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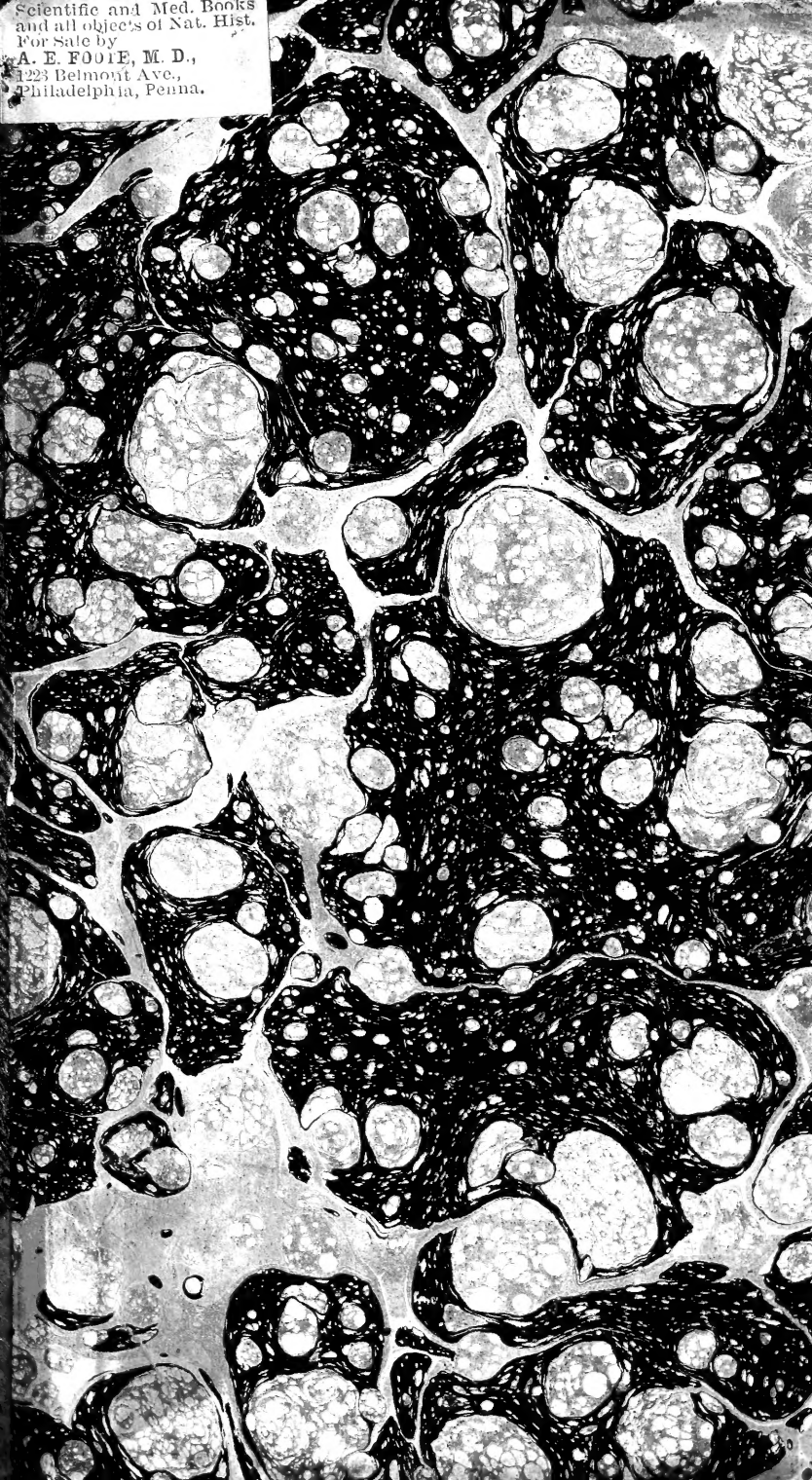

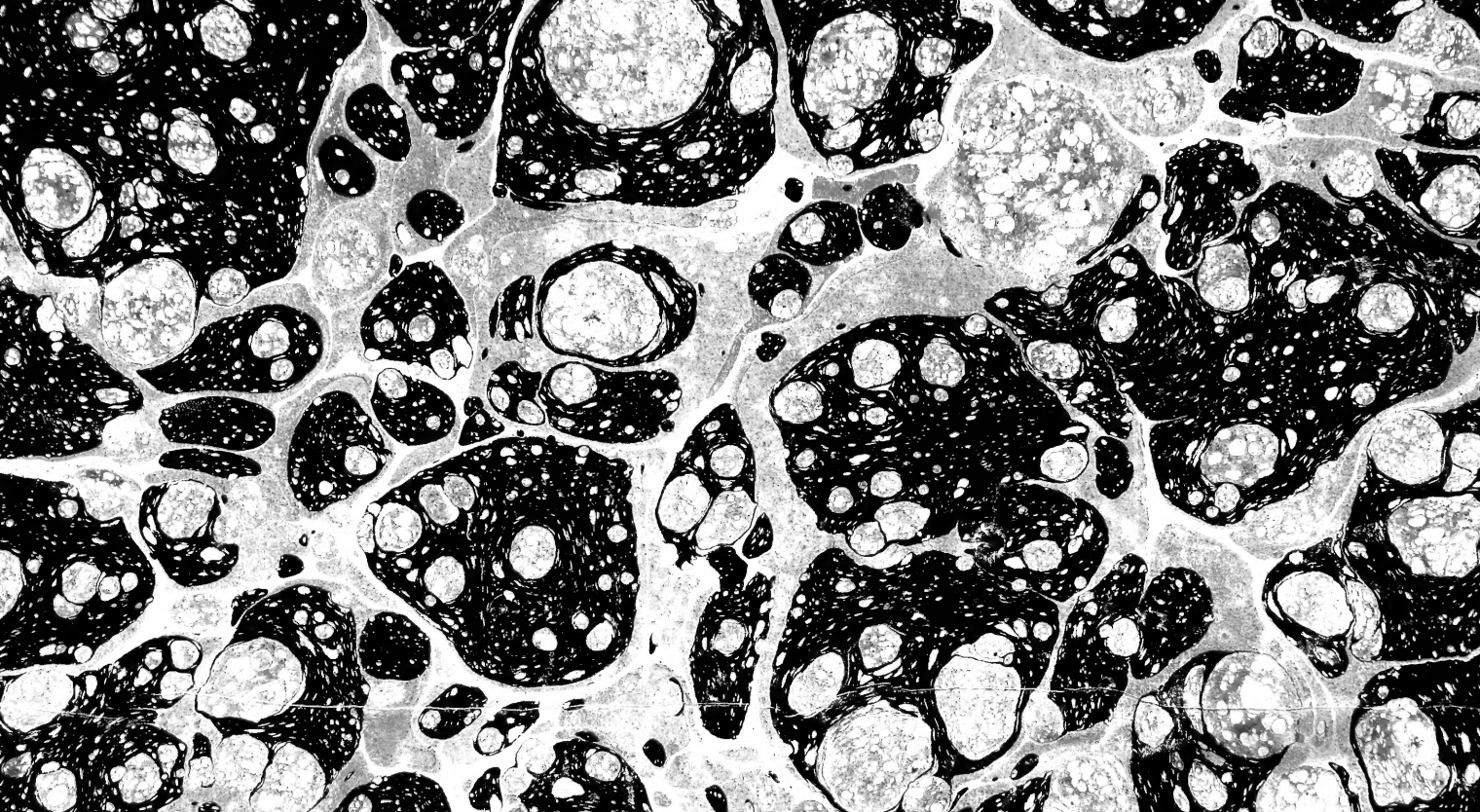

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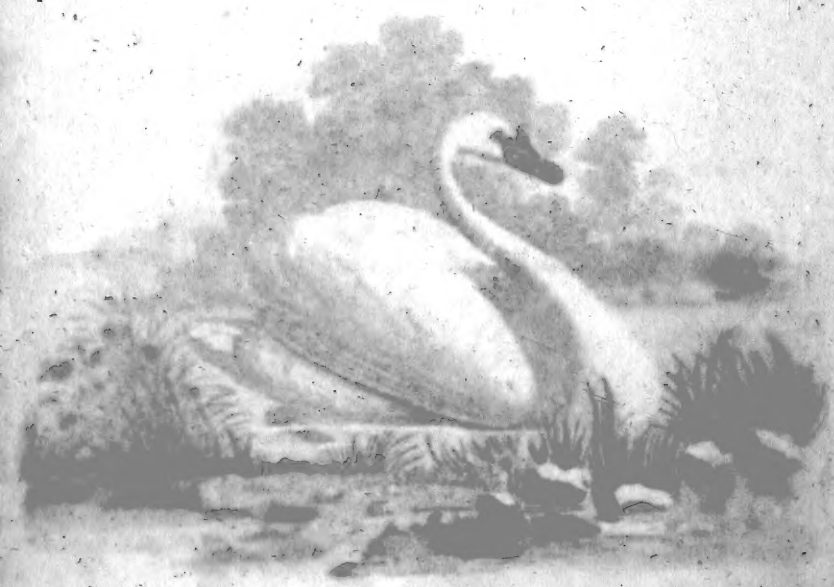

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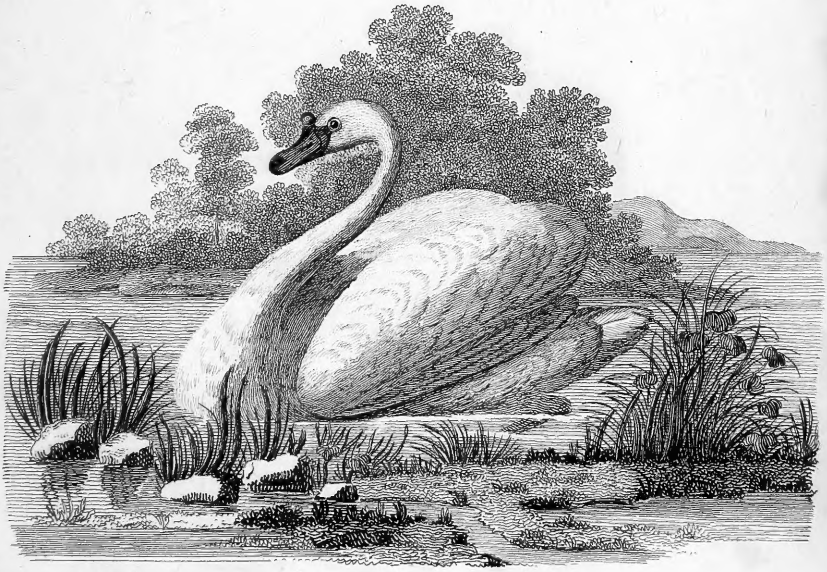
BRITISH ZOOLOGY.

CLASS II. BIRDS.

DIV. II. WATER BIRDS.



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1812.

BRITISH ZOOLOGY

BY

THOMAS PENNANT, ESQ.

A NEW EDITION

IN FOUR VOLUMES.

VOL. II.

CLASS II. BIRDS. 1. WATER

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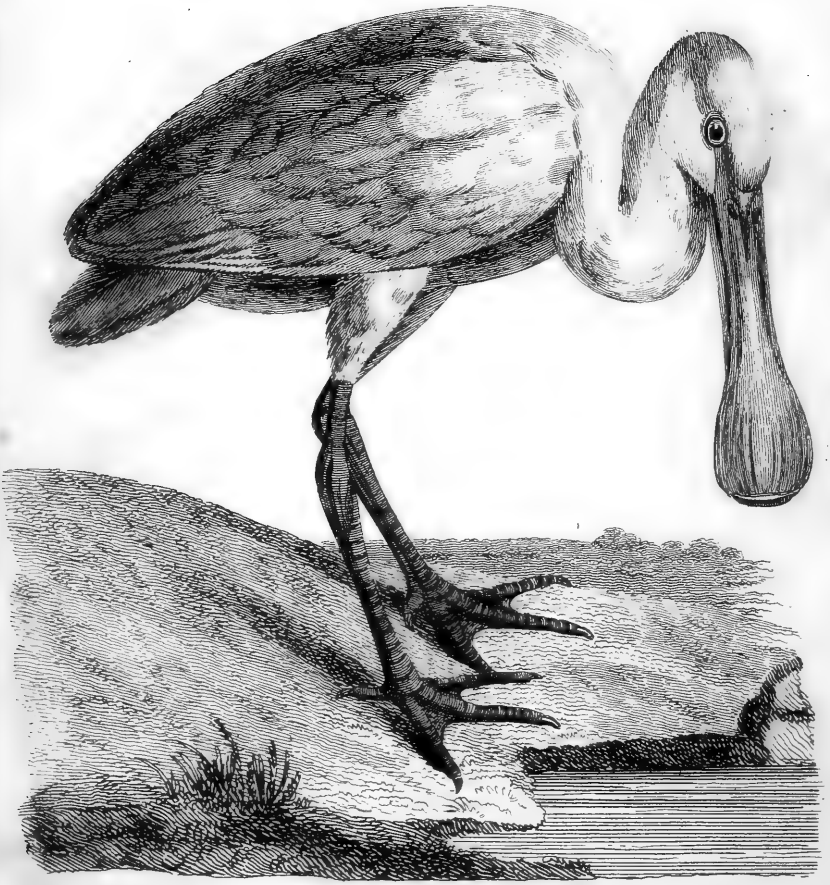
DIVISION II.

WATER BIRDS.

WHITE SPOONBILL



CLASS II.

BIRDS.

Div. II. WATER BIRDS.

Sect. I. CLOVEN FOOTED.

GENUS I. SPOONBILL.

Bill long, flat, and thin; the end widening into the form of a spoon.
Nostrils small, placed near the base.
Tongue small, and pointed.
Feet half-webbed.

Platalea leucorodia. Pl. corpore albo, gula nigra, occipite subcristato. *Lath. Ind. orn.* 667. *id. Syn.* v. 13. Pelecanus seu Platea. *Gesner av.* 666. Albardeola. *Aldr. av.* iii. 160. Spoonbill *Wil. orn.* 288. *Raii Syn. av.* 102.	Platalea Leucorodia. *Gm. Lin.* 613. *Faun. Suec.* No. 160. La Spatule. *Brisson av.* v. 352. *Hist. d'ois.* vii. 448. *Pl. Enl.* 405. Loffel-gans. *Scopoli,* No. 115. *Arct. Zool.* ii. 139.	1. White.

A FLOCK of these birds migrated into the marshes near *Yarmouth*, in *Norfolk*, in *April*,

1774*. They 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, with several other species, which formerly frequented the country, are at present become very rare.

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

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,

* The Spoonbill has now and then been met with on the coast of *Devonshire*, by Colonel *Montagu*, and once on the *Kentish* coast, by Mr. *Boys*. J. L.

DSI

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-eighths 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 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.

CRANE.

GENUS II. HERON.

BILL long, strong, and pointed.
NOSTRILS linear.
TONGUE pointed.
TOES connected as far as the first joint by a strong membrane.

1. CRANE.

Ardea. Grus. A. occipite nudo papilloso, pileo remigibusque nigris, corpore cinereo, tectricibus intimis laceris. *Lath. Ind. orn.* 674. *id. Syn.* v. 40. *id. Sup.* ii. 298.
Le Grue. *Belon av.* 187.
Grus. *Gesner av.* 528.
A Crane. *Turner.*
Gru, Grua. *Aldr. av.* iii. 132. *Wil. orn.* 274.
Raii Syn. av. 95.
La Grue. *Brisson av.* v. 374. *Tab.* 33. *Hist. d'ois.* vii. 287. *Pl. Enl.* 769.
Kranich. *Kram.* 345.
Kranich. *Frisch,* ii. 194.
Ardea Grus. *Gm. Lin.* 620.
Trana. *Faun. Suec. sp.* 161.
Danis Trane. *Brunnich. Br. Zool.* 118. *Arct. Zool.* ii. 154.

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.

DESCRIPTION.

The weight of the crane 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, on 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 pi-

* Not more than four instances occur within my memory of the Crane having been met with in *England:* the first at *Cambridge*; the second was seen by Mr. *Boys*, on the *Medway*; the third also on the *Medway*, near *Burham*, in *January* 1794; the fourth, on rather slight authority, in *Cardiganshire*.

J L.

nion 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 not uncommon, 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.

* *Hist. Danub.* v. p. 8.

2. COMMON. (MALE.) Ardea cinerea. A. occipite crista nigra dependente, corpore cinereo, collo subtus linea fasciaque pectorali nigris. (*Mas.*) *Lath. Ind. orn.* 691. *id. Sup.* ii. 303.

Heron cendré. *Belon av.* 182.

Alia ardea. *Gesner av.* 219.

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

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

Ardea cinerea major seu pella. *Raii Syn. av.* 98.

Garza cinerizia grossa. *Zinan.* 113.

Le Heron hupé. *Brisson av.* v. 296. *Tab.* 35. *Hist. d'ois.* vii. 342. *Pl. Enl.* 755.

Reyger. *Frisch* ii. 199.

Blauer Rager. *Kram.* 346.

Ardea major. *Gm. Lin.* 627.

Hager. *Faun. Suec. sp.* 59.

The Heron. *Br. Zool.* 116. *Tab.* A. *Arct. Zool.* ii. 144.

(FEMALE.) Ardea. occipite nigro lævi, dorso cærulescente, subtus albida, pectore maculis oblongis nigris. (*Femina.*) *Lath. Ind. orn.* 691. *id. Syn.* v. 83.

Ardea Pella sive cinerea. *Gesner av.* 211.

Ardea cinerea tertia. *Ald. av.* iii. 159. *Wil. orn.* 279. & *Raii Syn. av.* 98.

Ardea cinerea. *Lin. syst.* 627.

Danis et *Norvegis* Heyre v. Hegre. *Cimbris* Skid-Heire Skredheire. *Brunnich,* 156.

Le Heron. *Brisson av.* v. 292. *Tab.* 34. *Pl. Enl.* 787.

Reyger *Frisch,* ii. 198. *Br. Zool.* 116.

THIS bird is remarkably light in proportion to its bulk, scarcely weighing three pounds and a half; the length is three feet two inches; the breadth five feet four inches. The body is very small, and always lean; and the skin scarcely

The Female.

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; being unprovided with webs to swim, nature has furnished it with very long legs to wade after its prey. It perches and builds on trees, and sometimes in high cliffs over the sea, commonly in company with many others, like rooks. At *Cressi 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 *Heronshaw* was an old proverb*, taken originally

* In after times this proverb was absurdly corrupted to, He does not know a *hawk* from a *hand-saw*.

from this diversion; but in course of time served to express 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. *Keysler'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 farther 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.

DESCRIPTION. 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 is six inches long, very strong and pointed; the edges thin and rough; the color dusky above, yellow beneath; the nostrils linear; the irides of a deep yellow; the 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,

* *Keysler's Travels*, i. 70.

and the coverts of the wings of a light grey; the back clad only with down, covered with the scapulars; the forepart of the neck white spotted with a double row of black; the feathers are white, long, narrow, 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.

FEMALE.

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.

"In *England*, and the milder climates, this species of heron is stationary, migratory in the

colder according to the season; is rarely seen far north. Inhabits *Africa* and *Asia* in general; the *Cape of Good Hope; Calcutta*, and other parts of *India;* and is found in *America*, from *Carolina* to *New-York*." J. L.

3. BITTERN. Ardea. stellaris. A. capite læviusculo, supra testacea maculis transversis, subtus pallidior maculis oblongis fuscis. *Lath. Ind. orn.* 680. *id. Syn.* v. 56. *id. Sup.* i. 234. *id. Sup.* ii. 300.

Le Butor. *Belon av.* 192.

Brrind, Rordump. *Gesner av.* 215.

The Myredromble. *Turner.*

Trombone, Terrabuso. *Aldr. av.* iii. 164.

Bittour, Bittern, or Miredrum. *Wil. orn.* 282.

Raii Syn. av. 100.

Botaurus. Le Butor. *Brisson av.* v. 444. *tab.* 37. *Hist. d'ois.* vii. 411. *Pl. Enl.* 789.

Garza bionda, o di color d' oro. *Zinan.* 112. *Scopoli*, No. 125.

Rohrtrummel, Mosskuh. *Kram.* 348.

Rohrdommel. *Frisch*, ii. 205.

Ardea stellaris. *Gm. Lin.* 635.

Rordrum. *Faun. Suec. sp.* 164.

Danis Rordrum. *Brunnich*, 155.

Br. Zool. 117. *tab.* A. 1. *Arct. Zool.* ii. 152.

THE bittern is a very retired bird, concealing itself in the midst of reeds and rushes in marshy places. It is with great difficulty provoked to flight, and when on wing has so dull and flagging a pace, as to acquire among the *Greeks* the title of σκυθρωπός* or the lazy. It has two kinds

* *Arist. hist. an.* 1056.

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 fulicæ; 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 imitating the lowing of oxen, we must deny the explanation, and wait for the discovery of the *Roman* naturalist's animal from

* *Georg.* i. 363.

† *Arist. hist. an.* 1006. *Plin.* lib. x. c. 60.

DESCRIPTION.

some of the *literati* of *Arles*, in which neighbourhood *Pliny* says the bird was found.*

In size the bittern 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 they 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 a 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 serrated 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.

* *Plin.* Lib. x. c. 42.

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 its stomach. 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 that of a hare; and nothing of the fishiness of that of the heron. NEST.

"The Bittern is every where less frequent than the heron, though found in both temperate and warmer latitudes, perhaps not very far north. Is said to inhabit the greater part of *Africa;* and is certainly found on the coast of *Barbary*, at the *Cape of Good Hope*, and also in *India* and *China*. The *American* is smaller, probably a variety of the *European* species." J. L.

4. LITTLE. Ardea minuta. A. capite lævi, vertice dorso remigibus rectricibusque nigro-virescentibus, collo tectricibus alarum abdomineque pallide fulvis. *(Mas).* *Lath. Ind. orn.* 683. *id. Syn.* v. 65. *id. Sup.* i. 235.

