turner relates, that he has very often seen their young in our marshes. Marsigli* says, that the crane lays two eggs like those of a goose, but of a bluish color.

The EGRET.
APPENDIX.

VII. The EGRET.

Lesser White Heron. *Wil. orn. 280.*

Dwarf Heron. Barbot, 29.

L'Aigrette. Brissou av. V.


Ardea Alba minor. *Rall. fyn. av. 99.*


We once received out of Anglesea, the feathers of a bird shot there, which we suspect to be the Egret; this is the only instance perhaps of its being found in our country. That formerly this bird was very frequent here, appears by some of the old bills of fare: in the famous feast of Archbishop Nevill, we find no less than a thousand Asterides*, Egrets or Egrittes, as it is differently spelt. Perhaps the esteem they were in as a delicacy during those days, occasioned their extirpation in our islands; abroad they are still common, especially in the southern parts of Europe, where they appear in flocks.

The Egret is a most elegant bird; it weighs about one pound; the length is twenty-four inches, to the end of the legs thirty-two: the bill is slender and black: the space about the eyes naked and

* *Godewin de Praful. Angl. com. Leland's Collect.*

** green:
green: the irides of a pale yellow: the head adorned with a beautiful crest, composed of some short, and of two long feathers, hanging backward; these are upwards of four inches in length: the whole plumage is of a resplendent whiteness: the feathers on the breast, and the scapulars, are very delicate, long, slender, and unwebbed, hanging in the lightest and looest manner: the legs are of a dark green almost black: the scapulars and the crest were formerly much esteemed as ornaments for caps and head-pieces; so that aigrette and egret came to signify any ornament to a cap, though originally the word was derived from aigre, a cause de l'aigreur de sa voix*.

We never met with this bird or the crane in England, but formed our descriptions from specimens in the elegant cabinet of Doctor Mauduit in Paris.

* Belon av. 195.
The Little Bittern.
APPENDIX.

VIII. The LITTLE BITTERN.

fig. 1.
Boonk or long Neck. Shaw’s Travels, 255.
(Stauden Ragerl, Kleine Kleiner Rohrdommel. Frieb, II. 206. 207.
Edw. av. 275.

THIS species was shot as it perched on one of the trees in the Quarry or public walks in Shrewsbury, on the banks of the Severn; it is frequent in many other parts of Europe, but the only one we ever heard of in England.

The length to the tip of the tail was fifteen inches, to the end of the toe twenty. The bill to the corners of the mouth two inches and a half long, dusky at the point; the sides yellow; the edge jagged; the bulk of the body not larger than that of a fieldfare.

The top of the head, the back, and tail were black, glossed with an obscure green: the neck is very long, the forepart of which, the breast and thighs, were of a buff color: the belly and vent-feathers white; the hind-part of the neck bare of feathers, but covered with those growing on the side.

Descr.

T t 4.
of it: on the setting on of the wing is a large chestnut spot: the lesser coverts of a yellowish buff; the larger coverts whitish: the web of that next the back half buff and half black: the quil-feathers black: the legs and toes dusky; and what is singular in a bird of this genus, the feathers grow down to the knees: the inside of the middle claw is ferrated.

For this description, and the drawing, we are indebted to Mr. Plymley.

IX. The SPOON-BILL.

Pelecanus feu Platea. Gesner
av. 666.
Platalea Leucorodia. Lin. 231.
160.

A FLOCK of these birds migrated into the marshes near Yarmouth, in Norfolk, in April, 1774. These birds inhabit the continent of Europe. In Mr. Ray’s time, they bred annually in a wood at Sevenhuys, not remote from Leyden: but the wood is now destroyed; and these birds, with several others that formerly frequented the country, are at present become very rare.

Mr.
SPOONBILL.
APPENDIX.

Mr. Joseph Sparshall of Yarmouth favored me with the following very accurate description:

The length from the end of the beak to the extremity of the middle toe forty inches: breadth of the wings, extended, fifty-two inches: bill, length of the upper mandible seven inches; of the lower six three-fourths ditto: breadth of the spoon, near the point, two inches: ditto of the nether mandible one inch seven-eighths: breadth of both, in the narrowest part, near the middle, three-fourths of an inch: a bright orange colored spot, about the breadth of a sixpence, just above the point of the upper mandible, which is a little hooked, or bent downward at its extremity. At the angles of the bill, on each cheek, a spot of a bright orange color: the skin between the sides of the lower mandible, and extending about three inches downward on the throat or neck, covered with very fine down, almost imperceptible, which, with the skin on that part, are of a very bright orange color: irides of the eyes a bright flame color, very lively and vivid: the whole bill (except the above spot) of a fine shining black: its upper surface elegantly waved with dotted protuberances: a depressed line extending from the nostrils (which are three-eights of an inch long, and situate half an inch below the upper part of the bill) is continued round it about one eighth of an inch from its edge: its substance has something of the appearance of whale bone, thin, light, and elastic. Inside of
APPENDIX.

of the mouth a dark ash color, almost black: the tongue (remarkably singular) being very short, heart shaped, and when drawn back, serving as a valve to close the entrance of the throat, which it seems to do effectually; when pulled forward has the appearance of a triangular button: the ears, or auditory apertures large, and placed an inch behind the angles of the mouth. Plumage of the whole body, wings, and tail white: on the back-part of the head a beautiful crest of white feathers, hanging pendent behind the neck; their length about five inches; which, in the living subject, gives it a very beautiful appearance.

Weight of the fowl, three days after killed, was three pounds and a half.

The legs black, their length six inches, and thighs the same; the latter naked about half their length; toes connected by a small web, extending to the first joint on each.
APPENDIX.

No. I.

ADDITIONS TO THE HISTORY OF THE HORSE.

The representative of this species is a native of Yemine, in Arabia Felix; the property of Lord Grosvenour, taken from a picture in possession of his Lordship, painted by Mr. Stubbs, an artist not less happy in representing animals in their stillest moments, than when agitated by their furious passions; his matchless paintings of horses will be lasting monuments of the one, and that of the lion and panther of the other.

This horse, by its long residence among us, may be said to be naturalized, therefore we hope to be excused for introducing it here, notwithstanding its foreign descent. From its great beauty it may be presumed that it derives its lineage from Monaki Shaduki, of the pure race of horses, purer than milk*.

* Vide the Arabian certificate, in a following note, for the meaning of this phrase.
Arabia produces these noble animals in the highest perfection; first, because they take their origin from the wild unmixed breeds that formerly were found in the deserts*, which had as little degenerated from their primæval form and powers as the lion, tiger, or any other creature which still remains in a state of nature unchanged by the discipline of man, or harvested provision.

The Arabs place their chief delight in this animal; it is to them† as dear as their family, and is indeed part of it: men, women, children, mares, and foals all lie in one common tent, and they lodge promiscuously without fear of injury.

This

* Leo Africanus, who wrote in the time of Leo X. says, that in his days great numbers of wild horses were found in the Numidian and Arabian Deserts, which were broke for use. He adds, that the trial of their swiftness was made against the Lant, or the Ostrich; and if they could overtake either of those animals, were valued at a hundred camels. Hist. Africa, 339.

† As a proof of this, receive the following lamentation of an Arab, obliged, thro' poverty, to part with his mare: My eyes, says he, to the animal, my soul, must I be so unfortunate as to have sold thee to so many masters, and not to keep thee myself? I am poor, my Antelope. You know well enough, my honey, I have brought thee up as my child; I never beat nor chid thee; I made as much of thee as ever I could for my life. God preserve thee my dearest; thou art pretty; thou art lovely; God defend thee from the looks of the envious. To understand the first part of this speech, it must be observed, that it is usual for many
APPENDIX.

This constant intercourse produces a familiarity that could not otherwise be effected; and creates a tractability in the horses that could arise only from a regular good usage; little acts of kindness, and a soothing language, which they are accustomed to from their masters: they are quite unacquainted with the spur; the left touch with the stirrup sets these airy courfers in motion; they set off with a fleetness that surpasses that of the Ostrich*, yet they are so well trained as to stop in their most rapid speed by the slightest check of the rider: there are sometimes instances of their being mounted without either bridle or saddle, when they shew such compliance to their rider's will, as to be directed in their course by the mere motion of a switch †.

Paret in obsequium lenta moderamie virge,
Verbera sunt præcepta fugae, sunt verbera frana ‡.

Several things concur to maintain this perfection in the horses of Arabia, such as the great care the Arabs take in preserving the breed genuine, by permitting none but stallions of the first form to have

many Arabs, of the poorer rank, to join in the purchase of a horse, the original owner generally retaining one share. This, as well as most of the other particulars relating to the Arabian horse, are taken from M. D'Arvieux's curious account of Arabia, p. 167, London, 1732.

* For an account of its speed, vide Adanson's voy. 85.
† Tavernier's Travels, I. 63.
‡ Nemefion Cyng. 267.
access to the mares: this is never done but in the presence of a witness, the secretary of the Emir, or some public officer; he asserts the fact, records the name of the horse, mare, and whole pedigree of each, and these attestations* are carefully preserved, for on these depend the future price of the foal.

* The reader is here presented with an original attestation, some of which M. D'Arzieux says have been preserved for above 500 years in the public records.

Taken before ABDORRAMAN, KADI of ACCA.

The Occasion of this present Writing or Instrument is that at ACCA in the House of Badi legal establish'd Judge, appear'd in Court Thomas Usgate the English Consul and with him Sheikh Morad Ebn al Hajj Abdallah, Sheikh of the County of Safad, and the said Consul desire'd from the aforesaid Sheikh proof of the Race of the Grey Horse which he bought of him, and he affirm'd to be Monaki Shaduki*, but he was not satisfied with this but desire'd the Testimony of the Arabs, who bred the Horse and knew how he came to Sheikh Morad; whereupon there appear'd certain Arabs of Repute whose names are undermention'd, who testified and declar'd that the Grey Horse which the Consul formerly bought of Sheikh Morad, is Monaki Shaduki of the pure Race of Horses, purer than Milk†, and that the Beginning of the Affair

* These are the Names of the two Breeds of Arab Horses, which are reckoned pure and true, and those which are of both these Breeds by Father and Mother, are the most noble and free from Basihadi.
† A Proverbial Expression.
The Arabs, whose riches are their horses, take all imaginable care of them; they have it not in their power to give them grass in their hot climate, except in the spring; their constant food is barley, and that given only in the night, being never suffered to eat during the day.

In the day-time they are kept saddled at the door of the tent, ready for any excursion their masters may make; the Arabs being fond of the chase, and live by the plundering of travellers. The horses are never hurt by any servile employ, never injured by heavy burdens, or by long journeys, enjoy a pure dry air, due exercise, great temperance, and great care.

was, that Sheikh Saleb, Sheikh of Alsabal, bought him of the Arabs of the Tribe of al Mohammadat, and Sheikh Saleb sold him to Sheikh Morad Ebu al Hajj Abdollah, Sheikh of Safad, and Sheikh Morad sold him to the Consul aforesaid, when these Matters appear'd to us, and the Contents were known, the said Gentleman desir'd a Certificate thereof, and Testimony of the Witnesses, whereupon we wrote him this Certificate, for him to keep as a Proof thereof. Dated Friday 28 of the latter Rabi in the Year 1135.

Witnesses,

Sheikh Jumat al Faliban of the Arabs of al Mohammadat.
Ali Ebn Taleb al Kaabi.
Ibrahim his Brother.
Mohammed al Adhra Sheikh Alfurifat.
Khamis al Kaabi.

Every
Every horse in Arabia (except those which by way of contempt are called Guidieb, or pack horses) has a degree of good qualities superior to those of any other places; but it is not to be supposed, but that there are certain parts of that country, which have attained a higher perfection in the art of management than the others.

Thus we find by some late information*, that Yemine in Arabia Felix, is at present in great repute for its breed; for the jockies of that part have acquired such a superior name, as to be able to sell their three year old horses for two or three hundred guineas a-piece, and when they can be prevailed on to part with a favorite stallion, they will not take less for it than fifteen hundred guineas. It is from this country that the great men in India are supplied with horses, for India itself is possessed of a very bad kind; these noble animals being much neglected there, from the constant use of the Buffalo, not only in tillage, but even in riding.

It may be allowed here to give some account of the horses of other countries, which derive their origin, or at least receive their improvement from the Arabian kind, for wherever the Saracens spread their victorious arms, they, at the same time, introduced their generous race of horses.

Those of Persia are light, swift, and very like those of Arabia, but formed very narrow before:

* Wall on horses, 74.
they are fed with chopped straw, mixed with barley, and instead of foiling, are fed with new eared or green barley for about fourteen or twenty days*.

Æthiopia has with some writers the credit of having originally furnished Arabia with its fine race of horses; but we believe the reverse, and that they were introduced into that empire by the Arabian princes, whose lineage to this day fills that throne. The horses of that country are spirited and strong, and generally of a black color: they are never used in long journeys, but only in battle or in the race, for all servile work is done by mules: the Æthiopians never shoe them, for which reason, on passing through stony places, they dismount, and ride on mules, and lead their horses †; so from this we may collect, that this nation is not less attached to these animals than the Arabs.

Ægypt has two breeds of horses, one its own, the other Arabian; the last are most esteemed, and are bought up at a great price, in order to be sent to Constantinople; but such is the discouragement, arising from the tyranny of the government, that the owners often wilfully lame a promising horse ‡, lest the Beys should like it and force it from them.

Barbary owes its fine horses to the same stock, but in general they are far inferior in point of value; and for the same reason as is given in the last arti-

* Tavernier's Travels, I. 145.
† Ludolph. hist. Æthiop. 53.
‡ Univ. modern hist. quoted from Maillet and Pocock.
APPENDIX.

cle, the great insecurity of property under the Turkish government. The breed was once very famous: M. D'Arvieux* says, that when he was there in 1668, he met with a mare that he thought worthy of the stud of his grand Monarque, when in the height of his glory; but Doctor Shaw informs us, that at present the case is entirely altered †.

Notwithstanding Spain has been celebrated of old for the swiftness of its horses, yet it must have received great improvement from those brought over by their conquerors, the Saracens. According to Oppian ‡, the Spanish breed had no other merit than that of fleetness, but at present we know that they have several other fine qualities.

To sum up the account of this generous animal, we may observe, that every country that boasts of a fine race of horses, is indebted to Arabia, their primeval seat. No wonder then, that the poetic genius of the author of the book of Job, who not only lived on the very spot, but even at time when the animal creation still enjoyed much of its original perfection, should be able to compose that sublime description which has always been the admiration of every person of genuine taste §.

*D'Arvieux, 173.
† Shaw's Travels, 238.
‡ Cyseg. lib. I. V. 284.
§ Job. ch. XXXIX. v. 19. to 25.
APPENDIX.

No. II.

Of the Taking of Wolves, &c.


From Bp. Lyttelton's Collections.

JOHAN. comes Moreton omnibus hominibus et amicis suis Francis et Anglicis presentibus et futuris salutem sciatis nos concefs. reddidisse et hac cartamea confirmasse comit. baron militibus et omnibus libere tenentibus clericis et laicis in Devenescire libertates suas foreste quas habuerunt tempore Henrici Reg. proavi mei tenendas et habendas illis et heredibus suis de me et heredibus meis et nominatim quod habeant arcus et pharestras, et sagittas in terris suis deferendas extra regardum foreste mee, et quod habeat canes sui vel hominum suorum, non sint espaltati extra regardum foreste, et quod habeant canes suos et alias libertates, sicut melius et liberius illas habuerunt tempore ejusd. Henrici Regis et Reisellos suos, et quod capiant Capreolum, Vulpem, Cattum, Lupum, Leporem, Lutram, ubicunque illam inveniunt extra...

Seal appendant, an armed man on horseback, and on the reverse, a small impression from an antique head — the legend broken.
APPENDIX.

No. III.

OF THE CHOICE OF HIS MAJESTY'S HAWKS.

TO all those to whom this present Writinge shall come I Sr. Anthony Pell Knight Maifter Faulkner Surveyor and Keeper of his Majesties Hawkes send greetings, Whereas I am credibly informed that divers persons who doe usuallie bringe Haukes to fell doe commonlye convey them from shipbord and custome house before such tyme as I or my servants or deputies have any fight or choife of them for his Majesties use whereby his Highness is not nor hath not lately beene furnished with the number of Hawkes as is most meete, Wherefore thes are in his Majesties name to will charge and commaund you and every of you that shall at any tyme hereafter bringe any Hawkes to fell, That neither you nor any of you nor any others for you or by your appointment doe remove or convey awaye any of your Hawkes whatsoever from shipbord or the custome house untill such tyme as the bearer hereof my welbeloved friend William Spence Gent. have his first choife for
for his Majesties service, And that you and every one of you do quietly permitt and suffer the said Wm. Spence the bearer hereof to take his choise and make tryal of such of your Hawkes as he shall thinke meete with a gorge or two of meat before such tyme as his Majesties price be paide beeinge as hereafter followeth, viz for a Faulcon twenty six shillings and eight pence, for a Tassell gentle thirteene shillings and four pence, for a Lanner twenty six shillings and eight pence, for a Lannaret threeene shillings and foure pence, for a Goshawke twentie shillings, for a Tassell of a Goshawke thirteene shillings and foure pence, for a Gerfaulkon thirtie shillings, for a Jerkin thirteen shillings and fourepence, hereof fayle you not as you will answere the contrary at your perills. Dated the six and twentieth day Januarie Anno Domini 1621.

This warrant to endure untill the first daye of August next comeinge,
No. IV.

Of the SMALL BIRDS of FLIGHT,

By the Honble. Daines Barrington.

In the suburbs of London (and particularly about Shoreditch) are several weavers and other tradesmen, who, during the months of October and March, get their livelihood by an ingenious, and we may say, a scientific method of bird-catching, which is totally unknown in other parts of Great Britain.

The reason of this trade being confined to so small a compass, arises from there being no considerable sale for singing birds except in the metropolis: as the apparatus for this purpose is also heavy, and at the same time must be carried on a man's back, it prevents the bird-catchers going to above three or four miles distance.

This method of bird-catching must have been long practised, as it is brought to a most systematic perfection, and is attended with a very considerable expense.

The nets are a most ingenious piece of mechanism, are generally twelve yards and a half long,

\[ U u 4 \]
and two yards and a half wide; and no one on bare inspection would imagine that a bird (who is so very quick in all its motions) could be caught by the nets flapping over each other, till he becomes eye witness of the pullers seldom failing.

The wild birds fly (as the bird-catchers term it) chiefly during the month of October, and part of September and November; as the flight in March is much less considerable than that of Michaelmas. It is to be noted also, that the several species of birds of flight do not make their appearance precisely at the same time, during the months of September, October and November. The Pippet †, for example, begins to fly about Michaelmas, and then the Woodlark, Linnet, Goldfinch, Chaffinch, Greenfinch, and other birds of flight succeed; all of which are not easily to be caught, or in any numbers, at any other time, and more particularly the Pippet and the Woodlark.

These birds, during the Michaelmas and March flights, are chiefly on the wing from day break to noon, though there is afterwards a small flight from two till night; but this however is so incon-

* These nets are known in most parts of England by the name of day-nets or clap-nets; but all we have seen are far inferior in their mechanism to those used near London.

† A small species of Lark, but which is inferior to other birds of that Genus in point of song.
considerable, that the bird-catchers always take up their nets at noon.

It may well deserve the attention of the naturalist whence these periodical flights of certain birds can arise. As the ground however is ploughed during the months of October and March for sowing the winter and lent corn, it should seem that they are thus supplied with a great profusion both of seeds and insects, which they cannot so easily procure at any other season.

It may not be improper to mention another circumstance, to be observed during their flying, viz. that they fly always against the wind; hence, there is great contention amongst the bird-catchers who shall gain that point, if (for example) it is westerly, the bird catcher who lays his nets most to the east, is sure almost of catching every thing, provided his call-birds are good: a gentle wind to the south-west generally produces the best sport.

The bird-catcher, who is a substantial man, and hath a proper apparatus for this purpose, generally carries with him five or six linnets (of which more are caught than any singing bird) two goldfinches, two greenfinches, one woodlark, one redpoll, a yellowhammer, titlark, and aberdavine, and perhaps a bullfinch; these are placed at small distances from the nets in little cages. He hath, besides, what are called flur-birds, which are placed with-
in the nets, are raised upon the flur*, and gently let down at the time the wild bird approaches them. These generally consist of the linnet, the goldfinch, and the greenfinch, which are secured to the flur by what is called a brace†; a contrivance that secures the birds without doing any injury to their plumage.

It having been found that there is a superiority between bird and bird, from the one being more in song than the other; the bird-catchers contrive that their call birds should moult before the usual time. They, therefore, in June or July, put them into a close box, under two or three folds of blankets, and leave their dung in the cage to raise a greater heat; in which state they continue, being perhaps examined but once a week to have fresh water. As for food, the air is so putrid, that they eat little during the whole state of confinement, which lasts about a month. The birds frequently die under the operation‡; and hence the value of a stopped bird rises greatly.

When

* A moveable perch to which the bird is tied, and which the bird-catcher can raise at pleasure, by means of a long string fastened to it.

† A sort of bandage, formed of a slender silken string that is fastened round the bird's body, and under the wings, in so artful a manner as to hinder the bird from being hurt, let flutter ever so much in the raising.

‡ We have been lately informed by an experienced bird-catcher,
When the bird hath thus prematurally moulted, he is in song, whilst the wild birds are out of song, and his note is louder and more piercing than that of a wild one; but it is not only in his note he receives an alteration, the plumage is equally improved. The black and yellow in the wings of the goldfinch, for example, become deeper and more vivid, together with a most beautiful gloss, which is not to be seen in the wild bird. The bill, which in the latter is likewise black at the end, in the flopped bird becomes white and more taper, as do its legs: in short, there is as much difference between a wild and a flopped bird, as there is between a horse which is kept in body cloaths, or at grass.

When the bird-catcher hath laid his nets, he disposes of his callbirds at proper intervals. It must be owned, that there is a most malicious joy in these call-birds to bring the wild ones into the same state of captivity; which may likewise be observed with regard to the decoy ducks.

Their fight and hearing infinitely excels that of the bird-catcher. The instant that the wild birds are perceived, notice is given by one to the rest of catcher, that he pursues a cooler regimen in stopping his birds, and that he therefore seldom loses one: but we suspect that there is not the same certainty of making them moult.

* It may be also observed, that the moment they see a hawk, they communicate the alarm to each other by a plaintive note; or will they then jerk or call though the wild birds are near,
the call-birds, (as it is by the first hound that hits on the scent, to the rest of the pack) after which, follows the same sort of tumultuous ecstasy and joy. The call-birds, while the bird is at a distance, do not sing as a bird does in a chamber; they invite the wild ones by what the bird-catchers call short jerks, which when the birds are good, may be heard at a great distance. The ascendancy by this call or invitation is so great, that the wild bird is stopped in its course of flight, and if not already acquainted with the nets*, lights boldly within twenty yards of perhaps three or four bird-catchers, on a spot which otherwise it would not have taken the least notice of. Nay, it frequently happens, that if half a flock only are caught, the remaining half will immediately afterwards light in the nets, and share the same fate; and should only one bird escape, that bird will suffer itself to be pulled at till it is caught, such a fascinating power have the call-birds.

While we are on this subject of the jerking of birds, we cannot omit mentioning, that the bird-catchers frequently lay considerable wagers whose call-bird can jerk the longest, as that determines the superiority. They place them opposite to each other, by an inch of candle, and the bird who

* A bird, acquainted with the nets, is by the bird-catchers termed a sharper, which they endeavour to drive away, as they can have no sport whilst it continues near them.
jerks the ofteneft, before the candle is burnt out, wins the wager. We have been informed, that there have been instances of a bird's giving a hundred and seventy jerks in a quarter of an hour; and we have known a linnet, in such a trial, persevere in its emulation till it swooned from the perch: thus, as Pliny says of the nightingale, *vita morte finit sæpe vitam, spiritu prius deficiente quàm cantu*.