Ardeola (le Blongios). *Brisson av.* v. 497. *tab.* 40. *fig.* 1. *Hist. d'ois.* vii. 395. *Pl. Enl.* 323.

Ardea vertice dorsoque nigris, collo antice et alarum tectricibus lutescentibus. (Stauden Ragerl, Kleine Moosskuh.) *Kram.* 348.

Boonk or long Neck. *Shaw's Travels,* 255.

Ardea minuta. *Gm. Lin.* 646.

Kleiner Rohrdommel. *Frisch,* ii. 206, 207.

Edw. av. 275.

Arct. Zool. ii. 154.

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.**

DESCRIPTION. 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 was 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 very long, the

* Three other instances are mentioned of its being shot in *England*; one on *Bere* river, another at *Upton,* and a third at *Lytchet.* Is said to be common near Aleppo, and to be found in *India,* and *New Holland.* J. L.

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 of it; on the setting on of the wing was a large chesnut 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 grew down to the knees; the inside of the middle claw was serrated.

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

5. WHITE.

Ardea alba. A. capite lævi, corpore albo, rostro fulvo, pedibus nigris. *Lath. Ind. orn.* 695. *id. Syn.* v. 91.
Le Heron blanc. *Belon av.* 191.
Ardea alba. *Gesner av.* 213. *Turner.*
Wil. orn. 279.
Raii Syn. av. 99.
Ardea candida, le Heron blanc. *Brisson av.* v. 428. *Hist. d'ois.* vii. 365. *Pl. Enl.* 886.
Grosser weisser Rager. *Kram.* 346. *Scopoli,* No. 126.
Ardea alba. *Gm. Lin.* 639.
Faun. Suec. sp. 166.
Br. Zool. 117. *Arct. Zool.* ii. 145.

THIS bird has not fallen within our observation; therefore we must give Mr. *Willughby's* account of it. The length to the end of

DESCRIPTION.

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 eyelids, 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 following species mentioned by *Leland,*† under the name of *Egritte,* in one of the bills of fare in the magnificent feasts of our ancestors.

* Dr. *Latham* informs us that one of this species was killed in *Cumberland* not many years ago. ED.

† *Leland's Collectanea,* vol. vi.

Desmoulins pinx

Ardea Garzetta. A. occipite cristato, corpore albo, rostro nigro, loris pedibusque virescentibus. *Lath. Ind. orn.* 694. *id. Syn.* v. 90.
Lesser White Heron. *Wil. orn.* 280.
Ardea Garzetta. *Gm. Lin.* 628.
Ardea alba minor. *Raii Syn. av.* 99.
Dwarf Heron. *Barbot,* 29.
L'Aigrette. *Brisson av.* v. 431. *Hist. d'ois.* vii. 372. *Pl. Enl.* 901.
Kleiner Weisser Rager. *Kram.* 345.
Arct. Zool. ii. 147.

6. EGRET.

WE once received out of *Anglesey,* the feathers of a bird shot there, which we suspect to be the Egret; this is the only instance perhaps of its being recently found in *England.* One was shot in *Ireland* in the year 1793. That it was formerly 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.

DESCRIPTION.

The Egret is a most elegant bird; it weighs about one pound; the length to the end of the

* *Godwin de Præsul. Angl. com. Leland's* Collect.

tail is twenty-four inches, to that of the legs thirty-two; the bill is slender and black; the space about the eyes naked and 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 loosest manner; the legs are of a dark green color 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.

7. NIGHT.

Ardea Nycticorax. A. crista occipitis tripenni alba horizontali, dorso nigro, abdomine flavescente. (*Mas.*) *Lath. Ind. orn.* 678. *id. Syn.* v. 52. *id. Sup.* i. 234. *Gm. Lin.* 624.
Le Bihoreau. *Brisson av.* v. 493. *t.* 39. *Hist. d'ois.* vii. 435. *Pl. Enl.* 758.
Raii Syn. av. 99.

A. capite lævi fusco corpore fuscescente subtus albo, remigibus primoribus apice macula alba. (*Femina*). *Lath. Ind. orn.* 678.
Ardea grisea. *Gm. Lin.* 625.
Le Heron gris. *Brisson av.* v. 412. *tab.* 36. *Pl. Enl.* 759.
Wil. orn. 204.
Arct. Zool. ii. 151.

DESCRIPTION.

[THE bill, crown of the head, back and scapulars of this rare species, are black; the last broad and long; the forehead, cheeks, neck, and under side of the body, white; the wings and tail of a very pale ash color; the hind part of the head is most specifically distinguished by three very slender white feathers, five inches long, forming a pendent crest; the legs are of a yellowish green. The length to the tip of the tail is one foot seven inches. The female differs in color so much from the male, that it has been described by *Brisson* as a distinct species. The head and the upper parts of the body are of a glossy brown, but the latter tinged with grey; the lower part of the back and the rump are almost grey; the chin white; the fore part of the neck grey with yellowish streaks; the

FEMALE.

rest of the under parts grey; the vent white; the wings greyish brown streaked with yellowish white; some of the greater coverts are tipped with white; the quil feathers the same; the tail nearly the same; the legs greyish brown.

The first instance recorded of this bird having been found in *England* was in *May*, 1782; when one was shot near *London*, which was preserved in the late *Leverian* museum. The editor has heard of another having been killed in *Suffolk*. ED.

"One was killed at *Cliefden* in *Buckinghamshire*. It is common in *Spain* and about *Gibraltar*, but is every where more rare than the Heron. Inhabits *China* and *India;* and I have received it from *North America*, where it extends south as far as *Georgia*, but is there smaller. It makes its nest both in trees and among the rocks; and lays three or four white eggs." J. L.

Ardea æquinoctialis. β. A. capite lævi, corpore albo, vertice et pectore croceis, loris pedibusque flavo-croceis. *Lath. Ind. orn.* 697. *id. Syn.* v. 94. A.	*Wil. orn.* 280.	8. RED BILLED.
Ardea alba tertia Ald. *Raii Syn. av.* 99.	La Garzette blanche. *Brisson av.* v. 438. *Hist. d'ois.* vii. 371.	
	Lin. Tr. ix. 197.	
	Arct. Zool. ii. 146. ?	

[THE bill is red, and two inches and three quarters in length; the irides yellow; the whole plumage of a snowy whiteness; the length eighteen inches. DESCRIPTION.

Mr. *Montagu* announces in the *Linnæan* Transactions, that a female of this species was killed in *Devonshire* the latter end of *October*, in the year 1805, which entitles it, with other incidental visitants, to a place in the *British Zoology;* the notice is not attended by any description. ED.

9. SQUACCO. Ardea comata. A. cristata luteo rufescens, uropygio corpore subtus alis caudaque albis. *Lath. Ind. orn.* 687. *id. Syn.* v. 74. *id. Sup.* ii. 302. *Gm. Lin.* 632.

Cancrofagus luteus. *Brisson av.* v. 472.

Crabier de Mahon. *Hist. d'ois.* vii. 393. *Pl. Enl.* 348.

Squacco. *Raii Syn. av.* 99. *Wil. orn.* 281.

[ONLY one instance is recorded of this bird having been seen in *England*, which was shot by Mr. *Lambert* at *Boyton*, in *Wiltshire*, in 1775.

DESCRIPTION. Its length is eighteen inches. The bill is of a livid red, with a brown tip; the *lorum* greenish; the irides yellow; the crown of the head much crested, six of the feathers hanging quite down to the beak; these are narrow, white margined with black; the neck and breast pale ferruginous; the feathers on the first very long and loose; the back ferruginous, inclining to violet, and furnished with long narrow feathers which reach beyond the wings, when they are closed, and fall over them; the wings, rump, tail, belly, and vent, white; the tail pretty long; the legs stout, of a greenish yellow; the claw of the middle toe serrated within. ED.

"It is met with near *Bologna*, and is there

called *Squacco*, from whence it has derived its trivial name; is more frequent in the bays of the *Caspian* sea and the slow streams of the southern desert; and extends to *India*." J. L.

10. GARDENIAN.

Ardea Gardeni. A. nigricans albo maculata subtus albida fusco striata remigibus margine apiceque albis cauda fusca. *Lath. Ind. orn.* 685.
Spotted Heron. *Lath. Syn.* v. 70. *id. Sup.* ii. 305.
Gardenian Heron. *id. Syn.* v. 71.
Gm. Lin. 645.
Butar tachetè ou Ponacre. *Brisson av.* v. 462. *Hist. d'ois.* vii. 427. *Pl. Enl.* 939.
Arct. Zool. ii. 150.

[IN Mr. *Pennant's* copy of his *British Zoology*, is the following short description of a heron killed near *Cliefden*, which he saw in the possession of Mr. *Ireland*, apothecary, at *Oxford*; it seems evidently the species referred to in the synonyms.

DESCRIPTION.

"Bill, length three inches; *lorum*, pale green; irides yellow; head and neck brown, streaked with white; throat pure white; breast feathers and neck dark brown, with broad lines of white; belly the same; wings deep brown; coverts marked with narrow wedge-shaped spots; primaries with broader, the points each tending upwards; tail composed of dusky feathers of equal length; vent white; legs dusky;

claws shorter than usual in the tribe. Length sixteen inches?"

In the fifth volume of the *Linnæan* Transactions, is a notice of a bird of this species having been shot in *Oxfordshire*, by *John Horatio Dickinson*, Esq.; another was killed in *Dorsetshire;* a third near *St. Asaph*, in *Flintshire*, in *November* 1810. ED.

11. AFRICAN. Ardea caspica. A. cristata corpore cinereo, collo pectore abdomineque ferrugineis, gula alba, collo lineis tribus nigris. *Lath. Ind. orn.* 698. *id. Sup.* i. 237.

[TWO only of this species of heron have been observed in *England*, one of which was shot in *Ashdown Park*, near *Lambourn*, *Berkshire*, and was preserved in the late *Leverian* museum.

DESCRIPTION. This bird is inferior in size to the common heron, not exceeding three feet in length. The bill is seven inches long, of a dusky yellow color, blackish at the point; the head and greater part of the neck are pale ferruginous; the chin and throat white; the feathers on the head are long and black, forming a kind of crest; a list of black runs down the back of the neck for two thirds of its length; a similar list continues from the eye on each side down to the breast; the feathers on the lower part of

GARDENIAN HERON.

M. Griffith del.

the neck are long, loose, and of a deep ash color; the breast ferruginous chesnut; the back deep ash color; the quil feathers and tail black; the belly of a pale ferruginous ash color; the legs of a dull yellow; the fore part of them, and the toes and claws, black.

The *African* Heron inhabits the country which gives it name, and also *Asia;* but Dr. *Latham* suggests that it may be the Crested purple heron, which is a native of *Switzerland,* in an earlier state of plumage. ED.

GENUS III. IBIS.

BILL long, roundish, incurvated.
LORUM, bare of feathers.
TONGUE short.
FEET of four toes, the three foremost connected at their base by a web.

1. GLOSSY. Tantalus Falcinellus. T. facie nigra, pedibus cæruleis, alis caudaque violaceis, corpore castaneo. *Lath. Ind. orn.* 707. *id. Syn.* v. 113. *id. Sup.* i. 67.

Tantalus igneus. T. corpore nigricante cæruleo viridi et vinaceo variegato nitente, capite colloque nigris pennis albido fimbriatis. *Id. Ind. orn.* 708. *id. Syn.* v. 115.?

Falcinellus. *Wil. orn.* 295. *Raii Syn. av.* 103.
Le Courlis verd. *Brisson av.* v. 326. *Hist. d'ois.* viii. 29.
Le Courlis d'Italie. *Pl. Enl.* 819.
Gm. Lin. 648.
Scopoli, 1. No. 131.
Sowerby. Br. Misc. 35. *tab.* 17. *Nat. Misc. tab.* 705.
Arct. Zool. ii. 162.

[DR. *Latham* thus describes a specimen of his Glossy Ibis, shot in *Cornwall*, and preserved in the late *Leverian* museum.

DESCRIPTION. "Length almost two feet. Bill five inches, smooth, roundish, much bent, green, fading to olive when dead; eyelids brown; irides olive; eyes placed in a white space; under the chin a

small dilatable pouch; head and neck black; the feathers fringed with white; the rest of the body variegated with blackish blue-green, and is vinaceous, and in general very glossy, hence the bird, on flying, appears gilded when the sun shines upon it; quils green gold, and when closed reach the end of the tail; wing coverts next the body reddish and blue mixed; the next series, black, red, and green; the last and quils green gold; tail the same, glossed in different lights with red and violet; legs very long, of a bright green; claws crooked, black."

Our friend, the reverend *Hugh Davies*, communicated a drawing* of the same bird to Dr.

* The editor subjoins the following note at Mr. *Davies's* request, though the reader may agree with him in thinking that the mistake into which that able naturalist accidentally fell, does not require so ample an apology.

"As it is and ever has been fully my wish that no mistake, which I may have it in my power to rectify (particularly if such may have originated by my means) shall remain unadjusted; I have, with no very small degree of anxiety, been thinking of a method to make a necessary apology to my friend Dr. *Shaw*, and the public, for an inaccurate communication which I unfortunately made to him, and which he has inserted in No. 190 of the *Naturalist's Miscellany*, respecting the bird which I mistook for a *Scolopax* of *Linnæus*, a *Numenius* of Dr. *Latham*; I beg leave at the same time to do myself the justice of stating how the mistake took place. The subject, from which I made the drawing and took the description, forms a part of the collection of the ingenious Miss *Meyrick* at *Beaumaris*; I did not see the bird till it was converted into a picture.

Shaw, which forms the 705th plate of the *Naturalist's Miscellany*, and has since favoured the editor with the following description: "The color of the whole bird is from a deep dusky to black; the wings and the coverts reflect, in different situations with regard to a strong light and the eye of the beholder, a most pleasing and rich variety of shades of violet, green, ruby, and gold; the plumage of the head and neck are delicately tipt with white. There is likewise a sort of dull white on the upper part of the neck. The lower mandible of the bill is of a pale flesh color towards the base; the *lorum* is very narrow, and of the same color with the surrounding plumage. The length of the bird is about two feet; that of the bill five inches; the legs are very long, and have a cast of strong green."

The colors of the specimen, figured by Mr. *Sowerby*, in the *British Miscellany*, are much

Miss *M.* tells me it was in a considerably decayed state when she received it. This being the case, and the plumage much deranged, that small distinctive character the *lorum*, might too easily escape observation. Some time after this, a flock of these birds visited *Anglesey*, and four or five of them being killed, some of them fell into my hands, when I at once discovered the oversight, and consequent omission in the picture. I now feel much satisfaction in this manner to acknowledge the error and to request the candid forbearance of the public."

HUGH DAVIES.

duller, but there seem no characters sufficiently distinct to entitle it to be considered as a separate species. Dr. *Latham*, among his recent liberal communications to the editor, says, "I have described the *Tantalus Falcinellus* and the *T. igneus* as distinct species, but now suspect them to be one and the same bird, differing in age or sex. They are common in *Italy*, and are seen in *Indian* drawings."

Mr. *Pennant*, in the *Arctic Zoology*, informs us, on the authority of Mr. *Oedman*, that this species has appeared, of late years, in the isle of *Oland*, in the *Baltic*, and begins to form a settlement there and to return annually. Mr. *Montagu* states, in the *Linnæan* Transactions, that the Green Ibis of *Latham*,* was shot in *Devonshire*, in *September* 1805, and reasonably doubts whether it was specifically different from the *Tantalus igneus*. ED.

* *Ind. orn.* 707.

GENUS IV. CURLEW.

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

1. COMMON. Numenius Arquata. N. cinerascente nigroque varius, pedibus cærulescentibus, alis nigris maculis niveis. *Lath. Ind. orn.* 710. *id. Syn.* v. 119. *id. Sup.* i. 242.
Le Corlieu. *Belon av.* 204.
Arquata, sive numenius. *Gesner av.* 221.
Arcase Torquato. *Aldr. av.* iii. 169.
Wil. orn. 294.
Raii Syn. av. 103.
Le Courly. *Brisson av.* v. 311. *Hist. d'ois.* viii. 19. *Pl. Enl.* 818.
Goisser, Brach-scknepf. *Kram.* 350. *Frisch,* ii. 229.
Scolopax arquata. *Gm. Lin.* 655.
Faun. Suec. sp. 168.
Danis Heel-spove. Regn. Spaaer. Regn. Spove. *Brunnich,* 158.
Br. Zool. 118. *Arct. Zool.* ii. 164.

THESE birds frequent our sea coasts and marshes in the winter time in large flocks, walking on the open sands; feeding on frogs, shells, crabs, and other marine insects: in summer they retire to the mountanous and unfrequented parts of the country, where they pair and breed.

COMMON CURLEW.

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 favor.

DESCRIPTION.

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 measures 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.

* "The Curlew lays her eggs, generally four in number, among long grass, on a few leaves carelessly drawn together. This species is found every where on the continent of *Europe*, and extends to *Africa* and *India*; a slight variety of it also inhabits *America*." J. L.

2. WHIMBREL.

Numenius Phæopus. N. rostro nigro, pedibus cærulescentibus, maculis dorsalibus fuscis rhomboidalibus, uropygio albo. *Lath. Ind. orn.* 711. *id. Syn.* v. 123.

Phæopus altera, vel arquata minor. *Gesner av.* 499.

Tarangolo, Girardello. *Aldr. av.* iii. 180.

Wil. orn. 294.

Raii Syn. av. 103.

Edw av. 307.

Scolopax Phæopus. *Gm. Lin.* 657.

Scopoli, No. 132.

Windspole, Spof. *Faun. Suec. sp.* 169.

Kleiner Goisser. *Kram.* 350.

Kleine Art Brachvogel or Regenvogel. *Frisch*, ii. 225.

Le petit Courly, ou le Courlieu. Numenius minor. *Brisson av.* v. 317. *tab.* 27. *Hist. d'ois.* viii. 27. *Pl. Enl.* 842.

Danis Mellum-Spove. *Norveg.* Smaae Spue. *Br.* 159.

Br. Zool. 119. *Arct. Zool.* ii. 164.

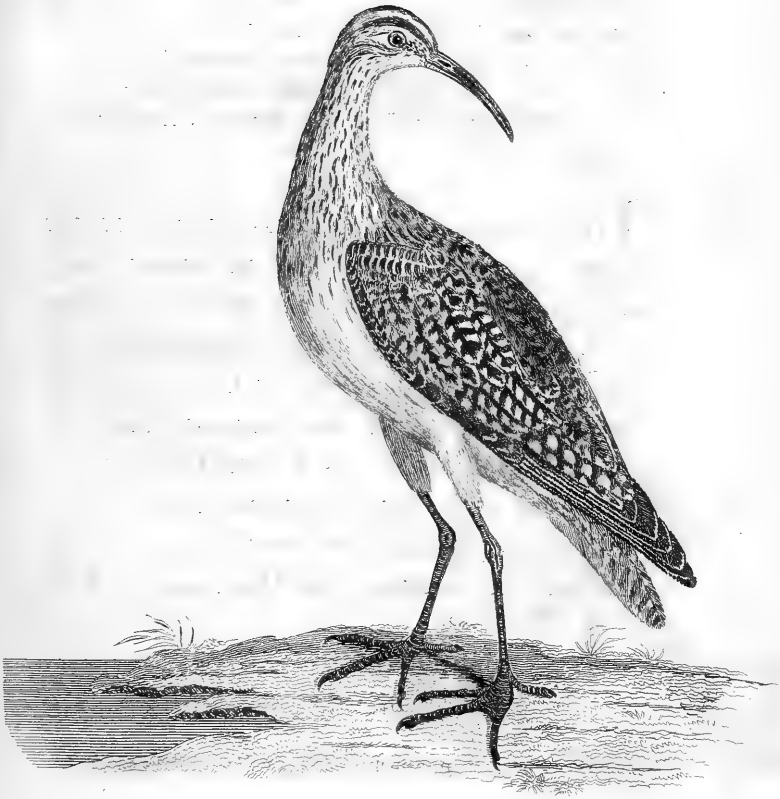
THE whimbrel is much less frequent on our shores than the curlew; but its haunts, food, and general appearance, are much the same. It is observed to visit the neighborhood of *Spalding* (where it is called the *Curlew knot)* in vast flocks in *April*, but continues there no longer than *May;* nor is it seen there at any other time of the 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.*

DESCRIPTION.

The specific difference is the size; this never exceeding the weight of twelve ounces.* The

* The editor is informed by Dr. *Latham* that it sometimes

WHIMBREL.



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 are 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 are 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 a specimen from *Invercauld*, shot on the *Grampian Hills*, whose length was sixteen inches; that of the bill two; the head round, black on the top, divided lengthways by a white line; the chin white; the cheeks, neck, breast,

weighs fourteen ounces, that its length is seventeen, and its breadth twenty-nine inches; and that it is seen on the *Kentish* coast from the 15th of *April* to the first week in *May*. It is also frequently observed in *Gloucestershire*, on the lower parts of the *Severn*, about the same period. Is common on the continent; and in *Spain* is brought to market in autumn with the curlew, and sometimes in greater abundance. ED.

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 coverts of the wings dusky; the sides of each feather spotted with reddish white; the lower part of the back white; the rump white barred with black; the tail barred with dusky and white; the quil feathers black, with large white spots on the inner webs, the secondaries have them on both webs; the legs black.

3. PYGMY CURLEW.

Numenius pygmæus. N. fusco ferrugineo alboque variegatus, corpore subtus uropygioque albo, remigibus rectricibusque exterioribus albo marginatis. *Lath. Ind. orn.* 713. *id. Syn.* v. 127. *id. Sup.* i. 291. note *o*. *Boys's Sandwich*, 850.

DESCRIPTION.

[SIZE of a lark. Bill black, bent like that of the curlew; the head, back, and coverts of the wings, mixed with brown, ferruginous, and white; the primaries dusky, edged with white; the breast, belly, and rump, white; the tail dusky; the exterior feathers edged with white; the legs black. The above description is taken from a specimen brought from *Holland*.

Only one instance* occurs of this rare bird

* Another has since been met with at *Greenwich* in *August*. J. L.

having been observed in *England,* which was shot near *Sandwich;* and we are informed by Dr. *Latham,* that it differed from the preceding in the edges of all the feathers, being of a pale ochrous color instead of white. It weighed almost two ounces: its length was eight inches and a half; its extent fifteen inches and a half; its bill one inch and a half long. ED.

GENUS V. SNIPE.

BILL long, slender, weak, and strait.
NOSTRILS linear, lodged in a furrow.
TONGUE pointed, slender.
TOES divided, back toe very small.

1. WOODCOCK.

Scolopax Rusticola. Sc. castaneo nigro griseoque varia, subtus rufescens fasciolis nigris, fascia capitis nigra, femoribus tectis. *Lath. Ind. orn.* 713. *id. Syn.* v. 129.
La Beccasse. *Belon av.* 272.
Rusticola, seu Perdix rustica major (Grosser schnepff). *Gesner av.* 501.
Aldr. av. iii. 182.
Wil. orn. 289.
Raii Syn. av. 104.
La Becasse. *Brisson av.* v. 292. *Hist. d'ois.* vii. 462. *Pl. Enl.* 885.
Beccaccia, Acceggia. *Zinan.* 101.
Schniffa. *Scopoli,* No. 134.
Wald schnepf. *Kram.* 351. *Frisch,* ii. 226. *foem.* 227.
Scolopax rusticola. *Gm. Lin.* 660.
Morkulla. *Faun. Suec. sp.* 170.
Norvegis Blom-Rokke, Rutte; *quibusdam* Krog-quist. *Danis* Holt Sneppe. *Brunnich,* 164.
Fauna Scotica. No. 142.
Br. Zool. 119. *Arct. Zool.* ii. 174.

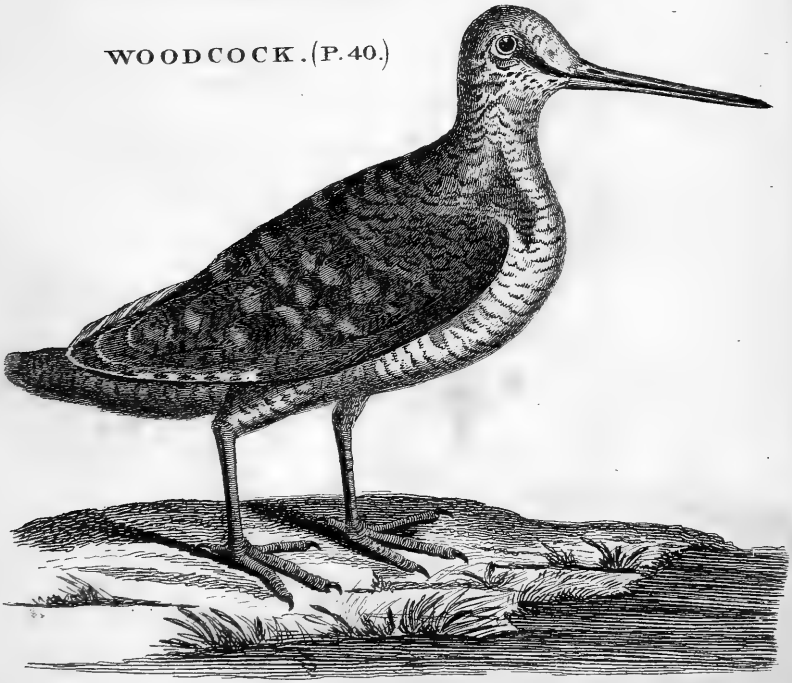
THESE birds, during summer, are inhabitants of the *Alps,** of *Norway, Sweden, Polish Prussia,* the march of *Brandenburg,*† and the northern parts of *Europe:* they all retire from

* *Wil. orn.* 290.

† *Frisch,* ii. 226.

REDSHANK. (P. 57.)

WOODCOCK. (P. 40.)



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 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 among the mosses in 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

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

M. *Wallerius* gave me this account of them. *Scolopaces rusticolæ penes nos nidificant; sed autumnali tempore abeunt, ac vernali redeunt.*

accidentally during the summer. 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 well tasted: a female with egg was shot in that neighborhood in *April;* the egg 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.

Woodcocks first appear in *Scotland* on the eastern coasts, and make their progress from East to West. They do not arrive in *Bread-albane*, a central part of the kingdom, till the beginning or middle of *November;* nor on the coasts of *Nether Lorn*, or of *Ross-shire*, till *December* or *January:* they are very rare in the more remote *Hebrides*, or in the *Orknies;* a few stragglers now and then arrive there. They are equally scarce in *Cathness.* 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*, Bar^t^. who fa-

vored me with the following curious account.

"From some old and experienced sportsmen, who live on the coast, I collected the following particulars. Woodcocks 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 they leave. If the wind has favored 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 Redwing appears on the coast in autumn, it is certain the Woodcocks are at hand; when the 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 lest 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 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 Redwings) 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 *ass* 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 of 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 desarts of *Sibiria* or *Tartary*§, or the cold mountains of *Armenia*‖.

Our species of woodcock is unknown in *North America;* a kind¶ is found there that has the general appearance of it; but is scarcely half the size, and wants the bars on the breast and belly.

DESCRIPTION.

The weight of the woodcock is usually about twelve ounces;** the length near fourteen inches; the breadth twenty-six. The bill is three

* *Russel's hist. Aleppo.* 64. † *Shaw's travels,* 253.

‡ *Kæmpfer's hist. Japan.* i. 129. § *Bell's travels,* i. 198.

‖ The woodcock visits *Greece,* with the first severe weather, in *November,* and does not remain later than *February.* ED.

¶ The little woodcock. *Arct. Zool.* ii. 165. *Latham. Syn.* v. 131. ED.

** I have been credibly informed that one was killed near *Holywell* which reached the weight of twenty ounces.

inches long, dusky towards the end, reddish at the base; the 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 of 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 quil 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 by which the fowler discovered the birds. The legs and toes are livid; the latter divided almost to their 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.*

Scolopax Ægocephala. Sc. rostro flavo-rubente, pedibus virescentibus, capite colloque rufescentibus, remigibus tribus nigris basi albis. *Lath. Ind. orn.* 719. *id. Syn.* v. 145.
Godwit, Yarwhelp, or Yarwip. *Wil. orn.* 290.
Raii Syn. av. 105.

Scolopax ægocephala. *Gm. Lin.* 667.
Limosa grisea major. La grande Barge grise. *Brisson av.* v. 272. *Tab.* 24. *fig.* 2. *Hist. d'ois.* vii. 507. *Pl. Enl.* 876.
Br. Zool. 120. *Tab.* B. *Arct. Zool.* ii. 169.

2. GODWIT.

DESCRIPTION.

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, is 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 are 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 a difference of age; 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*.

* In the two specimens, male and female, in the late *Leverian* museum, one had a white, the other a pale rufous breast J. L.

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 *stale* 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 Greenshanks. *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

* Ὄρνις τε πτεροποίκιλος
ατταγᾶς.
Ατταγας ουτος παρ' ἡμιν ποικίλος κεκλήσεται.
Av. 249. 762.

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 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
> *Ionicarum* gustus *attagenarum*,

is the opinion of *Martial;** *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

* *Epig. Lib.* xiii. *Ep.* 61. † *Epod.* ii.
‡ *Lib.* x. *c.* 48. § *Voy.* Vol. i. 311. *4to. ed.*

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.*

3. CINEREOUS.

Scolopax canescens. Sc. cinereo alboque varia, gula pectoreque albis, cauda fasciis pectoreque maculis cinereis.

Lath. Ind. orn. 721. *id. Syn.* v. 145.
Gm. Lin. 668.
Br. Zool. 4to. ii. 442. *tab.* 66.

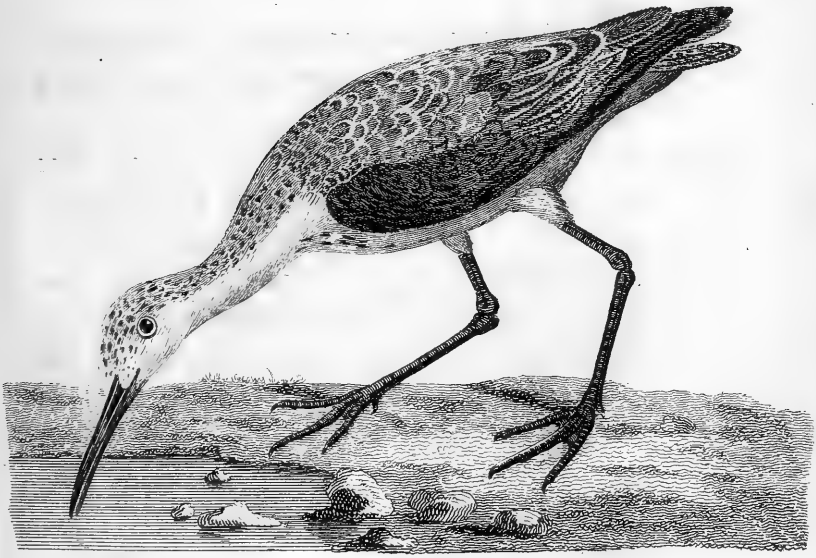
THIS species was shot near *Spalding*, and the description communicated to me by the Rev. Doctor *Buckworth.*

DESCRIPTION.

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 the greenshanks; approaches it nearly in colors; but the bill was so much thicker, as to form a specific distinction.

* Francolin Partridge. *Latham Syn.* iv. 759. ED.

CINEREOUS GODWIT.



RED GODWIT.

"The cinereous godwit is represented in *Indian* drawings." J. L.

Scolopax lapponica. Sc. rostro flavescente, pedibus nigris, subtus tota rufo ferruginea. *Lath. Ind. orn.* 718. *id. Syn.* v. 142. *Gm. Lin.* 667.
Limosa rufa. *Brisson av.* v. 281. *tab.* 25. *f.* 1.
La Barge rousse. *Hist. d'ois.* vii. 504. *Pl. Enl.* 900.
Edwards. tab. 138.
Faun. Suec. sp. 174.
Br. Zool. add. plates.
Arct. Zool. ii. 168.

4. RED.

DESCRIPTION.

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 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 very common 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.*

5. RED BREASTED SNIPE.

Scolopax noveboracensis. Sc. nigro cinereo rubroque varia, dorso abdomineque albis, alis cinereis, cauda albo nigroque fasciata. *Lath. Ind. orn.* 723. *id. Syn.* v. 153. *Gm. Lin.* 658. *Montagu in Lin. Tr.* ix. 198. *Arct. Zool.* ii. 166.

DESCRIPTION.

[THE bill of this species is like that of the common snipe, and is two inches one eighth in length; the head, neck, and scapulars, are varied

with black, ash-color, and red; the under side of the neck and breast are ferruginous, thinly spotted with black; the coverts and secondaries are dark cinereous, the latter tipt with white; the tail barred with dusky and white; the legs dark green; the middle and outer toe are connected by a small web. Its size is that of a common snipe.

A small flock of these rare birds appeared on the coast of *Devonshire*, in the spring of 1803, and were traced as far as *Sandwich* in *Kent*. ED.

6. JADREKA SNIPE.

Scolopax Limosa. Sc. rostro subrecurvato basi rubro, corpore griseo-fusco rufo variegato subtus albo, remigibus basi albis, quatuor primis immaculatis, cauda basi alba. *Lath. Ind. orn.* 719. *id. Syn.* v. 146. *Gm Lin.* 666.

La Barge. *Belon. av.* 205.

The second sort of Godwit, the *Totanus* of *Aldrovand*; called at *Venice*, *Vetola*. *Wil. orn.* 293.

Fedoa nostra secunda, the Stone Plover. *Raii Syn. av.* 105.

Limosa, la Barge. *Brisson av.* v. 262. *Hist. d'ois.* vii. 500. *Pl. Enl.* 874.

Lesser Godwit. *Br. Zool.* 120. *ib.* 4to. ii. 374.

Jadreka Snipe. *Arct. Zool.* ii. 171.

DESCRIPTION.

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 an 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 grows less and less to the middlemost.

Besides these, Mr. *Willughby* mentions a third species, called in *Cornwall*, the *Stone Curlew**; but describes it no farther than saying it has a shorter and slenderer bill than the preceding.

* The Stone Curlew is a name given in some parts of *England* to the Whimbrel. A species of snipe under that denomination is described by Mr. *Pennant*, in the *Arctic Zoology*, vol. ii. p. 171, as an inhabitant of *Chateaux* Bay, in *North America*.

ED.

7. GREENSHANK.

Scolopax Glottis. Sc. griseo-fusca maculis nigricantibus varia, superciliis dorso infimo corporeque subtus albis, rectricibus albis fasciis fuscis. *Lath. Ind. orn.* 720. *id. Syn.* v. 147. *id. Sup.* i. 249.

Lomosa, et glottis. *Gesner av.* 519, 520.

Piviero. *Aldr. av.* iii. 207.

Greater Plover of *Aldrovand. Wil. orn.* 298.

Raii Syn. av. 106.

La Barge variée. *Hist. d'ois.* vii. 503.

Scolopax glottis. *Gm. Lin.* 664.

Glut. *Faun. Suec. sp.* 171.

Pivier Maggiore. *Zinan.* 102.

Norvegis Hoest-Fugl. 167. *Brunnich.*

Tschoket. *Scopoli,* No. 137.

Br. Zool. 121. *Tab.* C. 1. *Arct. Zool.* ii. 173.

THESE birds appear 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; the 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 downwards; 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, the belly, thighs, and lower part of the back are white; the tail white, marked with undulated dusky

DESCRIPTION.

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 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 verds* of the *French;* as the spotted snipe are the *Chevaliers aux pieds rouges.*

" They are found every where on the *Europæan* continent, and extend to *India* and *China.* Some remain in *England* during the summer. The eggs are said not to be unlike those of the Red Shank." J. L.

8. REDSHANK.

Scolopax Calidris. Sc. rostro rubro, pedibus coccineis, corpore cinereo, remigibus secundariis albis. *Lath. Ind. orn.* 722 *id. Syn.* v. 150. *id. Sup.* i. 225.

Gallinula erythropus. *Gesner av.* 504.

Totanus *Aldr. av.* iii. 171.

Redshank, or Pool-snipe. *Wil. orn.* 299.

Raii Syn. av. 107.

Totanus, le Chevalier. *Brisson av.* v. 188. *Tab.* 17. *fig.* 1. *Hist. d'ois.* vii. 513.

Scolopax Calidris. *Gm. Lin.* 664.

Sc. Totanus. *Faun. Suec. sp.* 167.

Rothfussler *Kram.* 353.

Kleiner grau-und-weisbunter Sandlœuffer? *Frisch,* ii. 240.

Hœmantopus, magnitudine inter Vanellum et Gallinaginem minorem media. *Ray's itin.* 247.

Br. Zool. 124. *Arct. Zool.* ii. 172.

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 pairs.

DESCRIPTION.

It weighs five ounces and a half; the length is twelve inches; the breadth twenty-one; the bill nearly 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 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 quil feathers are dusky; the legs long, and of a fine bright orange color; the outermost 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.

VAR. A. CAMBRIDGE.

Scolopax cantabrigiensis. Sc. cinereo-fusca subtus alba, tectricibus alarum rectricibusque nigro fasciatis rostro rubro. *Lath. Ind. orn.* 721. *id. Syn.* v. 146.

Gm. Lin. 668.

Cambridge Godwit. *Br. Zool.* ii. 447.

I DISCOVERED this in the collection of the Rev. Mr. *Green;* it was shot near *Cambridge.**

DESCRIPTION.

It is larger than the common redshank. The head, upper part of the neck, and the back, are

* I received a bird from Mr. *Boys* in the month of *March* supposed to be this, but it proved to be a redshank in the plumage of the season. J. L.

From the above circumstance, considering also the variety of plumage to which the tribe is subject, and that the description of the *Cambridge* Godwit was taken from a stuffed specimen, we presume it might with propriety be erased from the list of distinct *British* species. ED.

of a cinereous brown; the lesser coverts of the wings brown edged with dull white, and barred with black; the primaries dusky, whitish on their inner sides; the secondaries barred with dusky and white; the under side of the neck and breast of a dirty white; the belly and vent white; the tail barred with cinereous and black; the legs of an orange red.

9. SPOTTED.

Scolopax. Totanus. Sc. nigricans maculis albis subtus alba, pectore lineolis rectricibus lateralibus fasciis nigricantibus, pedibus rubris. *Lath. Ind. orn.* 721. *id. Syn.* v. 148.
Gm. Lin. 665.

Le chevalier rouge. *Belon av.* 207.
Aldr. av. iii. 171.
Raii Syn. av. 106.
Le Chevalier rouge. *Brisson av.* v. 192.
The other Totano. *Wil. orn.* 299.
Arct. Zool. ii. 170.

DESCRIPTION.

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; the breast, belly, and thighs white, the first thinly spotted with black; the middle feathers of the tail are ash colored; the side feathers are whit-

ish, barred with black; the legs very long, and of a bright red.

[The spotted snipe has been killed in *Anglesey*, and is preserved in the collection of the ingenious Miss *Meyrick*, at *Beaumaris*. ED.

10. COMMON.

Scolopax Gallinago. Sc. rostro tuberculato, corpore nigricante et fulvo vario subtus albo, frontis lineis fuscis quaternis. *Lath. Ind. orn.* 715. *id. Syn.* v. 134.

La Beccassine ou Becasseau. *Belon av.* 215.

Gallinago, seu rusticola minor. *Gesner av.* 503.

Aldr. av. iii. 184.

The Snipe, or Snite. *Wil. orn.* 290.

Raii Syn. av. 105.

La Beccassine. *Brisson av.* v. 298. *Tab.* 26. *fig.* 1. *Hist. d'ois.* vii. 483. *Pl. Enl.* 883.

Pizzarda, Pizzardella. *Zinan.* 101.

Mooss schnepf. *Kram.* 352. *Frisch,* ii. 229.

Scolopax gallinago. *Gm. Lin.* 662.

Horsgjok. *Faun. Suec. sp.* 173.

Capella cœlestis. *Klein av.* 100.

Islandis Myr Snippe. *Norvegis* Trold Ruke. *Cimbris quibusd.* Hossegioeg. *Danis* Dobbelt Sneppe, Steen Sneppe. *Br.* 160.

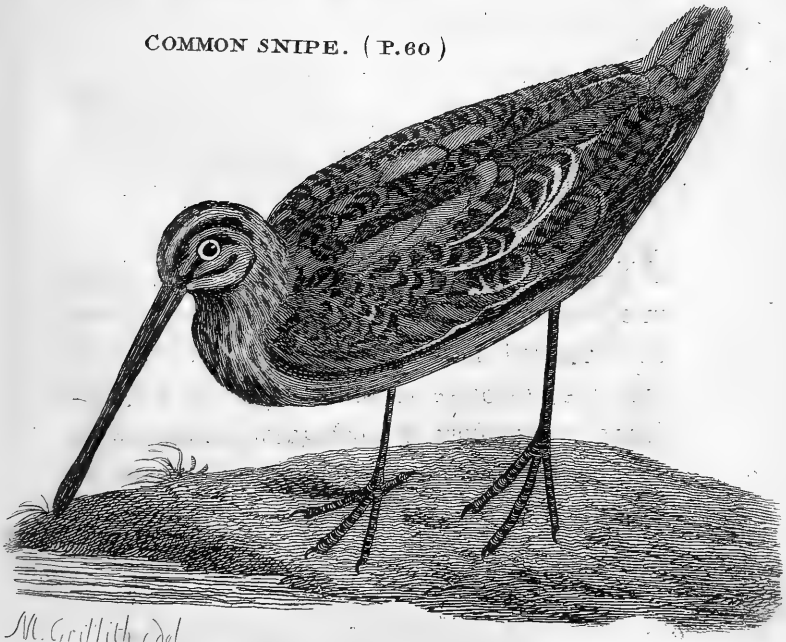
Kositza. *Scopoli,* No. 138.

Br. Zool. 121. *Arct. Zool.* ii. 165.

IN the winter time snipes are very frequent in all our marshy and wet grounds, where they lie 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

JACK SNIPE. (P. 63)

COMMON SNIPE. (P. 60)



M. Griffiths del

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 very shrill scream. They are most universal birds, found in every quarter of the globe, and in all climates.

DESCRIPTION.

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; 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;

* This is the usual weight, but a snipe was brought to the editor in *January*, 1811, which weighed more than five ounces. ED.

the chin is white; the neck is varied with brown and red. The scapulars are beautifully striped lengthways 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 are of a dull yellow; the legs pale green; the toes divided to their origin.

11. GREAT.	Scolopax major. Sc. nigro maculata supra testacea subtus albida, linea verticis testacea, altera utrinque nigra. *Lath.*	*Ind. orn.* 714. *id. Syn.* v. 133. *Gm. Lin.* 663. *Arct. Zool.* ii. 175.

THIS species is rarely found in *England.** A fine specimen, shot in *Lancashire*, was pre-

* I have known this species to be killed in *England*, six or eight times, and it is probably met with oftener than is imagined, as sportsmen talk of killing snipes occasionally of an extraordinary size. J. L.

served in the museum of the late Sir *Ashton Lever*.

DESCRIPTION.

The weight eight ounces. The head divided lengthways by a testaceous line, bounded on each side by another of black; above and beneath each eye is another; the neck and breast of a yellowish white, finely marked with semicircular lines of black; the belly, with cordated spots; the sides undulated with black. The coverts of wings, and scapulars testaceous, spotted with black and edged with white; the primaries dusky; the tail rust-colored, barred with black; the legs black?

12. JACK.

Scolopax. Gallinula. Sc. rostro tuberculato, corpore variegato, uropygio violaceo vario, pedibus virescentibus, loris fuscis. *Lath. Ind. orn.* 715. *id. Syn.* v. 136.

Gid, Jacksnipe, and Judcock. *Wil. orn.* 291.