It may be here observed, that birds when near each other, and in fight, seldom jerk or sing. They either fight, or use short and wheedling calls; the jerking of these call-birds, therefore, face to face, is a most extraordinary instance of contention for superiority in song.

It may be also worthy of observation, that the female of no species of birds ever sings: with birds, it is the reverse of what occurs in human kind: among the feathered tribe, all the cares of life fall to the lot of the tender sex: theirs is the fatigue of incubation; and the principal share in nursing the helpless brood: to alleviate these fatigues, and to support her under them, nature hath given to the male the song, with all the little blandishments and soothing arts; these he fondly exerts (even after courtship) on some spryng contiguous to the nest, during the time his mate is performing her parental duties. But that she should be silent, is also a-

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* Lib. x. c. 29.
another wise provision of nature, for her fong would
discover her neft; as would a gaudiness of plu-
mage, which, for the fame reafon, seems to have
been denied her.

To these we may add a few particulars that fell
within our notice during our enquiries among the
bird-catchers, fuch as, that they immediately kill
the hens of every fpecies of birds they take, being
incapable of finging, as also being inferior in plu-
mage; the pippets likewife are indiscriminately de-
ftroyed, as the cock does not fing well: they fell
the dead birds for three-pence or four-pence a
dozen.

These small birds are fo good, that we are fur-
prized the luxury of the age negleéts fo delicale
an acquisition to the table. The modern Italians
are fond of small birds, which they eat under the
common name of Beccaficos: and the dear rate a
Roman Tragedian paid for one dish of finging birds*
is well known.

Another particular we learned, in converfation
with a London bird-catcher, was the vast price that
is fometimes given for a fingle fong bird, which

* Maximè tamen insignis est in hac memoria, Clodii Æfopi
tragici hisfrionis pata in fexcentis H. S. taxata; in quo posuit aues
cantu aliquo, aut humano fermo, vocales. Plin. lib. x. c.
51. The price of this expensive dish was about 6843 l. 10s.
according to Arbuthnot’s Tables. This seems to have been a
wanton caprice, rather than a tribute to epicurifm. T. P.
had not learned to whistle tunes. The greatest sum we heard of, was five guineas for a *chaffinch*, that had a particular and uncommon note, under which it was intended to train others: and we also heard of five pounds ten shillings being given for a *call-bird* linnet.

A third singular circumstance, which confirms an observation of *Linnaeus*, is, that the male *chaffinches* fly by themselves, and in the *flight* precede the females; but this is not peculiar to the *chaffinches*. When the *titlarks* are caught in the beginning of the season, it frequently happens, that forty are taken and not one female among them: and probably the same would be observed with regard to other birds (as has been done with relation to the *wheat-ear*) if they were attended to.

An experienced and intelligent bird-catcher informed us, that such birds as breed twice a year, generally have in their first brood a majority of males, and in their second, of females, which may in part account for the above observation.

We must not omit mention of the *bulsinck*, though it does not properly come under the title of a singing bird, or a bird of *flight*, as it does not often move farther than from hedge to hedge; yet, as the bird sells well on account of its learning to whistle tunes, and sometimes flies over the fields where the nets are laid; the bird-catchers have often a *call-bird* to ensnare it, though most of them can imitate the call with their mouths. It is remarkable
markable with regard to this bird, that the female answers the purpose of a *call-bird* as well as the male, which is not experienced in any other bird taken by the *London* bird-catchers.

It may perhaps surprize, that under this article of *singing birds*, we have not mentioned the *nightingale*, which is not a bird of *flight*, in the sense the bird-catchers use this term. The *nightingale*, like the *robin*, *wren*, and many other *singing* birds, only moves from hedge to hedge, and does not take the periodical *flights* in *October* and *March*. The persons who catch these birds, make use of small *trap-nets*, without *call-birds*, and are considered as inferior in dignity to other bird-catchers, who will not rank with them.

The nightingale being the first of *singing* birds, we shall here insert a few particulars relating to it, that were transmitted to us since the description of that bird was printed.

Its arrival is expected, by the trappers in the neighborhood of *London*, the first week in *April*; at the beginning none but cocks are taken, but in a few days the hens make their appearance, generally by themselves, though sometimes a few males come along with them.

The latter are distinguished from the females not only by their superior size, but by a great swelling of their vent, which commences on the first arrival of the hens.
They do not build till the middle of May, and generally chuse a quickset to make their nest in.

If the nightingale is kept in a cage, it often begins to sing about the latter end of November, and continues its song more or less till June.

A young Canary bird, linnet, skylark, or robin (who have never heard any other bird) are said best to learn the note of a nightingale.

They are caught in a net-trap; the bottom of which is surrounded with an iron ring; the net itself is rather larger than a cabbage net.

When the trappers hear or see them, they strew some fresh mould under the place, and bait the trap with a meal-worm from the baker's shop.

Ten or a dozen nightingales have been thus caught in a day.
APPENDIX.

No. V.

EXPERIMENTS AND OBSERVATIONS ON THE SINGING OF BIRDS, 
BY THE HON. DAINES BARRINGTON. IN A LETTER TO MATHEW MATY, M.D. SEC. R. S. 1773.

From the Philosophical Transactions, Vol. LXIII.

Dear Sir,

As the experiments and observations I mean to lay before the Royal Society relate to the singing of birds, which is a subject that hath never before been scientifically treated of*, it may not be improper to prefix an explanation of some uncommon terms, which I shall be obliged to use, as well as others which I have been under a necessity of coining.

* Kircher, indeed, in his Musurgia, hath given us some few passages in the song of the nightingale, as well as the call of a quail and cuckow, which he hath engraved in musical characters. These instances, however, only prove that some birds have in their song, notes which correspond with the intervals of our common scale of the musical octave.
To *chirp*, is the first sound which a young bird utters, as a cry for food, and is different in all nestlings, if accurately attended to; so that the hearer may distinguish of what species the birds are, though the nest may hang out of his sight and reach.

This cry is, as might be expected, very weak and querulous; it is dropped entirely as the bird grows stronger, nor is afterwards intermixed with its song, the *chirp* of a nightingale (for example) being hoarse and disagreeable.

To this definition of the *chirp*, I must add, that it consists of a single sound, repeated at very short intervals, and that it is common to nestlings of both sexes.

The *call* of a bird, is that sound which it is able to make, when about a month old; it is, in most instances (which I happen to recollect) a repetition of one and the same note, is retained by the bird as long as it lives, and is common, generally, to both the cock and hen.*

The next stage in the notes of a bird is termed, by the bird-catchers, *recording*, which word is

* For want of terms to distinguish the notes of birds, *Bellon* applies the verb *chantent*, or sing, to the goose and crane, as well as the nightingale. "Plusieurs oiseaux *chantent* la nuit, comme est l'oye, la grue, & le rossignol." *Bellon's Hist. of Birds*, p. 50.
probably derived from a musical instrument, formerly used in *England*, called a recorder*.

This attempt in the nestling to sing, may be compared to the imperfect endeavour in a child to babble. I have known instances of birds beginning to *record* when they were not a month old.

This first essay does not seem to have the least rudiments of the future song; but as the bird grows older and stronger, one may begin to perceive what the nestling is aiming at.

Whilst the scholar is thus endeavouring to form his song, when he is once sure of a passage, he commonly raises his tone, which he drops again when he is not equal to what he is attempting; just as a finger raises his voice, when he not only collects certain parts of a tune with precision, but knows that he can execute them.

What the nestling is not thus thoroughly master of, he hurries over, lowering his tone, as if he did not wish to be heard, and could not yet satisfy himself.

I have never happened to meet with a passage in any writer, which seems to relate to this stage of

* It seems to have been a species of flute, and was probably used to teach young birds to pipe tunes.

Lord *Bacon* describes this instrument to have been strait, to have had a lesser and greater bore, both above and below, to have required very little breath from the blower, and to have had what he calls a *fipple*, or stopper. See his second *Century of Experiments*. 
singing in a bird, except, perhaps, in the following lines of *Statius*:

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.......... "Nunc volucrum novi
" Questus, inexpertumque carmen,
" Quod tacitâ statuere brumâ."

*Stat. Sylv. L. IV. Ecl. 5.*
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A young bird commonly continues to *record* for ten or eleven months, when he is able to execute every part of his *fong*, which afterwards continues fixed, and is scarcely ever altered *.

When the bird is thus become perfect in his *lesson*, he is said to *sing his fong round*, or in all its varieties of *passages*, which he connects together, and executes without a pause.

I would therefore define a bird’s *fong* to be a *succession* of three or more different *notes*, which are continued without interruption during the same interval with a musical *bar* of four *crochets* in an *adagio* movement, or whilst a pendulum swings *four seconds*.

By the first requisite in this definition, I mean to

* The bird called a *Truite* * by the bird-catchers *commonly flies in company with linnets, yet these two species of birds never learn each other’s *notes*, which always continue totally different.


\[\times x 3\] exclude
APPENDIX.

exclude the call of a cuckow, or clucking of a hen*, as they consist of only two notes; whilst the short bursts of singing birds, contending with each other (called jerks by the bird-catchers) are equally distinguished from what I term song, by their not continuing for four seconds.

As the notes of a cuckow and hen, therefore, though they exceed what I have defined the call of a bird to be, do not amount to its song, I will, for this reason, take the liberty of terming such a succession of two notes as we hear in these birds, the varied call.

Having thus settled the meaning of certain words, which I shall be obliged to make use of, I shall now proceed to state some general principles with regard to the singing of birds, which seem to result from the experiments I have been making for several years, and under a great variety of circumstances.

Notes in birds are no more innate, than language is in man, and depend entirely upon the matter under which they are bred, as far as their organs will enable them to imitate the sounds which they have frequent opportunities of hearing.

Most of the experiments I have made on this subject have been tried with cock linnets, which were fledged and nearly able to leave their nest, on

* The common hen, when she lays, repeats the same note very often, and concludes with the sixth above, which she holds for a longer time.
APPENDIX.

account not only of this bird's docility, and great powers of imitation, but because the cock is easily distinguished from the hen at that early period, by the superior whiteness in the wing *.

In many other forts of singing birds the male is not at the age of three weeks so certainly known from the female; and if the pupil turns out to be a hen,

------------ "ibi omnis
"Effufus labor."

The Greek poets made a songster of the τετηγε, whatever animal that may be, and it is remarkable that they observed the female was incapable of singing as well as hen birds:

Εἰτ' εἰσιν οἱ τετηγες ὡς εὐδαιμονες,
Ὡς τοῖς γυναιξίν ὧ δότιν φωνὴν εἶν;


I have indeed known an instance or two of a hen's making out something like the song of her species; but these are as rare as the common hen's being heard to crow.

I rather suspect also, that those parrots, magpies, &c. which either do not speak at all, or very little, are hens of those kinds.

* The white reaches almost to the shaft of the quill feathers, and in the hen does not exceed more than half of that space: it is also of a brighter hue.

X x 4 I have
I have educated nestling linnets under the three best singing larks, the *skylark*, *woodlark*, and *titlark*, every one of which, in stead of the linner's song, adhered entirely to that of their respective instructors.

When the note of the *titlark-linnet* * was thoroughly fixed, I hung the bird in a room with two common linnets, for a quarter of a year, which were full in song; the *titlark-linnet*, however, did not borrow any passages from the linner's song, but adhered steadfastly to that of the titlark.

I had some curiosity to find out whether an *European* nestling would equally learn the note of an *African* bird: I therefore educated a young linner under a *vengolina†*, which imitated its *African* master so exactly, without any mixture of the linner song, that it was impossible to distinguish the one from the other.

* I thus call a bird which sings notes he would not have learned in a wild state; thus by a *skylark-linnet*, I mean a linner with the *skylark* song; a *nightingale-robin*, a *robin* with the nightingale song, &c.

† This bird seems not to have been described by any of the ornithologists; it is of the *finch* tribe, and about the same size with our aberdavine (or fiskin). The colors are grey and white, and the cock hath a bright yellow spot upon the rump. It is a very familiar bird, and sings better than any of those which are not *European*, except the *American mocking bird*. An instance hath lately happened, in an aviary at Hamsted, of a *vengolina's breeding with a Canary bird.*
This *vingolina-linnet* was absolutely perfect, without ever uttering a single note by which it could have been known to be a linnet. In some of my other experiments, however, the nestling linnet retained the *call* of its own species, or what the bird-catchers term the linnet's *chuckle*, from some resemblance to that word when pronounced.

I have before stated, that all my nestling linnets were three weeks old, when taken from the nest; and by that time they frequently learn their own *call* from the parent birds, which I have mentioned to consist of only a single note.

To be certain, therefore, that a nestling will not have even the *call* of its species, it should be taken from the nest when only a day or two old; because, though nestlings cannot see till the seventh day, yet they can hear from the instant they are hatched, and probably, from that circumstance, attend to sounds, more than they do afterwards, especially as the call of the parents announces the arrival of their food.

I must own, that I am not equal myself, nor can I procure any person to take the trouble of breeding up a bird of this age, as the odds against its being reared are almost infinite. The warmth indeed of incubation may be, in some measure, supplied by cotton and fires; but these delicate animals require, in this state, being fed almost perpetually, whilst the nourishment they receive should not
not only be prepared with great attention, but given in very small portions at a time.

Though I must admit, therefore, that I have never reared myself a bird of so tender an age, yet I have happened to see both a linnet and a goldfinch which were taken from their nests when only two or three days old.

The first of these belonged to Mr. Matthews, an apothecary at Kensington, which, from a want of other sounds to imitate, almost articulated the words *pretty boy*, as well as some other short sentences: I heard the bird myself repeat the words *pretty boy*; and Mr. Matthews assured me, that he had neither the note or call of any bird whatsoever.

This talking linnet died last year, before which, many people went from London to hear him speak.

The goldfinch I have before mentioned, was reared in the town of Knighton in Radnorshire, which I happened to hear, as I was walking by the house where it was kept.

I thought indeed that a *wren* was singing; and I went into the house to inquire after it, as that little bird seldom lives long in a cage.

The people of the house, however, told me, that they had no bird but a goldfinch, which they conceived to sing its own natural note, as they called it; upon which I staid a considerable time in the room, whilst its notes were merely those of a *wren*, without the least mixture of goldfinch.
On further inquiries, I found that the bird had been taken from the nest when only a day or two old, that it was hung in a window which was opposite to a small garden, whence the nestling had undoubtedly acquired the notes of the wren, without having had any opportunity of learning even the call of the goldfinch.

These facts, which I have stated, seem to prove very decisively, that birds have not any innate ideas of the notes which are supposed to be peculiar to each species. But it will possibly be asked, why, in a wild state, they adhere so steadily to the same song, in so much, that it is well known, before the bird is heard, what notes you are to expect from him.

This, however, arises entirely from the nestling's attending only to the instruction of the parent bird, whilst it disregards the notes of all others, which may perhaps be singing round him.

Young Canary birds are frequently reared in a room where there are many other sorts; and yet I have been informed, that they only learn the song of the parent cock.

Every one knows, that the common house-sparrow, when in a wild state, never does any thing but chirp: this, however, does not arise from want of powers in this bird to imitate others; but because he only attends to the parental note.

But, to prove this decisively, I took a common sparrow from the nest when it was fledged, and
and educated him under a linnet: the bird, however, by accident, heard a goldfinch also, and his song was, therefore, a mixture of the linnet and goldfinch.

I have tried several experiments, in order to observe, from what circumstances birds fix upon any particular note when taken from the parents; but cannot settle this with any sort of precision, any more than at what period of their recording they determine upon the song to which they will adhere.

I educated a young robin under a very fine nightingale; which, however, began already to be out of song, and was perfectly mute in less than a fortnight.

This robin afterwards sung three parts in four nightingale; and the rest of his song was what the bird-catchers call rubbish, or no particular note whatsoever.

I hung this robin nearer to the nightingale than to any other bird; from which first experiment I conceived, that the scholar would imitate the master which was at the least distance from him.

From several other experiments, however, which I have since tried, I find it to be very uncertain what notes the nestlings will most attend to, and often their song is a mixture; as in the instance which I before stated of the sparrow.

I must own also, that I conceived, from the experiment of educating the robin under a nightingale, that the scholar would fix upon the note which
which it first heard when taken from the nest; I imagined likewise, that, if the nightingale had been fully in song, the instruction for a fortnight would have been sufficient.

I have, however, since tried the following experiment, which convinces me, so much depends upon circumstances, and perhaps caprice in the scholar, that no general inference, or rule, can be laid down with regard to either of these suppositions.

I educated a nestling robin under a woodlark-linnet, which was full in song, and hung very near to him for a month together: after which, the robin was removed to another house, where he could only hear a skylark-linnet. The consequence was, that the nestling did not sing a note of woodlark (though I afterwards hung him again just above the woodlark-linnet) but adhered entirely to the song of the skylark-linnet.

Having thus stated the result of several experiments, which were chiefly intended to determine, whether birds had any innate ideas of the notes, or song, which is supposed to be peculiar to each species, I shall now make some general observations on their singing; though perhaps the subject may appear to many a very minute one.

Every poet, indeed, speaks with raptures of the harmony of the groves; yet those even, who have good musical ears, seem to pay little attention to it, but as a pleasing noise.

I am also convinced (though it may seem rather paradoxical
paradoxical), that the inhabitants of London distinguish more accurately, and know more on this head, than of all the other parts of the island taken together.

This seems to arise from two causes.

The first is, that we have not more musical ideas which are innate, than we have of language; and therefore those even, who have the happiness to have organs which are capable of receiving a gratification from this sixth sense (as it hath been called by some) require, however, the best instruction.

The orchestra of the opera, which is confined to the metropolis, hath diffused a good style of playing over the other bands of the capital, which is, by degrees, communicated to the fiddler and ballad-finger in the streets; the organs in every church, as well as those of the Savoyards, contribute likewise to this improvement of musical faculties in the Londoners.

If the singing of the ploughman in the country is therefore compared with that of the London blackguard, the superiority is infinitely on the side of the latter; and the same may be observed in comparing the voice of a country girl and London house-maid, as it is very uncommon to hear the former sing tolerably in tune.

I do not mean by this, to assert that the inhabitants of the country are not born with as good musical organs; but only, that they have not the same opportunities of learning from others, who play in tune themselves.

The
The other reason for the inhabitants of London judging better in relation to the song of birds, arises from their hearing each bird sing distinctly, either in their own or their neighbours shops; as also from a bird continuing much longer in song whilst in a cage, than when at liberty; the cause of which I shall endeavour hereafter to explain.

They who live in the country, on the other hand, do not hear birds sing in their woods for above two months in the year, when the confusion of notes prevents their attending to the song of any particular bird; nor does he continue long enough in a place, for the hearer to recollect his notes with accuracy.

Besides this, birds in the spring sing very loud indeed; but they only give short jerks, and scarcely ever the whole compass of their song.

For these reasons, I have never happened to meet with any person, who had not resided in London, whose judgment or opinion on this subject I could the least rely upon; and a stronger proof of this cannot be given, than that most people, who keep Canary birds do not know that they sing chiefly either the titlark, or nightingale notes*.

Nothing,* I once saw two of these birds which came from the Canary Islands; neither of which had any song at all; and I have been informed, that a ship brought a great many of them not long since, which sang as little.

Most of those Canary birds, which are imported from the Tyrol,
Nothing, however, can be more marked than the note of a nightingale called its jug, which most of the Canary birds brought from the Tyrol commonly have, as well as several nightingale strokes, or particular passages in the song of that bird.

I mention this superior knowledge in the inhabitants of the capital, because I am convinced, that, if others are consulted in relation to the singing of birds, they will only mislead, instead of giving any material or useful information.

Birds in a wild state do not commonly sing above ten weeks in the year; which is then also confined to the cocks of a few species; I conceive, that this last circumstance arises from the superior strength of the muscles of the larynx.

Tyrol, have been educated by parents, the progenitor of which was instructed by a nightingale; our English Canary birds have commonly more of the titlark note.

The traffick in these birds makes a small article of commerce, as four Tyroleze generally bring over to England sixteen hundred every year; and though they carry them on their backs one thousand miles, as well as pay 20 l. duty for such a number, yet, upon the whole, it answers to sell these birds at 5 s. a piece.

The chief place for breeding Canary birds is Inpruck and its environs, from whence they are sent to Constantinople, as well as every part of Europe.

As it will not answer to catch birds with clap-nets any where but in the neighbourhood of London, most of the birds which may be heard in a country town are nestlings, and consequently cannot sing the supposed natural song in any perfection.
I procured a cock nightingale, a cock and hen blackbird, a cock and hen rook, a cock linnet, as also a cock and hen chaffinch, which that very eminent anatomist, Mr. Hunter, F. R. S. was so obliging as to dissect for me, and begged, that he would particularly attend to the state of the organs in the different birds, which might be supposed to contribute to singing.

Mr. Hunter found the muscles of the larynx to be stronger in the nightingale than in any other bird of the same size; and in all those instances (where he dissected both cock and hen) that the same muscles were stronger in the cock.

I sent the cock and hen rook, in order to see whether there would be the same difference in the cock and hen of a species which did not sing at all. Mr. Hunter, however, told me, that he had not attended so much to their comparative organs of voice, as in the other kinds; but that, to the best of his recollection, there was no difference at all.

Strength, however, in these muscles, seems not to be the only requisite; the birds must have also great plenty of food, which seems to be proved sufficiently by birds in a cage singing the greatest part of the year *, when the wild ones do not

* Fish also which are supplied with a constant succession of palatable food, continue in season throughout the greatest part of the year; trouts, therefore, when confined in a flour
APPENDIX.

(as I observed before) continue in song above ten weeks.

The food of singing birds consists of plants, insects, or seeds, and of the two first of these there is infinitely the greatest profusion in the spring.

As for seeds, which are to be met with only in the autumn, I think they cannot well find any great quantities of them in a country so cultivated as England is; for the seeds in meadows are destroyed by mowing; in pastures, by the bite of the cattle; and in arable, by the plough, when most of them are buried too deep for the bird to reach them*.

I know well that the singing of the cock-bird in the spring is attributed by many † to the motive only of pleasing its mate during incubation.

They, however, who suppose this, should recollect, that much the greater part of birds do not sing at all: why should their mate therefore be deprived of this solace and amusement?

The bird in a cage, which, perhaps, sings nine or ten months in a year, cannot do so from this inducement; and, on the contrary, it arises chiefly from contending with another bird, or indeed against almost any sort of continued noise.

and fed with minnows, are almost at all seasons of a good flavour, and are red when dressed.

* The plough indeed may turn up some few seeds, which may still be in an eatable state.

† See, amongst others, M. de Buffon, in his lately-published Ornithology.
Superiority in song gives to birds a most amazing ascendency over each other; as is well known to the bird-catchers by the fascinating power of their call-birds, which they contrive should moult prematurely for this purpose.

But, to shew decisively that the singing of a bird in the spring does not arise from any attention to its mate, a very experienced catcher of nightingales hath informed me, that some of these birds have *jerked* the instant they were caught. He hath also brought to me a nightingale, which had been but a few hours in a cage, and which burst forth in a roar of song.

At the same time this bird is so fulky on its first confinement, that he must be crammed for seven or eight days, as he will otherwise not feed himself; it is also necessary to tye his wings, to prevent his killing himself against the top or sides of the cage.

I believe there is no instance of any bird's singing which exceeds our black bird in size; and possibly this may arise from the difficulty of its concealing itself, if it called the attention of its enemies, not only by bulk, but by the proportionable loudness of its notes.*

I should rather conceive, it is for the same reason that no henbird sings, because this talent would be still more dangerous during incubation; which

* For the same reason, most large birds are wilder than the smaller ones.
may possibly also account for the inferiority in point of plumage.

I shall now consider how far the singing of birds resembles our known musical intervals, which are never marked more minutely than to half notes; because, though we can form every gradation from half-note to half-note, by drawing the finger gently over the string of a violin, or covering by degrees the hole of a flute; yet we cannot produce such a minute interval at command, when a quarter-note for example might be required.