Raii Syn. av. 105.

La petite Beccassine. *Brisson av.* v. 303. *tab.* 26. *fig.* 2. *Hist. d'ois.* vii. 490. *Pl. Enl.* 384.

Pokerl. *Scopoli*, No. 139.

Pizzardina. *Zinan.* 101.

Scolopax gallinula. *Gm. Lin.* 244.

Danis Roer-Sneppe. *Brunnich*, 163.

Haar-Schnepfe, Pudel-Schnepfe, Kleinste Schnepfe. *Frisch*, ii. 231.

Br. Zool. 121. *Arct. Zool.* ii. 166.

THE haunts and food of this species are the same with those of the common snipe; it also

feeds on small snails; 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.

DESCRIPTION.

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 is an inch and a half long; the crown of the head is black, tinged with rust color; over each eye is a yellow stroke; the neck varied with white, brown, and pale red. The scapular feathers are narrow, very long, brown, and bordered with yellow. The rump a glossy bluish purple; the 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 cinereous green.

Scolopax grisea. Sc. cinereo-fusca nigro nebulosa, alis fuscis, dorso abdomine caudaque albis, uropygio rectricibusque nigro fasciatis.	*Lath. Ind. orn.* 724. *id. Syn.* v. 154. *Gm. Lin.* 658. *Mont. orn. Dict.* Brown snipe. *Arct. Zool.* ii. 167.	13. BROWN.

DESCRIPTION.

[THE bill of this species resembles that of the common snipe; from it to each eye extends a white bar; the head, neck, and scapulars, are of a fine uniform cinereous brown, in a very few places marked with black; the coverts and primaries are dark brown; the shaft of the first primary feather of the wing white; the secondaries are light brown, edged with white; the back white; the rump and tail barred with black and white; the breast mottled with the same; the belly white; the legs are of a dark green color; the middle and outermost toe are connected by a small web. Its size is that of the common snipe.

This bird is a native of *America*, and only one instance is recorded by Mr. *Montagu* of its having been seen in *England*. ED.

GENUS VI. SANDPIPER.*

BILL straight, slender, not an inch and a half long.

NOSTRILS small.

TONGUE slender.

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

1. LAPWING. Tringa. Vanellus. Tr. pedibus rubris, crista dependente, pectore nigro. *Lath. Ind. orn.* 726. *id. Syn.* v. 161.
Le Vanneau, Dixhuit, Papechieu. *Belon av.* 209.
Zweiel. *Gesner av.* 765.
Pavonzino. *Aldr. av.* iii. 202.
Pavoncella. *Olina.* 21.
Lapwing, bastard Plover, or Pewit. *Wil. orn.* 307.
Vanellus, le Vanneau. *Brisson av.* v. 94. *tab.* 8. *fig.* 1.
Hist. d'ois. viii. 48. *Pl. Enl.* 242.
Raii Syn. av. 110.
Kiwik. *Kram.* 353. *Frisch,* ii. 213.
Tringa vanellus. *Gm. Lin.* 670.
Wipa, Kowipa, Blæcka. *Faun. Suec. sp.* 176.
Danis Vibe, Kivit. *Brunnich,* 170.
Scopoli, No. 141.
Br. Zool. 122. *Arct. Zool.* ii. 186.

THIS elegant species inhabits most of the heaths and marshy grounds of this island. It

* This genus, the *Tringa* of *Linnæus,* wanting an *English* name, we have given it that of the *Sandpiper*; most of the species being conversant about shores, and their note whistling or piping.

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, and those of the plover, lay four a-piece; the puffin genus only one; while 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 fluttering 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 unite in vast flocks, but at that season they are extremely 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.

DESCRIPTION.

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 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 is of a pure white; the legs are red; the irides hazel.

The female is rather less than the male.

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

2. GREY.

Tringa Squatarola. Tr. rostro nigro, pedibus virescentibus, corpore griseo, subtus albido. *Lath. Ind. orn.* 729. *id. Syn.* v. 168. *id. Sup.* i. 248.
Le pluvier gris. *Belon av.* 262.
Pivier montano. *Aldr. av.* iii. 207.
Wil. orn. 309.
Raii Syn. av. 111.
Tringa Squatarola *Gm. Lin.* 682.
Faun. Suec. sp. 186.
Vanellus griseus, le Vanneau gris. *Brisson, av.* v. 100. *tab.* 9. *fig.* 1. *Hist. d'ois.* viii. 68. *Pl. Enl.* 854.
Piviero montano. *Zinan.* 102.
Bornholmis Floyte-Tyten, Dolken, *Brunnich*, 176.
Scopoli, No. 145.
Br. Zool. 122. *Arct. Zool.* ii. 182.

DESCRIPTION.

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; the cheeks and throat white, marked with oblong dusky spots; the belly and thighs white; the exterior webs of the quil feathers black; the lower part of the interior webs of

* P. 182.

the four first white; the rump white; the tail marked with transverse bars of black and white; the legs are 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.

VAR. A. Tringa Squatarola. β. Tr. rostro pedibusque nigris, corpore fusco albo variegato, abdomine albo rectricibus fusco fasciatis. *Lath. Ind orn.* 729. *id. Syn.* v. 169.

Tringa varia. *Gm. Lin.* 682. Le Vanneau variè. *Brisson av.* v. 103. *tab.* 9. *f.* 2. *Pl. Enl.* 923.

[THIS variety is well represented in the *Planches Enluminées:* it is found on the coasts of *Anglesey* and *Suffolk*, and differs from the grey sandpiper in having the forehead, throat, and rump, white, and the upper tail coverts white edged with grey and pale yellow. ED.

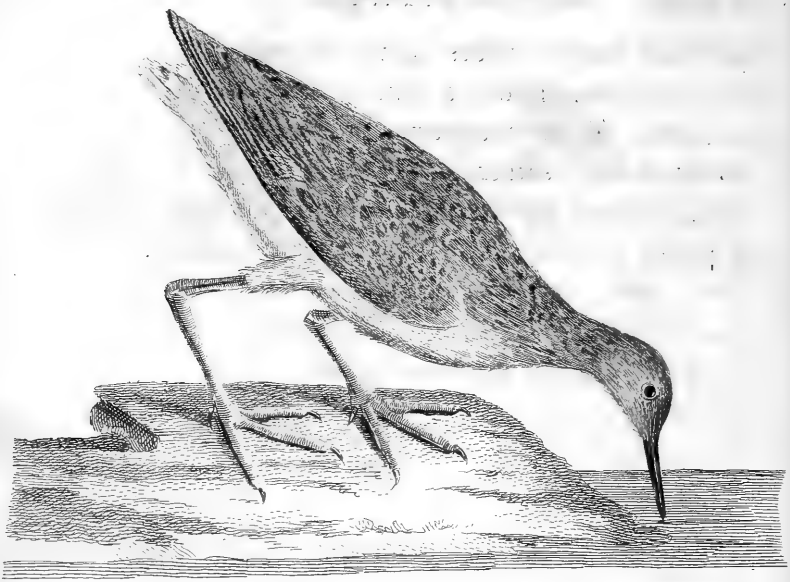
3. YELLOW LEGGED. Tringa flavipes. Sandpiper, yellow-legged. *Montagu orn. dict. App.*

Yellowshanks Snipe. *Arct. Zool.* ii. 172.

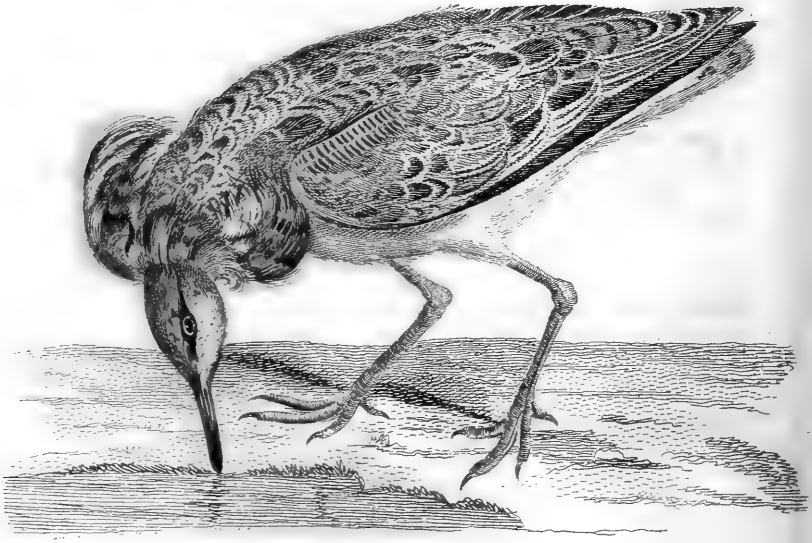
[THIS addition to the *British* Zoology was purchased in the market at *Bath*, and is thus described by Mr. *Montagu*.

DESCRIPTION. "Length eleven inches and a half. Bill one inch and a half long, black half way from the

REEVE.



RUFF



end, base yellow; irides light hazel; head and neck cinereous, streaked with dusky; the upper parts of the body cinereous brown; the middle of each feather dusky; wing coverts the same; beneath the spurious wing a small patch of white; primary quil feathers dusky, the first with a white shaft; secondaries white half way from their tips; the under parts white; rump the same; the tail and its upper coverts cinereous brown; under tail coverts speckled with dusky; legs orange yellow." ED.

4. RUFF.

Tringa pugnax. Tr. rostro pedibusque rufis, rectricibus tribus lateralibus immaculatis, facie papillis granulatis carneis. *Lath. Ind. orn.* 725. *id. Syn.* v. 159.
Avis pugnax. *Aldr. av.* iii. 167.
Wil. orn. 302.
Raii Syn. av. 107.
Krossler. *Kram.* 352
Tringa pugnax. *Gm. Lin.* 669.
Brushane. *Faun. Suec. sp.* 175.
Le Combattant, ou Paon de mer. *Brisson av.* v. 240. *tab.* 22. *Hist. d'ois.* vii. 521. *Pl. Enl.* 305, 306.
Danis Bruushane. *Brunnich,* 168.
Streitschnepfe, Rampfhæhnlein. *Frisch,* ii. 232, 235.
Scopoli, No. 140.
Br. Zool. 123. *Arct. Zool.* ii. 185.

THE males, or Ruffs, assume such a variety of colors in several parts of their plumage, that it is scarcely possible to see two alike; but the great length of the feathers on the neck, which

DESCRIPTION.

gives name to them, at once distinguishes them from all other birds. On the back of their necks is a singular tuft of feathers spreading wide on both sides. These, 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 coloring 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; the length of the Reeve ten inches, the breadth nineteen; the weight of the former when just taken is seven ounces and a half; of the latter only four.

FEMALE.

The Reeves never change their colors, which are pale brown; the back spotted with black, slightly 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 taking the females, not only because they are smaller than the males, but that they may be left to breed.

Soon after their arrival, the males begin to *hill*, 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 begin fighting. I find a vulgar error, that ruffs must be fed in the dark least 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 employ 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 in action by making them move their stations; and after quitting the place, by peeping through a crevice, have seen them resume their circles and become pacific.

When a fowler discovers one of these *hills*, 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 shyer the birds grow. He then makes his first pull, taking those birds that he finds within reach; after that he places his stuft 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 dozen 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, hemp seed, 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. Judgment 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 scissars: 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.

5. KNOT.

Tringa canutus. Tr. rostro lævi, pedibus cinerascentibus, remigibus primoribus serratis, rectrice extima alba immaculata. *Lath. Ind. orn.* 738. *id. Syn.* v. 187.
Wil. orn. 302.
Raii Syn. av. 108.
Edw. av. 276.
Le Canut. *Brisson av.* v. 258. *Hist. d'ois.* viii. 142.
Tringa canutus. *Gm. Lin.* 679.
Faun. Suec. sp. 183.
Islandis Sidlingar-Kall. *Norvegis* Fiære Pist. Fiær-Kurv, Fiær - Muus. *Bornholmis,* Rytteren.
Brunnich, Tringa maritima, 182.
Br. Zool. 123. *Tab.* C. 2. *f.* 1. *Arct. Zool.* ii. 178.

DESCRIPTION.

THE specimens we had an 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 are employed in taking ruffs; with two or three dozens of *stales* of wood painted like the birds, placed within: fourteen dozen have been taken at once. Their season is from the beginning of *August* to that of *November*. They disappear with the first frosts. *Camden** says they derive their name from king *Canute*, *Knute*, or *Knout*, as he is sometimes called; probably because they were a favourite 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. *Theobald's* reading is just) makes the‡ *Knot* an emblem of a dupe:

> "I have rubb'd this young *Knot* almost to the sense;
> "And he grows angry." *Othello.*

* *Camden Brit.* 971.

† *Dugdale* on embanking, 185.

‡ Modern annotators substitute "quat," a provincial word for "a pimple." ED.

6. ASH COLORED.

Tringa cinerea. Tr. nigro cinereo alboque lunato varia, pectore et abdomine albis, tectricibus caudæ albo nigroque fasciatis, rectricibus margine albo. *Lath. Ind. orn.* 733. *id. Syn.* v. 177.

Tringa cinerea. *Brunnich, ornith.* 53.
Tr. cinerea. *Gm. Lin.* 673.
Braun und Weissbunter Sandlœuffer? *Frisch*, ii. 237.
Br. Zool. 124. *Arct. Zool.* ii. 179.

DESCRIPTION.

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 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 scolloped.

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

Tringa macularia Tr. rostro basi pedibusque incarnatis, corpore undique maculato, superciliis fasciaque gemina alarum albis. *Lath. Ind. orn.* 734. *id. Syn.* v. 179.
Spotted Tringa. *Edw. av.* 277.
Turdus aquaticus, la Grive d'Eau. *Brisson av.* v. 255. *Hist. d'ois.* viii. 140.
Tringa macularia. *Gm. Lin.* 672.
Br. Zool. 124. *Arct. Zool.* ii. 178.

7. SPOTTED.

THIS bird is common to *Europe* and *America;* according to Mr. *Edwards's* figure, it is less than the preceding.

DESCRIPTION.

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 the neck to tail, is white, marked with dusky spots; the female has none of these spots, except on the throat; the legs are 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.*

8. SELNINGER. Tringa maritima. Tr. griseo nigroque varia subtus alba, jugulo caudaque obscuris rectricibus lateralibus quatuor albo marginatis. *Lath. Ind. orn.* 731. *id. Syn.* v. 173. *id. Sup.* ii. 312.
Brunnich, 182.
Leems. 254.
Sea Sandpiper. *Lin. Tr.* iv. 22. pl. 1.
Purple Sandpiper. *Mont. orn. dict.*?
Tringa nigricans. *Lin. Tr.* iv. 40. pl. 2.
Arct. Zool. ii. 196.

[THE *Selninger* Sandpiper is thus described by Mr. *Pennant* in the *Arctic Zoology*.

DESCRIPTION. "Above varied with grey and black; the middle of the back tinged with violet; forepart of the neck dusky; lower part of the body white; four outmost feathers on each side shorter than the rest, and edged with white; legs yellow."

The plumage of Sandpipers varies so much according to age and season, that it is difficult to ascertain the various species with precision, yet there is reason to believe that the above corresponds with the birds discovered by Mr. *Markwich* on the coast of *Sussex* in 1796, and described by him in the fourth volume of the *Linnean* Transactions. ED.

Tringa Lincolniensis. Tr. alba, supra maculis griseis fuscisque varia, subtus maculis oblongis fuscis et nigris, rectricibus duabus intermediis toto nigris. *Lath. Ind. orn.* 734. *id. Sup.* i. 251.

9. BLACK.

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

DESCRIPTION.

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

* Suspected by Mr. *Montagu* to be the young of his purple Sandpiper, the *Selninger* of the *Arctic Zoology.* ED.

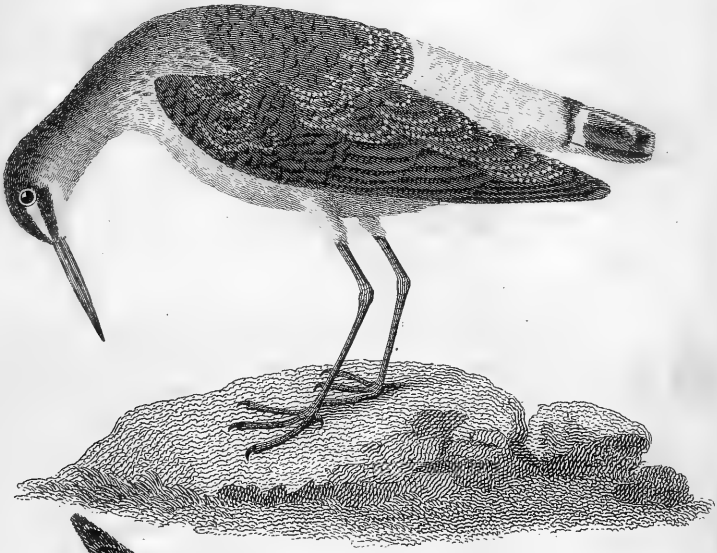
10. GAMBET. Tringa Gambetta. Tr. rostro pedibusque rubris, corpore luteo cinereoque variegato, subtus albo. *Lath. Ind. orn.* 728. *id. Syn.* v. 167.
Tringa Gambetta. *Gm. Lin.* 248. *Faun. Suec.* No. 177.
Gambetta. *Wil. orn.* 300.
Raii Syn. av. 117.
Aldr. av.
Totanus ruber. *Brisson,* v. 192. *Pl. Enl.* 845. *Scopoli,* No. 142.
Tringa variegata. *Brunnich,* No. 181.
Arct. Zool. ii. 183.

DESCRIPTION. THIS species is of the size of the greenshank: 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.

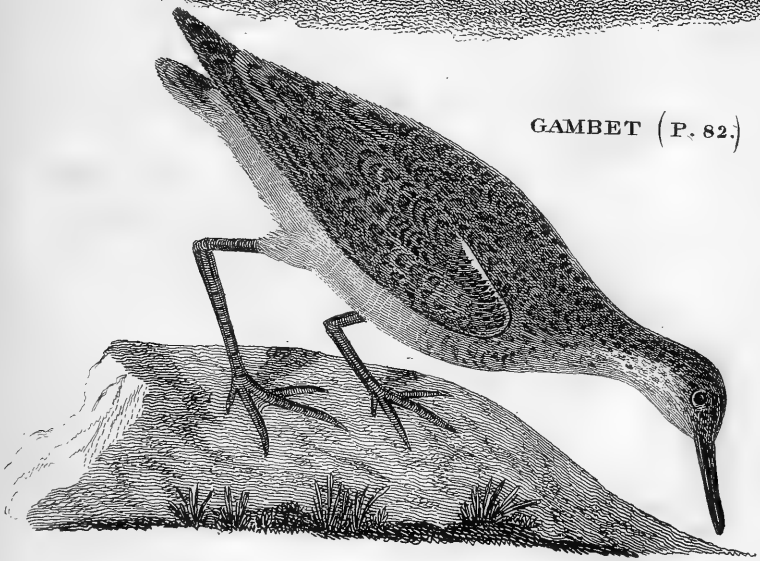
It has been shot on the coast of *Lincolnshire.*

[It has also been found in *Sussex*, *Hampshire*, *Caermarthenshire*, and other maritime counties, but is said not to appear far inland. Is migratory, and observed here only in the summer months. ED.

GREEN SANDPIPER (P. 86)



GAMBET (P. 82.)



Tringa Interpres. β. Tr. pedibus rubris, rectricibus nigricantibus basi albis, corpore griseo, pectore nigro. *Lath. Ind. orn.* 739. *id. Syn.* v. 190.*

Turnstone, or Sea Dottrel. *Wil. orn.* 311.

Cat. Carol. i. 72.

Morinellus Marinus. *Raii Syn. av.* 112.

La Coulon-chaud, Arenaria. *Brisson av.* v. 132. *Hist. d'ois.* viii. 130. *Pl. Enl.* 856.

Tringa Morinella. *Gm. Lin.* 671.

Br. Zool. 125. *Arct. Zool.* ii. 187.

11. TURNSTONE.

DESCRIPTION.

THIS species is about the size of a thrush: the bill is an inch in length, a little prominent on the top, 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

* Dr. *Latham* considers this as a variety of the Hebridal Sandpiper. ED.

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 took our description from was shot in *Shropshire.* Mr. *Ray* observed them flying three or four in company on the coasts of *Cornwall* and* *Meireonethshire:* 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.

VAR. A. HEBRIDAL.

Tringa Interpres. Tr. pedibus rubris, corpore nigro albo ferrugineoque vario pectore abdomineque albo. *Lath. Ind. orn.* 738. *id. Syn.* v. 188. *id. Sup.* i. 249.

Tringa interpres. *Gm. Lin.* 671.

Faun. Suec. No. 178.

Turnstone from *Hudson's Bay. Edw.* 141.

Arenaria, Le Coulon-chaud. *Brisson,* v. 132.

Hebridal Sandpiper. *Br. Zool.* 4to. ii. 467. *Arct. Zool.* ii. 177.

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

* The editor is informed by the reverend *Hugh Davies,* that, in severe weather, when it blows from east or north during the months of *February* or *March,* they are often seen in flocks of from four or five to a dozen on the *Green* near *Beaumaris.* ED.

It is of the size of a thrush: the forehead, throat, and belly white; the breast black; the neck surrounded with a black collar; from thence another bounds the sides of the neck, and passes over the forehead; the head and lower part of the neck behind white; the first streaked with dusky lines; the back ferruginous, mixed with black; the coverts of the tail white, crossed with a black bar; the tail black, tipt with white; the coverts of the wings cinereous brown; the lower order edged with white; the primaries and secondaries black; the ends of the last white; the tertials ferruginous and black; the legs rather short, and of a full orange. DESCRIPTION.

Tringa equestris. Tr. pedibus virescentibus, dorso fusco vario, abdomine uropygioque albo. *Lath. Ind. orn.* 730. *id. Sup.* ii. 311.

Le Chevalier commun. *Hist. d'oïs.* vii. 511. *Pl. Enl.* 844.

12. EQUESTRIAN.

[THIS species, first noticed by Dr. *Latham* in his second supplement, is twelve inches long; the bill dusky; the legs* pale grey; the body above rufous grey, clouded with brown; the sides of the head, fore part of the neck and breast white, clouded with paler brown; on the sides of the head are minute specks of the

* The legs of five shot near *Sandwich*, by Mr. *Boys*, in 1800, were of a pale orange. ED.

same; the chin, belly, thighs, vent, and rump, white; the two middle tail feathers rufous brown, with black bands; the others plain pale rufous brown. ED.

13. GREEN. Tringa Ochropus. Tr. rostri apice punctato, pedibus virescentibus, dorso fusco-viridi, abdomine rectricibusque extimis albis. *Lath. Ind. orn.* 724. *id. Syn.* v. 170. *id. Sup.* ii. 311.

Cinclus. *Belon av.* 216.

Gallinæ aquaticæ secunda species de nov. adject. *Gesner av.* 511.

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

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

Raii Syn. av. 108.

Tringa ochropus. *Gm. Lin.* 251.

Weispunotirto Sandlæuffer. *Frisch,* ii. 239.

Faun. Suec. sp. 180.

Le Beccasseau ou Cul-blanc, Tringa. *Brisson av.* v. 177. *tab.* 16. *fig.* 1. *Hist. d'ois.* vii. 534. *Pl. Enl.* 843.

Danis Horse-Gioeg. *Islandis* Hrossagaukr. *Norvegis* Skodde Foll, Skod-de-Fugl. Jordgeed. Makkre-Gouk, Rœs Jouke. *Brunnich,* 183.

Br. Zool. 125. *Tab.* F. 2. *f.* 3. *Arct. Zool.* ii. 180.

DESCRIPTION. THIS 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 mottled 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 quil 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 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 rust color.

* A specimen, shot in *Flintshire*, was brought to the editor in *August* 1811, which resembled the above in most particulars, but the color of the back was of a brownish hue and the spots were rusty; the bars on the tail were irregular, and the distinguishing marks on the underside of the wings rather indistinct. The legs were long, and of a pale olivaceous color. ED.

VAR. A. WOOD. Tringa glareola. Tr. rostro lævi, pedibus virescentibus, corpore fusco albo punctato, pectore albido. *Lath. Ind. orn.* 730. *id. Syn.* v. 172. *Gm. Lin.* 677. Wood Sandpiper. *Arct. Zool.* ii. 188.

DESCRIPTION. [THIS variety is about the size of a stare. Its back is of a dusky color, spotted with white; the primaries and secondaries dusky; the last tipt with white; the breast and belly whitish; the tail barred with black and white; the outmost feathers lightest; the rump white; the legs of a dirty green.

Mr. *Montagu* supposes this to be a distinct species, and has given a very detailed description of it in his excellent ornithological dictionary; he observes that the legs are singularly long in proportion to the body, and by far superior in length to any species of sandpiper of equal size.

Dr. *Latham*, in his second supplement, is inclined to believe that the Green and Wood sandpipers, the *Tringa Ochropus*, and the *Tringa Glareola*, form only one species. ED.

Tringa islandica. Tr. rostro pedibusque fuscis, corpore subtus ferrugineo, remigibus secundariis margine albis. *Lath. Ind. orn.* 737. *id. Syn.* v. 186.

Tringa Islandica. *Gm. Lin.* 682.
Tringa ferruginea *Islandis* Randbrislanger. *Brunnich,* No. 180.
Arct. Zool. ii. 182.

14. RED.

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

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

La Maubeche tachetée. *Brisson* v. 229?

VAR. A. ABERDEEN.

THIS was communicated by the late Doctor *David Skene* of *Aberdeen*, [and may be considered as a mere variety of the red Sandpiper.]

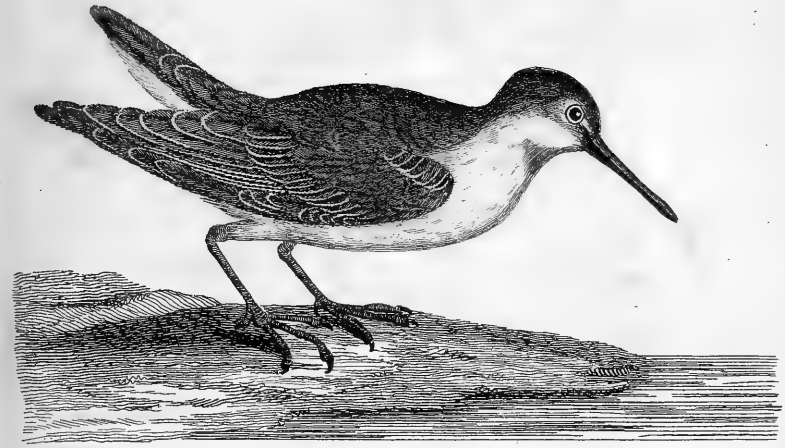
Bill slender and black; the head, back, lesser coverts of the wings, and the scapulars, of a dull ferruginous color, spotted with black; the greater coverts tipt with white; the quil feathers dusky, edged on the exterior side with white; the breast reddish brown, mixed with dusky; DESCRIPTION.

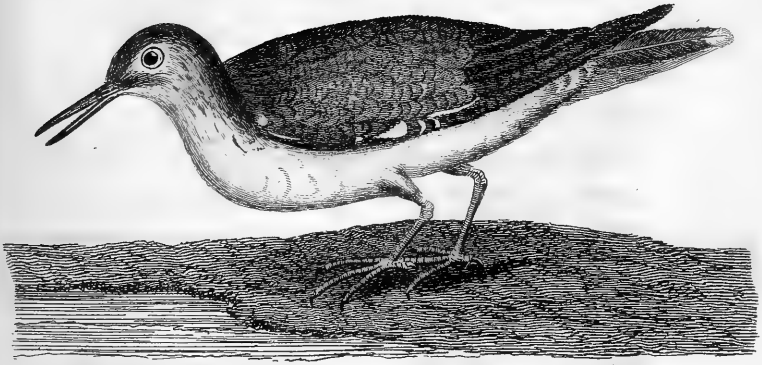
the belly and vent white; the tail cinereous; the two middle feathers longer than the rest; the legs black. Size that of the former.

15. COMMON. Tringa Hypoleucos. Tr. rostro lævi, pedibus cinereis, corpore cinereo subtus albo. *Lath. Ind. orn.* 734. *id. Syn.* v. 178.
Gallinula hypoleucos (Fysterlin). *Gesner av.* 509.
Aldr. av. iii. 182.
Wil. orn. 301.
Raii Syn. av. 108.
Sandlaufferl. *Kram.* 353.
Tringa hypoleucos. *Gm. Lin.* 678.
Snappa, Strandsittare. *Faun. Suec. sp.* 182.
Guinetta, la Guignette. *Brisson av.* v. 183. *tab.* 16. *fig.* 1. *Hist. d'ois.* vii. 540. *Pl. Enl.* 850.
Norvegis der lille Myrstikkel. *Bornholmis* Virlen. *Brunnich,* 174.
Martin's *Scopoli,* No. 143.
Br. Zool. 125. *Arct. Zool.* ii. 180.

THIS species agrees with the green sandpiper 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 is of 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 with a white spot; the middle feathers of the tail brown, the edges spotted with

DESCRIPTION.





SANDPIPER (P. 90.)

black and pale red; the exterior tipt and barred with white; the legs of a dull pale green.

Tringa Grenovicensis. Tr. corpore supra vario, collo subtus cinereo, abdomine crisso uropygiique lateribus albis. *Lath. Ind. orn.* 731. *id. Sup.* i. 249. 16. GREENWICH.

[DR. *Latham* has given a trivial name to this bird from the place where it was killed, and thus describes it as a new species:

DESCRIPTION.

"Size of the redshank; weight near eight ounces; length twelve inches and a half; bill an inch and a half long, black; crown of the head reddish brown streaked with black; nape, cheeks, and neck, ash color; the middle of the feathers dusky down the shaft; lower part of the neck and back black; the feathers margined on the sides with pale ferruginous, and some of those of the back at the tips also; chin nearly white; fore part of the neck very pale ash color, as far as the breast, which is of a dusky white; belly, sides, vent, and upper tail coverts, on each side, and whole of the under ones, white; lesser wing coverts ash color, the greater the same, obscurely margined with pale ferruginous; greatest tipped with white; under wing coverts pure white; prime quils dusky; the shafts more or less white; secondaries and scapulars nearly the color of the back; the secon-

daries and primaries differing very little in length; the lower part of the back, rump, and middle of the tail coverts, ash color; tail a little rounded at the end, brownish ash color, somewhat mottled with brownish near the tips, and fringed near the end with a pale ferruginous; legs dusky olive green, bare an inch above the knee; the outer and middle toe connected at the base." ED.

17. DUNLIN. Tringa alpina. Tr. testaceo-fusca, pectore nigricante, rectricibus cinereo-albidis, pedibus fuscentibus. *Lath. Ind. orn.* 736. *id. Syn.* v. 185. *id. Sup.* 249.
Wil. orn. 205.
Raii Syn. av. 109.
Tringa alpina. *Gm. Lin.* 249.
Faun. Suec. sp. 181.
La Beccassine d'Angleterre. *Brisson av.* v. 309. *Hist. d'ois.* vii. 553. *Pl. Enl.* 852.
Danis Domsneppe, Ryle. *Brunnich,* 167, & 173.
Kleinste Schnepfe, or Kleinste Sandlœuffer. *Frisch,* ii. 241.
Br. Zool. 126. *tab.* E. 1. *fig.* 2. *Arct. Zool.* ii. 181.

DESCRIPTION. 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; the legs black; the toes divided to their origin. In size it is superior to 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*, suppose they breed with us; but I never discovered their nest. They are common on the *Yorkshire* coasts, and esteemed a great delicacy.

Tringa fusca. Tr. pallide fusca nigro maculata subtus alba, collo antice nigro striato, cauda cinerea, tectricibus alarum albido marginatis. *Lath. Ind. orn.* 733. *id. Syn. Sup.* i. 250. 18. BROWN.

DESCRIPTION.

THIS species is in the collection of Mr. *Tunstal*, and 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; the coverts of the wings dusky, edged with dirty white; the under side of the neck white, streaked with black; the

belly white; the tail cinereous; the legs black.*

Bought in the *London* market.

19. PURRE.

Tringa Cinclus. Tr. rostro pedibusque nigris, loris albis corpore uropygioque griseis fuscisque. *Lath. Ind. orn.* 735. *id. Syn.* v. 182.

L'Allouette de Mer. *Belon av.* 213.

Cinclus sive Motacilla Maritima, Lyssklicker. *Gesner av.* 616.

Giarolo. *Aldr. av.* iii. 188.

The Stint. *Wil. orn.* 305.

Stint, in *Sussex* the Ox-eye. *Raii Syn. av.* 110.

N. Com. Petr. iv. 428.

Cinclus. L'Allouette de Mer. *Brisson av.* v. 211. *tab.* 19. *fig.* 1. *Hist. d'ois.* vii. 548. *Pl. Enl.* 851.

Tringa cinclus. *Gm. Lin.* 251. *Br. Zool.* 126. *Arct. Zool.* ii. 181.

DESCRIPTION.

THIS bird weighs about an ounce and a half: the length is seven inches and a half; the 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; the 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

* Mr. *Montagu* entertains doubts with respect to this bird being a distinct species, and observes that a young Dunlin killed in *July*, exactly corresponds with the above, except that the head and back of the neck are of a ferruginous brown.

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; the irides dusky.

These birds come in prodigious flocks on our 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 the spectator. They leave our shores in spring, and retire to some unknown place to breed.

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

Tringa pusilla. Tr. rostro pedibusque fuscis, corpore subtus rufescente, rectricibus extimis scapo albo, uropygio variegato. *Lath. Ind. orn.* 737. *id. Syn.* v. 184. *Montagu orn. dict. App. Arct. Zool.* ii. 184. 20. LITTLE.

DESCRIPTION.

THIS is the lest of the genus, scarcely equalling a hedge sparrow in size. The head, upper side of the neck, the back, and coverts of the wings are brown, edged with black and pale rusty brown; the 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*.*

FEMALE. [A female of this species shot on the coast of *Devonshire* in the month of *November*, differed in some respects.

DESCRIPTION. "Its weight was six drams; the length six inches. The bill dusky, slender, rather enlarged at the point, a dusky brown streak extended from it to the eye, and above that an obscure dirty white one; the forehead, crown of the head, back of the neck, back and scapulars, of a dark cinereous color, dusky down the shafts, except on the neck, which is rather lighter; chin and throat white; fore part of the neck and upper part of the breast-pole cinereous brown; the lower part, the belly, vent, and under tail coverts, pure white; the primaries, secondaries, and the greater coverts immediately over them, dusky, very slightly tipped with white; the primaries edged with white on

* A variety of it is seen in *Indian* drawings. J. L.

the outer webs, except the two first; the shaft of the first quil is white, the others dusky brown, spurious wing and smaller coverts near it dusky; the rest of the coverts and tertials cinereous, like the back; the rump and upper tail coverts dusky; the feathers slightly tipped with cinereous; the tail cuneiform, composed of twelve feathers, of which the six middle are cinereous, the outer of a pure white; the legs light olive brown, three quarters of an inch long; the claws black; the outer toe very slightly connected at the base to the middle one by a membrane."* ED.

* *Mont. orn. dict. App.*

GENUS VII. PLOVER.

BILL strait, not longer than the head.
NOSTRILS linear.
TOES: wants the hind toe.

1. GOLDEN. Charadrius pluvialis. Ch. corpore nigro viridique maculato subtus albido, pedibus cinereis. *Lath. Ind. orn.* 740. *id. Syn.* v. 193. *id. Sup.* i. 252.
Le Pluvier Guillemot. *Belon av.* 260.
Pluvialis. *Gesner av.* 714.
Pivier. *Aldr. av.* iii. 206.
Wil. orn. 308.
Raii Syn. av. 111.
Brachhennl. *Kram.* 354.
Rechter Brachvogel. *Frisch,* ii. 217.
Charadrius Pluvialis. *Gm. Lin.* 688.
Dalekarlis Akerhona, *Lappis* Hutti. *Faun. Suec. sp.* 190.
Pluvialis aurea, le Pluvier doré. *Brisson av.* v. 43. *Tab.* 4. *fig.* 1. *Hist. d'ois.* viii. 81. *Pl. Enl.* 904.
Piviero verde. *Zinan.* 102.
Norvegis Akerloe, *Cimbris* Brok-Fugl. *Brunnich,* 187.
Br. Zool. 128. *Arct. Zool.* ii. 190.

DESCRIPTION.

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

RED SAND-PIPER. (P. 89)

GOLDEN PLOVER. (P. 98)

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; 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. They breed on several of our unfrequented mountains; and are very common on those of the isle of *Rum*, and others of the loftier *Hebrides*. They make a shrill whistling noise; and may be enticed 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.**

2. LONG LEGGED.

Charadrius Himantopus. Ch. albus, dorso nigro, rostro nigro capite longiore, pedibus longissimis. *Lath. Ind. orn.* 741. *id. Syn.* v. 195. *id. Sup.* i. 252.
Le grand Chevalier d'Italie. *Belon Portr. d'Oyseaux*, 53.
Aldr. av. iii. 176.
Gesner av. 546.
Himantopus. *Wil. orn.* 297.
Raii Syn. av. 106.
Sibb. Scot. 19. *Tab.* 11. 13.
L'Echasse. *Brisson av.* v. 33. *Tab.* 3. *fig.* 1. *Hist. d'ois.* viii. 114. *Pl. Enl.* 878.
Charadrius himantopus. *Gm. Lin.* 690.
Scopoli, No. 148.
Br. Zool. 128. *add.* plates. *Arct. Zool.* ii. 193.

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 golden plover: this, added to the defect of the back toe, must render its paces aukward 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 the tip of the bill 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

DESCRIPTION.

* *Belon Oyseaux.* 260.

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

* A good figure of this rare bird, with some excellent observations by the reverend *Hugh Davies,* and corrections of the error into which some eminent naturalists had fallen relative to the shape of the bill, are given in the third volume of Dr. *Shaw's* Naturalist's Miscellany. ED.

† Mr. *White, Fleet Street,* had a specimen, shot out of a small flock which were seen on *Frenchmen's ponds* in *Hampshire.* ED.

3. DOTTREL. Charadrius Morinellus. Ch. pectore ferrugineo, fascia superciliorum pectorisque lineari alba, pedibus nigris. *Lath. Ind. orn.* 746. *id. Syn.* v. 208.

Morinellus avis anglica. *Gesner av.* 615.

Wil. orn. 309.

Raii Syn. av. 111.

Camden. Brit. i. 570.

Pluvialis minor, sive morinellus, le petit Pluvier, ou le Guignard. *Brisson av.* v. 54. *Tab.* 4. *fig.* 2. *Hist. d'ois.* viii. 87. *Pl. Enl.* 832.

Charadrius morinellus. *Gm. Lin.* 690.

Lappis Lahul. *Faun. Suec. sp.* 188.

Caii opusc. 96.

Cimbris Pomerants Fugl. *Norvegis* Bold Tiœt. Mindre Akerloe. *Brunnich,* 185.

Br. Zool. 129. D. *Arct. Zool.* ii. 194.

DESCRIPTION.

THE female dottrel, according to Mr. *Willughby,* 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, depressed 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 passes over the eyes, surrounds the whole; the cheeks and throat are white; the neck is 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 exterior

SANDERLING. P. 106.

DOTTEREL.

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, 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; the thighs and vent-feathers white; the legs yellowish green; the 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 across the breast is wanting; the belly is mixed with black and white.

PLACE.

These birds are found in *Cambridgeshire*, *Lincolnshire*, and *Derbyshire;* on *Lincoln-heath*, 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 mimick the action of 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 disused.

4. RINGED.

Charadrius Hiaticula. Ch. griseo-fuscus subtus albus, pectore nigro, fronte nigricante fasciola alba, vertice fusco, pedibus luteis. *Lath. Ind. orn.* 743. *id. Syn.* v. 201.

Charadrius sive hiaticula. *Aldr. av.* iii. 207.

Wil. orn. 310.

Raii Syn. av. 112.

Griesshennl. *Kram.* 354.

Charadrius hiaticula. *Gm. Lin.* 683.

Scopoli, No. 147.

Strandpipare, Grylle, Trulls, *Lappis* Pagó. *Faun. Suec. sp.* 187.

Pluvialis torquata minor, le petit Pluvier a collier. *Brisson av.* v. 63. *Tab.* 5. *fig.* 2. *Hist. d'ois.* viii. 90. *Pl. Enl.* 921.

Bornholmis Præste - Krave, Sand - Vrifter. *Brunnich*, 184. *Frisch*, ii. 214.

Sea Lark. *Br. Zool.* ii. 383. *Arct. Zool.* ii. 191.

DESCRIPTION.

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 line; the cheeks are of the same color; the forehead white, bounded by a black band which 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 are 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 the approach of winter they disappear.*

5. SANDERLING.

Charadrius Calidris. Ch. rostro pedibusque nigris, loris uropygioque subgriseis, corpore subtus albo immaculato. *Lath. Ind. orn.* 741. *id. Syn.* v. 197. *id. Sup.* i. 253. *id. Sup.* ii. 315.

Sanderling, or Curwillet. *Wil. orn.* 303.

Raii Syn. av. 109.

Towillee. *Borlase hist. Cornwal.* 247.

Calidris grisea minor, la petite Maubeche grise. *Brisson av.* v. 236. *Tab.* 20. *fig.* 2. *Hist. d'ois.* vii. 532.

Charadrius Calidris. *Gm. Lin.* 681.

Br. Zool. 129. *add.* plates. *Arct. Zool.* ii. 192.

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

DESCRIPTION.

* The young of this bird has been described as a distinct species under the name of the *Kentish* Plover; but Mr. *Montagu*, in the seventh volume of the *Linnean* Transactions, seems clearly to prove their identity. ED.

inch long, weak and black; the head, and hind part of the neck, are 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 are 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.

GENUS VIII. COURSER.

BILL rather slender, bent at the tip, pointed.
NOSTRILS ovate.
TONGUE sharp.
TOES: wants the back toe.

1. CREAM COLORED.

Cursorius europæus. *β.* C. flavo-rufescens, lateribus capitis gula abdomineque pallidioribus, pone oculos macula obscura, remigibus rectricibusque lateralibus ad apicem nigris. *Lath. Ind. orn.* 751. *id. Sup.* i. 254. *tab.* 116.

Charadrius gallicus. *Gm. Lin.* 692.

Le Coure-vite. *Hist. d'ois.* viii. 128. *Pl. Enl.* 795.

[A SPECIMEN of this extremely rare bird was shot near *St. Albans*, in *East Kent*, the seat of *William Hammond*, Esq. and first described and figured by Dr. *Latham*, in his supplement to the *General Synopsis*. It differed in a very slight degree from the Cream colored Plover of that work, which he thus describes:

DESCRIPTION.

"Length ten inches. Bill three quarters of an inch, slender, bent at the top, not unlike that of the Pratincole; plumage in general cream color, palest beneath; behind the eyes is a patch of black; through them a pale streak

passing to the hind head, and dividing the black; quils black; tail the same as the upper parts, marked with black near the tip; legs yellowish white."

The above, which was killed in *France*, and that shot in *England*, were observed to run with great swiftness; its note was unlike that of any species of Plover. ED.

GENUS IX. PRATINCOLE.

BILL short, strong, strait, hooked at the end.
NOSTRILS near the base, linear, oblique.
TOES long, slender, connected by a membrane at the base.
TAIL forked, consisting of twelve feathers.