Ligon, indeed, in his history of Barbadoes, hath the following passage: "The next bird is of the " colour of the fieldfare; but the head is too large " for the body; and for that reason she is called " a counsellor. She performs that with her voice, " which no instrument can play, or voice can sing; " and that is quarter-notes, her song being com- " posed of them, and every one a note higher than " another."

Ligon appears, from other parts of his work, to have been musical; but I should doubt much whether he was quite sure of these quarter intervals, so as to speak of them with precision.

Some passages of the song in a few kinds of birds correspond with the intervals of our musical scale (of which the cuckow is a striking and known instance): much the greater part, however, of such song is not capable of musical notations.

This arises from three causes: the first is, that
APPENDIX.

the rapidity is often so great, and it is also so uncertain when they may stop, that we cannot reduce the passages to form a musical bar, in any time whatsoever.

The second is, that the pitch of most birds is considerably higher* than the most shrill notes of those instruments, which contain even the greatest compass.

I have before said, that our ideas of a voice, or instrument, being perfectly in tune or not, arise from comparing it with the musical intervals to which we are most accustomed.

As the upper and lower parts of every instrument, however, are but seldom used, we are not so well acquainted with the intervals in the highest and lowest octaves, as we are with those which are more central; and for this reason the harpsichord-tuners find it more difficult to tune these extreme parts.

As a bird's pitch, therefore, is higher than that of an instrument, we are consequently at a still

*Dr. Wallis is mistaken in part of what he supposes to be the cause of shrillness in the voice, "Nam ut tubus, sic tracta, chea longior, & strictior, tonum efficit magis acutum." Grammar, p. 3.

The narrower the pipe is, the more sharp the pitch as he rightly observes; but the length of the tube hath just the contrary effect, because players on the flute always insert a longer middle-piece, when they want to make the instrument more flat.
greater loss when we attempt to mark their notes in musical characters, which we can so readily apply to such as we can distinguish with precision.

The third, however, and unsurmountable difficulty is, that the intervals used by birds are commonly too minute, that we cannot judge at all of them from the more gross intervals into which we divide our musical octave.

It should therefore be recollected, by those who have contended that the Greeks and Romans were acquainted with such more minute intervals of the octave, that they must insist the ancients had organs of sensation, with which their degenerate posterity are totally unprovided.

Though we cannot attain the more delicate and imperceptible intervals in the song of birds *, yet many of them are capable of whistling tunes with our more gross intervals, as is well known by the common instances of piping bullfinches †, and Canary birds.

This, however, arises from mere imitation of what they hear when taken early from the nest; for if the instrument from which they learn it is

* There have been instances indeed of persons who could whistle the notes of birds, but these are two rare to be argued from.

† These bullfinches also form a small article of commerce, and are chiefly brought from the neighbourhood of Cologne.
out of tune, they as readily pipe the false, as the true notes of the composition.

The next point of comparison to be made between our music and that of birds is, whether they always sing in the same pitch.

This, however, I will not presume to answer with any precision, for the reason I have before suggested; I shall, however, without reserve, give the best conjectures I can form on this head.

If a dozen singing birds of different kinds are heard in the same room, there is not any disagreeable dissonance (which is not properly resolved), either to my own ear, or to that of others, whose judgment on such a point I can more rely.

At the same time, as each bird is singing a different song, it is extraordinary that what we call harmony should not be perpetually violated, as we experience, in what is commonly called a Dutch concert, when several tunes are played together.

The first requisite to make such sounds agreeable to the ear is, that all the birds should sing in the same key, which I am induced to believe that they do, from the following reasons.

I have long attended to the singing of birds, but if I cannot have recourse to an instrument very soon, I cannot carry the pitch of their notes in my memory, even for a very short time.

I therefore desired a very experienced harpsichord-tuner (who told me he could recollect any particular note which he happened to hear for several hours),

Y y 4 to
to mark down when he returned home what he had observed on this head.

I had lately received an account from him of the following notes in different birds.

F. natural in woodlarks.
A. natural in common cocks.
C. natural in *Bantam* cocks.
B. flat in a very large cock.
C. falling to A. commonly in the cuckow.
A. in thrushes.
D. in some owls.
B. flat in some others.

These observations furnish five notes, viz. A. B. flat, C. D. and F. to which I can add a sixth, (viz. G.) from my own observations on a nightingale which lived three years in a cage. I can also confirm these remarks of the harpsichord-tuner by having frequently heard from the same bird C. and F.

As one should speak of the pitch of these notes with some precision, the B. flat of the spinnet I tried them by, was perfectly in tune with the great bell of St. Paul's.

The following notes, therefore, having been observed in different birds, viz. A. B. flat, C. D. F. and G. the E. is only wanting to complete the scale; the six other notes, however, afford sufficient data for making some conjectures, at least, with regard to the key in which birds may be supposed to sing, as these intervals can only be found in
APPENDIX.

in the key of F. with a sharp third, or that of G. with a flat third.

I must own, I should rather suppose it to be the latter, and for the following reasons.

Lucretius says (and perhaps the conjecture is not only ingenious but well founded) that the first musical notes were learned from birds:

"At liquidas avium voces imitarier ore
Ante fuit molto, quam lævia carmina cantu
Concelebrare homines possent, cantuque juvare."

Now, of all the musical tones which can be distinguished in birds, those of the cuckow have been most attended to, which form a flat third, not only by the observations of the harpsichord tuner I have before mentioned, but likewise by those of Kircher, in his Musurgia.

I know well that there have been some late compositions, which introduce the cuckow notes in a sharp third; these composers, however, did not trouble themselves with accuracy in imitating these notes, and it answered their purpose sufficiently, if there was a general resemblance.

Another proof of our musical intervals being originally borrowed from the song of birds, arises from most compositions being in a flat third, where music is simple, and consists merely of melody.

The oldest tune I happen to have heard is a Welsh
Welsh one, called Morva Rhydland *, which is composed in a flat third; and if the music of the Turks and Chinese is examined in Du Halde and Dr. Shaw, half of the airs are also in the minor third.

The music of two centuries ago is likewise often in a flat third, though ninety-nine compositions out of a hundred are now in the sharp third.

The reason, however, of this alteration seems to be very clear: the flat third is plaintive, and consequently adapted to simple movements, such as may be expected in countries where music hath not been long cultivated.

There is on the other hand a most striking brilliancy in the sharp third, which is therefore proper for the amazing improvements in execution, which bothingers and players have arrived at within the last fifty years.

When Corelli's music was first published, our ablest violinists conceived that it was too difficult to be performed; it is now, however, the first composition which is attempted by a scholar. Every year also now produces greater and greater prodigies upon other instruments, in point of execution.

I have before observed, that by attending to a nightingale, as well as a robin which was educated

* Or Rhydland Marsh, where the Welsh received a great defeat; Rhydland is in Flintshire. We find also, by the Orpheus Britannicus, that even so late as the time of Purcell, two parts in three of his compositions are in the flat third.
under him, I always found that the notes reducible to our intervals of the octave were precisely the same; which is another proof that birds sing always in the same key.

In this circumstance, they differ much from the human finger; because they who are not able to sing from the notes, often begin a song either above or below the compass of their voice, which they are not therefore able to go through with. As birds, however, form the same passages with the same notes, at all times, this mistake of the pitch can never happen in them.

Few fingers again can continue their own part, whilst the same passages are sung by another in a different key; or if other passages are played, though they may agree both in harmony and time.

As birds however adhere so steadfastly to the same precise notes in the same passages, though they never trouble themselves about what is called time or harmony in music; it follows that a composition may be formed for two piping bulfinches, in two parts, so as to constitute true harmony, though either of the birds may happen to begin, or stop, when they please.

I have therefore procured such an ingenious composition, by a very able musician*, which I send herewith; and it need scarcely be observed,

* Mr. Zeidler, who plays the violincello at Covent Garden theatre.

that
that there cannot possibly be much variety in the part of the second bulfinch. See Tab. XI. in the *Philosophical Transactions*, Vol. LXIII.

Though several birds have great musical powers, yet they seem to have no delicacy of sensations, as the human finger hath; and therefore the very best of them cannot be taught to exceed the insipidity of the upper part of the flute stop of an organ *, which hath not the modern improvement of a jewell.

They are easily imposed upon by that most imperfect of all instruments, a *bird-call*, which they often mistake for the notes of their own species.

I have before observed, that perhaps no bird may be said to sing which is larger than a black bird, though many of them are taught to speak: the smaller birds, however, have this power of imitation; though perhaps the larger ones have not organs which may enable them, on the other hand, to sing.

We have the following instances of birds being taught to speak, in the time of the *Greeks* and

* Lord Bacon mentions, that in the instrument called a *regall* (which was a species of portable organ) there was a *nightingale* stop, in which water was made use of to produce the stronger imitation of this bird's tone. See Cent. II. exper. 172. Though this instrument, as well as its *nightingale* stop, is now dispersed, I have procured an organ pipe to be immersed partly in water, which, when blown into, hath produced a tone very similar to that of birds.
APPENDIX.

Romans, upon which we never try the same experiment. Moschus addresseth nightingales and swallows which were thus instructed:

Adonides, παχατι τε χειμωνες, ἀς τοι' ἐλεπτεν,
Ας καλειν εὐδασκε. Moschi Idyl. III.

Pliny mentions both a cock, thrush, and nightingales, which articulated *:

"Habebant & Cæsares juvenes turdum †, item
luscinias Græco atque Latino sermonem dociles,
praeterea meditantes in die, & assidue nova lo-
quentes longiore etiam contextu."

Statius also takes notice of some birds speaking, which we never attempt to teach in this manner:

"Huc doctæ stipentur aves, queis nobile fandi
Jus natura dedit, plangat Phœbeius ales,
Auditasque memor penitus demittere voces
Sturnus, & Aonio versæ certamine picæ;
Quique refert jungens iterata vocabula perdit,
Et quæ Bistonio queritur foror orba cubili ‡."


* Lib. X. c. 21 & 42.
† Ibid. The other turdus belonged to the Empress Agrippina.
‡ Amongst the five birds mentioned in these lines of Statius, there are four which are never taught to speak at present, viz. the cock, the nightingale, the common, and the red legged partridge.
As we find, from these citations, that so many different sorts of birds have learned to speak, and as

As I suppose, however, that *perdix* signifies this last bird, and not the common partridge (as it is always translated), it is proper I should here give my reasons why I dissent from others, as also why I conceive that *furnus*, in this passage, is not a *starling*, but the common partridge.

None of the ancients have described the plumage of the *perdix*; but *Aristotle*, *Ovid*, and *Pliny*, inform us of what materials the nest of this bird is composed, as well as where it is placed.

*Aristotle* says, that the nest is *fortified with wood*; and in another chapter †, with *thorns and wood*; neither of which are used by the common partridge, which often builds in a country where they cannot be procured.

On the contrary, *M. de Buffon* informs us, that the red legged partridge, "*se tiennent sur les montagnes qui produisent beaucoup de bruyeres, & de broffailles* ‡.

*Ovid*, therefore, speaking of the *perdix*, says,

"*ponitque in sepibus ova* §,

where the common partridge is seldom known to build.

*Pliny* again informs us, "*perdices spinâ & frutice sic mu-

*Επικυγαζιομεναι υλω. Lib. V. c. 1. Which Stephens renders *making a covering of wood*.

† Lib. IX. c. 8. The common partridge, however, makes its nest with hay and straw.

‡ Orn. T. II. p. 433.

§ *Ovid.*, Met. Lib. VIII. l. 258. I shall also refer to l. 237, of the same book:

"*Garrula ramosâ prospexit ab ilice perdix*;" as it is well known that the common partridge never perches upon a tree,"
APPENDIX.

as I have shewn that a sparrow may be taught to sing the linnet's note, I scarcely know what species

"niunt receptaculum, ut contra feras abunde valentur *", as also in the 52d chapter of his tenth book, that the *perdix* lays white eggs, which is not true of the common partridge.

But there are not wanting other proofs of the conjecture I have here made.

*Aristotle* speaking of this same bird, says, Των μεν περδικών, οἱ κακαείζεσθαι, οἱ δὲ πρωτός †.

Now, the word, κακαείζεσθαι is clearly formed from the call of the bird alluded to, which does not at all resemble that of the common partridge.

Thus also the author of the Elegy on the Nightingale, who is supposed by some to be Ovid, hath the following line:

"Caccabat hinc perdix, hinc gratitat improbus anser."

so that the call of the bird must have had something very particular, and have answered nearly, to the words κακαείζεστι and caccabat.

I find, indeed, that *M. de Buffon* contends † that the περδίξ of *Aristotle* does not mean the common partridge, but the bartavel, with regard to which, I shall not enter into any discussion, but only observe, that most of his references are inaccurate, and that he entirely mistakes the materials of which the nest is composed, according to *Aristotle's* sixth book, and first chapter.

But the strongest proof that *perdix* signifies the red legged partridge is, that the *Italians* to this day call this bird *pernice*, and the common sort *starna* §.

This also now brings me to the proofs, of *sturnus* in this passage of *Statius* signifying the common partridge, and not the

* Lib. x. c. 23. † Lib. IV. c. 9. ‡ Orn. T. II. p. 422 § See Olena.
cies to fix upon, that may be considered as in capable of such imitations; for it is very clear, from several experiments before stated, that the utmost endeavours will not be wanting in the bird, if he is endowed with the proper organs.

It can therefore only be settled by educating a bird, under proper circumstances, whether he is thus qualified or not; for if one was only to determine this point by conjecture, one should suppose that a sparrow would not imitate the song of the linnet, nor that a nightingale or partridge could be taught to speak.

And here it may not be improper to explain what I mean by birds learning to imitate the notes of others, or the human speech.

*starling*, which I must admit are not so strong as with regard to the import of the word *perdix*. If my arguments are not therefore so convincing on this head, the number of birds taught to speak by the *Romans*, and not by us, must be reduced to three, as the starling is frequently learned to talk in the present times.

As I cannot argue from the description of the habits of the *fuscus*, or the materials of its nest, as in the former instance, I must rest my conjecture (such as it is) on the two birds, almost following each other in these lines of Statius; on the common partridge being called *fiarna* to this day by the *Italians*, and upon the *Romans* having had otherwise no name for our partridge (which is a very common bird in *Italy*), if *fuscus* is supposed to signify only a *starling*.
APPENDIX.

If the birds differ little in shape or size (particularly of the beak *) the imitation is commonly so strong, that

"Mire

* It seems very obvious why the form and size of the beak may be material; but I have also observed, that the colour of a bird's bill changes, when in or out of song; and I am informed, that a cock seldom crows much, but when his comb is red.

When most of the finch tribe are coming into song, there is such a gradual change in the colour of their bill; thus, those of the chaffinch and linnet are then of a very deep blue, which fades away again, when the bird ceases to be in song.

This particular should be attended to by the ornithologist, in his description; because, otherwise, he supposes the colour of the bill to be permanent, which is by no means so.

This alteration, however, rather seems to be the symptom than the cause of a bird's coming into song, or otherwise, and I have never attended to this circumstance in the soft billed birds sufficiently, to say whether it holds also with regard to them.

A very intelligent bird-catcher, however, was able to prognosticate, for three winters together, when a nightingale, which I kept so long, was coming into song (though there was no change in the colour of the bill), by the dung's being intermixed with large bloody spots, which before was only of a dead white.

This same bird-catcher was also very successful in his prescriptions for sick birds, with regard to the ingredients of which he was indeed very mysterious.

He said, that as he could not feel their pulse, the circumstances which he chiefly attended to were their weight, as well as both the consistence and colour of their dung.

He always frankly said what he expected from his prescriptions.
for, in such instances, the passages are not only the same, but the tone.

Such was the event of the experiment I have before mentioned of the linnet educated under a vengolina.

In my experiment, however, of teaching the sparrow the notes of the linnet, though the scholar imitated the passages of its master, yet the tone of the sparrow had by no means the mellowness of the original.

The imitation might therefore be, in some measure, compared to the singing of an opera song by a black-guard, when, though the notes may be precisely the same, yet the manner and tone would differ very much.

Thus also the linnet, which I heard repeat the words pretty boy, did not articulate like a parrot, though, at the same time, the words might be clearly distinguished.

The education I have therefore been speaking of will not give new organs of voice to a bird, and the instrument itself will not vary, though
the notes or passages may be altered almost at pleasure.

I tried once an experiment, which might indeed have possibly made some alteration in the tone of a bird, from what it might have been when the animal was at its full growth, by procuring an operator who caponised a young blackbird of about six weeks old; as it died, however, soon afterwards, and I have never repeated the experiment, I can only conjecture with regard to what might have been the consequences of it.

Both *Pliny* and the *London* poulterers agree that a capon does not crow, which I should conceive to arise from the muscles of the larynx never acquiring the proper degree of strength, which seems to be requisite to the singing of a bird, from Mr. Hunter's dissections.

But it will perhaps be asked, why this operation should not improve the notes of a nestling, as much as it is supposed to contribute to the greater perfection of the human voice.

To this I answer, that castration by no means insures any such consequence; for the voices of much the greater part of *Italian* eunuchs are so indifferent, that they have no means of procuring a livelihood but by copying music, and this is one of the reasons why so few compositions are

* Lib. X. c. 21.
published in *Italy*, as it would starve this refuse of society.

But it may be said, that there hath been a *Farinelli* and a *Manzoli*, whose voices were so distinguishedly superior.

To this I again answer, that the catalogue of such names would be a very short one; and that we attribute those effects to castration, which should rather be ascribed to the education of these singers.

Castration commonly leaves the human voice at the same pitch as when the operation is performed; but the eunuch, from that time, is educated with a view only to his future appearance on the opera stage; he therefore manages his voice to greater advantage, than those who have not so early and constant instruction.

Considering the size of many singing birds, it is rather amazing at what a distance their notes may be heard.

I think I may venture to say, that a nightingale may be very clearly distinguished at more than half a mile*, if the evening is calm. I have also observed the breath of a *robin* (which exerted itself) so condensed in a frosty morning, as to be very visible.

* Monf. *de Buffon* says, that the quadruped which he terms the *huarine*, may be heard at the distance of a league. *Ornith.* *Tom.* I.
APPENDIX.

To make the comparison, however, with accuracy, between the loudness of a bird's and the human voice, a person should be sent to the spot from whence the bird is heard; I should rather conceive that, upon such trial, the nightingale would be distinguished further than the man.

It must have struck every one, that, in passing under a house where the windows are shut, the singing of a bird is easily heard, when, at the same time, a conversation cannot be so, though an animated one.

Most people, who have not attended to the notes of birds, suppose that those of every species sing exactly the same notes and passages, which is by no means true, though it is admitted that there is a general resemblance.

Thus the London bird-catchers prefer the song of the Kentish goldfinches, but Essex chaffinches; and when they sell the bird to those who can thus distinguish, inform the buyer that it hath such a note, which is very well understood between them*.

* These are the names which they give to some of the nightingale's notes: Sweet, Sweet jug, Jug sweet, Water bubble, Pipe rattle, Bell pipe, Scroty, Skeg, Skeg, Skeg, Swat SWAT SWAT SWAT, Whitlow whitlow whitlow, from some distant affinity to such words.
APPENDIX.

Some of the nightingale fanciers also prefer a Surry bird to those of Middlesex *

These differences in the song of birds of the same species cannot perhaps be compared to any thing more apposite, than the varieties of provincial dialects.

The nightingale seems to have been fixed upon, almost universally, as the most capital of singing birds, which superiority it certainly may boldly challenge: one reason, however, of this bird's being more attended to than others is, that it sings in the night †.

* Mr. Henstevaw informs us, that nightingales in Denmark are not heard till May, and that their notes are not so sweet or various as with us. Dr. Birch's History of the Royal Society, Vol. III. p. 189. Whilst Mr. Fletcher (who was minister from Q. Elizabeth to Russia) says, that the nightingales in that part of the world have a finer note than ours. See Fletcher's Life, in the Biographia Britannica.

I never could believe what is commonly asserted, that the Czar Peter was at a considerable expence to introduce singing birds near Petersburgh; because it appears, by the Fauna Suecica, that they have in those latitudes most of the same birds with those of England.

† The woodlark and reedsparrow sing likewise in the night; and from hence, in the neighbourhood of Shrewsbury, the latter hath obtained the name of the willow-nightingale. Nightingales, however, and these two other birds, sing also in the day, but are not then distinguished in the general concert.

The
Hence Shakespeare says,
"The nightingale, if she should sing by day,
When every goose is cackling, would be thought
No better a musician than the wren."

The song of this bird hath been described, and expatiated upon, by several writers, particularly Pliny and Strada.

As I must own, however, that I cannot affix any precise ideas to either of these celebrated descriptions, and as I once kept a very fine bird of this sort for three years, with very particular attention to its song; I shall endeavour to do it the best justice I am capable of.

In the first place, its tone is infinitely more mellow than that of any other bird, though, at the same time, by a proper exertion of its musical powers, it can be excessively brilliant.

When this bird sang its song round, in its whole compass, I have observed sixteen different beginnings and closes, at the same time that the intermediate notes were commonly varied in their succession with such judgment, as to produce a most pleasing variety.

The bird which approaches nearest to the excellence of the nightingale, in this respect, is the sky lark; but then the tone is infinitely inferior in point of mellowness: most other singing birds have not above four or five changes.

The next point of superiority in a nightingale
is its continuance of song, without a pause, which I have observed sometimes not to be less than twenty seconds. Whenever respiration, however, became necessary, it was taken with as much judgment as by an opera finger.

The skylark again, in this particular, is only second to the nightingale.

* I shall here insert a table, by which the comparative merit of the British singing birds may be examined, the idea of which I have borrowed from Monf. de Piles, in his Cours de Peinture par Principes. I shall not be surprized, however, if, as he suggests, many may disagree with me about particular birds, as he supposes they will do with him, concerning the merits of painters.

As I have five columns instead of the four which M. de Piles uses, I make 20 the point of absolute perfection, instead of 16, which is his standard.

<table>
<thead>
<tr>
<th></th>
<th>Mellow-ness of tone</th>
<th>Sprightly notes</th>
<th>Plaintive notes</th>
<th>Compa.</th>
<th>Execution</th>
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<tr>
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<td>Reed-sparrow</td>
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<tr>
<td>Black-cap, or the Norfolk Mock nightingale*</td>
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And
And here I must again repeat, that what I describe is from a caged nightingale, because those which we hear in the spring are so rank, that they seldom sing any thing but short and loud jerks, which consequently cannot be compared to the notes of a caged bird, as the instrument is overstrained.

I must also here observe, that my nightingale was a very capital bird; for some of them are so vastly inferior, that the bird-fanciers will not keep them, branding them with the name of French-men.

I have made no mention of the bulfinch in this table, which is commonly considered as a singing bird; because its wild note, without instructions, is a most jarring and disagreeable noise.

I have likewise omitted the redstart (which is called by the French Rossignol de Muraille), as I am not sufficiently acquainted with its song, though it is admired by many; I should rather conceive, however, with Zinanni, that there is no very extraordinary merit in the notes.

The London bird-catchers also sell sometimes the yellow hammer, twite and brambling as singing birds; but none of these will come within my definition of what may be deemed so.

* One should suppose from this, that the nightingale-catcher had heard much of the French music; which is possibly the case, as some of them live in Spittal-fields.

* Il culo ranzo è un uccello, (per quanto dicono) molto canoro, ma io tale non lo stimo. Delle uova e del nidi, p. 53.

† They call this bird a kate.

But
But it is not only in tone and variety that the nightingale excels; the bird also sings (if I may so express myself) with superior judgment and taste.

I have therefore commonly observed, that my nightingale began softly like the ancient orators; reserving its breath to swell certain notes, which by this means had a most astonishing effect, and which eludes all verbal description.

I have indeed taken down certain passages which may be reduced to our musical intervals; but though by these means one may form an idea of some of the notes used, yet it is impossible to give their comparative durations in point of musical time, upon which the whole effect must depend.

I once procured a very capital player on the flute to execute the notes which Kircher hath engraved in his Musurgia, as being used by the nightingale; when, from want of not being able to settle their respective lengths, it was impossible to observe any traces almost of the nightingale's song.

It may not be improper here to consider, whether the nightingale may not have a very formidable competitor in the American mocking-bird*; though almost all travellers agree, that the concert in the

* Turdus Americanus minor canorus. Ray's Syn. It is called by the Indians, Contlatolli; which is said to signify four hundred tongues. See also Catesby.
European woods is superior to that of the other parts of the globe.*

As birds are now annually imported in great numbers from Asia, Africa, and America, I have frequently attended to their notes, both singly and in concert, which are certainly not to be compared to those of Europe.

Thomson, the poet, (whose observations in natural history are much to be depended upon) makes this superiority in the European birds to be a sort of compensation for their great inferiority in point of gaudy plumage. Our goldfinch, however, joins to a very brilliant and pleasing song, a most beautiful variety of colours in its feathers †, as well as a most elegant shape.

It must be admitted, that foreign birds, when brought to Europe, are often heard to a great disadvantage; as many of them, from their great tameness, have certainly been brought up by hand, the consequence of which I have already stated from several experiments. The soft-billed birds also cannot be well brought over, as the succedaneum for


† I cannot but think, that there would be a demand for these birds in China, as the inhabitants are very sedentary, and bird cages are commonly represented as hanging in their rooms. I have been informed, by a Tyrolean, that his best market for Canary birds was Constantinople.
insects (their common food) is fresh meat, and particularly the hearts of animals.

I have happened, however, to hear the American mocking-bird in great perfection at Mess. Vogle's and Scott's, in Love-Lane, Eastcheap.

This bird is believed to be still living, and hath been in England these six years. During the space of a minute, he imitated the woodlark, chaffinch, blackbird, thrush, and sparrow. I was told also, that he would bark like a dog; so that the bird seems to have no choice in his imitations, though his pipe comes nearest to our nightingale of any bird I have yet met with.

With regard to the original notes, however, of this bird, we are still at a loss; as this can only be known by those who are accurately acquainted with the song of the other American birds.

Kalm indeed informs us, that the natural song is excellent*; but this traveller seems not to have been long enough in America to have distinguished what were the genuine notes: with us, mimics do not often succeed but in imitations.

I have little doubt, however, but that this bird would be fully equal to the song of the nightingale in its whole compass; but then, from the attention which the mocker pays to any other sort of disagreeable noises, these capital notes would be always debased by a bad mixture.

We have one mocking bird in England, which is the skylark; as, contrary to a general observation I have before made, this bird will catch the note of any other which hangs near it; even after the skylark note is fixed. For this reason, the bird-fanciers often place the skylark next one which hath not been long caught, in order, as they term it, to keep the caged skylark honest.

The question, indeed, may be asked, why the wild skylark, with these powers of imitation, ever adheres to the parental notes; but it must be recollected, that a bird when at liberty is for ever shifting its place, and consequently does not hear the same notes eternally repeated, as when it hangs in a cage near another. In a wild state therefore the skylark adheres to the parental notes; because the parent cock attends the young ones, and is heard by them for so considerable a time, during which, they pay no regard to the song of any other bird.

I am aware also, that it may be asked, how birds originally came by the notes which are peculiar to each species. My answer, however, to this is, that the origin of the notes of birds, together with its gradual progress, is as difficult to be traced, as that of the different languages in nations.

The loss of the parent-cock at the critical time for instruction hath undoubtedly produced those varieties, which I have before observed are in the song of each species; because then the nestling hath either attended to the song of some other birds; or
or perhaps invented some new notes of its own, which are afterwards perpetuated from generation to generation, till similar accidents produce other alterations. The organs of some birds also are probably so defective, that they cannot imitate properly the parental notes, as some men can never articulate as they should do. Such defects in the parent bird must again occasion varieties, because these defects will be continued to their descendants, who (as I before have proved) will only attend to the parental song. Some of these descendants also may have imperfect organs, which will again multiply varieties in the song.

The truth is, as I have already observed, that scarcely any two birds of the same species have exactly the same notes, if any are accurately attended to, though there is a general resemblance.

Thus most people see no difference between one sheep and another, when a large flock is before them. The shepherd, however, knows each of them, and can swear to them, if they are lost; as can the Lincolnshire gosherd to each goose.

As I now draw towards a conclusion of both my experiments and observations on the singing of birds; it may be possibly asked, what use results either from the trouble or expence which they have cost me; both of which I admit to have been considerable.

I will readily own, that no very important advantages can be derived from them; and yet I shall not
not decline suggesting what little profit they may possibly be of, though at best they should rather be considered as what Lord Bacon terms, experiments of light, than of fruit.

In the first place, there is no better method of investigating the human faculties, than by a comparison with those of animals; provided we make it without a most ungrateful wish of lowering ourselves, in that distinguished situation in which we are placed.

Thus we are referred to the ant for an example of industry and foresight, because it provides a magazine of food for the winter, when this animal is in a state of torpidity during that season; nor are we less willing to suppose the song of birds to be superior to our own musical powers.

The notes of many birds are certainly very pleasing, but by no means stand in competition either with the human voice or our worst musical instruments; nor only from want of the striking effects of harmony in many excellent compositions; but because, even when compared to our simple melody, expression is wanting*, without which music is so languid and inanimate.

But to return to the uses (such as they are) which may arise from attending to the song of birds, or from the experiments which I have given an account of.

* The nightingale, indeed, is perhaps an exception to this general observation.
APPENDIX.

The first of these is too much neglected by the naturalist; for, if the bird is not caught, the only means often by which either the sex or the species can be determined is the song. For example, if Mons. Adanson had informed us whether the European swallows, which he conceived were to be seen during the winter at Senegal, had the same notes with those of Europe, it would have been going one step further in proof of the facts which he and others so much rely upon.

These experiments, however, may be said to be useful to all those who happen to be pleased with singing birds; because it is clear, that, by educating a bird under several sorts, we may often make such a mixture, as to improve the notes which they would have learned in a wild state.

It results also from the experiment of the linnet being educated under the Vengolina, that we may introduce the notes of Asia, Africa, and America, into our own woods; because, if that linnet had been set at liberty *, the nestlings of the next season would have adhered to the Vengolina song, who would again transmit it to their descendants.

* I know well, that it is commonly supposed, if you set a caged bird at liberty, it will neither be able to feed itself, nor otherwise live long, on account of its being persecuted by the wild ones. There is no foundation, however, for this notion; and I take it to arise from its affording an excuse for continuing to keep these birds in confinement. But
APPENDIX.

But we may not only improve the notes of birds by a happy mixture, or introduce those which were never before heard in Great Britain; we may also improve the instrument with which the passages are executed.

If, for example, any one is particularly fond of what is called the song of the Canary bird, it would answer well to any such person, if a nestling linnet was brought up under a Canary bird, because the notes would be the same, but the instrument which executes them would be improved.

We learn also, from these experiments, that nothing is to be expected from a nestling brought up by hand, if he does not receive the proper instruction from the parent cock: much trouble and some cost is therefore thrown away by many persons in endeavouring to rear nestling nightingales, which, when they are brought up and fed at a very considerable expense, have no song which is worth attending to.

If a woodlark, or skylark, was educated, however, under a nightingale, it follows that this charge (which amounts to a shilling per week *) might be in a great measure saved, as well as the trouble of chopping fresh meat every day.

* Olina speaks of a paste which is used in Italy for nightingales; but I cannot find that it ever answers with us; perhaps, they bring their nightingales up by hand, and so accustom them from their earliest infancy to such food.
A nightingale, again, when kept in a cage, does not live often more than a year or two; nor does he sing more than three or four months; whereas the scholar pitched upon may not only be more vivacious, but will continue in song nine months out of the twelve.

I fear, however, that I have already dwelt too much upon these very minute and trifling advantages which may result from my experiments and observations; I shall therefore no longer defer subscribing myself,

Dear Sir,

Your most faithful,

Humble Servant,

Daines Barrington.
Allegretto

Compositions for two piping Bullfinches.

Allegro
No. VI.

OF THE MIGRATION OF BRITISH BIRDS.

Quam multae glomerantur aves! ubi frigidus annus
Trans pontum fugat, et terris immittit apricis.

Virgil.

THE migration of birds, is a subject of so curious a nature, that every one who attempts to write the natural history of animals, ought to look upon it as an essential part of his inquiries, and at the same time should endeavour to assign the cause why some birds prefer certain places for their summer, others for their winter residence.

To be qualified for this task, it is necessary that the inquirer should confine himself to one certain tract the whole year; he should be diligent in observing the arrival, and the disappearance of birds; he should commit every observation to paper, and compare them with the remarks of correspondents, on the same subject, that lie on every side of him. He should attend likewise to the weather; and to the plenty or failure of fruits and berries;
berries; as on these accidents many curious remarks may be founded. He should cultivate an acquaintance with the gentlemen of the navy, and other sea-faring people; he should consult their journals, to discover what birds light on their ships, at what seasons, in what latitudes, and in what weather, and from what points; and thus trace them in their very course.

A comparative view of the writings of those who should embrace this part of natural history, would throw great light on the subject. But it is to be lamented, that none, except two northern naturalists, Mr. Klein and Mr. Ekmarck, have professedly treated on this point. The southern parts of Europe, which may be supposed to receive, during winter, many of our land birds, have as yet produced no faunist to assist the inquiries of the naturalists, which must account for the imperfect knowledge we have of the retreat of many of our birds.

We must not omit, however, our acknowledgments to two eminent pens that have treated this subject as far as it related to rural economy; and, in such a manner, as does honour to their respective countries; we mean Mr. Alex. Mal. Berger and Mr. Stillingfleet: whom we should not mention a second time*, but to confess the aid we here receive from their faithful attention to the subject in question.

* Vide Preface.
APPENDIX.

We wish that any thing we could say, would induce others of our countrymen to follow their example: they need not fear that the matter is exhausted, for every county will furnish new observations; each of which, when compared, will serve to strengthen and confirm the other. Such an amusement is worthy of every one, beneath none; but would become no order of men better than our clergy, as they are (or ought to be) the best qualified, and the most stationary part of the community; and, as this is a mixed species of study (when considered as physico-theology) it is therefore particularly pertinent to their profession. A most ingenious friend, whom modesty prevents from putting his name to a work that renders observations of this kind of the utmost facility, has pointed out the way, and methodized every remark that can occur; the farmer, the sportsman, and the philosopher, will be led to the choice of materials proper to be inserted in that useful companion, the Naturalist's Journal.*

From the observations of our friends, from those made by ourselves, and from the lights afforded us by preceding writers, we shall, in the brief relation we can pretend to give, proceed in a general order, and as far as possible, trace each species of bird to its retreat.


A a a 3        A few
A few words will explain the cause of their disappearance in these northern regions; a defect of food at certain seasons, or the want of a secure asylum from the persecution of man during the time of courtship, incubation and nutrition.

**Hawks.**

Eagles, and all the ignoble species of this genus breed in Great Britain; of the Falcons, we only know that which is called the Peregrine, which builds its nest annually in the rocks of Llandidno, Caernarvonshire; and the Gentil, and the Gojshawk which breed in Scotland.

**Owls.**

We are assured that every species breeds in England, except the little Owl, and short eared Owl. The last breeds in Scotland, and the Orkney isles, but migrates into England at the same season as the Woodcocks do. Hawks and owls are birds of prey, and having at all times in this island means of living, are not obliged to quit their quarters.

**Shrikes.**

The Flusber, or red back Shrike, and the great Shrike, breeds with us; we have not heard of the other, so suspect that it migrates.

**Crows.**

Of this genus, the Hooded Crow migrates regularly with the Woodcock. It inhabits North Britain the whole year: a few are said annually to breed on Dartmoor, in Devonshire. It breeds also in Sweden and Austria, in some of the Swedish provinces it only shifts its quarters, in others it resides...
APPENDIX.

lides throughout the year. I am at a loss for the summer retreat of those which visit us in such numbers in winter, and quit our country in the spring. And for the reason why a bird, whose food is such that it may be found at all seasons in this country, should leave us.

Disappears early in autumn; the retreat of this and the following bird is quite unknown to us.

Is a bird that leaves us in the winter. If its diet be ants alone, as several assert, the cause of its migration is very evident. This bird disappears before winter, and revisits us in the spring a little earlier than the Cuckoo.

Continue with us the whole year; their food being the larvae of insects, which lodge themselves at all times in the bark of trees.

Continues here through all seasons.

Resides in this country the whole year.

Comes to England but by accident: we once indeed heard of a pair that attempted to make their nest in a meadow at Selborne, Hampshire, but were frightened away by the curiosity of people. It breeds in Germany.

Never leaves the country.

A a a 4

The
Grouse. The whole tribe, except the Quail, lives here all the year round: that bird either leaves us, or else retires towards the sea-coasts *.

Bustard. Inhabits our downs and their neighborhood all the year.

Pigeons. Some few of the Ring-doves breed here; but the multitude that appears in the winter, is so disproportioned to what continue here the whole year, as to make it certain that the greatest part quit the country in the spring. It is most probable they go to Sweden to breed, and return from thence in autumn; as Mr. Ekmark informs us they entirely quit that country before winter †. Multitudes of the common Wild Pigeons also make the northern retreat, and visit us in winter; not but numbers breed in the high cliffs in all parts of this island. We suspect that the Turtle leaves us in the winter, at least changes its place, removing to the southern counties.

Stare. Breeds here; possibly several remove to other countries for that purpose, since the produce of those that continue here, seems unequal to the clouds of them that appear in winter. It is not unlikely that many migrate into Sweden, where Mr. Berger observes they return in spring.

* Vide p. 277. of this work.
† Amen. Acad. IV. 592.

The
The *Fieldfare* and the *Redwing* breed and pass their summers in *Norway*, and other cold countries; their food is berries, which abounding in our kingdoms, tempts them here in the winter. These two and the *Royston crow*, are the only land birds that regularly and constantly migrate into *England*, and do not breed here. The *Hawfinch* and *Crossbill* come here at such uncertain times, as not to deserve the name of birds of passage; and, on that account, rather merit a place in the appendix than in the body of the work.

The *Chatterer* appears annually about *Edinburgh* in flocks during winter; and feeds on the berries of the mountain ash. In *South Britain* it is an accidental visitant.

The *Grosbeak* and *Crossbill* come here but seldom; they breed in *Austria*. I suspect that the *Pine Grosbeak* breeds in the forests of the Highlands of *Scotland*.

All the genus inhabits this kingdom throughout the year, except the greater *Brambling*, which is forced here from the north in very severe seasons.

All continue in some parts of these kingdoms, except the *Siskin*, which is an irregular visitant, said to come from *Russia*. The *Linnets* shift their quarters, breeding in one part of this island, and remove
APPENDIX.

remove with their young to others. All finches feed on the seeds of plants.

Larks, Fly-catchers, Wagtails, and Warblers.

All of these feed on insects and worms; yet only part of them quit these kingdoms; though the reason of migration is the same to all. The Nightingale, Black-cap, Fly-catcher, Willow-wren, Wheat-ear, and White-throat, leave us before winter, while the small and delicate Golden-crested Wren braves our severest frosts. We imagine that the migrants of this genus continue longest in Great Britain in the southern counties, the winter in those parts being later than in those of the north; Mr. Stillingfleet having observed several Wheat-ears in the isle of Purbeck the 18th of November last. As these birds are incapable of very distant flights, we suspect that Spain, or the south of France, is their winter asylum.

Titmice.

Never quit this country; they feed on insects and their larvae.

Swallows, and Goat-sucker.

Every species disappears at approach of winter.

WATER FOWL.

Of the vast variety of water fowl that frequent Great Britain, it is amazing to reflect how few are known
known to breed here: the cause that principally urges them to leave this country, seems to be not merely the want of food, but the desire of a secure retreat. Our country is too populous for birds so shy and timid as the bulk of these are: when great part of our island was a mere waste, a tract of woods and fen; doubtless many species of birds (which at this time migrate) remained in security throughout the year. Egrets, a species of Heron, now scarce known in this island, were in former times in prodigious plenty; and the Crane, that has totally forsaken this country, bred familiarly in our marshes: their place of incubation, as well as of all other cloven footed water fowl (the Heron excepted) being on the ground, and exposed to every one: as rural oeconomy increased in this country, these animals were more and more disturbed; at length, by a series of alarms, they were necessitated to seek, during the summer, some lonely safe habitation.

On the contrary, those that build or lay in the almost inaccessible rocks that impend over the British seas, breed there still in vast numbers, having little to fear from the approach of mankind: the only disturbance they meet with in general, being from the desperate attempts of some few to get their eggs.
CLOVEN FOOTED WATER FOWL.

**Herons.**

The *White Heron* is an uncommon bird, and visits us at uncertain seasons; the common kind and the *Bittern* never leave us.

**Curlews.**

The *Curlew* breeds sometimes on our mountains; but, considering the vast flights that appear in winter, we imagine the greater part retire to other countries: the *Whimbrel* breeds in the Grampian Hills, in the neighbourhood of Invercauld.

**Snipes.**

The *Woodcock* breeds in the moist woods of Sweden, and other cold countries. Some *Snipes* breed here, but we believe the greatest part retire elsewhere; as do every other species of this genus.

**Sandpipers.**

The *Lapwing* continues here the whole year; the *Ruff* breeds here, but retires in winter; the *Redshank* and *Sandpiper* breed in this country, and reside here. All the others absent themselves during summer.

**Plovers and Oyster-catcher.**

The *long legged Plover* and *Sanderling* visit us only in winter; the *Dottrel* appears in spring and in autumn, yet what is very singular we do not find it breeds in *South Britain*. The *oyster-catcher* lives
lives with us the whole year. The *Norfolk Plover* and *Sea Lark* breed in *England*. The *Green Plover* breeds on the mountains of the North of *England*, and on the *Grampian Hills*.

We must here remark, that every species of the genera of *Curlews, Woodcocks, Sandpipers* and *Plovers*, that forf Kate us in the spring, retire to *Sweden, Poland, Prussia, Norway, and Lapland* to breed; as soon as the young can fly, they return to us again; because the frosts which set in early in those countries totally deprive them of the means of subsisting; as the dryness and hardness of the ground, in general, during our summer, prevent them from penetrating the earth with their bills, in search of worms, which are the natural food of these birds.

Every species of these two genera continue with us the whole year; the *Land Rail* excepted, which

* Mr. *Ekmarck* speaks thus of the retreat of the whole tribe of cloven footed water fowl out of his country (*Sweden*) at the approach of winter; and Mr. *Klein* gives much the same account of those of *Poland* and *Prussia*.

*Grallae* (tanquam conjuratae) unanimiter in fugam se conjiciunt, ne earum unicum quidem inter nos habitantem invenire possimus. *Aman. Acad.* IV. 588.

*Scolopaces et Glareolae* incredibilibus multitudinibus verno tempore in *Polonia et Borussia* nidulantur; appropinquante autunno turmatim evolant. *Klein de av. errat.* 187.
is not seen here in winter. It likewise continues in Ireland only during the summer months, when they are very numerous, as Mr. Smith tells us in the history of Waterford, p. 336. Great numbers appear in Anglesea the latter end of May; it is supposed that they pass over from Ireland, the passage between the two islands being but small. As we have instances of these birds lighting on ships in the Channel and the Bay of Biscay, we conjecture their winter quarters to be in Spain.

FINNED FOOTED WATER BIRDS.

Phalaropes. VISIT us but seldom; their breeding place is Lapland*, and other arctic regions.

Coot. Inhabits Great Britain the whole year.

Grebes. The great crested Grebe, the black and white Grebe, and little Grebe breed with us, and never migrate; the others visit us accidentally, and breed in Lapland.

WEB-FOOTED BIRDS.

Avoset. BREED near Fosdike in Lincolnshire; but quit their quarters, in winter. They are then shot in

* Aman. Acad. IV. 590. different
APPENDIX.

different parts of the kingdom, which they visit I believe not regularly but accidentally.

The great Auk or Pinguin sometimes breeds in St. Kilda. The Auk, the Guillemot and Puffin inhabit most of the maritime cliffs of Great Britain, in amazing numbers, during summer. The black Guillemot breeds in the Bass Isle, and in St. Kilda, and sometimes in Llandidno rocks. We are at a loss for the breeding place of the other species; neither can we be very certain of the winter residence of any of them, excepting of the lesser Guillemot and black-billed Auk, which, during winter, visit in vast flocks the Frith of Forth.

These chiefly breed in the lakes of Sweden and Lapland, and some in countries nearer the Pole*; but some of the red throated Divers, the northern and the imber, may breed in the north of Scotland and its isles.

I am uncertain where the black toed Gull breeds. The Skua is confined to the Shetland Isles, the Rock Foula, and perhaps St. Kilda. The Arctic breeds in the Orkneys and in the Hebrides. The rest of the tribe breed dispersedly on all the cliffs of Great Britain. The black beaded on our fens and lakes.


Every
Every species breeds here; but leaves us in the winter.

The Fulmar breeds in the isle of St. Kilda, and continues there the whole year, except September and part of October; the Shearwater visits the Isle of Man in April, breeds there, and leaving it in August or the beginning of September, disperses over all parts of the Atlantic Ocean. The Stormfinch is seen at all distances from land on the same vast watery tract, nor is ever found near shore except by some very rare accident, unless in the breeding season. We found it on some little rocky isles, off the north of Skie. It also breeds in St. Kilda. We also suspect that it nests on the Blasquet isles off Kerry, and that it is the Gourder of Mr. Smith*.

This whole genus is mentioned among the birds that fill the Lapland lakes during summer. I have seen the young of the Red-breasted in the north of Scotland: a few of these, and perhaps of the Goosanders may breed there.

Of the numerous species that form this genus, we know of few that breed here. The Swan and Goose, the Shield Duck, the Eider Duck, a few Shovelers, Garganies, and Teals, and a very small portion of the wild Ducks.

* Smith's hist. Kerry, 186.
APPENDIX.

The rest contribute to form that grazing multitude of water fowl, that annually occur from most parts of Europe to the woods and lakes of Lapland and other arctic regions*, there to perform the functions of incubation and nutrition in full security. They and their young quit their retreat in September, and disperse themselves over Europe. With us they make their appearance the beginning of October; circulate first round our shores, and when compelled by severe frost, betake themselves to our lakes and rivers. Of the web-footed fowl there are some of harder constitutions than others; these endure the ordinary winters of the more northern countries, but when the cold reigns there with more than common rigor, repair for shelter to these kingdoms: this regulates the appearance of some of the Diver kind, as also of the wild Swans,

*Barents found the Bernacles with their nests in great numbers in Nova Zembla. Colleß. voy. Dutch East-India Company, 8vo. 1703. p. 19. Clusius in his Exot. 368. also observes, that the Dutch discovered them on the rocks of that country and in Waygate Straits. They, as well as the other species of wild Geese, go very far north to breed, as appears from the histories of Greenland and Spitzbergen, by Egede and Crantz. These birds seem to make Iceland a resting place, as Horrebow observes, few continue there to breed, but only visit that island in the spring, and after a short stay, retire still further north.

The Swallows tailed Shield Duck breeds in the Icy Sea, and is forced southward only in the very hard winters. Amae. Acad. IV. 585.

Vol. II. B b b the
the Swallow tailed Shield Duck, and the different sorts of Goosanders which then visit our coasts.

The Corvorant and Shag breed on most of our high rocks: the Gannet in some of the Scotch isles, and on the coast of Kerry: the two first continue on our shores the whole year. The Gannet disperses itself all round the seas of Great-Britain, in pursuit of the Herring and Pilchard, and even as far as the Tagus to prey on the Sardina.

But of the numerous species of fowl here enumerated, it may be observed how very few entrust themselves to us in the breeding season; and what a distant flight they make to perform the first great dictate of nature.

There seems to be scarcely any but what we have traced to Lapland, a country of lakes, rivers, swamps and alps*, covered with thick and gloomy forests, that afford shelter during summer to these fowls, which in winter disperse over the greatest part of Europe. In those arctic regions, by reason of the thickness of the woods, the ground remains moist and penetrable to the Woodcocks, and other slender billed fowl: and for the web-footed birds†, the waters afford larvae innumerable of the torment-

* Flora Lapponica Lectori et Proleg.
† A disciple of Linnaeus, speaks thus of their food, Lapponia, ubi victum ex larvis et pupis culicum, altrix paravit numinis
APPENDIX.

tormenting Knat. The days there are long; and the beautiful meteorous nights indulge them with every opportunity of collecting so minute a food: whilst mankind is very sparingly scattered over that vast northern waste.