AUSTRIAN. Glareola Austriaca. Gl. griseo fusca subtus rufo-alba, linea gulari incurvata nigra, rectricibus quatuor exterioribus basi albis. *Lath. Ind. orn.* 753. *id. Syn.* v. 222. *tab.* 85.
Hirundo Pratincola. *Gm. Lin.* 695.
Glareola. *Brisson av.* v. 141. *tab.* 12. *f.* 1.
Le perdrix de mer. *Hist. d'ois.* vii. 544. *Pl. Enl.* 882.
Austrian Pratincole. *Montagu* in *Lin. Tr.* ix. 199.

[A SOLITARY instance occurs of this curious bird, which seems to unite the Swallow and Teru tribe, having visited *England*. It was shot in *Lancashire*.

DESCRIPTION. Its size that of a Blackbird. The base of the bill is black, the rest red; the upper parts of the body are of a greyish brown; the chin and throat white, surrounded with a black line, which begins at the hinder angle of the eye, and bounds the whole of the white; the under parts

are rufous grey, growing paler towards the vent; the upper tail coverts of the same color; the quils and tail dusky; the last much forked, and tipped with grey on the inner web; the outer web of the exterior feather white in the whole of its length; the legs and bare space above the knees are blood red.

It inhabits *Germany*, and lives on worms and aquatic insects; visits *France* occasionally, and is found eastward from the *Caspian* sea to the river *Irtish*, but is not observed to the north of lat. 53. ED.

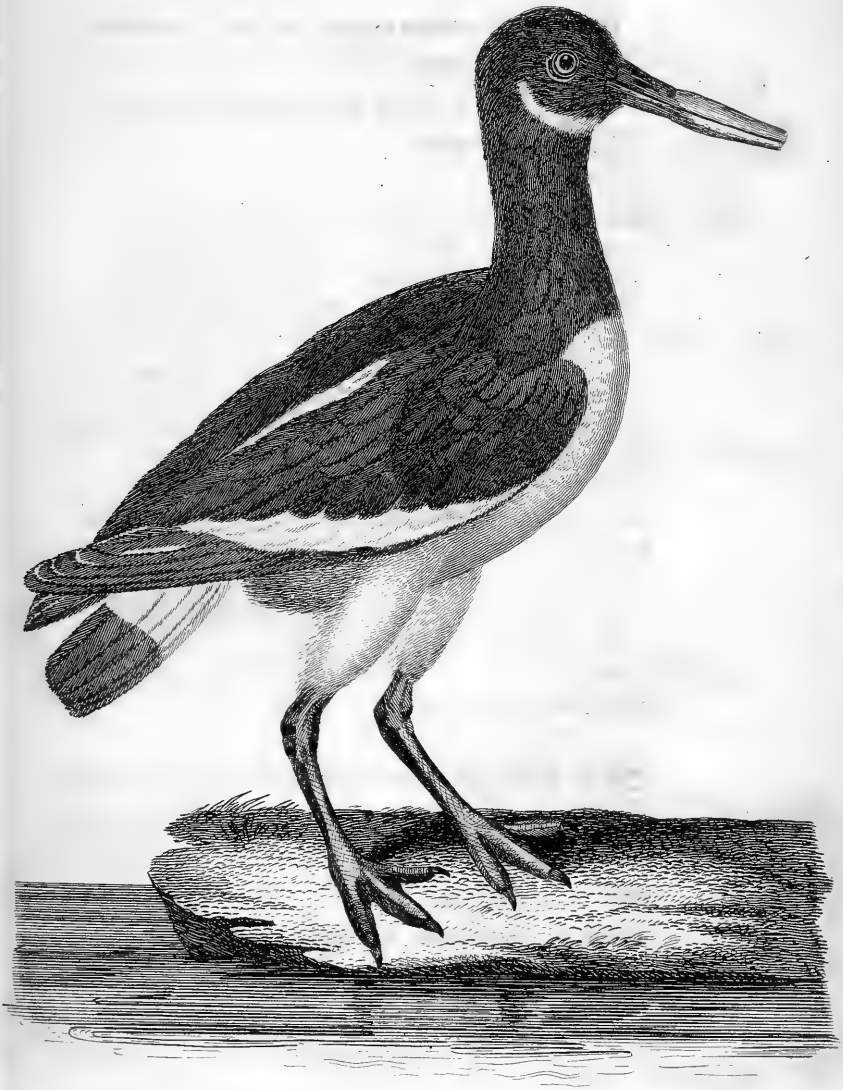
GENUS X. OYSTER CATCHER.

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

1. PIED. Hæmatopus ostralegus. H. niger, corpore subtus fascia gulari et alarum uropygio caudaque basi albis. *Lath. Ind. orn.* 752. *id. Syn.* v. 219. *tab.* 84.
La Pie, Becasse de mer. *Belon av.* 203.
Hæmatopus. *Gesner av.* 548.
Aldr. av. iii. 176.
Wil. orn. 297.
Raii Syn. av. 105.
L'Huitrier, Pie de mer. *Brisson av.* v. 38. *tab.* 3. *fig.* 1. *Hist. d'ois.* vii. 119. *Pl. Enl.* 929.
The Oyster Catcher. *Cat. Carol.* i. 85.
Hæmatopus ostralegus. *Gm. Lin.* 694.
Marspitt, Strandskjura. *Faun. Suec. sp.* 192.
Pica marina. *Caii opusc.* 62.
N. Com. Petr. iv. 425.
Tirma, or Trilichan. *Martin's voy.* St. *Kilda.* 35.
Islandis mas Tialldur, fœmina Tilldra. *Feroensibus* Kielder. *Norvegis* Tield v. Kield, Glib, Strand-Skiure. *Danis* Strand-Skade. *Brunnich,* 189.
Br. Zool. 127. *Arct. Zool.* ii. 196.

SEA Pies are very common on most of our coasts; feeding on marine insects, oysters, limpets, &c. Their bills, which are compressed sideways, and end obtusely, are very fit instruments to insinuate between the limpet and the rock those shells adhere to, which they do with

OYSTER-CATCHER.



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; these are generally four in number*, of a whitish brown hue, thinly spotted and striped with black; when any person approaches their young, they make a loud and shrill noise. In winter they assemble in vast flocks, and are very wild.

DESCRIPTION.

The weight sixteen ounces; the length seventeen inches. The bill is three inches long, compressed, obtuse at the end, and of a rich orange color: the irides crimson; the edges of the eyelids orange; beneath the lower is a white spot; the head, neck, scapulars, and coverts of the wings, a fine black; in some the neck is marked with white; the wings dusky, with a broad transverse band of white; the back, breast, belly, and thighs, white; the tail short, consisting of twelve feathers, the lower half white, the end black; the legs thick and strong; of a dirty flesh color; the middle toe connected to the exterior toe as far as the first joint by a strong membrane; the claws are dusky, short and flat.

* Dr. *Latham* says, the ground of the eggs is of a greenish grey color: Mr. *Montagu*, of an olivaceous brown. ED.

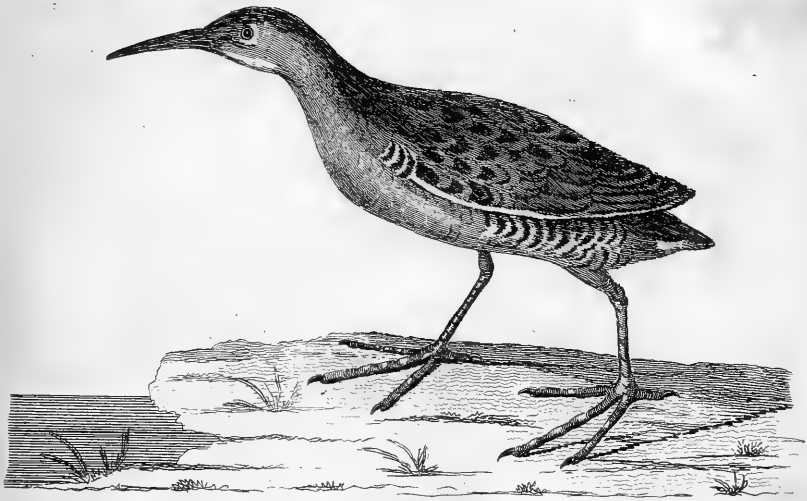
GENUS XI. RAIL.

BILL slender, a little compressed, and slightly incurvated.
NOSTRILS small.
TONGUE rough at the end.
TAIL very short.

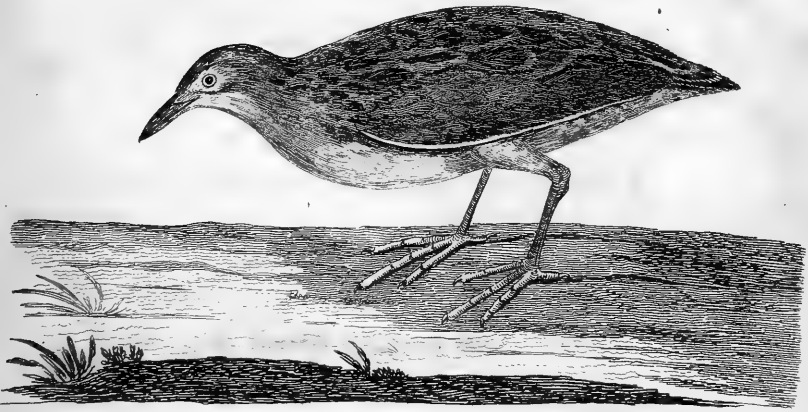
1. WATER. Rallus aquaticus. R. alis griseis fusco maculatis, hypochondriis albo maculatis, rostro subtus fulvo. *Lath. Ind. orn.* 755. *id. Syn.* v. 227.
Le Rasle noir. *Belon av.* 112.
Gallina cinerea (ashhunlin). *Gesner av.* 515.
Ralla aquatica. *Aldr. av.* iii. 179.
Water-rail, Bilcock, or Brook Ouzel. *Wil. orn.* 314.
Raii Syn. av. 113.
Wasser hennl. *Kram.* 348.
Rallus aquaticus. *Gm. Lin.* 712.
Faun. Suec. sp. 195.
Rallus aquaticus, le Rasle d'Eau. *Brisson av.* 151. *tab.* 12. *fig.* 2. *Hist. d'ois.* viii. 154. *Pl. Enl.* 749.
Scopoli, No. 155.
Norvegis Vand-Rixe. *Feroensibus* Jord-Koene. *Brunnich*, 193.
Br. Zool. 130. E. E.

THE Water Rail has 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

WATER-RAIL.



CRAKE GALLINULE. (P. 119.)



in flying hangs down it legs: actions it has in common with the Water Hen.

DESCRIPTION.

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

" Both sexes of the water rail appear alike. The nest is formed of coarse grass among the thickest aquatic plants, in which the female lays five or six pale yellow eggs, spotted all over with dusky brown.

" The species is found from *Norway* to the extreme south; is very common in *Malta.*"

J. L.

GENUS XII. 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.

1. SPOTTED.

Gallinula Porzana. G. fusco-olivacea nigro albidoque variegata et maculata, subtus cinerea albido varia, rectricibus duabus intermediis albo marginatis. *Lath. Ind. orn.* 772. *id. Syn.* 264.

Gallinula ochra (Wynkernell). *Gesner av.* 513.

Porcellana, Porzana, Grugnetto. *Aldr. av.* iii. 181.

Grinetta. *Wil. orn. sp.* 8. p. 315.

Raii Syn. av. 115. *sp.* 7.

Rallus aquat. minor, sive Maruetta, le petit Rasle d'Eau, ou la Marouette. *Brisson av.* v. 155. *tab.* 13. *fig.* 1. *Hist. d'ois.* viii. 157. *Pl Enl.* 751.

Couchouan ou Marouette. *Argenv. Lithol.* 533. *tab.* 25.

Kleines gesprenkeltes Wasserhuhn. *Frisch*, ii. 211.

Rallus porzana. *Gm. Lin.* 712. *Br. Zool.* 130. L*. 1. *Arct. Zool.* ii. 199.

THIS species is not very frequent in *Great Britain*, and is said to be migratory. It 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

DESCRIPTION.

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

"The spotted gallinule appears to be more plentiful in the southern parts of this kingdom. Is solitary except in the breeding season; makes a nest of rushes matted together, and fixed to a reed, and lays seven or eight white eggs. It inhabits the same places as the Crake Gallinule, but is less common. Observed in *Indian* drawings. J. L.

2. CRAKE.

Gallinula Crex. G. grisea pennis medio nigricantibus, alis rufo-ferrugineis, corpore subtus albo-rufescente. *Lath. Ind. orn.* 766. *id. Syn.* v. 250.

Le Rasle rouge ou de Genet. *Belon av.* 212.

Ortygometra, Crex. *Gesner av.* 361, 362.

Aldr. av. iii. 179.

Rail, or Daker Hen. *Wil. orn.* 170. *Phil. Trans.* ii. 853.

Raii Syn. av. 58.

Corn-crek. *Sib. Scot.* 16.

Corn-craker. *Martin's West. Isles,* 71.

Rallus genistarum, le Rasle de Genet, ou Roi des Cailles. *Brisson av.* v. 159. *Tab.* 13. *fig.* 2. *Hist. d'ois.* viii. 146. *Pl. Enl.* 750.

Wachtel-konig. *Kram.* 349.

Rallus Crex. *Gm. Lin.* 711.

Angsnarpa, Korknarr, Seydreifwer. *Faun. Suec. sp.* 194.

Danis & *Norv.* Vagtel-Konge. Aker-Rixe. Skov-Snarre, *Norvegis quibusdam* Agerhoene. *Brunnich,* 192.

Rostz. *Scopoli,* No. 154.

Br. Zool. 131. *Arct. Zool.* ii. 200.

THIS species has been supposed by some to be the same with the Water Rail, and said to differ only by a change of color at a certain season of the year: an error owing to inattention to their characters and nature, both which differ entirely. The bill of this species is short, strong, and thick, and formed exactly like that of the Water Hen, which makes the generical distinction. It never frequents watery places, but is always found among corn, grass, 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 apparent prolificness, they are not very numerous in this kingdom. Their note is singular, resembling the word *Crex* often repeated. They are in greatest plenty in *Anglesey*, 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.

DESCRIPTION. 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 are of the same color, but not spotted; the tail is short, and of a deep bay; the belly white; the legs ash-colored.

Gallinula chloropus. G. fronte fulva, armillis rubris, corpore nigricante, crisso albo. *Lath. Ind. orn.* 770. *id. Syn.* v. 258.
La Poulette d'eau. *Belon av.* 211.
Ein wasserhen. *Gesner av.* 501.
Chloropus major nostra. *Aldr. av.* iii. 177.
Common Water-hen, or Moorhen. *Wil. orn.* 312.
Raii Syn. av. 113.
Gallinula, la poule d'eau. *Brisson av.* vi. 3. *Tab.* 1. 3. COMMON.
Hist. d'ois. viii. 171. *Pl. Enl.* 877.
Gallinella aquatica, Porzanone. *Zinan.* 109.
Wasserhennl. *Kram.* 358.
Rothblæssige Kleine Wasserhuhn. *Frisch,* ii. 209.
Fulica chloropus. *Gm. Lin.* 698.
Brunnich, 191. *Scopoli,* No. 153.
Br. Zool. 131. L 1. *Arct. Zool.* ii. 199.

THE male of this species weighs about fifteen ounces; its length to the end of the tail is 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; the under side of the body cinereous; the chin and belly mottled with white; the quil feathers and tail dusky; the exterior side of the first primary feather, and the ridge of the wings white; the vent black; the feathers just beneath the tail white; the legs dusky green. The colors of the plumage in the female, are much less brilliant than those of the male; in size it is also inferior. Mr. DESCRIPTION.

Willughby in his description takes no notice of the beautiful olive gloss of the plumage of these birds; nor that the bill of the male assumes a fuller and brighter red in the courting season.

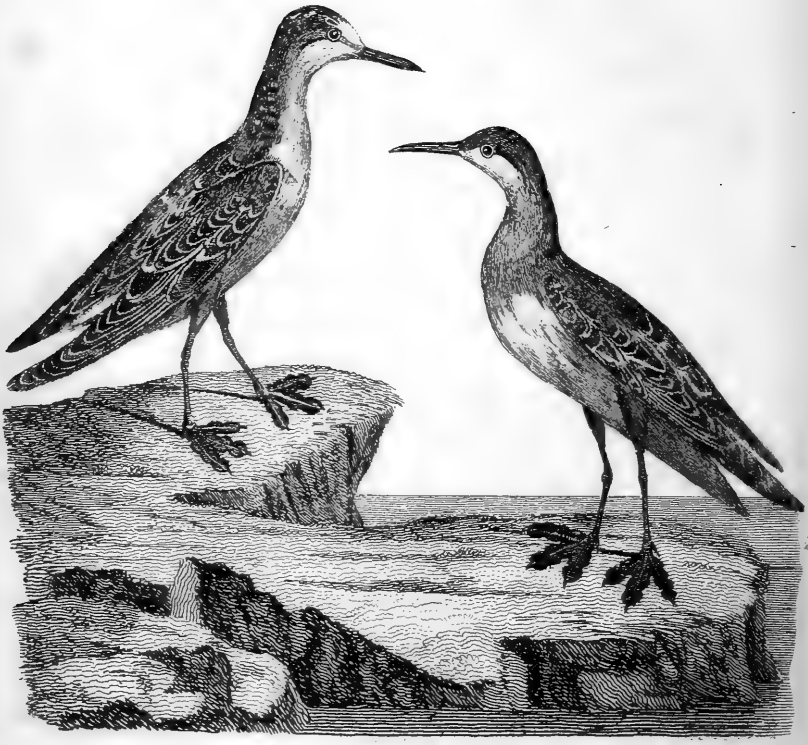
It gets its food on grassy banks, and borders near fresh waters, and in the very waters, if they be weedy. It builds* upon low trees and shrubs by the water side; breeding twice or thrice in the summer; and when the young are grown up, drives them away to shift for themselves. They lay seven eggs of 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.

Eggs.

In the days of moated houses, they were very frequent about the moats. They possibly might be domesticated, for a pair in my grounds, never failed appearing when I called my ducks to feed, and partook before me of the corn.

* It often builds among bull-rushes, which it treads down till the nest reaches the bottom of the water, to the depth of nearly three feet, allowing merely the part on which the eggs are deposited to remain dry above the surface. Ed.

RED AND GREY PHALAROPE



SECT. II. FIN-FOOTED BIRDS.

GENUS XIII. PHALAROPE.

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

Phalaropus lobatus. Ph. cinereo-cœrulescens subtus albus, tectricibus alarum remigibus rectricibusque nigricantibus, margine cinerascente-albis. *Lath. Ind. orn.* 776. *id. Syn.* v. 272.	*Phil. Trans.* Vol. 50. 255. *Tab.* 6.	1. GREY.
Grey Coot footed Tringa. *Edw. av.* 308.	Le Phalarope. *Brisson av.* vi. 12. *Hist. d'ois.* viii. 226.	
	Tringa Lobata. *Gm. Lin.* 674.	
	Faun. Suec. sp. 179.	
	Brunnich, 171.	
	Br. Zool. 126. E. 1. 3. *Arct. Zool.* ii. 202.	

DESCRIPTION.

THIS is about the size of the Purre, weighing one ounce. The bill is black, not quite an inch long, flattened on the top, and channeled on each side, the nostrils placed in the channels; the eyes are situated 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 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 when 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 is 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 serrated on their edges.*

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

"The grey phalarope is very rare in *England;* I have only heard of it twice in this country, but in the north of *Europe* it is not unfrequent, and is seen among the ice between *Asia*

* The Editor has a drawing, by the ingenious Mrs. *Catherine Plymley*, from a specimen shot near *Longnor*, in *Shropshire*; the legs and bill of which are of a yellowish color, and the whole plumage much lighter than that of the bird described in the text. Mr. *Montagu* observed this rare species in *Sussex*, and has in his collection one killed near *Alderton*, in *Wiltshire*. ED.

and *America:* if the same as that referred to in the Philosophical Transactions, is also found on the borders of the *Caspian* sea." J. L.

2. RED.

Phalaropus hyperboreus. Ph. cinereus, subtus uropygio fasciaque alarum albis, pectore cinereo, colli lateribus ferrugineis. *(Mas.) Lath. Ind. orn.* 775. *id. Syn.* v. 270.

Mr. *Johnson's* small cloven-footed Gull. *Wil. orn.* 355.

Ray's collection of *English* words, &c. p. 92.

Phalaropus cinereus. Le Phalarope cendrè. *Brisson av.* vi. 15. *Hist. d'ois.* viii. 224.

Larus fidipes alter nostras. *Raii Syn. av.* 132.

Cock coot-footed Tringa (*male*) *Edw.* 143. Red coot-footed Tringa (*female*) *id.* 142.

Tringa hyperborea. *Gm. Lin.* 675.

Arct. Zool. ii. 203.

DESCRIPTION.

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 the same, striped with dirty yellow; the quil feathers dusky; the shafts white; across 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; the belly white; the

coverts of the tail barred with black and white; the tail short, cinereous; the legs and feet black.