Why then should Linnaeus, the great explorer of these rude deserts, be amazed at the myriads of water fowl that migrated with him out of Lapland? Which exceeded in multitudes the army of Xerxes; covering, for eight whole days and nights, the surface of the river Calix*. His partial observation as a botanist, would confine their food to the vegetable kingdom, almost denied to the Lapland waters; inattentive to a more plenteous table of insect food, which the all bountiful Creator had spread for them in the wilderness †.

numinis munificentia. Aman. acad. IV. 1. 5. M. de Maupertuis makes the same observation, Ce ruisseau nous conduisit a un lac si rempli de petits grains jaunatres de la grosseur du Mil que toute son eau en etoit teinte. Je pris ces grains pour la Chrysalide de quelque infeste, &c. Oeuvres de M. de Maupertuis, III. 116.


† It may be remarked, that the lakes of mountaneous rocky countries in general are destitute of plants; few or none are seen on those of Switzerland; and Linnaeus makes the same observation in respect to those of Lapland; having, during his whole tour, discovered only a single specimen of a lemena trifulca, or ivy leaved duck's meat. Flora Lap. No. 470. a few of the scirpus lacustris, No. 18. or bullrush; the alopecurus geniculatus, No. 38. or flote foxtail gras; and the ranunculus aquatilis, No. 234. which are all he enumerates in his Prolegomena to that excellent performance.

B b b 2

No.
APPENDIX.

No. VII.

EXTRACTS FROM OLD ENGLISH WRITERS RELATING TO OUR ANIMALS.

MENTION having been so frequently made, in this work, of the old English feasts, and the species of animals that formed the good cheer; we transcribe from Leland an account of that given at the intronazation of George Nevell, archbishop of York, in the reign of Edward IV. and of the goodly provision made for the same.

In wheat, 300 quarters. In bittors, - - 204.
In ale, - 300 tunne. Heronshawes, - 400.
Wyne, - 100 tunne. Fessauntes, - - 200.
Of ypocrasse - 1 pype. Partriges, - - 500.
In oxen, - - 104. Wodcockes, - 400.
Wylde Bulles, - - 6. Curlewes, - - 100.
Murtons, - - 1000. Egrittes, - - 1000.
Veales, - - 304. Stagges, 'buck and roes,
Porkes, - - 304. 500 and mo.
Swannes, - - 400. Pasties of venison colde,
Geese, - - 2000. 4000.
Capons, - - 1000. Parted dyshes of gellies,
Pygges, - - 2000. 1000.
Plovers, - - 400. Playne dyshes of gellies,
Quales, - 100 dozen. 3000.
Of the foules called rees, 200 dozen.
In peacockes, - 104. Coldetartes baked, 4000.
Mallardes and teales, 4000. Colde custardes baked, 3000.
In cranes, - - 204. Hot pasties of venison, 1500.
In chyckens, - - 2000. Pykes and breames, 608.
Pigeons, - - 4000. Porpofes and seals, 12.
Conyes, - - 4000. Spices, sugared delicates,

Besides
APPENDIX.

Besides the birds in the above list, there are mentioned, in the particular of the courses*, Redhanks, Styntes, Larks and Martynettes rost; if the last were the same with the martin swallow, our ancestors were as general devourers of small birds as the Italians are at present, to whom none come amiss.

We must observe, that in the order of the courses it appears, that only the greatest delicacies were served up, as we may suppose, to the table where the nobility, gentlemen, and gentlewomen of worship were seated; and those seemed to have been dressed with almost as much art and disguise as at present. They had likewise their desert, or, as the term was, sutteltie; which was in form of dolphins or other animals; and sometimes recourse was had to the calendar to embellish the table, and St. Paul, St. Thomas, St. Dunstan, and a whole multitude of angels, prophetes and patriarches †, were introduced as suttelties to honor the day.

As no mention is made among the dishes that composed two of the courses, of the geese, the pygges, the veales, and other more substantial food, those must have been allotted to the franklins and head yeomen in the lower hall: and those most singular provisions, the porpofes and seales, inde-

* Leland's collanea, vi. 2.
† Idem, 23.
licate as they may seem at present, in old times were admitted to the best tables: the former, at left, as we learn from doctor Caius*, who mentions it not only as a common food, but even describes its sauce,

A transcript from that curious publication, The Regulations of the Household of the fifth Earl of Northumberland, begun in 1512, will be esteemed a very proper appendage to a work of this nature. It will shew not only the birds then in high vogue at the great tables of those days, but also how capricious a thing is taste, several then of high price being at present banished from our tables; and others again of uncommon rankness much valued by our ancestors.

Thus Wegions (I give the spelling of the time) See-pyes, Sholardes, Kyrlewes, Ternes, Cranys, Hearon-sewys, Bytters, See-gulles and Styntes, were among the delicacies for principal feasts, or his Lordship's own mees.

Those excellent birds the Teylles were not to be bought except no other could be got.

Fefauntes, Bytters, Hearon-sewys and Kyrlewes were valued at the same price, twelve pence each.

The other birds admitted to his Lordship's table were Bustardes, Mallardes, Woodcokes, Wypes, Quayles, Snypes, Pertryges, Redesbankes, Reys, Pacokes, Knottes, Dottrells, Larkys and small byrdes.

* Caii opusc. 113.
APPENDIX.

The great byrdes, for the Lord's mees, for the Chambreleyn and Stewardes mees may be, as the ingenious editor conjectures, Fieldfares, Thrushes and the like.*

The estimation each species was held in may be known by the following table, to which I have added the modern name, and the reference to it in this work.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cranys, the Crane,</td>
<td>534*</td>
<td>16d.</td>
</tr>
<tr>
<td>Hearon-sewys, the Heron,</td>
<td>355,</td>
<td>12d.</td>
</tr>
<tr>
<td>Mallards,</td>
<td>500,</td>
<td>2d.</td>
</tr>
<tr>
<td>Teylles, Teal,</td>
<td>513,</td>
<td>1d.</td>
</tr>
<tr>
<td>Woodcock,</td>
<td>365,</td>
<td>1d. or 1d. 1/2.</td>
</tr>
<tr>
<td>Wypes, Lapwings,</td>
<td>381,</td>
<td>1d.</td>
</tr>
<tr>
<td>Sea-gulls, Black-headed Gull,</td>
<td>456,</td>
<td>1d. or 1d. 1/2.</td>
</tr>
<tr>
<td>Stynites, Purrs,</td>
<td>397,</td>
<td>6d. a dozen.</td>
</tr>
<tr>
<td>Quails,</td>
<td>234,</td>
<td>2d.</td>
</tr>
<tr>
<td>Snipes,</td>
<td>378,</td>
<td>3d. a dozen.</td>
</tr>
<tr>
<td>Partridges,</td>
<td>233,</td>
<td>2d.</td>
</tr>
<tr>
<td>Red-shanks,</td>
<td>376,</td>
<td>1d.</td>
</tr>
<tr>
<td>Byters, Bitterns,</td>
<td>358,</td>
<td>12d.</td>
</tr>
<tr>
<td>Pheafants,</td>
<td>238,</td>
<td>12d.</td>
</tr>
<tr>
<td>Reys, Land Rails †,</td>
<td>410,</td>
<td>2d.</td>
</tr>
</tbody>
</table>

* P. 104. 424.
† I imagine the Reys to be the Land Rail, not the Reeve the female of the Ruff, for that bird seems not to be in vogue in those days. Old Drayton does not even mention it in his long catalogue of birds, but sets a high value upon The Rayle which seldom comes but upon rich men's spits *.

* Polyolbion. Canto XXV,
<table>
<thead>
<tr>
<th>Wildlife</th>
<th>Page</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sholardes, Shovelers</td>
<td>504</td>
<td>6d.</td>
</tr>
<tr>
<td>Kyrlewes, Curlews</td>
<td>362</td>
<td>12d.</td>
</tr>
<tr>
<td>Peacocks</td>
<td>236</td>
<td>12d.</td>
</tr>
<tr>
<td>Sea Pies</td>
<td>405</td>
<td></td>
</tr>
<tr>
<td>Wigeons</td>
<td>509</td>
<td>1d.</td>
</tr>
<tr>
<td>Knots</td>
<td>387</td>
<td>1d.</td>
</tr>
<tr>
<td>Dotrels</td>
<td>401</td>
<td>1d.</td>
</tr>
<tr>
<td>Buitards</td>
<td>241</td>
<td></td>
</tr>
<tr>
<td>Terns</td>
<td>459</td>
<td>4d. a dozen.</td>
</tr>
<tr>
<td>Great birds</td>
<td></td>
<td>Ditto</td>
</tr>
<tr>
<td>Small birds</td>
<td></td>
<td>12d. a dozen.</td>
</tr>
<tr>
<td>Larks</td>
<td></td>
<td>12d. for two dozens.</td>
</tr>
</tbody>
</table>
APPENDIX.

No. VIII.

A SYSTEMATIC ARRANGEMENT OF
THE BIRDS OF GREAT BRITAIN,
WITH THE NAMES IN THE ANTIENT
BRITISH.

GENUS I.

FALCON.

1. GOLDEN Eagle,
2. Black Eagle,
3. Sea Eagle,
4. Cinereous,
5. Osprey,
6. Gyrfalcon,
7. Peregrine Falcon,
8. Grey,
9. Gentil,
10. Lanner,
11. Goshawk,
12. Kite,
13. Buzzard,
14. Spotted,
15. Honey
APPENDIX.

15. Honey Buzzard,
16. Moor Buzzard,
17. Hen-Harrier,
18. Ringtail,
19. Kestrel,
20. Hobby,
21. Sparrow Hawk,
22. Merlin,

Bod y mel.
Bød y gwerni.
Barcud glâs.
Bod tinwyn.
Cudyll côch.
Hebog yr Hedydd.
Gwepia.
Corwalch, Llymyften.

II.

OWL.

*1. Eagle,
2. Long eared,
3. Short eared,
4. White,
5. Tawny,
6. Brown,
7. Little,

Y Ddylluan fawr.
Dylluan gorniog.
Dylluan glustio.
Dylluan wen.
Dylluan frech.
Aderyn y Cyrph.
Coeg Ddylluan.

III.

SHRIKE.

1. Great,
2. Red backed,
3. Wood char,

Cigydd mawr.
Cigydd cefn-goch.
Cigydd glâs.
### APPENDIX.

#### IV.

#### CROW.

1. Raven,        Cigfran.
2. Carrion,      Brân dyddyn.
3. Rook,         Ydfran.
4. Hooded,       Bran yr Jwerddon.
5. Magpie,       Piogen.
7. Red legged,   Brân big gôch.

#### V.

#### CUCKOO.

1. Cuckoo,       Cog.

#### VI.

#### WRYNECK.

1. Wryneck,      Gwas y gôg, Gwddfro.

#### VII.

#### WOODPECKER.

1. Green,        Cnocell y coed, Delor y derw.
2. Great
APPENDIX.

2. Great spotted, Delor fraith.
3. Middle.
4. Left spotted, Delor fraith beiaf.

VIII.

KINGFISHER.

1. Kingfisher, Glás y dorlan.

IX.

NUTHATCH.

1. Nuthatch, Delor y enau.

X.

HOOPOE.

1. Hoopoe, Y Goppog.

XI.

CREEPER.

1. Creeper, Y Grepianog.
### XII. Grous

1. Wood, Ceiliog coed.
2. Black, Ceiliog dû.
4. Ptarmigan, Coriar yr Alban.
5. Partridge, Coriar, Petrifæn.
6. Quail, Sosliar, Rhinc.

### XIII. Bustard

1. Great, Yr araf eheydd.
2. Leffer, Araf eheydd Lleiaf.

### XIV. Pigeon

1. Common, Colommen.
2. Ring, Yfguthan.
3. Turtle, Colommen fair, Tur-tur.

### XV.
APPENDIX.

XV.

STARE.

1. Stare, Drydwen, Drydwy.

XVI.

THRUSH.

1. Miffel, Trefglen, Pen y Llwyn.
2. Fieldfare, Cafeg y ddryccin.
3. Throffle, Aderyn bronfraith.
4. Redwing, Soccen yr eira, Y drefclen goch.
5. Blackbird, Mwyalch, Aderyn dù.
6. Ring-ouzel, Mwyalchen y graig.
7. Water-ouzel, Mwyalchen y dwfr.

XVII.

CHATTERER.

1. Waxen, Sidan-gynfôn.

XVIII.

GROSBEAK.

1. Haw, Gylfinbraff.
2. Pine
APPENDIX.

2. Pine.
3. Cross-billed,
4. Bulfinch,
5. Green,

Bunting.

1. Common,
2. Yellow,
3. Reed,
4. Tawny,
5. Snow,
6. Mountain,

FINCH.

1. Gold,
2. Chaff,
3. Brambling,
4. Sparrow,
5. Tree
APPENDIX.

5. Tree Sparrow, Golfan y mynydd,
7. Linnet, Llinos.
10. Twite, Llinos fynydd.

XXI.

FLY-CATCHER.

1. Spotted, Y Gwybedog.
2. Pied, Clochder y mynydd.

XXII.

LARK.

1. Sky, Hedydd, Uchedydd.
2. Wood, Hedydd y coed.
3. Tit, Cor Hedydd.
4. Field, Hedydd y cae.
5. Red, Hedydd rhudd.

XXIII.

WAGTAIL.

1. White, Brith y fyches, Tinsfigl y gwys.
2. Yel-
APPENDIX.

2. Yellow,  
3. Grey,  

Brith y fyches felen.  
Brith y fyches lwyd.

XXIV.

WARBLERS.

1. Nightingale,  
2. Redstart,  
3. Redbreast,  
4. Blackcap,  
5. Pettychaps,  
6. Hedge,  
7. Yellow,  

Eos.  
Rhonell goch.  
Yr Hobigoch. Bron-goch.  
Penddu'r brwyn.  
Y Ffigysog.  
Llwyd y gwrych.  
Dryw'r helyg. Sy-widw.

8. Scotch.  
9. Golden-crested,  
10. Wren,  
11. Sedge,  
12. Grasshopper,  
13. Wheatear,  
14. Whinchat,  
15. Stonechatter,  
16. Whitethroat,  

*8. Scotch.  
9. Golden-crested,  
10. Wren,  
11. Sedge,  
12. Grasshopper,  
13. Wheatear,  
14. Whinchat,  
15. Stonechatter,  
16. Whitethroat,  

Yfwigw, Sywigw.  
Dryw.  
Hedydd yr helyg.  
Gwich hedydd,  
Tinwyn y cerrig.  
Clochder yr eithin.  
Clochder y cerrig.  
Y'gwddfgwyn.

*17. Dartford.
APPENDIX.

XXV.

TITMOUSE.

1. Great, Y Benloyn fwyaf.
2. Blue, Y Lleian.
5. Longtailed, Y Benloyn gynffonhir.

XXVI.

SWALLOW.

1. Chimney, Gwennol, Gwenfol.
2. Martin, Marthin Penbwl.
3. Sand, Gennol y e'lennydd.
4. Swift, Marthin dû.

XXVII.

GOATSUCKER.

1. Nocturnal, Aderyn y droell,
   Rhodwr.

XXVIII.
APPENDIX.

XXVIII.

HERON.

1. Common, Cryr glás.
2. Bittern, Aderyn y bwnn.
   Bwmp y Gors.
3. White, Cryr gwyn.

XXIX.

CURLEW.

1. Curlew, Gylfinhir.
2. Whimbrel, Coeg ylfinhir.

XXX.

SNIPE.

1. Woodcock, Cyffylog.
2. Godwit, Rhoftog.
3. Cinereous, Rhoftog llwyd.
4. Red, Rhoftog rhûdd.
5. Lesser, Cwttyn dû.
7. Redshank, Coesgoch.
8. Cambridge, Coesgoch mannog.
9. Spotted, Coesgoch mannog.
10. Common,
APPENDIX.

10. Common,  
* 11. Great,  
12. Jack,  

XXXI.

S A N D P I P E R.

1. Lapwing,  
2. Grey,  
3. Ruff,  
4. Knot,  
5. Ash colored,  
6. Brown,  
7. Spotted,  
8. Black,  
* 9. Gambet,  
10. Turnstone,  
* 11. Hebridal,  
12. Green,  
13. Red,  
* 14. Aberdeen,  
15. Common,  
16. Dunlin,  
17. Purre,  
* 18. Little,  

XXXII.

P L O V E R.

1. Golden  
2. Long
APPENDIX.

2. Long legged, Cwtyn hirgoes.
3. Dottrel, Huttan.
4. Ringed, Mór Hedydd.
5. Sanderling, Llwyd y tywod.

XXXIII.

OYSTER CATCHER.

Pied, Piogen y mór.

XXXIV.

RAIL.

1. Water, Cwtiar.

XXXV.

GALLINULE.

1. Spotted, Dwfriar fannog.
2. Crake, Rhegen yr yd.
3. Common, Dwfriar.

XXXVI.

PHALAROPE.

2. Red,
APPENDIX.

2. Red, Pibydd Coch llydan-droed.

XXXVII.

COOT.

2. Great, Jâr ddwfr foel fwyaf.

XXXVIII.

GREBE.

1. Tippet, Gwyach. Tindroed.
2. Great crested, Gwyach gorniog.
3. Eared, Gwyach gluftiog.
4. Dusky, Gwyach leiaf.
5. Little, Harri gwlych dy big.

XXXIX.

AVOSET.

1. Scooping, Pig mynawd.

XL.

AU.

1. Great, Carfil mawr.
2. Razor
APPENDIX.

2. Razor-bill, Carfil, Gwalch y pen-waig.
5. Little, Carfil bach.

XLI.

GUILLEMOT.

1. Foolish, Gwilym.
2. Leffer, Chwilog.

XLII.

DIVER.

1. Northern, Trochydd mawr.
2. Imber, Trochydd.
4. Red-throated, Trochydd gwddfgoch.
5. Black-throated, Trochydd gwddfdu.

XLIII.

GULL.

1. Black-backed, Gwylan gefn-ddu,
2. Skua, Gwylan frech.
3. Black
APPENDIX

4. Arctic, Gwylan y Gogledd.
5. Herring, Gwylan benwaig.
6. Wagel, Gwylan rûdd a gwyn.
7. Winter, Gwylan y gweunydd.
10. Tarrock, Gwylan gernyw.
11. Black-head, Yr wylan benddu.

XLIV.

TERN.

1. Great, Y fôr-wennol fwyaf.
2. Lesser, Yfcrean.

XLV.

PETREL.

1. Fulmar, Gwylan y graig.
2. Shear-water, Pwffingen Fanaw.
3. Stormy, Cas gan Longwr.

XLVI.
APPENDIX.

XLVI.

MERGANSER.

1. Goosander,
2. Red-breasted,
3. Smew,
4. Red-headed,

Hwyad ddanheddog.
Trochydd danheddog.
Lleian wen.
Lleian ben-goch.

XLVII.

DUCK.

1. Wild Swan,
2. Tame Swan,
3. Grey Lag,
4. Bean Goose,
5. White fronted,
6. Bernacle,
7. Brent,
8. Eider,
9. Velvet,
10. Scoter,
11. Tufted,
12. Scaup,
13. Golden eye,
14. Morillon,
15. Shieldrake,
16. Mallard,
APPENDIX.

17. Shoveler, Hwyad lydanbig. 
18. Red breasted Shoveler, Hwyad fron-goch lydanbig; 
20. Long tailed, Hwyad gynffon gwynol. 
22. Ferruginous, Hwyad frech. 
23. Wigeon, Chwiw. 
25. Gadwall, Hwyad addfain. 
26. Garganey, Cor Hwyad, Crach Hwyad. 
27. Teal, 

XLVIII.

CORVORANT.

1. Corvorant, Múlfran, Mórfrán. 
2. Shag, Y Fulfran leiaf. 

APPENDIX.

*1. Rough legged Falcon, Y Rholydd, 
2. Roller, 
3. Nutcracker,
<table>
<thead>
<tr>
<th>No.</th>
<th>Bird</th>
<th>Welsh Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Nutcracker,</td>
<td>Aderyn y cnau.</td>
</tr>
<tr>
<td>4.</td>
<td>Oriole,</td>
<td>Y Fwyalchen felan.</td>
</tr>
<tr>
<td>5.</td>
<td>Rose colored Ouzel,</td>
<td>Y Fwyalchen gôch.</td>
</tr>
<tr>
<td>6.</td>
<td>Crane,</td>
<td>Garan.</td>
</tr>
<tr>
<td>7.</td>
<td>Egret,</td>
<td>Cryr coppog lleiaf.</td>
</tr>
<tr>
<td>8.</td>
<td>Little Bittern,</td>
<td>Aderyn y bwnn lleiaf.</td>
</tr>
</tbody>
</table>

* The birds marked * are not in the octavo edition, 1768.
No. IX.

CATALOGUE of the EUROPEAN QUADRUPEDS, BIRDS, AND REPTILES, Extra-Britannic.

SINCE the great use of Mr. Ray's *Sylloge Stirpium Europaearum extra Britannias* has been so fully approved by the travelling Botanist, it is thought a similar enumeration of the species of certain classes of the animal kingdom would be equally agreeable and serviceable to the travelling Zoologist. It comprehends the Extra-Britannic quadrupeds, birds, and reptiles of Europe, formed from the works of the general naturalists, from the Fauna of different countries, and from my own observations. The arrangement of the subjects are according to the excellent method of our countryman Mr. Ray, a little altered, or reformed. As there are not at this instant *English* names for most of the articles, we have been obliged to substitute those used by Linnaeus and other foreign writers; but to gratify the *English* reader's curiosity, who may wish for fuller accounts of the quadrupeds in his own language, we refer him in the second column to our own *Synopsis* of Quadrupeds; and in respect to the birds, to the *English* edition of Mr. Willughby's *Ornithology*.

* Stirpium Europaearum extra Britannias nascentium Sylloge, 1694.

CLASS
## CLASS I. QUADRUPEDIA.

### QUADRUPEDS.

<table>
<thead>
<tr>
<th>Lin. Syn. no.</th>
<th>Place.</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td></td>
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</tbody>
</table>

| I Bos | Urus | 99 | 4 Lithuania |
| Bubalis | iber. | 5 Italy |
| II Ovis | Strepficos | 98 | 8 B. Hungary |
| Laticauda | | | Calmuck country |
| III Capra | Rupicapra | 95 | 10 Alps, Pyrenees |
| Ixex | iber. | 9 | 11 Corsica, Sardinia |
| Ammon | 97 | 30 Ukraine |
| Tartarica | iber. |  |
| IV Cervus | Alces | 92 | 35 N. of the Baltic |
| Tarandus | 93 | 36 iber. |
| V Sus | Aper Sylvestris | 102 | 54 Germany, France, &c. |

### II.

| VI Canis | Lupus | 58 | 111 Almost all the continent |
| Lagopus | 59 | 113 Lapland |

| VII Felis | Lynx | 62 | 135 Many parts of Europe |

---

VIII
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>VIII Ursus</td>
<td>Arctos</td>
<td>69</td>
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<tr>
<td></td>
<td>Maritimus</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>Lufus, et</td>
<td>71</td>
</tr>
<tr>
<td></td>
<td>Mustela Gulo</td>
<td>67</td>
</tr>
<tr>
<td>IX Viverra</td>
<td>Genetta</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>Zibellina</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Perouasca</td>
<td>p. 233</td>
</tr>
<tr>
<td>X Lutra</td>
<td>Mustela Lutreola</td>
<td>66</td>
</tr>
<tr>
<td>XI Cañor</td>
<td>Fiber</td>
<td>78</td>
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<tr>
<td></td>
<td>Mofchatus</td>
<td>79</td>
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<td>XII Hystrix</td>
<td>Cirstata</td>
<td>76</td>
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<td>XIII Marmotta</td>
<td>Mus Marmotta</td>
<td>81</td>
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<td>Cricetus</td>
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<td>Souflik</td>
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<td>Lemmus</td>
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<td></td>
<td>Citellus</td>
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<tr>
<td></td>
<td>Zemni</td>
<td>80</td>
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<td>XIV Sciurus</td>
<td>Volans</td>
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<tr>
<td></td>
<td>Glis</td>
<td>87</td>
</tr>
<tr>
<td></td>
<td>Mus quercinus</td>
<td>84</td>
</tr>
<tr>
<td>XV Jerboa</td>
<td>Mus Jaculus</td>
<td>85</td>
</tr>
<tr>
<td>XVI Mus</td>
<td>Gregarius</td>
<td>84</td>
</tr>
</tbody>
</table>

III.

| XVII Trichechus | Rosmarus | 49 | 263 | Within the polar circle |

IV.

| XVIII Vespertilio | Serotina | 288 | France |
| | Pipistrilla | 289 | ibid. |
| | Barbastella | 290 | ibid. |
| | | 286 | ibid. |
### APPENDIX.

#### CLASS II. AVES.

#### BIRDS.

#### I. ACCIPITRES.

#### RAPACIOUS.

<table>
<thead>
<tr>
<th>Species</th>
<th>Author</th>
<th>Page</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Vultur</em></td>
<td>Briss. I. 453</td>
<td>66 Alps, Italy</td>
<td></td>
</tr>
<tr>
<td><em>Percnopterus</em></td>
<td>Braii. syn. 10</td>
<td>64 67 Spain, Minorca</td>
<td></td>
</tr>
<tr>
<td><em>Leucocephalus</em></td>
<td>Lin. 124</td>
<td>North</td>
<td></td>
</tr>
<tr>
<td><em>Melanaetos</em></td>
<td>Ibid. 61</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Morphno congener</em></td>
<td>Braii. syn. 7</td>
<td>63 Sweden</td>
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<tr>
<td><em>Rusticolus</em></td>
<td>Lin. 125</td>
<td></td>
<td></td>
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<tr>
<td><em>St. Martini</em></td>
<td>Briss. I. 443</td>
<td>France</td>
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<tr>
<td><em>Islandicus</em></td>
<td>Brunnich No.</td>
<td></td>
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<tr>
<td><em>Vespertinus</em></td>
<td>Lin. 129</td>
<td>Ingria</td>
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<tr>
<td><em>Minutus</em></td>
<td>131</td>
<td>Malta</td>
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<tr>
<td><em>Subfurcatus</em></td>
<td>326 No. 5</td>
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<tr>
<td><em>Caftaneus</em></td>
<td>327 - 6</td>
<td>Austria</td>
<td></td>
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<tr>
<td><em>Ferrugineus</em></td>
<td>328 - 7</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Cinereus</em></td>
<td>329 - 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Strix</em></td>
<td>Lin. 132</td>
<td>North</td>
<td></td>
</tr>
<tr>
<td><em>Scandiaca</em></td>
<td>Kr. 323 No. 3</td>
<td>Austria</td>
<td></td>
</tr>
</tbody>
</table>

† Countries the other side the Baltic.

** Nyctea
<table>
<thead>
<tr>
<th>APPENDIX</th>
<th>Wil. orn.</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>** Nyctea Lin. 132</td>
<td>North</td>
<td></td>
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<tr>
<td>Sylvestris Scop. No. 13</td>
<td>Carniola</td>
<td></td>
</tr>
<tr>
<td>Funerea Lin. 133</td>
<td>North</td>
<td></td>
</tr>
<tr>
<td>** IV Lanius Infans Lin. 138</td>
<td>197? North?</td>
<td></td>
</tr>
<tr>
<td>Major Gsneri 581 Briff. II. 146</td>
<td>88 Germany</td>
<td></td>
</tr>
</tbody>
</table>

## II. PICAÉ.

### PIE'S.

| V Corvus Caryocatactes Lin. 157 132 | Germany N. |
| Pyrrhocorax — | 158 | Alps |
| VI Coracias Garrulus — | 159 131 | Europe passim † |
| VII Oriolus Galbula — | 160 198 | ibid. |
| VIII Cuculus Glandarius — | 169 | Spain |
| IX Picus Martius — | 173 135 | Europe passim |
| Tridaetylus — | 177 | Norway |
| X Merops Apiaeter — | 182 147 | Ita. S. of Eu. |
| Icterocephala Briff. IV. 537 148 | ibid. |
| XI Certbia Muraria — | 184 | Italy |

† Those with this word refer to all the continent, except the extreme north, Lapland, &c.

### III. GAL.
### APPENDIX.

#### III. GALLINAE.

**GALLINACEOUS.**

<table>
<thead>
<tr>
<th>XII Tetrax</th>
<th><em>Nemesianus</em> Sco. No.</th>
<th>171</th>
<th>Carniola</th>
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<tbody>
<tr>
<td>Betulinus</td>
<td>No. 172</td>
<td></td>
<td>ibid.</td>
</tr>
<tr>
<td>Lagopus</td>
<td>Bru. No. 199</td>
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<tr>
<td>Bonaïa</td>
<td>Lin. 257</td>
<td>175</td>
<td>Europe</td>
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<tr>
<td><strong>Rufus</strong></td>
<td>—</td>
<td>276</td>
<td>S. of Eu.</td>
</tr>
<tr>
<td>Francolinus</td>
<td>—</td>
<td>275</td>
<td>ibid.</td>
</tr>
<tr>
<td>Alchata</td>
<td>—</td>
<td>276</td>
<td>Pyrenees</td>
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<tr>
<td>Montana</td>
<td>224</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tridaëtyla</td>
<td><em>Shaw's tra.</em> 253</td>
<td></td>
<td>Spain</td>
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</tbody>
</table>

**XIII Otis**

| Tetrax | Lin. 264 | 179 | France, Italy |

#### IV. PASSERES.

**SMALL BIRDS.**

<table>
<thead>
<tr>
<th>XIV Sturnus</th>
<th>Collaris Sco. No.</th>
<th>192</th>
<th>Carniola, Spain</th>
</tr>
</thead>
<tbody>
<tr>
<td>XV Turdus</td>
<td>Arundinaceus Lin.</td>
<td>296</td>
<td>143 Europe passim</td>
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<tr>
<td></td>
<td>Rosæus</td>
<td>294</td>
<td>194 Italy</td>
</tr>
<tr>
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<td>Saxatilis</td>
<td>294</td>
<td>197</td>
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<td></td>
<td>Cyanus</td>
<td>296</td>
<td>191 Italy, Spain</td>
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<tr>
<td></td>
<td>Coœruleus Belon</td>
<td>192</td>
<td>Alps</td>
</tr>
</tbody>
</table>

Vol. II. D d d XVI
## APPENDIX.

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Species</th>
<th>Author</th>
<th>Page</th>
<th>Place</th>
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<tbody>
<tr>
<td>XVI</td>
<td>Alauda Cristata</td>
<td>Lin.</td>
<td>288</td>
<td>Europe passim</td>
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<td>Spinoletta</td>
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<td>Italy</td>
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<td>Calandra</td>
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<td>Alpestris</td>
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<td>299</td>
<td>Spain</td>
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<td>Lusitanica nova</td>
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<td></td>
<td>Crafirosiris nova</td>
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<td>ibid.</td>
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<td>Emberiza Hortulanus</td>
<td>Lin.</td>
<td>309</td>
<td>S. of Eu.</td>
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<td></td>
<td>Cia</td>
<td></td>
<td>310</td>
<td>ibid.</td>
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<tr>
<td></td>
<td>Cirulus</td>
<td></td>
<td>311</td>
<td>269 zivolo ibid.</td>
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<td>Barbata</td>
<td>Sco. No.</td>
<td>210</td>
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<td>Brumalis</td>
<td>No.</td>
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<td>Fringilla Lapponica</td>
<td>Lin.</td>
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<td>North</td>
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<td>Lulenis</td>
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<td>318</td>
<td>Sweden</td>
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<td>Citrinella</td>
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<td>S. of Eu.</td>
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<td></td>
<td>Serinus</td>
<td></td>
<td>320</td>
<td>ibid.</td>
</tr>
<tr>
<td></td>
<td>Petronia</td>
<td></td>
<td>322</td>
<td>ibid.</td>
</tr>
<tr>
<td></td>
<td>Pafser Campestris Brijs. III</td>
<td>82</td>
<td>251</td>
<td>Friquet ibid.</td>
</tr>
<tr>
<td></td>
<td>Torquatus</td>
<td></td>
<td>85</td>
<td>250 No. 7 ibid.</td>
</tr>
<tr>
<td></td>
<td>Stultus</td>
<td></td>
<td>87</td>
<td>249 — 2 ibid.</td>
</tr>
<tr>
<td></td>
<td>Bononienfis</td>
<td></td>
<td>91</td>
<td>250 — 4 ibid.</td>
</tr>
<tr>
<td></td>
<td>Albicilla</td>
<td></td>
<td>92</td>
<td>250 — 5 ibid.</td>
</tr>
<tr>
<td></td>
<td>Pafserculus</td>
<td></td>
<td>93</td>
<td>252 — 13 ibid.</td>
</tr>
<tr>
<td></td>
<td>Sclavonicus</td>
<td></td>
<td>24</td>
<td>250 — 6 Dalmatia</td>
</tr>
<tr>
<td></td>
<td>Argentoratensis</td>
<td></td>
<td>146</td>
<td>Strafbour</td>
</tr>
<tr>
<td></td>
<td>Grau-fink Frisch. I</td>
<td></td>
<td>3</td>
<td>Germany</td>
</tr>
<tr>
<td>XIX</td>
<td>Metacilla Schoenobanus</td>
<td>Lin.</td>
<td>329</td>
<td>Italy</td>
</tr>
<tr>
<td></td>
<td>Curruca</td>
<td></td>
<td>329</td>
<td>Sweden</td>
</tr>
<tr>
<td></td>
<td>Ficedula Lin.</td>
<td></td>
<td>330</td>
<td>S. of Eu.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Stapazina</td>
</tr>
</tbody>
</table>
APPENDIX.

Wil. orn. Place.

Stapazina 331 Strapazino 233 ibid.
Dumetorum 334  
Erithacus 335 3tia Alder. 218 Sweden 
Suecia 336  
Curruca minor Bri. III. 374 Borin. Wil. 216 Italy 
cineraria 376  

tufa 387  

naevia 389 Boarina 217 Italy  
Ruticilla Gibraltar 407  S, of Eu. 
Phænicurus torqua 411  ibid. 
Rubecula Bononien. 422 Spipola 234 Bologna 
Curruca grisea naev. App. VI. 112  

Tithys Sco. No. 233  
Zya 234  
Muscipeta 236  
Lusitanica nova  
Hispanica nova  

XX Parus Cristatus Lin. 340 242 Germany  

Pendulinus 342  
Ignotus Brun. p. 73  

XXI Hirundo Melba Lin. 345  
Rupestris Sco. No. 167  

D d d 2  V. AQUA-
### APPENDIX.

#### V. AQUATICÆ FISSIPEDES.

**CLOVEN FOOTED WATER FOWL.**

<table>
<thead>
<tr>
<th>Strain</th>
<th>Wil. orn.</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platalea Leucorodia</td>
<td>Lin. 231 289</td>
<td>Europe passim</td>
</tr>
</tbody>
</table>

#### XXII

<table>
<thead>
<tr>
<th>XXII Ardea</th>
<th>Grus</th>
<th>234 274</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ciconia</td>
<td>235 286</td>
</tr>
<tr>
<td></td>
<td>Nigra</td>
<td>IBID. IBID.</td>
</tr>
<tr>
<td></td>
<td>Nycticorax</td>
<td>IBID. 279</td>
</tr>
<tr>
<td></td>
<td>Purpurea</td>
<td>236</td>
</tr>
<tr>
<td></td>
<td>Garzetta</td>
<td>237 280</td>
</tr>
<tr>
<td></td>
<td>Grisea</td>
<td>239</td>
</tr>
<tr>
<td></td>
<td>Minuta</td>
<td>240</td>
</tr>
<tr>
<td>Candida minor</td>
<td>Bri. V. 438 280</td>
<td></td>
</tr>
<tr>
<td>Torquata</td>
<td>440 282</td>
<td></td>
</tr>
<tr>
<td>Botaurus major</td>
<td>455 283</td>
<td></td>
</tr>
<tr>
<td>Botaurus minor</td>
<td>455</td>
<td></td>
</tr>
<tr>
<td>Botaurus striatus</td>
<td>454</td>
<td></td>
</tr>
<tr>
<td>Botaurus rufus</td>
<td>458 283</td>
<td></td>
</tr>
<tr>
<td>Botaurus naevius</td>
<td>462</td>
<td></td>
</tr>
<tr>
<td>Cancrophagus</td>
<td>466 281 No. 9 Italy</td>
<td></td>
</tr>
<tr>
<td>Cancroph. castaneus</td>
<td>468 IBID.</td>
<td></td>
</tr>
<tr>
<td>Cancroph. rufus</td>
<td>469 281 — 7</td>
<td></td>
</tr>
<tr>
<td>Cancroph. naevius</td>
<td>471</td>
<td></td>
</tr>
<tr>
<td>Cancroph. luteus</td>
<td>472 281 — 8 Italy</td>
<td></td>
</tr>
<tr>
<td>Viridis Belgica nova</td>
<td>Holland</td>
<td></td>
</tr>
<tr>
<td>Ardea alba</td>
<td>Sco. No. 127</td>
<td>Carniola</td>
</tr>
</tbody>
</table>

#### XXIV

| XXIV Tantaius Falcinellus | Lin. 241 295 | Germany |

#### XXV

| XXV Numenius Danicus | novus? | Denmark |
| Passerinus | novus | Holland |

XXVI
APPENDIX

Wil. orn. Place.

XXVI Scolopax Fusca Lin. 243
Australis Sco. No. 94 Carniola

XXVII Tringa Gambetta Lin. 248
Striata?
Calidris
Helvetica
Varia
Totanus navius Briss. V. 200
Cinclus torquatus 216
Calidris grisea 233
Calidris navia 229
Bononienfis major 110
Erythropsus Sco. No. 146
Undata Brun.—183

XXVIII Pratincola Krameria Kramer 381 L. 345 No. 12 Austria

XXIX Charadrius Alexandrinus Lin. 253
Apricarius 254
Luteus novus France

XXX Gallinula Grinetta Wil. orn. 315 Italy
Serica ibid. ibid.
Major 313
Porphyrio Balsaricus novus Minorca

VI. PEDIBUS PINNATIS.

WITH FINNED FEET.

XXXI Phalaropus Platyrynchus Brunnich No. 172 North
## APPENDIX.

### VII. PEDI BUS PALMATIS.

**WITH WEBBED FEET.**

<table>
<thead>
<tr>
<th>XXXII Phænicopterus Ruber</th>
<th>Lin.</th>
<th>230 320 S. of Fr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>XXXIII Corrira Longipes</td>
<td>Raii.</td>
<td>118 231 Italy</td>
</tr>
<tr>
<td>XXXIV Mergus Caïtor</td>
<td>Scop. No. 90</td>
<td>Carniola</td>
</tr>
<tr>
<td>XXXV Larus Albus</td>
<td>Scop. No. 106</td>
<td>ibid.</td>
</tr>
<tr>
<td>Merulinus Bicolor</td>
<td>108 110</td>
<td>ibid.</td>
</tr>
<tr>
<td>XXXVI Sterna Cinerea</td>
<td>Pri. VI. 220</td>
<td></td>
</tr>
<tr>
<td>Nævia</td>
<td>.216</td>
<td></td>
</tr>
<tr>
<td>XXXVII Anas Niveus (anfer)</td>
<td>Bri. IV. 228</td>
<td>North</td>
</tr>
<tr>
<td>Moscoviticus</td>
<td>277 360</td>
<td></td>
</tr>
<tr>
<td>Spectabilis</td>
<td>Lin. 195</td>
<td>North</td>
</tr>
<tr>
<td>Glaucion</td>
<td>201 367</td>
<td></td>
</tr>
<tr>
<td>Histrionica</td>
<td>204</td>
<td>North</td>
</tr>
<tr>
<td>Muscaria</td>
<td>Raii.</td>
<td>146 375</td>
</tr>
<tr>
<td>Ferroënsis</td>
<td>Bri. VI. 466</td>
<td>Ferroë nses</td>
</tr>
<tr>
<td>Subterranea</td>
<td>Scop. No. 83</td>
<td>Carniola</td>
</tr>
<tr>
<td>Cinerea</td>
<td>K. 34</td>
<td>14 Austria</td>
</tr>
<tr>
<td>XXXVIII Pelecanus Onocrotalus</td>
<td>Lin. 215 327</td>
<td>Danube:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Po.</td>
</tr>
</tbody>
</table>

**CLASS.**
CLASS III. REPTILIA.

REPTILES.

*PEDATA:*

WITH FEET.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Description</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rana</td>
<td>Bombina Lin.</td>
<td>Sweden</td>
</tr>
<tr>
<td></td>
<td>Arborea</td>
<td>Germany</td>
</tr>
<tr>
<td>Lacerta</td>
<td>Chamaeleon Lin.</td>
<td>S. of Europe</td>
</tr>
<tr>
<td>Salamandra</td>
<td></td>
<td>273 ibid.</td>
</tr>
<tr>
<td>Orbicularis</td>
<td></td>
<td>S. of Europe</td>
</tr>
<tr>
<td>Marmorata</td>
<td></td>
<td>ibid.</td>
</tr>
<tr>
<td>Aurata</td>
<td></td>
<td>ibid.</td>
</tr>
<tr>
<td>Umbra?</td>
<td></td>
<td>ibid.</td>
</tr>
<tr>
<td>Seps</td>
<td></td>
<td>ibid.</td>
</tr>
<tr>
<td>Chalcides</td>
<td></td>
<td>ibid.</td>
</tr>
</tbody>
</table>

**APODIA.**

WITHOUT FEET.

<table>
<thead>
<tr>
<th>Animal</th>
<th>Description</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serpentes Anguis Asculapii, Plinii lib. xxix. c. 4. Raijsyn. qua. 291</td>
<td>Italy</td>
<td></td>
</tr>
<tr>
<td>Coluber Chersea Lin. 377 Wulff. Boruff. 10</td>
<td>Sweden</td>
<td></td>
</tr>
<tr>
<td>Aspis Lin. 378 Strom. Sondm. 193</td>
<td>Fr. Norway</td>
<td></td>
</tr>
<tr>
<td>Jaculus Wulff. Boruff. 13</td>
<td>Prussia</td>
<td></td>
</tr>
<tr>
<td></td>
<td>D d d 4</td>
<td>INDEX</td>
</tr>
</tbody>
</table>
SOME account of the barbarous custom of Cock-fighting, so frequent, till of late years, a favorite amusement among some of all ranks in this kingdom, will be no improper appendage to the history of our domestic birds.

If it can be any apology for so cruel a diversion, we may plead that it was in use among the most polite people of antiquity: first invented, in all probability, by the Athenians, and borrowed from them by other nations, in particular by the Romans, who introduced it into our islands.

At Athens was an annual feast, attended with Cock-fighting, instituted by Themistocles in honor of the birds from whose fighting he received an omen of his success against the Persians. He observed, that these birds fought for mere glory; neither for the gods of their country, nor tombs of
OF COCK-FIGHTING.

of their ancestors, nor yet for their children: * setting before his soldiers every motive to excite their valor, which they had superior to these birds. This festival was stifled Αλεξετρουν αγων; and became anniverfary.

The Cock-pit, or Τηλια, was in the theatre where the public games were exhibited, and was in form of a square stage, not round, like the modern pits. The game of Cock-fighting lasted but one day; for originally it was considered partly as a religious and partly as a political institution. But the custom was soon abused, and Cock-matches grew frequent among private people. The barber Meidias and Callias fought a main: these gentlemen were, in all probability, also celebrated Cock-feeders, or at left Quail-feeders, being called Ομηυγητοφοι; for it is certain that the antients prepared their birds for battle: great sums were layed on the event; and the Lanistae, or Cockers, frequently totally ruined by their pursuits of the diversion †.

The custom spread soon, as is suspefted, from Athens to Pergumius and Troas. In the firft were annual Cock-matches: and their neighbours, the Dardanii Troas, seem equally addicted to the diversion, as is evident from their coins, which had on them two fighting cocks.

On two antient gems, in the collection of Mr.

† Columella, lib. viii. c. 2.

10 William
OF COCK-FIGHTING.

William Hamilton §, are strong memorials of this custom: on one is a Cock, with his head crest, carrying in his bill a palm-branch, in token of victory over another, which standing before with a drooping head. On the other, are two in the action of fighting, and a mouse above, running away with an ear of corn, the cause of the battle: from both these representations, it is evident that the antients neither trimmed their Cocks, nor cut off their combs and wattles.

The race of birds most esteemed by the antients, was that of Tanagra, a city of Boeotia, the Isle of Rhodes, Chalcis in Euboia, and the country of Media *. They preferred the larger kind, or what we call Shakebags. The hens of Alexandria in Egypt, called Movboopt, were highly valued for breeding spirited chickens †.

From Greece the diversion was carried to Rome: but did not arrive at the height of folly as it did at Athens. The Romans delighting more in quail fightings, as the Chinese do at this time. But we are told, that the fraternal hatred between Bassianus and Geta, sons of the emperor Severus, began when they were boys, from a quarrel they had about their Quails and Cocks ‡.

The Britons had poultry before the arrival of Cæsar, but they owe the barbarous custom of

§ Archaeologia, vol. iii. tab. ix.
* Plin. Nat. Hist. lib. x. c. 25;
† Geoponic. lib. xiv. c. 7.
‡ Herodian. iii. § 32.

Cocking
OF COCK-FIGHTING.

Cocking to the Romans. Yet it does not occur among our writers, till the time of Henry II. when Fitz-Stephens § mentions it as the school-boys diversion on Carnelevaria, or Shrove-Tuesday. Edward III. disapproved and prohibited Cock-fighting ||. But that barbarous prince Henry VIII. gave it so much encouragement as to build a theatre, near Whitehall, for that purpose, to this day known by the name of the Cockpit. At length, Oliver Cromwell, in 1654, by a humane edict, suppressed these disgraceful meetings; which, after his time, revived with full fury: yet it is some consolation, in this profligate age, that whatsoever other follies flourish, this loses credit, and drops (excepting among the dregs of the people) into the utmost disrepute *.

§ p. 45. || Maitland London, i. 151.

* It will be injustice not to say, that almost the whole of this is borrowed from the memoir on this subject, by that able antiquary the Rev. Mr. Pegge. See Archæologia, vol. iii. 132.
STOCK DOVE, or WOOD PIGEON.

VOL. I. Page 290.

Of the STOCK DOVE, or WOOD PIGEON.

CEnas five vinago. Wil. Orn. 185.

THIS bird has been confounded with the Wild Pigeon, and the Rock Pigeon, and made the origin of the domestic kind. I first had an opportunity of correcting my error, * by seeing the true Stock Dove in the Leverian Museum, which satisfied me that Mr. Willughby, with great justice, described it as a distinct species.

It is equal in size to the common kind, perhaps larger. The weight of a male is fourteen ounces: its extent of wing, twenty-six inches: its length, fourteen.

The bill is of a light red: the head, neck, and upper part of the back, of a dark grey; the lower part, and rump, changes into an elegant light grey: the primary feathers of the wings, are dusky: coverts and secondaries, deep grey, marked with two black spots on the exterior webs: the lower half of the exterior webs of the two outermost feathers of the tail, are white: the rest, cinereous, with their ends black.

The sides of the neck, of a variable glossy green: the breast, of pale purplish or vinaceous color: the belly cinereous: legs red.

Breeds in hollow stocks of trees, and sometimes on the tops: from which it derives its name of

* By Linnaeus also, who makes it synonymous with the Tame Pigeon.
STOCK DOVE, or WOOD PIGEON.