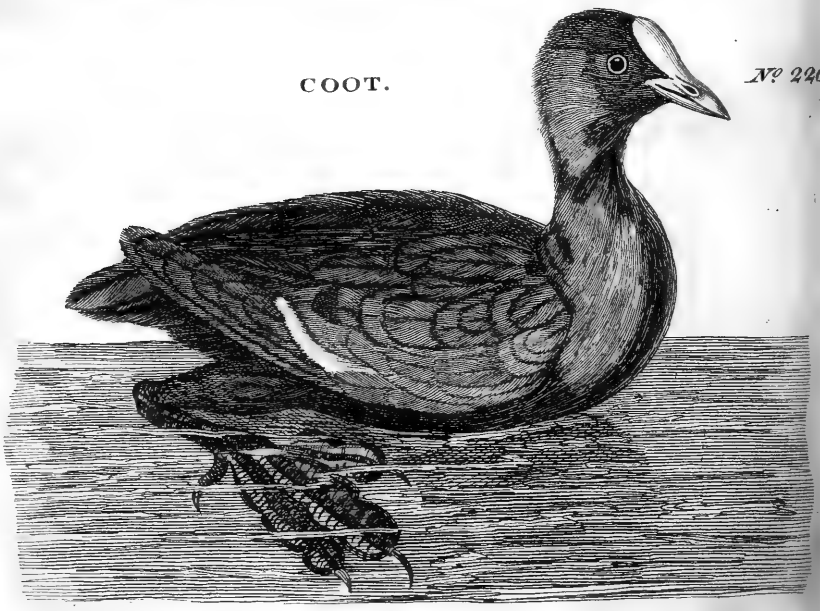
Mr. *Ray* saw this species at *Brignal* in *Yorkshire;* Mr. *Edwards* received the same kind from *North America*, being common to the *North* of *Europe* and *America.*

[The above is the description of the male. The head, throat, hind neck, back, scapulars, and upper tail coverts of the female, are black, with a rufous margin; a pale rufous brown streak over the eye; the rump white, spotted with dusky; the under parts from the throat, dusky red; the wings and tail as in the other sex. This is the red coot footed tringa of *Edwards*, Tab. 142, and is extremely well figured in Mr. *Sowerby's British Miscellany*, from a specimen procured from the lochs in the islands of *Sanda* and *North Ronaldsha.* ED.

FEMALE.

COMMON GALLINULE. (P. 121.)

COOT. No. 220



GENUS XIV. COOT.

BILL short and thick, with a callus extending up the forehead.

NOSTRILS narrow and pervious.

TOES furnished with broad scalloped membranes.

1. COMMON.

Fulica atra. F. fronte incarnata, armillis luteis, corpore nigricante. *Lath. Ind. orn.* 777. *id. Syn.* v. 275. *id. Sup.* i. 259. *id. Sup.* ii. 328.

La Poulle d'eau. *Belon av.* 181.

Fulica recentiorum. *Gesner. av.* 390.

Follega, Follata, Fulca. *Aldr. av.* iii. 39, 42.

Wil. orn. 319.

Raii Syn. av. 116.

La Foulque, ou Morrelle. *Brisson av.* vi. 23. *tab.* 2. *fig.* 1. *Hist. d'ois.* viii. 211. *Pl. Enl.* 197.

Folaga, o Polon. *Zinan.* 108.

Rohr-hennl, Blassl. *Kram.* 357.

Weisblæssige grosse Wasserhuhn. *Frisch,* ii. 208.

Fulica atra. *Gm. Lin.* 702.

Blas-klacka. *Faun. Suec. sp.* 193.

Danis Vand-Hoene, Bles-Hoene. *Brunnich,* 190.

Liska. Scopoli, No. 149.

Br. Zool. 132. F. *Arct. Zool.* ii. 205.

DESCRIPTION.

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 all over with minute deep rust-color spots; and we have been credibly informed that 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 which was white, except a few of the feathers in the wings, and about the head.

"The Coot extends to *India* and *China*, and is also found in *North America*." J. L.

Fulica aterrima. F. fronte alba, armillis rubris, corpore nigricante. *Lath. Ind. orn.* 778. *id. Syn.* v. 277.
Belon av. 182.
Fulica aterrima. *Gm. Lin.* 703.

Fulica fuliginosa. *Scopoli*, 150.
Greater Coot. *Wil. orn.* 320.
La grand foulque ou la Macroule. *Brisson av.* vi. 28. *Hist. d'ois.* viii. 220.

2. GREAT.

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

Discovered in *Lancashire* and in *Scotland.*

GENUS XV.*

BILL strong, strait, sharp pointed.
TAIL, none.
LEGS flat, thin, and serrated behind with a double row of notches.

1. GREAT CRESTED.

Podiceps cristatus. P. fuscus subtus albus, capite rufo tumido, collari nigro, remigibus secundariis albis. *(adulta avis.) Lath. Ind. orn.* 780. *id. Syn.* v. 281.

P. fuscus subtus albus, gutture fasciculo plumoso utrinque longiore, remigibus secundariis albis. *(avis biennis.) Lath. Ind. orn.* 780. *id. Syn.* v. 283.

Grand Plongeon de riviere. *Belon av.* 178.

Ducchel. *Gesner av.* 138.

Aldr. av. iii. 104.

Avis pugnax 8va. *Aldr.* 169.

Greater crested and horned Doucker. *Wil. orn.* 340.

Ash-colored Loon of Dr. *Brown, ibid. Raii Syn. av.* 124.

Plott's hist. Staff. 229. *tab.* 22.

The Cargoose. *Charleton ex.* 107.

Pet. Gaz. i. *tab.* 43. *fig.* 12.

Colymbus cristatus. *Gm. Lin.* 589.

Scopoli, No. 99.

Faun. Suec. sp. 151.

Le Grebe hupè. *Brisson av.* vi. 38. *tab.* 4. *id.* vi. 45. *tab.* 5. *fig.* 1. *Hist. d'ois.* viii. 233. *Pl. Enl.* 944.

Smergo, Fisolo marino. *Zinan.* 107.

Danis Topped og Halskraved Dykker, Topped Hav Skiœre. *Brunnich,* 135.

Gehoernter Scehahn, Noerike. *Frisch,* ii. 183.

Br. Zool. 132. *Arct. Zool.* ii. 208.

* The grebes and divers are placed in the same genus, *i. e.* of *Colymbi,* by *Ray* and *Linnæus*; but the difference of the feet, forbade our judicious friend, M. *Brisson,* from continuing them together; whose example we have followed.

DESCRIPTION.

THIS species weighs two pounds and a half. Its length is twenty-one inches; the breadth thirty. The bill is two inches and a quarter 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, and above that a white one; the hind part of the neck, and the back are of a sooty 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 sattin; the plumage 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 the great *East Fen* in *Lincolnshire*, where they are called *Gaunts*. Their skins are made into tippets, which are sold 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 buckbean, stalks of water lilly, pond weed, and water violet, floating independent among the reeds and flags; the water penetrates it, and the bird sits 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 *Halcyon's* nest, its *fluctivaga domus*, as *Statius* expresses it, may in some measure be vindicated.

> Fluctivagam sic sæpe domum, madidosque penates
> *Halcyone* deserta gemit; cum pignora sævus
> 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 eels; 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 lest 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 said to be of great virtue in rheumatic pains, cramps, and paralytic contractions.

A grebe taken near *Holywell, November* 18th 1789, was little less than my Greater crested Grebe. On the head was a dusky crest divided into two towards the end; the cheeks, chin, and whole under side were silvery white; the upper, and part of the wings dusky, the latter crossed by a single band of white, and along the ridge was a broad white band; the tertials were white; under the chin the feathers full, and divided before; the bill flesh-colored; the irides bright red; the legs dusky.*

* *Brisson av.* vi. 38. *Tab.* 4. *Pl. Enl.* 944.

A. TIPPET. Podiceps cristatus. P. fuscus subtus albus capite lævi macula alarum alba. *(Pullus annuus.)* *Lath. Ind. orn.* 781. *id. Syn.* v. 283.
Colymbus major. *Gesner av.* 138.
Aldr. av. iii. 104.
Greater Loon, or Arsfoot. *Wil. orn.* 339.
Greater Dobchick. *Edw. av.* 360. *fig.* 2.
Raii Syn. av. 125.
Colymbus, le Grebe. *Brisson av.* vi. 34. *tab.* 3. *fig.* 1. *Hist. d'ois.* viii. 227. *Pl. Enl.* 941.
Colymbus urinator. *Gm. Lin.* 223. *Scopoli,* No. 102.
Br. Zool. 133.

DESCRIPTION.

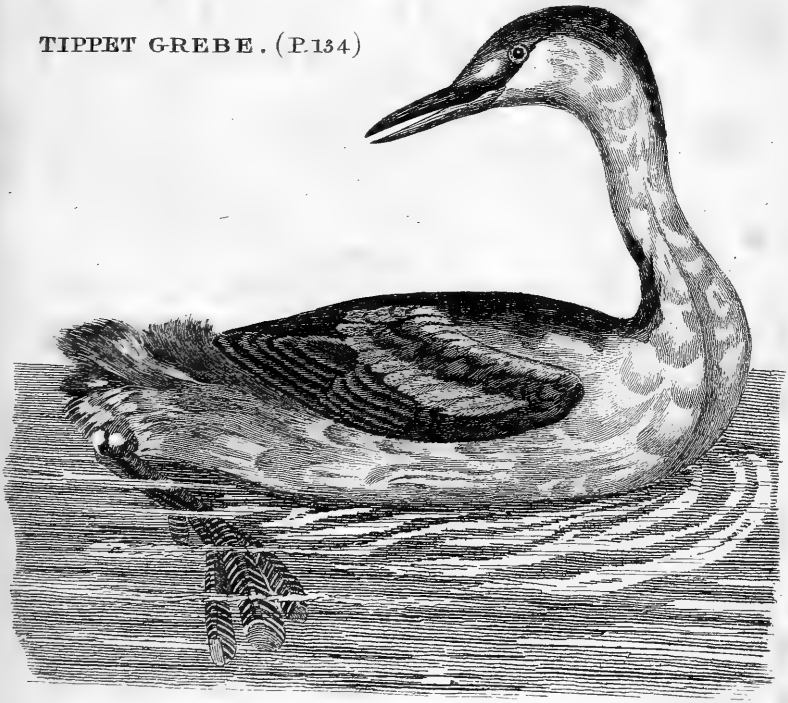
THIS differs from the great crested grebe in being rather less, and wanting the crest and ruff. The sides of the neck are striped downwards from the head with narrow lines of black and white; in other respects the colors and marks agree with that bird.

This species* has been shot on *Rosterne Mere* in *Cheshire;* is rather scarce in *England,* but is common in the winter time on the lake of *Geneva,* where they appear in flocks of ten or twelve; and are killed for the sake of their beautiful skins. The under side of them being drest with the feathers on, are made into muffs and tippets; each bird sells for about fourteen shillings.

* Though considered in the preceding edition as a distinct species, it seems evidently the great crested grebe, in an immature state of plumage. ED.

DUSKY GREBE. (P. 136)

TIPPET GREBE. (P. 134)



Podiceps auritus. P. fusco-nigricans subtus albus, capite nigro, auribus cristato ferrugineis. *Lath. Ind. orn.* 781. *id. Syn.* v. 285.
Eared dobchick. *Edw. av.* 96. *fig.* 2.
Le Grebe a Oreilles. *Brisson av.* vi. 54. *Hist. d'ois.* viii. 235.
Colymbus auritus. *Lin. Syst.* 223. *Scopoli,* No. 100.
Norvegis Sav-Orre, Soe-Orre. *Bornholmis* Soe-Hoene. *Islandis* Flaueskitt. *Brunnich,* 136.
Br. Zool. 133. *Arct. Zool.* ii. 208.

2. EARED.

DESCRIPTION.

THE length of this species to the rump is one foot; the extent twenty-two inches. The bill is 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, ferruginous; behind the eyes, on each side, is a tuft of long loose rust-colored feathers, hanging backwards; the legs are 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.

3. DUSKY. Podiceps obscurus. P. fuscoigricans, subtus albus, macula utrinque inter rostrum et oculum, marginibus alarum remigibusque intermediis candidis. *Lath. Ind. orn.* 782. *id. Syn.* v. 286.
Colymbus obscurus. *Gm. Lin.* 592.
The black and white Dobchick. *Edw. av.* 96. *fig.* 1.
Colymbus minor, le petit Grebe. *Brisson av.* vi. 56. *Hist. d'ois.* viii. 232. *Pl. Enl.* 942.
Colymbus nigricans? *Scopoli*, No. 101.
Br. Zool. 133. *K.* 1. *Arct. Zool.* ii. 207.

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

4. LITTLE.

Podiceps minor. P. fulvo-fuscus, corpore subtus macula remigum uropygioque infimo albo-argenteis, collo subtus griseo-fulvo. *Lath. Ind. orn.* 784. *id. Syn.* v. 289.

Le Castagneux, ou Zoucet. *Belon av.* 177.

Mergulus fluviatilis (Ducchelin, Arssfuss). *Gesner av.* 141.

Trapazorola arzauolo, Piombin. *Aldr. av.* iii. 105.

Didapper, Dipper, Dobchick, small Doucker, Loon, or Arsfoot. *Wil. orn.* 340.

Raii Syn. av. 125.

Colymbus fluviatilis, le Grebe de Riviere, ou le Castagneux. *Brisson av.* vi. 59. *Hist. d'ois.* viii. 244. *Pl. Enl.* 905.

Colymbus minor. *Gm. Lin.* 591.

Kleiner Seehahn, or Noerike. *Frisch,* ii. 184.

Faun. Suec. sp. 152.

Br. Zool. 134.

DESCRIPTION.

THE weight of this species is from six to seven ounces. The length to the rump ten inches; 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 are of a dirty green. The wings of this species, as of all the tribe, 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.

5. BLACK CHIN.

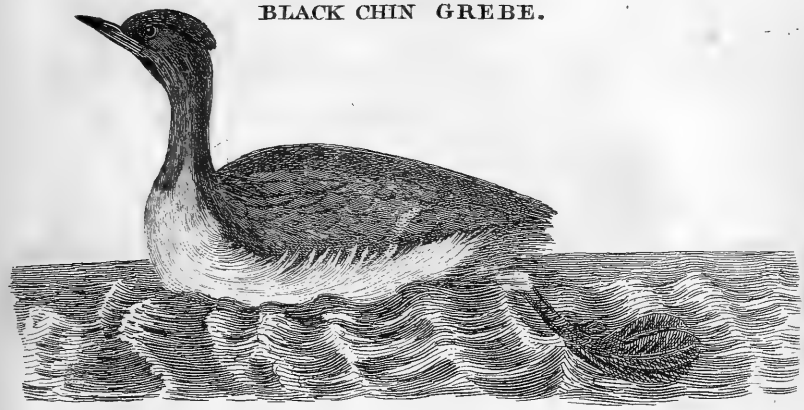
Podiceps hebridicus. P. nigricans, gula nigra, jugulo ferrugineo, abdomine cinereo argenteo vario. *Lath. Ind. orn.* 785. *id. Syn.* v. 292. Colymbus hebridicus. *Gm. Lin.* 594. *Sowerby. Br. Misc. Tab.* 70.

GR. 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*.

* A pair of Grebes, apparently of this species, were taken with their nest and eggs near *Chelsea*, and are well figured and described by Mr. *Sowerby*, in his *British Miscellany*. ED.

BLACK CHIN GREBE.



EARED GREBE.

(P. 135.)

6. RED NECKED.

Podiceps rubricollis. P. subcristatus fuscus, gula genis regioneque aurium cinerascentibus, collo subtus pectoreque ferrugineo-rubris, abdomine remigibusque secundariis albis. *Lath. Ind. orn.* 783. *id. Syn.* v. 288. *id. Sup.* 1. 260. *t.* 118.

Colymbus rubricollis. *Gm. Lin.* 592. subcristatus. *id.* 590.

Le Grebe a joues grises, ou le sougris. *Hist. d'ois.* viii. 241. *Pl. Enl.* 931.

Colymbus Parotis. *Mus. Carlson.* Tab. ix.

Arct. Zool. ii. 209.

[DR. *Latham* in the first supplement to his *Synopsis*, informs us, that four of these very rare birds were taken or killed on the southern coasts of the kingdom, in the year 1786. As his description is more minute than that given by Mr. *Pennant* in the *Arctic Zoology*, the editor takes the liberty of borrowing it:

DESCRIPTION.

" Length eighteen inches; bill nearly two inches long; sides of the base of both mandibles for three quarters of an inch, of a fine orange yellow, the rest black; lore brown or blackish; irides fine orange red; the crown and sides of the head above the eyes nearly black, and the feathers a little elongated; the hind part of the neck, the back, and wings, dark brown; six of the middle secondaries white, a little mottled with dusky at the tips; the two or three next outward ones more or less white near the tips and inner webs; the chin, sides under the

eyes, and fore part of the neck for above half an inch, pale ash-color; the rest of the neck ferruginous chesnut, mottled with dusky; from thence to the vent white, like satin, mottled on the sides with dusky irregular spots; legs black."

In one of the specimens shot near *Teignmouth*, "the colors of the head and neck were much blended, and the ferruginous of the neck only just breaking forth." The weight of another was "nineteen ounces and a half; length twenty-one inches and a half; the bill yellow at the base, dusky olive towards the tip; lore dusky; irides pale brown; head quite smooth; the ferruginous color of the neck much blended with dusky; the white on the under parts, greatly mottled with the same; legs without, dusky, within, greenish yellow. Another variety had a band of white across the lower part of the neck." ED.

7. SCLAVONIAN.

Podiceps cornutus. β. P. cristatus, collo subtus castaneo, capite colloque supremo nigro-virescentibus, fasciculo pone oculos aurantio-rufescente. *Lath. Ind. orn.* 783. *id. Syn.* v. 288. var. A.
Colymbus sive Podiceps minor. *Raii Syn.* p. 190.

Le petit Grebe cornu. *Brisson av.* vi. 50. *Hist. d'ois.* viii. 237.
Grebe de l'Esclavonie. *Pl. Enl.* 404. f. 2.
Montagu. orn. dict.

DESCRIPTION.

[" THE length of this bird is thirteen inches and a half; its extent twenty-two inches. The bill, near an inch long, is dusky, lighter at the base of the under mandible, and inclining to pink, the tip horn-color; lore crimson; irides the same, but round the pupil is a circle of white, and the exterior edge of the iris is nearly white. The head is greatly enlarged by the feathers; those on the top are black, tinged with dark green; the cheeks and throat the same; the feathers very long, forming a sort of ruff; from the base of the upper mandible originates a broad bar of dull orange yellow, that passes through the eye to the hind-head, growing gradually broader; these form a tuft on each side, and are somewhat erectable, appearing like ears; the forehead dusky ferruginous; the back of the neck and upper part of the back dark brown, dashed

with ferruginous; the back, scapulars, and rump, dusky, faintly edged with cinereous; the wing coverts, and twelve first quil feathers brown; the thirteenth white on the inner web; the eleven next all white, except the last, which is brown on the outer web; the chin is black, a little mottled with white; the under part of the neck, and upper breast running far behind, and down under the wings, bright ferruginous chesnut; the rest of the under parts glossy satin white; the back part of the thighs ferruginous brown; legs dusky on the outside, pale on the inside; toes pale down their middle, dusky at the edges."

Such is the description given by Mr. *Montagu*, who rescued it in 1796, at *Truro*, from the hands of a fisherman, who was about to pick it. Whether it is a distinct species, a variety of the Horned*, or even of the Eared grebe, is still uncertain. ED.

* *Arct. Zool.* ii. 206.

AVOSET

SECTION III. WEB-FOOTED BIRDS.

GENUS XVI. AVOSET.

BILL long, slender, very thin, depressed, bending upwards.
NOSTRILS narrow, pervious.
TONGUE short.
LEGS very long.
TOE back very small.

1. SCOOPING.

Recurvirostra avosetta. R. albo nigroque varia. *Lath. Ind. orn.* 786. *id. Syn.* v. 293. *id. Sup.* i. 263.
Recurvirostra. *Gesner av.* 231.
Avosetta, Beccostorto, Beccoroella, 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.
Avosetta, L'Avocette. *Brisson, av.* vi. 538. *Tab.* 47. *fig.* 2. *Hist. d'ois.* viii. 466. *Pl. Enl.* 353.
Krumbschnabl. *Kram.* 348.
Recurvirostra Avosetta. *Gm. Lin.* 693. *Scopoli*, No. 129.
Skarflacka, Alfit. *Faun. Suec. sp.* 191.
Danis Klyde, Loufugl, Forkeert Regnspove. *Br.* 188.
Br. Zool. 134. *Arct. Zool.* ii. 213.

DESCRIPTION.

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 other birds, is turned up for nearly 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 *Foss-*

* Thirty years ago they were not uncommon in that county, but none have been observed for several years past. ED.

dike 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 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.

* Dr. *Latham* says, that the eggs are of a cinereous grey, whimsically marked with deep brownish black patches of irregular sizes and shapes, besides some undermarkings of a dusky hue. ED.

GENUS XVII. AUK.

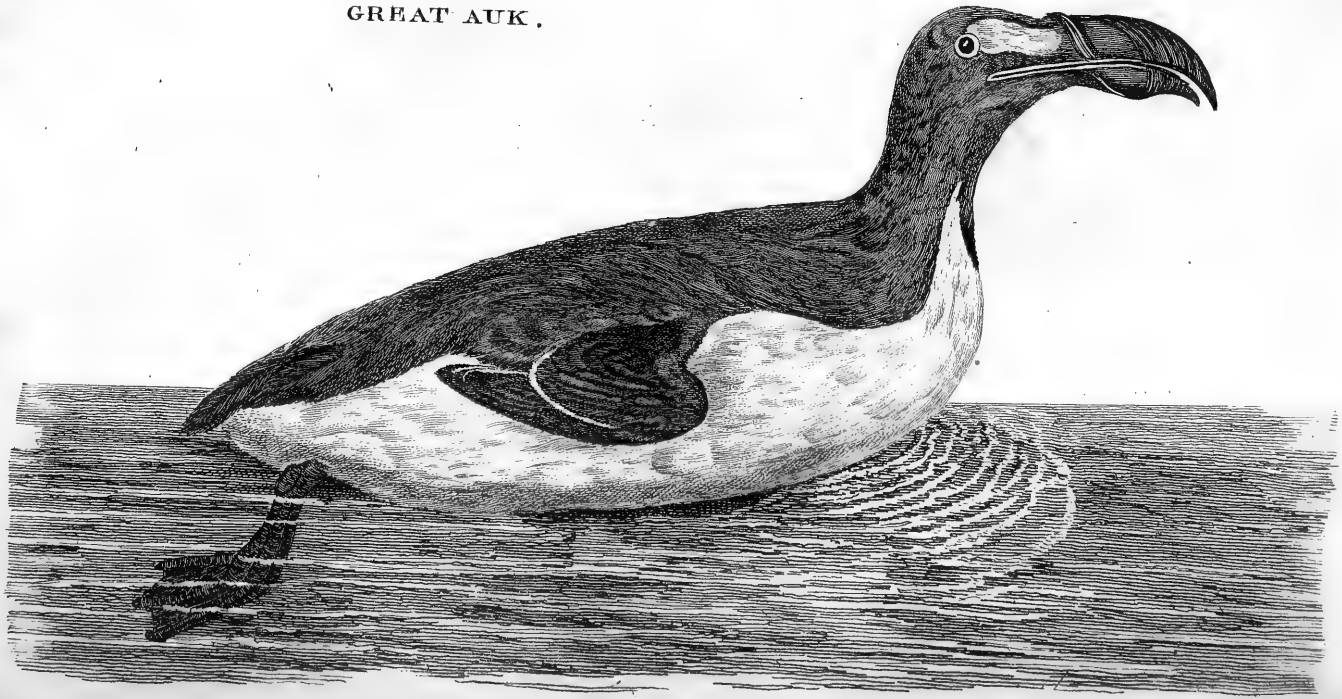
BILL strong, thick, compressed.
NOSTRILS linear; placed near the edge of the mandible.
TONGUE almost as long as the bill.
TOES, no back toe.