Stock Dove, or Wood Pigeon: in opposition to the other, which breeds in holes of rocks, steeples, and towers. Those are resident in this kingdom: the former generally migratory: a few breed in the woods in Sussex, * and perhaps other southern parts of Great Britain. Their eggs have been hatched under tame Pigeons; but the young, as soon as they could fly, have betook themselves to their savage state. These perch on trees: the true Wild or Rock Pigeon rarely or never. It has also marks different: in particular the lower part of the back, and the rump, are never of any other color than white. Yet, as Pigeons are frequently seen among our tame flocks, with grey back and rumps, it is highly probable, that notwithstanding the above experiment may sometimes fail, yet both kinds may have contributed to stock our pigeon-houses.

Gentlemen who have pigeon-houses near some of the lofty cliffs which impend over the sea, seldom preserve the pigeons in them the whole year: tempted by food, they will visit and continue sometime in the house, but usually fly to the rocks to breed.

Migration

The Stock Doves migrate into the south of England, in great multitudes, in November; and while the beech woods were suffered to cover large tracts of ground, came in myriads, reaching in strings of a mile in length, when they went in

* Mr. Latham Rivett.
GREY WHEAT-EAR.

the morning to feed. They retire in the spring: I suppose into Sweden; for Mr. Ekmark makes their retreat from that kingdom coincide with the time of their appearance here.

VOL. I. Page 385.

GREY WHEAT-EAR.

Cul blanc gris, Brisson iii. 552. tab. xxi.

A Bird of this species was shot near Uxbridge. The crown and back were of a tawny brown; the under side of the neck, of a dull brownish yellow: from bill to eye passed an obscure dusky line. Quill feathers and secondaries black, edged with tawny and white: tail, like the common Wheat-Ear; but the edges were marked with pale tawny.

In the Linnaean System, p. 332. it is made a variety of the common Wheat-Ear.

VOL. II. Page 574.

TRANSFER to the Grey-lac Goose, p. 570, all the synonyms prefixed, by mistake, to the Bean Goose.
Sula.

Vol. II. Page 620.

This variety of the Gannet was sent to me in August 1779, by Hugh Stodart, esq; of Treganwy, in Caernarvonshire. I do not recollect that it has been observed in Europe since the days of Dr. Hoier, a physician at Bergen, who procured it from the Ferroe Isles, and sent it to his friend Clusius. It has since been seen frequently in Falkland Island, and in the South Seas, especially on the coasts of New Holland and New Zealand. Seamen call it the Port Egmont Hen.

This bird differs from the common Gannet only in those particulars: in having some of the secondaries feathers black; and the middle feathers of the tail of the same color: whereas both, in the common fort, are entirely white.

Vol. III. Page 179.

Genus Cod.


The Green Cod-Fish is beardless; smooth, of dusky green on the back; and silvery in every other part: jaws, of equal lengths: side line, strait; tail forked.

I was favored by Sir John Cullum, bart. with the notice of this species being British; he observed numbers of them which had been taken in the German ocean; none exceeded seven inches in length. Linnaeus does not attribute to them a greater size than that of a Perch.
<table>
<thead>
<tr>
<th>INDEX</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>ABERDAVINE,</td>
<td>Page</td>
</tr>
<tr>
<td>Acanthis, what supposed to be,</td>
<td>341.</td>
</tr>
<tr>
<td>Æsopus, his dish of singing birds,</td>
<td>334.</td>
</tr>
<tr>
<td>Agasteus, Agaffeus, what dogs,</td>
<td>656.</td>
</tr>
<tr>
<td>America, no rats there originally,</td>
<td>63.</td>
</tr>
<tr>
<td>Anacreon, mentions the carrier pigeon,</td>
<td>116.</td>
</tr>
<tr>
<td>Apodes, of Aristotle,</td>
<td>294.</td>
</tr>
<tr>
<td>Ariothe, his account of the carrier pigeon,</td>
<td>554.</td>
</tr>
<tr>
<td>Aristophanes, mentions the use sailors made of the flight of birds,</td>
<td>294.</td>
</tr>
<tr>
<td>Afs,</td>
<td>509.</td>
</tr>
<tr>
<td>— not originally a native of Britain,</td>
<td>13.</td>
</tr>
<tr>
<td>Asterias, what bird,</td>
<td>14.</td>
</tr>
<tr>
<td>Attagas or Attagen, what bird,</td>
<td>425.</td>
</tr>
<tr>
<td>Auk, the greater, or Penguin,</td>
<td>440.</td>
</tr>
<tr>
<td>— common or Razor-bill,</td>
<td>507.</td>
</tr>
<tr>
<td>— black-billed,</td>
<td>509.</td>
</tr>
<tr>
<td>— little,</td>
<td>511.</td>
</tr>
<tr>
<td>Avoset,</td>
<td>517.</td>
</tr>
<tr>
<td></td>
<td>504.</td>
</tr>
</tbody>
</table>
INDEX.

B.

BADGER, - - - 85.
Barley bird or Siskin, - - 340.
BARRINGTON, the Honourable Daines, of the small birds of flight by, - - 649.
- - - Essay on singing birds by, - 660.
Bass Isle, number of birds on, - - 614.
BAT, great, - - 146.
- - long-eared, - - 147.
- - horse-shoe, - - ibid.
- - common, - - 148.
- - a tame one, - - 150.
Bears, once found in Britain, - 77.
Beaver, now extinct, - 96.
Belon, the first traveller who made remarks in natural history, - - 253.
Bernacle, - - 577.
Bison Scoticus, - - 23.
Bittern, - - 424.
- - the Asterias of the antients, - 425.
- - the little, - - 427, 633.
Black-bird, - - 308.
Black-cap, - - 374.
Black-cock, vide Grous.
- - spotted, - - 268.
Blood-hound, its use, - - 61.
Boadicea, her use of the hare, - - 102.
Boar, wild, once found in England, - - 57.
Bots, what, - - 12.
Brambling, - - 337.
Brawn, a dish peculiar to England, - - 57.
Brent goose, - - 579.
Britain, its natural advantages, - - Preface.
Bruce, Robert K. of Scotland saved from a wild bull, Buck,
### INDEX

<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Buck, or fallow-deer</td>
<td>41, 46</td>
</tr>
<tr>
<td>Bulfinch</td>
<td>320</td>
</tr>
<tr>
<td>Bulls, wild</td>
<td>22</td>
</tr>
<tr>
<td>Bunting, common</td>
<td>324</td>
</tr>
<tr>
<td>— yellow</td>
<td>325</td>
</tr>
<tr>
<td>— reed</td>
<td>326</td>
</tr>
<tr>
<td>— tawny</td>
<td>327</td>
</tr>
<tr>
<td>— snow</td>
<td>329</td>
</tr>
<tr>
<td>— its migration</td>
<td>330</td>
</tr>
<tr>
<td>— mountain</td>
<td>331</td>
</tr>
<tr>
<td>Bustard, great</td>
<td>284</td>
</tr>
<tr>
<td>— lesser</td>
<td>286</td>
</tr>
<tr>
<td>— thick-kneed</td>
<td>287</td>
</tr>
<tr>
<td>Butcher-bird, vide Shrike</td>
<td></td>
</tr>
<tr>
<td>— left, vide bearded Titmouse</td>
<td></td>
</tr>
<tr>
<td>Buzzard, bald, or Osprey</td>
<td>174</td>
</tr>
<tr>
<td>— honey</td>
<td>190</td>
</tr>
<tr>
<td>— common</td>
<td>188</td>
</tr>
<tr>
<td>— moor</td>
<td>192</td>
</tr>
<tr>
<td>— spotted</td>
<td>189</td>
</tr>
</tbody>
</table>

### C.

<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cagmag, what</td>
<td>572</td>
</tr>
<tr>
<td>Canary bird</td>
<td>347</td>
</tr>
<tr>
<td>Capercaze, vide cock of the wood</td>
<td></td>
</tr>
<tr>
<td>Carrier-pigeon, its uses</td>
<td>292</td>
</tr>
<tr>
<td>Cat, domestic</td>
<td>82</td>
</tr>
<tr>
<td>— its value formerly</td>
<td>83</td>
</tr>
<tr>
<td>— odd penalty for stealing the Prince's</td>
<td>83</td>
</tr>
<tr>
<td>— wild</td>
<td>80</td>
</tr>
<tr>
<td>Cataracta or Skua</td>
<td>532</td>
</tr>
<tr>
<td>— a name applied to the gannet</td>
<td>619</td>
</tr>
<tr>
<td>Cattle</td>
<td></td>
</tr>
</tbody>
</table>
INDEX.

Cattle, wild still in Britain, - - 22.
Cavalry, British, respectable, - - 4.
—— poor state of in Queen Elizabeth's time, - 8.
—— numerous in the time of King Stephen, ibid.
Cep. phus, gull, - - 532.
Chaffinch, - - 335.
Chariots, scythed, of the Britains, - - 4.
Chatterer, waxen, - - 314.
Cheefe, not made by the Britains, - - 19.
Chenalopex, - - 590.
Chenerotes, - - 579.
Chevy Chace, the story not improbable, - - 43.
Childers, a horse, his speed, - - 2.
Χρύσομίτες, of Aristotle, - - 334.
Churn owl, - - 416.
Cloven footed water fowl, - - 421.
Coaches, when first used in England, - - 9.
Cock, common, or poultry, - - 279.
—— wild only in India, - - 280.
—— the black or grous, - - 266.
—— of the wood, - - 262.
Coddy moddy gull, - - 537.
Cornisb chough, - - 228.
—— tarrock, - - 540.
Cornix of Virgil, - - 220.
Country Gentlemen, the study of natural history recommended to, - - Preface.
Coldfinch, or pied Flycatcher, - - 351.
Colemouse, - - 392.
Coot, common, - - 494.
—— great, - - 495.
Coracles, or leathern boats, - - 24, 25.
Corvorant, - - 608.
—— its voraciousness, - - 609.
—— Satan said by Milton to have assumed the form of this bird, ibid.
Crake,
<table>
<thead>
<tr>
<th>INDEX.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Crake, or land rail,</strong></td>
</tr>
<tr>
<td><strong>Crane,</strong></td>
</tr>
<tr>
<td><strong>Creeper,</strong></td>
</tr>
<tr>
<td><strong>Crofsbill,</strong></td>
</tr>
<tr>
<td><strong>Crow,</strong></td>
</tr>
<tr>
<td>— carrion,</td>
</tr>
<tr>
<td>— Royſton, or hooded,</td>
</tr>
<tr>
<td>— red-legged,</td>
</tr>
<tr>
<td><strong>Cuckoo,</strong></td>
</tr>
<tr>
<td>— why a name of reproach,</td>
</tr>
<tr>
<td><strong>Curlew,</strong></td>
</tr>
<tr>
<td>— stone,</td>
</tr>
<tr>
<td><strong>Cypſelli, Plinii,</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>D.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Decoys, an account of,</strong></td>
</tr>
<tr>
<td><strong>Deer, fallow, or buck,</strong></td>
</tr>
<tr>
<td><strong>Didapper, or little grebe,</strong></td>
</tr>
<tr>
<td><strong>Diver, northern,</strong></td>
</tr>
<tr>
<td>— Imber,</td>
</tr>
<tr>
<td>— speckled,</td>
</tr>
<tr>
<td>— red-throated,</td>
</tr>
<tr>
<td>— black-throated,</td>
</tr>
<tr>
<td><strong>Divinity, how far natural history may promote the</strong> <strong>end of, Preface.</strong></td>
</tr>
<tr>
<td><strong>Docking of horses, an absurd custom,</strong></td>
</tr>
<tr>
<td><strong>Dog,</strong></td>
</tr>
<tr>
<td>— setting,</td>
</tr>
<tr>
<td>— lap,</td>
</tr>
<tr>
<td>— shepherd's, ibid.</td>
</tr>
<tr>
<td>— English, in high esteem with the Romans,</td>
</tr>
<tr>
<td><strong>Dormouse,</strong></td>
</tr>
<tr>
<td><strong>Dottrel,</strong></td>
</tr>
<tr>
<td><strong>Dove, turtle,</strong></td>
</tr>
</tbody>
</table>

*Dove,*
<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dove, ring</td>
<td>296</td>
</tr>
<tr>
<td><strong>Greenland</strong></td>
<td>521</td>
</tr>
<tr>
<td><strong>Duck</strong></td>
<td>562</td>
</tr>
<tr>
<td>wild and tame</td>
<td>591</td>
</tr>
<tr>
<td><strong>Eider</strong></td>
<td>581</td>
</tr>
<tr>
<td>velvet</td>
<td>583</td>
</tr>
<tr>
<td>scoter</td>
<td>584</td>
</tr>
<tr>
<td>ferruginous</td>
<td>601</td>
</tr>
<tr>
<td>morillon, or grey headed</td>
<td>588</td>
</tr>
<tr>
<td>tufted</td>
<td>585</td>
</tr>
<tr>
<td>scaup</td>
<td>586</td>
</tr>
<tr>
<td>pintail</td>
<td>598</td>
</tr>
<tr>
<td><strong>Duck, long tailed</strong></td>
<td>599</td>
</tr>
<tr>
<td>gimulated</td>
<td>602</td>
</tr>
<tr>
<td><strong>Ducks, wild, vaft drivings formerly</strong></td>
<td>595</td>
</tr>
<tr>
<td><strong>Dun-bird, the female pochard</strong></td>
<td>600</td>
</tr>
<tr>
<td><strong>Dun-diver, or female goosander</strong></td>
<td>557</td>
</tr>
<tr>
<td><strong>or serula</strong></td>
<td>558</td>
</tr>
<tr>
<td><strong>Dunlin</strong></td>
<td>471</td>
</tr>
</tbody>
</table>

**E.**

<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eagle, golden</td>
<td>161</td>
</tr>
<tr>
<td>ringtail or black</td>
<td>165</td>
</tr>
<tr>
<td>sea</td>
<td>167</td>
</tr>
<tr>
<td>Eagles carry away children</td>
<td>163</td>
</tr>
<tr>
<td>their longevity</td>
<td>164</td>
</tr>
<tr>
<td>Edgar, king, his advice to the clergy</td>
<td>45</td>
</tr>
<tr>
<td>did not extirpate wolves out of Wales</td>
<td>75</td>
</tr>
<tr>
<td>Egret</td>
<td>631</td>
</tr>
<tr>
<td>Eider duck</td>
<td>581</td>
</tr>
<tr>
<td>Etefavrna Jâma of Strabo</td>
<td>145</td>
</tr>
</tbody>
</table>

Elk,
INDEX

Elk, or wild swan, 562.
 Ember goosè, 524.
 Epops of Ovid, 259.
 Ermine, 89.
 —— how taken in Lapland and Siberia, 90.
 Erne, or cinereous Eagle, 170.

F.

Falcon, peregrine, 178.
 —— grey, 180.
 —— gentil, 181.
 —— rough-legged, 623.
 —— spotted, 189.
 Falconry, 171.
 Fallow deer, the spotted, 46.
 —— deep brown, ibid.
 Fallow smich, or wheat-ear, 383.
 Feather trade, 573.
 Fern owl, 416.
 Ferret, originally of Africa, 91.
 —— will produce with the polecat, 90.
 Ferruginous duck, 601.
 Fieldfare, 304.
 FINCH, 332.
 Finfooted water fowl, 491.
 Fitchet, 89.
 Flight, small birds of 649.
 FLYCATCHER, spotted, 350.
 —— pied, 351.
 Fogs, apology for those of Britain, 19.
 Fortunate Isles, famous for birds, 347.
 Fox,
### INDEX

<table>
<thead>
<tr>
<th>Name</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fox, will produce with the dog kind,</td>
<td>72</td>
</tr>
<tr>
<td>Fox, varieties of,</td>
<td>75</td>
</tr>
<tr>
<td>Fresnay, his observation,</td>
<td>Preface</td>
</tr>
<tr>
<td>Froissart, his story of a greyhound,</td>
<td>64</td>
</tr>
<tr>
<td>Fulmar, its uses in the isle of St. Kilda,</td>
<td>549</td>
</tr>
<tr>
<td>Gadwal or grey,</td>
<td>663</td>
</tr>
<tr>
<td>Gallinule, spotted,</td>
<td>486</td>
</tr>
<tr>
<td>Gallinule, crake,</td>
<td>487</td>
</tr>
<tr>
<td>Gallinule, common,</td>
<td>489</td>
</tr>
<tr>
<td>Gambet,</td>
<td>465</td>
</tr>
<tr>
<td>Gannet,</td>
<td>612</td>
</tr>
<tr>
<td>— its uses to the inhabitants of St. Kilda,</td>
<td>615</td>
</tr>
<tr>
<td>— Dr. W. Harvey, his elegant account of these birds,</td>
<td>614</td>
</tr>
<tr>
<td>Garganey,</td>
<td>604</td>
</tr>
<tr>
<td>Geese, tame, how often plucked,</td>
<td>572</td>
</tr>
<tr>
<td>Goat,</td>
<td>35</td>
</tr>
<tr>
<td>— Welch, the largest,</td>
<td>36</td>
</tr>
<tr>
<td>— its milk medicinal,</td>
<td>38</td>
</tr>
<tr>
<td>Goatsucker,</td>
<td>414</td>
</tr>
<tr>
<td>Godwit,</td>
<td>439</td>
</tr>
<tr>
<td>— not the Attagas</td>
<td>440</td>
</tr>
<tr>
<td>— cinereous,</td>
<td>442</td>
</tr>
<tr>
<td>— red,</td>
<td>ibid.</td>
</tr>
<tr>
<td>— Cambridge,</td>
<td>447</td>
</tr>
<tr>
<td>— the lesser,</td>
<td>444</td>
</tr>
<tr>
<td>Golden-eye,</td>
<td>587</td>
</tr>
<tr>
<td>Goldfinch,</td>
<td>332</td>
</tr>
<tr>
<td>— not the Acanbis</td>
<td>ibid.</td>
</tr>
</tbody>
</table>

Goosander,
<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goosander</td>
<td>556.</td>
</tr>
<tr>
<td>Goose, wild</td>
<td>575.</td>
</tr>
<tr>
<td>— bean</td>
<td>ibid.</td>
</tr>
<tr>
<td>— Grey-lag</td>
<td>570.</td>
</tr>
<tr>
<td>— origin of the common tame</td>
<td>571.</td>
</tr>
<tr>
<td>— the brent</td>
<td>579.</td>
</tr>
<tr>
<td>— the rat or road</td>
<td>580.</td>
</tr>
<tr>
<td>— white-fronted</td>
<td>576.</td>
</tr>
<tr>
<td>Goshawk</td>
<td>184.</td>
</tr>
<tr>
<td>Grebe, tippet</td>
<td>496.</td>
</tr>
<tr>
<td>— great crested</td>
<td>497.</td>
</tr>
<tr>
<td>— its floating nest</td>
<td>498.</td>
</tr>
<tr>
<td>— of Geneva, our grebe</td>
<td>ibid.</td>
</tr>
<tr>
<td>— eared</td>
<td>500.</td>
</tr>
<tr>
<td>— dusky</td>
<td>501.</td>
</tr>
<tr>
<td>— little or dobchick</td>
<td>ibid.</td>
</tr>
<tr>
<td>— its singular nest</td>
<td>502.</td>
</tr>
<tr>
<td>— black-chin</td>
<td>503.</td>
</tr>
<tr>
<td>Greenfinch</td>
<td>322.</td>
</tr>
<tr>
<td>Greenshank</td>
<td>445.</td>
</tr>
<tr>
<td>Gre-hound</td>
<td>63.</td>
</tr>
<tr>
<td>Grey-headed duck</td>
<td>588.</td>
</tr>
<tr>
<td>Grosbeak, haw</td>
<td>316.</td>
</tr>
<tr>
<td>— pine</td>
<td>317.</td>
</tr>
<tr>
<td>— cros-billed</td>
<td>319.</td>
</tr>
<tr>
<td>— green</td>
<td>322.</td>
</tr>
<tr>
<td>Grous, wood</td>
<td>262.</td>
</tr>
<tr>
<td>— black</td>
<td>266.</td>
</tr>
<tr>
<td>— red</td>
<td>269.</td>
</tr>
<tr>
<td>— white or Ptarmigan</td>
<td>271.</td>
</tr>
<tr>
<td>Guillemot, foolish</td>
<td>519.</td>
</tr>
<tr>
<td>— leffer</td>
<td>520.</td>
</tr>
<tr>
<td>— black</td>
<td>521.</td>
</tr>
<tr>
<td>Guinea-hen</td>
<td>280.</td>
</tr>
<tr>
<td>Gull, black-backed</td>
<td>528.</td>
</tr>
</tbody>
</table>
INDEX

Gull, Skua, its fierceness, black-toed, arctic, herring, wagel, winter, common, Kittiwake, black-head, brown, cloven-footed, Mr. Johnson's, Gyrfalcon, 529, 530, 532, 533, 535, 536, 537, 538, 539, 541, 543, 547, 492, 177.

H.

Halcyon of the ancients, days, what, Haliatus, Hare, common, alpine, a food forbidden to the Britains, ibid. Hawfinch, Hawks, the Welch, subject to change their colors, warrant for the King's, 247, 251, 167, 98, 102, ibid., ibid., 201, 316, 182, 647.

Hedge-hog, vide Urchin. Hedge-sparrow, Hen-harrier, Herbert, Lord, his censure of races, Heron, common, white, nests of, numerous in one tree, 376, 193, 7, 421, 427, 422, 427, 647.
<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Himantopus</td>
<td>476</td>
</tr>
<tr>
<td>Hinds, milch, kept by a Countess of Chester</td>
<td>48</td>
</tr>
<tr>
<td>Hobby</td>
<td>197</td>
</tr>
<tr>
<td>Hoof,</td>
<td>54</td>
</tr>
<tr>
<td>— not an undistinguishing feeder,</td>
<td>55</td>
</tr>
<tr>
<td>— its parts finely adapted to its way of life,</td>
<td>56</td>
</tr>
<tr>
<td>— used as a beast of draught,</td>
<td>57</td>
</tr>
<tr>
<td>Hoofed quadrupeds, domestic, why,</td>
<td>10</td>
</tr>
<tr>
<td>Hoopoe</td>
<td>257</td>
</tr>
<tr>
<td>—— believed by the vulgar to portend war,</td>
<td>258</td>
</tr>
<tr>
<td>Hooper, or wild swan</td>
<td>562</td>
</tr>
<tr>
<td>Horns fossil</td>
<td>51</td>
</tr>
<tr>
<td>Horse, British</td>
<td>1</td>
</tr>
<tr>
<td>—— Arabian</td>
<td>637</td>
</tr>
<tr>
<td>—— Persian</td>
<td>642</td>
</tr>
<tr>
<td>—— Æthiopian and Ægyptian,</td>
<td>643</td>
</tr>
<tr>
<td>—— its swiftness</td>
<td>2</td>
</tr>
<tr>
<td>—— strength</td>
<td>3</td>
</tr>
<tr>
<td>—— Spanish, when first introduced,</td>
<td>5</td>
</tr>
<tr>
<td>—— numbers</td>
<td>9</td>
</tr>
<tr>
<td>—— natural history and uses</td>
<td>ibid.</td>
</tr>
<tr>
<td>Hunting, English very fond of,</td>
<td>42</td>
</tr>
<tr>
<td>Husbandry or rural economy, how far indebted to Zoology</td>
<td></td>
</tr>
<tr>
<td>Jackdaw</td>
<td>230</td>
</tr>
<tr>
<td>Jacksnipe</td>
<td>451</td>
</tr>
<tr>
<td>James I. his passion for hunting</td>
<td>47</td>
</tr>
<tr>
<td>—— his combat of the lion and British dogs</td>
<td>68</td>
</tr>
<tr>
<td>Jay</td>
<td>226</td>
</tr>
<tr>
<td>Imber</td>
<td>524</td>
</tr>
</tbody>
</table>

**Additional Notes:**

- Jackdaw: 230.
- James I. his passion for hunting: 47.
- James I. his combat of the lion and British dogs: 68.
- Jay: 226.
- Imber: 524.

**Keelwrel:**

- E e e z
<table>
<thead>
<tr>
<th>K.</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kestrel,</strong></td>
<td>195.</td>
</tr>
<tr>
<td><strong>Kingfisher,</strong></td>
<td>246.</td>
</tr>
<tr>
<td>——— the <em>Halcyon</em> of the ancients,</td>
<td>247.</td>
</tr>
<tr>
<td>——— the mute <em>Halcyon</em> of Aristotle,</td>
<td><em>ibid.</em></td>
</tr>
<tr>
<td>——— its nest</td>
<td>248.</td>
</tr>
<tr>
<td><strong>Kite,</strong></td>
<td>185.</td>
</tr>
<tr>
<td>— art of steering taken from,</td>
<td>186.</td>
</tr>
<tr>
<td><strong>Kittiwake, Gull,</strong></td>
<td>539.</td>
</tr>
<tr>
<td><strong>Knot,</strong></td>
<td>461.</td>
</tr>
<tr>
<td>— taken in nets,</td>
<td><em>ibid.</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>L.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lagopus,</strong></td>
<td>271.</td>
</tr>
<tr>
<td>——— <em>altera</em> of <em>Pliny</em>, uncertain what bird,</td>
<td>270.</td>
</tr>
<tr>
<td><strong>Lanner,</strong></td>
<td>182.</td>
</tr>
<tr>
<td><strong>Lanthorns, when invented,</strong></td>
<td>25.</td>
</tr>
<tr>
<td><strong>Lapland</strong>, the great rendezvous of water-fowl during summer,</td>
<td>723.</td>
</tr>
<tr>
<td><strong>Lapwing,</strong></td>
<td>453.</td>
</tr>
<tr>
<td>— taken in nets,</td>
<td>454.</td>
</tr>
<tr>
<td><strong>Lark,</strong></td>
<td>353.</td>
</tr>
<tr>
<td>— wood,</td>
<td>356.</td>
</tr>
<tr>
<td>— tit,</td>
<td>357.</td>
</tr>
<tr>
<td>— field,</td>
<td>358.</td>
</tr>
<tr>
<td>— red,</td>
<td>359.</td>
</tr>
<tr>
<td>— crested,</td>
<td>360.</td>
</tr>
<tr>
<td>— willow,</td>
<td>381.</td>
</tr>
<tr>
<td>— sea,</td>
<td>479.</td>
</tr>
</tbody>
</table>

*Latax*
**INDEX.**

<table>
<thead>
<tr>
<th>Entry</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latax of Aristotle</td>
<td>95.</td>
</tr>
<tr>
<td>Lavellan, a sort of shrew</td>
<td>127.</td>
</tr>
<tr>
<td>Linnet</td>
<td>342.</td>
</tr>
<tr>
<td>—— red-headed</td>
<td>343.</td>
</tr>
<tr>
<td>—— less red-headed</td>
<td>344.</td>
</tr>
<tr>
<td>London, quantity of cattle consumed there</td>
<td>21.</td>
</tr>
<tr>
<td>Loon, <em>vide</em> grebe</td>
<td>496.</td>
</tr>
<tr>
<td>Lucan, describes the Coracle</td>
<td>24.</td>
</tr>
<tr>
<td>Lumme</td>
<td>527.</td>
</tr>
</tbody>
</table>

**M.**

<table>
<thead>
<tr>
<th>Entry</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Magpie</td>
<td>225.</td>
</tr>
<tr>
<td>Mallard</td>
<td>591.</td>
</tr>
<tr>
<td>Martin (beast)</td>
<td>92*.</td>
</tr>
<tr>
<td>—— pine</td>
<td>94*.</td>
</tr>
<tr>
<td>—— numerous in North America</td>
<td>95.</td>
</tr>
<tr>
<td>Martin (bird)</td>
<td>401.</td>
</tr>
<tr>
<td>—— black or swift</td>
<td>403.</td>
</tr>
<tr>
<td>—— fand</td>
<td>402.</td>
</tr>
<tr>
<td>Maftiff, <em>British</em>, trained for war</td>
<td>69.</td>
</tr>
<tr>
<td>Maftiffs, three overcome a lion</td>
<td>68.</td>
</tr>
<tr>
<td>Maundeville, Sir John, his account of the carrier pigeon</td>
<td>293.</td>
</tr>
<tr>
<td>Meleagrides, the Guinea hens</td>
<td>280.</td>
</tr>
<tr>
<td>Menagery, royal</td>
<td>79.</td>
</tr>
<tr>
<td>Merganser</td>
<td>556.</td>
</tr>
<tr>
<td>—— red breastfed</td>
<td>558.</td>
</tr>
<tr>
<td>—— red headed</td>
<td>560.</td>
</tr>
<tr>
<td>Merlin</td>
<td>200.</td>
</tr>
<tr>
<td>Mew, winter</td>
<td>537.</td>
</tr>
<tr>
<td>Migration of swallows</td>
<td>406.</td>
</tr>
<tr>
<td>—— of <em>British</em> birds in general</td>
<td>709.</td>
</tr>
<tr>
<td>Milton, his fine image of the skylark</td>
<td>354.</td>
</tr>
<tr>
<td>—— elegant description of the nightingale's song</td>
<td>367.</td>
</tr>
</tbody>
</table>

E e e 3

Milton's
Milton his beautiful and natural description of the swan, 565.

Mistle thrush, 301.

— the largest bird that sings, 303.

Mole, 128.

Moor-hen, 489.

Moose-deer, horns fossile of a species now unknown, 52.

Morse, suspected to be British, 144.

Mouflon, musimon, a sort of sheep, 32.

Mouse, long tailed field, 120.

— short tailed, 123.

— common, 122.

— harvest, 121.

Mule, 16.

— errors in breaking, ibid.

N.

Novell, Archbishop, his great feast, 726.

Nightingale, 365.

— Pliny’s beautiful description of its song, 369.

Norway rat, or brown, 115.

Nutcracker, 625.

Nuthatch, 255.

O.

Oystercatcher, 482.

Oppian’s description of the beagle, 63.

Oriole, 626.

Orpheus, his soul said to have transmigrated into the body of a swan, 567.

Osprey,
Ofprey, Otter, considered as a fisb by the Carthusians, sea, of Sir R. Sibbald, Ovid, his account of the bat, of the hoopoe Ouzel, ring, or rock, water, rose colored, Owl, eagle, long-eared, short-eared, white, brown, tawny, little, Ox, Painter, his merit founded on his knowledge of nature, Pardois of Aristotle, Parks, numerous in England, Partridge, white, or white Grous, Pasturage, richness of the British and Irish, Peacock, an Indian bird, Penguin, the great auk, Penhebogyd, or chief falconer of the Welch court, Petrel, its faculty of spouting oil, Stormy, Pettychaps, 174. 92. 94. 95. 150. 259. 310. 312. 627. 202. 203. 204. 206. 210. 208. 211. 18. Preface. 475. 44. 274. 271. 19. 278. 507. 201. 549. 550. 553. 376. Pewit,
INDEX

<table>
<thead>
<tr>
<th>Animal</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pewit, or Lapwing,</td>
<td>453</td>
</tr>
<tr>
<td>—— gull, its former value,</td>
<td>541</td>
</tr>
<tr>
<td>PHALAROPE, grey,</td>
<td>491</td>
</tr>
<tr>
<td>—— red,</td>
<td>492</td>
</tr>
<tr>
<td>Pheasant, not originally British,</td>
<td>280</td>
</tr>
<tr>
<td>—— sea,</td>
<td>598</td>
</tr>
<tr>
<td>Pie, sea,</td>
<td>482</td>
</tr>
<tr>
<td>PIGEON, common,</td>
<td>290</td>
</tr>
<tr>
<td>—— carrier, its uses,</td>
<td>292</td>
</tr>
<tr>
<td>Pintail duck,</td>
<td>598</td>
</tr>
<tr>
<td>PLOVER, golden,</td>
<td>474</td>
</tr>
<tr>
<td>—— ringed,</td>
<td>479</td>
</tr>
<tr>
<td>—— long-legged,</td>
<td>476</td>
</tr>
<tr>
<td>—— Norfolk, vide Buftard,</td>
<td>287</td>
</tr>
<tr>
<td>Pochard,</td>
<td>600</td>
</tr>
<tr>
<td>Poetry, can scarcely exist without the aid of natural history,</td>
<td>Preface</td>
</tr>
<tr>
<td>Pole-cat, or Fitchet,</td>
<td>89</td>
</tr>
<tr>
<td>—— said to produce with the ferret,</td>
<td>90</td>
</tr>
<tr>
<td>Poultry, common, introduced by the Phœnicians,</td>
<td>280</td>
</tr>
<tr>
<td>Procurator Cynegi, what,</td>
<td>68</td>
</tr>
<tr>
<td>Provisions, what animals used as, by the old English,</td>
<td>726</td>
</tr>
<tr>
<td>Ptarmigan, or white grous,</td>
<td>271</td>
</tr>
<tr>
<td>Puffin,</td>
<td>512</td>
</tr>
<tr>
<td>—— its natural affection,</td>
<td>514</td>
</tr>
<tr>
<td>—— ancient method of taking,</td>
<td>515</td>
</tr>
<tr>
<td>—— Manks,</td>
<td>551</td>
</tr>
<tr>
<td>Purre,</td>
<td>472</td>
</tr>
</tbody>
</table>

QUADRUPEDS, digitated, 59
—— hoofed, 1
—— pinnated, 136
—— winged, 146

Quail,
<table>
<thead>
<tr>
<th>Quail</th>
<th>276.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queest</td>
<td>296.</td>
</tr>
</tbody>
</table>

**R.**

<table>
<thead>
<tr>
<th>Rabbet,</th>
<th>104.</th>
</tr>
</thead>
<tbody>
<tr>
<td>—— its vast fruitfulness</td>
<td></td>
</tr>
<tr>
<td>Races, account of</td>
<td>6.</td>
</tr>
<tr>
<td>Rail, water</td>
<td>484.</td>
</tr>
<tr>
<td>—— land, or crake</td>
<td>487.</td>
</tr>
<tr>
<td>Rams, great price of</td>
<td>30.</td>
</tr>
<tr>
<td>Rat, black</td>
<td>113.</td>
</tr>
<tr>
<td>—— brown, or Norway</td>
<td>115.</td>
</tr>
<tr>
<td>—— of uncertain origin</td>
<td>ibid.</td>
</tr>
<tr>
<td>—— water</td>
<td>118.</td>
</tr>
<tr>
<td>—— catcher, the king’s</td>
<td>115.</td>
</tr>
<tr>
<td>Raven</td>
<td>218.</td>
</tr>
<tr>
<td>Razor-bill, or auk</td>
<td>509.</td>
</tr>
<tr>
<td>—— great size of its egg</td>
<td>510.</td>
</tr>
<tr>
<td>Red-breast</td>
<td>372.</td>
</tr>
<tr>
<td>—— endeared to children by the old song, the</td>
<td>373.</td>
</tr>
<tr>
<td><em>babes in the wood</em></td>
<td></td>
</tr>
<tr>
<td>Red-game, <em>vide grous</em></td>
<td></td>
</tr>
<tr>
<td>Red-shank</td>
<td>446.</td>
</tr>
<tr>
<td>—— the spotted</td>
<td>448.</td>
</tr>
<tr>
<td>Red-start</td>
<td>371.</td>
</tr>
<tr>
<td>Red-wing</td>
<td>307.</td>
</tr>
<tr>
<td>—— fore-runner of woodcocks</td>
<td>436.</td>
</tr>
<tr>
<td>Reed-bunting</td>
<td>326.</td>
</tr>
<tr>
<td><em>Ridinger</em>, the engraver, his merit,</td>
<td>Preface</td>
</tr>
<tr>
<td>Ring-dove</td>
<td>296.</td>
</tr>
<tr>
<td>Ring-ouzel</td>
<td>310.</td>
</tr>
<tr>
<td>Ring-tail, or black eagle</td>
<td>194.</td>
</tr>
<tr>
<td>Rock-ouzel</td>
<td>310.</td>
</tr>
</tbody>
</table>
INDEX.

Roe-buck, 49.
Roller, 624.
Rook, the Corvus of Virgil, 221.
Royston crow, 223.
Ruff and reeve, 457.

——— how fattened, 460.

Sanderling, 480.
Sand-swallow, 402.
Sandpiper, 453.
——— grey, 456.
——— ash-colored, 462.
——— brown, 463.
——— spotted, ibid.
——— black, 465.
——— Hebridal, 467.
——— green, 468.
——— red, 469.
——— Aberdeen, ibid.
——— common, 470.
——— little, 473.
Scarecrow, 547.
Scaup-duck, 586.
Scoter, 584.
Sea-fowl, their harsh note, 516.
Sea-lark, or ringed plover, 479.
— pie, or Oistercatcher, 482.
Seal, great, 136.
—— common 137.
—— once used at great feasts as food, 141.
—— how taken in Caithness, 142.
Serula, 558.
Shag,
<table>
<thead>
<tr>
<th>Index</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shag,</td>
<td>610.</td>
</tr>
<tr>
<td>Shaw, Rev. Dr. his euloge,</td>
<td>253.</td>
</tr>
<tr>
<td>Shear water,</td>
<td>551.</td>
</tr>
<tr>
<td>Sheep,</td>
<td>27.</td>
</tr>
<tr>
<td>— of Hirta or St. Kilda,</td>
<td>31.</td>
</tr>
<tr>
<td>—— trepanning of,</td>
<td>34.</td>
</tr>
<tr>
<td>Shieldrake,</td>
<td>589.</td>
</tr>
<tr>
<td>—— possibly the Chenalopex Plinii,</td>
<td>590.</td>
</tr>
<tr>
<td>Shoveler,</td>
<td>596.</td>
</tr>
<tr>
<td>—— red breasted,</td>
<td>597.</td>
</tr>
<tr>
<td>Shrew, fetid,</td>
<td>125.</td>
</tr>
<tr>
<td>—— water,</td>
<td>126.</td>
</tr>
<tr>
<td>Shrike, great,</td>
<td>213.</td>
</tr>
<tr>
<td>—— red backed,</td>
<td>215.</td>
</tr>
<tr>
<td>Silius Italicus, his fine description of the swan,</td>
<td>565.</td>
</tr>
<tr>
<td>—— his account of the Halcyon,</td>
<td>251.</td>
</tr>
<tr>
<td>Silk-tail,</td>
<td>314.</td>
</tr>
<tr>
<td>Singing birds, Essay on, by the Honourable Daines Barrington,</td>
<td>660.</td>
</tr>
<tr>
<td>—— their great emulation,</td>
<td>655.</td>
</tr>
<tr>
<td>—— vast power of voice,</td>
<td>Ibid.</td>
</tr>
<tr>
<td>Siskin,</td>
<td>340.</td>
</tr>
<tr>
<td>Skua,</td>
<td>529.</td>
</tr>
<tr>
<td>Sly goose, the shieldrake,</td>
<td>589.</td>
</tr>
<tr>
<td>Smew,</td>
<td>559.</td>
</tr>
<tr>
<td>Snipe,</td>
<td>433.</td>
</tr>
<tr>
<td>—— common,</td>
<td>448.</td>
</tr>
<tr>
<td>—— great,</td>
<td>450.</td>
</tr>
<tr>
<td>—— jack,</td>
<td>451.</td>
</tr>
<tr>
<td>Soland goose,</td>
<td>612.</td>
</tr>
<tr>
<td>Spain, probably the winter resort of some of our small birds of passage,</td>
<td>716.</td>
</tr>
<tr>
<td>Sparrow,</td>
<td>338.</td>
</tr>
<tr>
<td>—— tree,</td>
<td>339.</td>
</tr>
<tr>
<td>Sparrow hawk,</td>
<td>198.</td>
</tr>
<tr>
<td>Spoon</td>
<td></td>
</tr>
<tr>
<td>Term</td>
<td>Page</td>
</tr>
<tr>
<td>-------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Spoon bill</td>
<td>634.</td>
</tr>
<tr>
<td>Squirrel</td>
<td>107.</td>
</tr>
<tr>
<td>Stag</td>
<td>41.</td>
</tr>
<tr>
<td>— where now found wild</td>
<td>45.</td>
</tr>
<tr>
<td>— Irisb, formerly small with great horns</td>
<td>46.</td>
</tr>
<tr>
<td>— severe punishment for killing</td>
<td>58.</td>
</tr>
<tr>
<td>Stare</td>
<td>299.</td>
</tr>
<tr>
<td>Star shot, or Star gelly, what</td>
<td>538.</td>
</tr>
<tr>
<td>Statius, his account of the Halcyon's nest</td>
<td>499.</td>
</tr>
<tr>
<td>Stint, or purre</td>
<td>472.</td>
</tr>
<tr>
<td>Stoat</td>
<td>89.</td>
</tr>
<tr>
<td>— the ermine, when white</td>
<td>90.</td>
</tr>
<tr>
<td>Stone, horses subject to</td>
<td>12.</td>
</tr>
<tr>
<td>Stone chatter</td>
<td>386.</td>
</tr>
<tr>
<td>Stone curlew</td>
<td>287.</td>
</tr>
<tr>
<td>Stoperola</td>
<td>350.</td>
</tr>
<tr>
<td>Storm finch, or petrel</td>
<td>553.</td>
</tr>
<tr>
<td>Superfaetation, hares said to be subject to,</td>
<td>100.</td>
</tr>
<tr>
<td>Swallow</td>
<td>398.</td>
</tr>
<tr>
<td>— disappearance of</td>
<td>406.</td>
</tr>
<tr>
<td>— found during winter in a torpid state</td>
<td>410.</td>
</tr>
<tr>
<td>— sea, <em>vide</em> Tern</td>
<td></td>
</tr>
<tr>
<td>Swan, wild</td>
<td>562.</td>
</tr>
<tr>
<td>— tame</td>
<td>564.</td>
</tr>
<tr>
<td>— punishment for killing</td>
<td>84.</td>
</tr>
<tr>
<td>— in high esteem formerly</td>
<td>565.</td>
</tr>
<tr>
<td>— sacred to Apollo and the Muses</td>
<td>566.</td>
</tr>
<tr>
<td>— singing before its death</td>
<td>569.</td>
</tr>
<tr>
<td>Supposed origin of that fable</td>
<td>567.</td>
</tr>
<tr>
<td>Swift</td>
<td>403.</td>
</tr>
</tbody>
</table>

---

T

<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tarrock</td>
<td>540.</td>
</tr>
<tr>
<td>Tauroshence</td>
<td></td>
</tr>
</tbody>
</table>
INDEX

Taurostenes sends advice of his success in the Olympic games by a pigeon, 295.
Teal, 606.
— Summer, 607.
Tern, the great, 545.
—— Lesser, 546.
—— Black, 547.
Theocritus, his account of the Halcyon, 250.
Thomson, the naturalist's poet, 393.
Throstle, 306.
Thrush, 301.
Titlark, 357.
Titmouse, great, 390.
—— Blue, 391.
—— Cole, 392.
—— Marsh, 393.
—— Long-tailed, 394.
—— Bearded, 396.
Tringæ, vide sandpipers, 585.
Tufted duck, 585.
Turky, an American bird, 282.
Turnbull, a surname, whence derived, 23.
Turnstone, 465.
Turtle, 297.
—— Sea, 521.
Twite, 346.

U.

Velvet duck, 583.
Venison, salted for use, 45.
Virgil's celebrated simile of the nightingale, 369.
Vitilia navigia, what 24.

Urchin,
**INDEX.**

<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urchin, its great patience under torture,</td>
<td>136.</td>
</tr>
<tr>
<td>Urus,</td>
<td>23.</td>
</tr>
</tbody>
</table>

**W.**

<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wagel Cornife,</td>
<td>536.</td>
</tr>
<tr>
<td>Wagtail, white,</td>
<td>361.</td>
</tr>
<tr>
<td>yellow,</td>
<td>362.</td>
</tr>
<tr>
<td>grey,</td>
<td>363.</td>
</tr>
<tr>
<td>Warblers,</td>
<td>365.</td>
</tr>
<tr>
<td>hedge,</td>
<td>376.</td>
</tr>
<tr>
<td>yellow,</td>
<td>378.</td>
</tr>
<tr>
<td>Scotch,</td>
<td>379.</td>
</tr>
<tr>
<td>golden-crested,</td>
<td>ibid.</td>
</tr>
<tr>
<td>fedge,</td>
<td>381.</td>
</tr>
<tr>
<td>grafshopper,</td>
<td>382.</td>
</tr>
<tr>
<td>Dartford,</td>
<td>389.</td>
</tr>
<tr>
<td>Waskefeu, a great American deer,</td>
<td>53.</td>
</tr>
<tr>
<td>Water-ouzel,</td>
<td>312.</td>
</tr>
<tr>
<td>Water-hen,</td>
<td>489.</td>
</tr>
<tr>
<td>Water-rat,</td>
<td>118.</td>
</tr>
<tr>
<td>Webbed-footed water-fowl,</td>
<td>504.</td>
</tr>
<tr>
<td>Weasel,</td>
<td>89*.</td>
</tr>
<tr>
<td>common,</td>
<td>95*.</td>
</tr>
<tr>
<td>coot,</td>
<td>560.</td>
</tr>
<tr>
<td>Welch names of birds,</td>
<td>731.</td>
</tr>
<tr>
<td>Wheat-ear,</td>
<td>383.</td>
</tr>
<tr>
<td>Whimbrel,</td>
<td>430.</td>
</tr>
<tr>
<td>Whinchat,</td>
<td>385.</td>
</tr>
<tr>
<td>White-throat,</td>
<td>387.</td>
</tr>
<tr>
<td>Wigeon,</td>
<td>601.</td>
</tr>
</tbody>
</table>

Winter
<table>
<thead>
<tr>
<th>Term</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Winter mew,</td>
<td>537.</td>
</tr>
<tr>
<td>Wolf,</td>
<td>75.</td>
</tr>
<tr>
<td>— when extirpated,</td>
<td>ibid.</td>
</tr>
<tr>
<td>— not by K. Edgar,</td>
<td>ibid.</td>
</tr>
<tr>
<td>— writ for the taking wolves, &amp;c.</td>
<td>645.</td>
</tr>
<tr>
<td>Wolf-moneth,</td>
<td>77.</td>
</tr>
<tr>
<td>Wolf-shed,</td>
<td>ibid.</td>
</tr>
<tr>
<td>Wood-chat,</td>
<td>217.</td>
</tr>
<tr>
<td>Woodcock,</td>
<td>433.</td>
</tr>
<tr>
<td>— its migration,</td>
<td>437.</td>
</tr>
<tr>
<td>Wood-lark,</td>
<td>356.</td>
</tr>
<tr>
<td>Woodpecker, curious structure of</td>
<td>240.</td>
</tr>
<tr>
<td>— green,</td>
<td>ibid.</td>
</tr>
<tr>
<td>— great spotted,</td>
<td>243.</td>
</tr>
<tr>
<td>— middle,</td>
<td>244.</td>
</tr>
<tr>
<td>— left spotted,</td>
<td>245.</td>
</tr>
<tr>
<td>Wood-pigeon, or Ring Pigeon,</td>
<td>296.</td>
</tr>
<tr>
<td>Woollen manufacture, long neglected,</td>
<td>28.</td>
</tr>
<tr>
<td>— its success here what owing to</td>
<td>30.</td>
</tr>
<tr>
<td>Wool, where the best,</td>
<td>ibid.</td>
</tr>
<tr>
<td>Wren,</td>
<td>380.</td>
</tr>
<tr>
<td>— another for taking of wolves, &amp;c. in Devonshire,</td>
<td>645.</td>
</tr>
<tr>
<td>Wryneck,</td>
<td>237.</td>
</tr>
<tr>
<td>— fore-runner of the Cuckoo</td>
<td>238.</td>
</tr>
</tbody>
</table>

Y.

Yellow-hammer, or Bunting, 325.

Z.
INDEX.

Z.

<table>
<thead>
<tr>
<th>Zoology, classical, too much neglected by travellers</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>252.</td>
</tr>
</tbody>
</table>

THE END.