1. GREAT. Alca impennis. A. rostro compresso-ancipiti sulcato, macula ovata utrinque ante oculos. *Lath. Ind. orn.* 791. *id. Syn.* v. 311.
Goirfugel. *Clusii exot.* 367.
Penguin. *Wormii,* 300.
Wil. orn. 323.
Raii Syn. av. 119.
Edw. av. 147.
Martin's voy. St. Kilda. 27.
Avis, *Gare* dicta. *Sib. Scot.* iii. 22.
Alca major, le grand Pingoin. *Brisson av.* vi. 85. *Tab.* 7. *Hist. d'ois.* ix. 393. *Pl. Enl.* 367.
Esorokitsok*. *Crantz's Greenl.* i. 82.
Alca impennis. *Gm. Lin.* 550. *Faun. Suec. sp.* 140.
Islandis Gyr-v Geyrfugl. *Norvegis* Fiært, Anglemaage, Penguin, Brillefugl. *Brunnich,* 105.
Br. Zool. 136. *Arct. Zool.* ii. 220.

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,

* Or little wing.

GREAT AUK.



others blotched with black and ferruginous about the thicker end: if the egg is taken away, it will not lay another 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.

DESCRIPTION.

The length of this bird, to the end of its toes, is three feet; that of 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 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

* *Macaulay's hist. St. Kilda.* p. 156.

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

Προερεῖ τις ἀεὶ τῶν ορνὶθων μαντευομένω περι τοῦ πλοῦ,
Νυνὶ μὴ πλεῖ, χειμων ἔσται, νυνὶ πλεῖ, κερδος επεσται.
Aves. 597.

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

2. RAZOR-BILL.

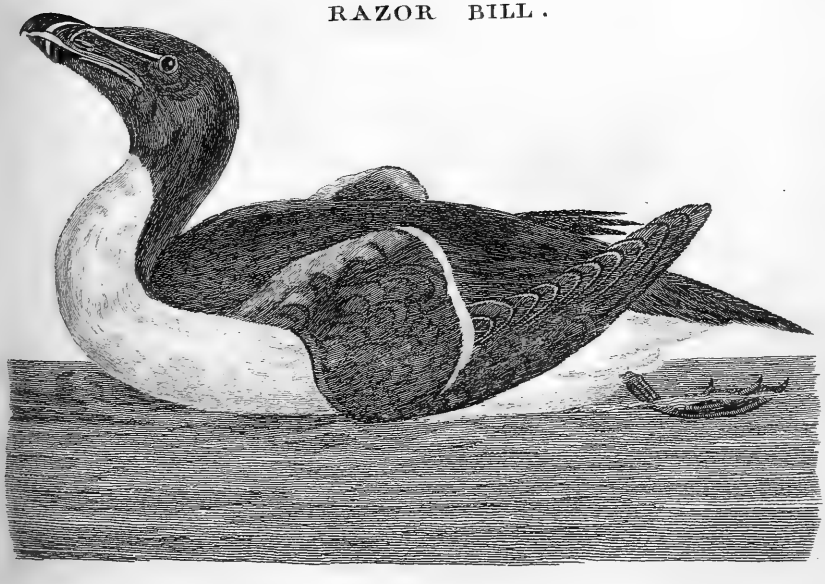
Alca torda. A. rostro sulcis quatuor, linea utrinque alba a rostro ad oculos. *(Avis adulta.) Lath. Ind. orn.* 793. *id. Syn.* v. 319. *id. Sup.* i. 264.
Razor-bill, Auk, Murre. *Wil. orn.* 325.
Raii Syn. av. 119.
The Falk. *Martin's voy. St. Kilda.* 33.
The Marrot. *Sib. hist. Fife,* 48.
Edw. av. 358. *fig.* 2.
Alca, le Pingoin. *Brisson av.* vi. 89. *Tab.* 8. *fig.* 1. *Hist. d'ois.* ix. 390. *Pl. Enl.* 1003, 1004.
Alca torda. *Gm. Lin.* 551.
Tord, Tordmule. *Faun. Suec. sp.* 139.
Norvegis Klub-Alke, Klympe. *Islandis* Aulka, Klumbr, Klumburnevia. *Groenlandis* Awarsuk. *Danis* Alke. *Brunnich,* 100.
Scopoli, No. 94.
Br. Zool. 136. *Arct. Zool.* ii. 221.

DESCRIPTION.

THESE species weigh twenty-two ounces and a half. The length is about eighteen inches; the breadth twenty-seven. The bill is two inches long, arched, very strong and sharp at the edges;

LITTLE AUK.
(P. 158.)

RAZOR BILL.



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 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 apiece, of an extraordinary size for the bulk of the bird, being three inches long; the color of it is a dead white, irregularly spotted with ferruginous brown, or most elegantly streaked with lines crossing each other in all directions; if this egg is destroyed, both the auk and guillemot will lay another; if that is taken, then a third; they make no nest, de-

positing their egg on the bare rock; and though such multitudes lay contiguous, by a wonderful instinct each distinguishes its own. It is also matter of great amazement, that 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 strength of their companions, whose footing is often so unstable that they are forced down the precipice, and perish together.

A. BLACK BILLED.

Alca torda. *β.* A. rostro lævi compresso unisulcato, corpore toto subtus apicibusque remigum posticarum albis. *(Junior avis.) Lath. Ind. orn.* 793. *id. Syn.* v. 320.
Alca minor, le petit pingoin. *Brisson av.* vi. 92. *Tab.* 8. *fig.* 2. *Hist. d'ois.* ix. 396.
Alca Pica. *Gm. Lin.* 551.
Alca unisulcata. *Brunnich,* 102.
Br. Zool. 137. *Arct. Zool.* ii. 222.

DESCRIPTION.

THIS weighs only eighteen ounces: the length is fifteen inches and a half; the breadth twenty-five inches. The bill is of the same form with

the auk's, but 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 sort 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 is white, is sometimes found on our coasts.

* Mr. *Pennant* in his *Tour in Wales*, seemed convinced, from the observations of the reverend *Hugh Davies*, that the Black-billed Auk, was no other than the young of the Razorbill. Dr. *Latham* coincides in this opinion; and, in the sixth volume of the *Synopsis* of Birds, produces many strong arguments to confirm the truth of it; Mr. *Montagu* is, however, of a different sentiment; and, in the *Arctic Zoology*, Mr. *Pennant* has (perhaps inadvertently) given it as a distinct species. ED.

3. PUFFIN. Alca arctica. A. rostro compresso-ancipiti sulcato sulcis quatuor, oculorum orbita temporibusque albis, palpebra superiore mucronata. *Lath. Ind. orn.* 792. *id. Syn.* v. 314.

Puphinus anglicus. *Gesner av.* 725.

Pica marina. *Aldr. av.* iii. 92.

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. *Brisson av.* vi. 81. *Tab.* 6. *fig.* 1. *Hist. d'ois.* ix. 358. *Pl. Enl.* 275.

Caii opusc. 97.

Anas arctica. *Clusii Exot.* 104.

Alca arctica. *Gm. Lin.* 549.

Faun. Suec. sp. 141.

Islandis & *Norveg.* Lunde, *hujus pulli* Lund Toller. *Danis* Islandsk Papegoye. *Brunnich,* 103.

See-Papagey, or See-Taucher. *Frisch,* ii. 192.

Br. Zool. 135. *Arct. Zool.* ii. 223.

DESCRIPTION. THIS bird weighs about twelve ounces; its length is twelve inches; the breadth from tip to tip of the wings when extended, twenty-one inches. 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 prominent 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.* The nostrils are very long and narrow; commence 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, the 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 is 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

* The form, and the color of the bill varies according to the age of the bird. These changes are distinctly noticed in Mr. *Pennant's* Tour in *Wales*, vol. iii. 40, and in the plate which accompanies it. The observations together with specimens of the bills of this, and the Auk, were communicated by the reverend *Hugh Davies*. ED.

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. The tail is black, composed of sixteen feathers; the legs are small, of an orange color, and placed so far behind as to disqualify the bird 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 with great propriety; this makes the 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.

MANNERS These birds frequent the coasts of several parts of *Great Britain* and *Ireland;* but no where in greater numbers than *Priestholm Isle**, where their flocks may be compared to swarms of bees for multitude. They are migratory; resort to the island annually about the fifth or tenth of *April*, quit it (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, dislodge the rabbits

* Off the coast of *Anglesey*.

from their holes, and take possession of them till their departure 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 so employed proved of that sex. The males also assist in incubation; for several 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 in the breeding season. If a parent is taken at that time, and suspended by the wings, it will in a sort of despair treat itself most cruelly by biting any part it can reach, and when it is loosed, instead of escaping, will often resort to its unfledged young; 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 holes for the appearance of the little deserted puffins which forced by hunger are compelled to leave their burrows. The Rev. *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 mi-

gration, that neither Puffin, Razor-Bill, Guillemot, or Tern, was to be seen there.

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

Their flesh is excessively 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 hold on whatsoever they fasten, as not to be easily disengaged. Their noise when taken is very disagreeable, being like the efforts of a dumb person to speak.

NOTE OF SEA FOWL.

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 traced as near the Pole as navigators have penetrated.

During winter Razor-bills and Puffins frequent the coast of *Andalusia*, but do not breed there.

4. LITTLE

Alca alle. A. rostro lævi conico, abdomine toto subtus remigumque posticarum apicibus albis, pedibus nigris. *Lath. Ind. orn.* 795. *id. Syn.* v. 327.

Rotges *Martin's* Spitzberg. 85.

Little black and white Diver. *Wil. orn.* 343.

Mergulus Melanoleucos rostro acuto brevi. *Raii Syn. av.* 125.

Edw. av. 91.

Uria minor, le petit Guillemot. *Brisson av.* vi. 73. *Hist. d'ois.* ix. 354.

Alca alle. *Gm. Lin.* 554.

Faun. Suec. sp. 142.

Islandis Halkioen, Havdirdell. *Norvegis* Soe Konge, Soeren Jakob, Perdrikker, Persuper, Boefiær, Borrefiær, Hys Thomas. *Feroensibus* Fulkop. *Groenlandis* Akpaliarsok. *Brunnich*, 106.

Gunner tab. 6.

Br. Zool. 137. *Arct. Zool.* ii. 224.

DESCRIPTION.

THE bird our description was made from was taken in *Lancashire;* its bulk was not superior to that of a blackbird. The bill was convex, short, thick, and strong; its color black; 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 quil 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 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.

GENUS XVIII. GUILLEMOT.

BILL slender, strong, pointed; the upper mandible slightly bending towards the end; the 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.

1. FOOLISH.

Uria Troile. U. corpore nigro pectore abdomineque niveo, remigibus secundariis apice albis. *Lath. Ind. orn.* 796. *id. Syn.* vi. 329. *id. Sup.* i. 265.

Guillem, Guillemot, Skout, Kiddaw, Sea-hen. *Wil. orn.* 324.

Raii Syn. av. 120.

The Lavy. *Martin's voy. St. Kilda,* 32.

Edw. av. 359. *fig.* 1.

Uria, le Guillemot. *Brisson av.* vi. 70. *Tab.* 6. *fig.* 1.

Hist. d'ois. ix. 350. *Pl. Enl.* 903.

Lommia. *N. Com. Petr.* iv. 414.

Colymbus Troile. *Gm. Lin.* 585.

Faun. Suec. sp. 149.

Islandis & *Norvegis* Lomvie, Langivie, Lomrifvie, Storfugl. *Brunnich,* 108.

Sea-Taube, or Groenlandischer Taucher. *Frisch,* ii. 185.

Br. Zool. 138. H. 3. *Arct. Zool.* ii. 229.

DESCRIPTION.

THIS species weighs twenty-four ounces; the length is 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 in-

side 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; the tips of the lesser quil 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 are 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, 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; its color is green, but of various shades, from a faint to a full sea-green, more or less spotted and streaked with black; we have rarely known instances of its being perfectly plain. The Rev. Mr. *Low* of *Birsa* assures me, that they continue about the *Orknies* the whole winter.

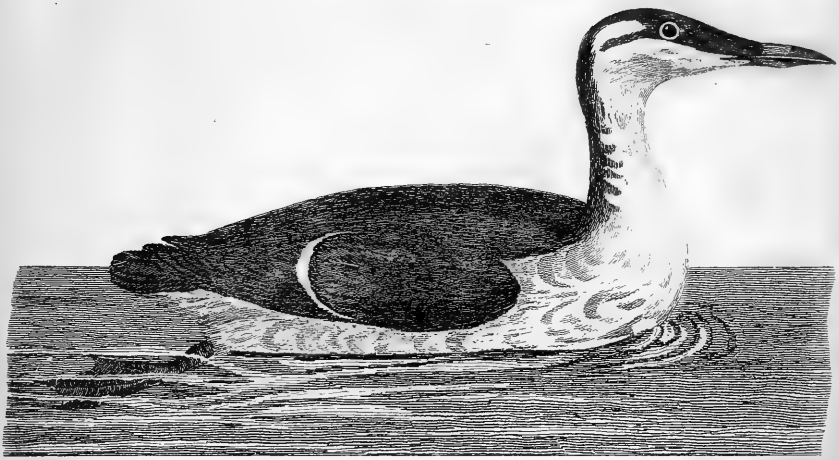
A. LESSER. Uria Troile. β. U. supra nigra, subtus genis fasciaque alarum alba. *Lath. Ind. orn.* 797. *id. Syn.* vi. 332.
Colymbus minor. *Gm. Lin.* 585.
Uria Svarbag.
Islandis Stutnefur, Svartbakur.
Ringuia. *Brunnich,* No. 110.
Scopoli, No. 103.
Br. Zool. 138. *Arct. Zool.* ii. 231.

DESCRIPTION. THE weight is nineteen ounces: the length sixteen inches; the breadth twenty-six. The bill two inches and a half long, shaped like that of the preceding species, 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, 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.

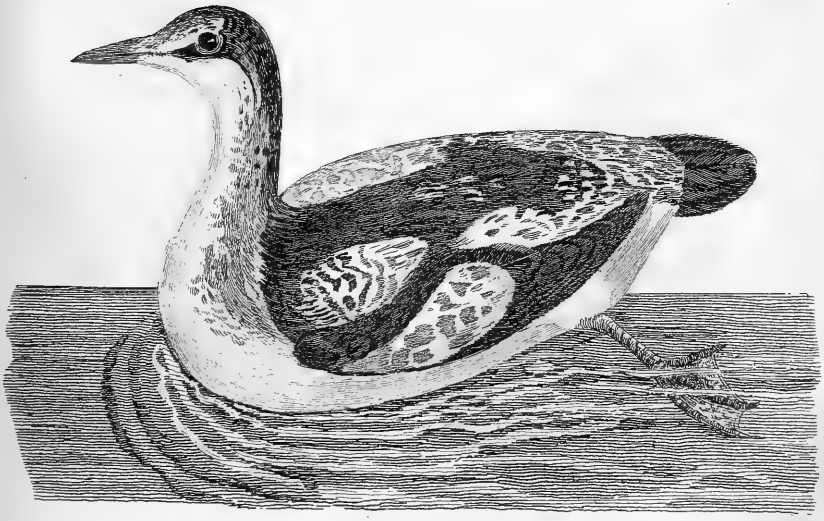
These birds frequent the *Welsh* coasts in the winter time, but that very rarely; where they breed is unknown to us; having never observed them on the rocks among the congenerous birds. These and the black-billed auks haunt the *Firth* of *Forth* during winter in flocks innumerable, in pursuit of sprats.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

* Dr. *Latham* does not allow this to be a distinct species, but merely the young of the preceding. ED.

LESSER GUILLEMOT.



BLACK GUILLEMOT. (YOUNG. (P. 163.)



2. BLACK.

Uria Grylle. U. corpore atro, tectricibus alarum albis. *Lath. Ind. orn.* 797. *id. Syn.* vi. 332.
Greenland-dove, or Sea-turtle. *Wil. orn.* 326.
Raii Syn. av. 121.
Ray's itin. 183, 192.
Feiste. *Gunner. tab.* 4.
Turtur maritimus insulæ Bass. *Sib. hist. Fife,* 46.
The Scraber. *Martin's voy. St. Kilda.* 32.
Cajour, Pynan. *N. Com. Petr.* iv. 418.
Uria minor nigra, le petit Guillemot noir. *Brisson av.* vi. 76. *Hist. d'ois.* ix. 332. *Pl. Enl.* 917.
Colymbus Grylle. *Gm. Lin.* 584.
Faun. Suec. sp. 148.
Islandis Teista. *Norvegis* Teiste. *Groenlandis* Sarpak. *Brunnich,* 113.
Groenlandische Taube. *Frisch,* ii. 185.
Br. Zool. 138. H. 4. *Arct. Zool.* ii. 229.

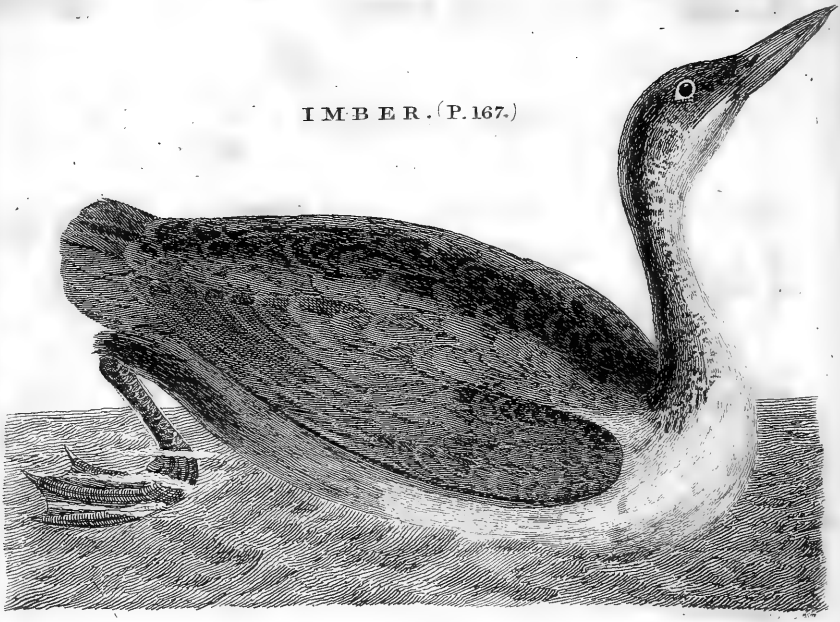
DESCRIPTION.

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 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,* and has been killed in *Anglesey.* The tail consists of twelve feathers; the legs are red.

This bird is found on the *Bass isle* in *Scot-*

* The spotted *Greenland* Dove of Mr. *Edwards,* plate 50.

land; 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 *Llandudno* in *Caernarvonshire*, and on islets S. W. of *Anglesey*, near *Llanddwyn*, where it breeds. 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 *cas gan 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 rust, and speckled with ash-color.



IMBER. (P. 167.)

NORTHERN DIVER. (P. 165.)

GENUS XIX. DIVER.

BILL strong, strait, pointed. Upper mandible longest; edges of each bending in.
NOSTRILS linear.
TONGUE pointed, long, serrated 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.

1. NORTHERN.

Colymbus glacialis. C. capite colloque nigro-violaceo, fascia gulæ cervicisque alba interrupta. *Lath. Ind. orn.* 799. *id. Syn.* vi. 337.
Clusius's. *Wil. orn.* 342.
Raii Syn. av. 125.
Mergus maximus Farrensis, sive Arcticus. *Clusii exot.* 102.
Colymbus maximus stellatus nostras. *Sib. hist. Scot.* 20. *Tab.* 15.
Le grand Plongeon tachetè. *Brisson av.* vi. 120. *Tab.* 11. *fig.* 1. *Hist. d'ois.* viii. 258. *Pl. Enl.* 952.
Colymbus glacialis. *Gm. Lin.* 588.
Norvegis Brusen. *Groenlandis* Tiulik. *Brunnich, orn.* 134.
Grosse Halb-Ente, Meer-Nœring. *Frisch,* ii. 185. *A. Br. Zool.* 139. K. 2. *Arct. Zool.* ii. 232.

DESCRIPTION.

THE length of this species is three feet five inches; its breadth four feet eight. The bill to the corners of the mouth is four inches long, black and strongly formed. 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 downwards; the lower part of the neck is of a deep black, glossed 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-buachaill*, or the *Herdsman* of the sea, from its being so much in that element.

2. IMBER.

Colymbus Immer. C. corpore supra nigricante albo undulato subtus toto albo. *Lath. Ind. orn.* 800. *id. Syn.* vi. 340.

Colymbus immer. *Gm. Lin.* 588.

Gesner's greater Doucker. *Wil. orn.* 342. *Raii Syn. av.* 126. No. 8. Fluder. *Gesner av.* 140.

Immer. *Brunnich*, No. 129.

Ember Goose. *Sibbald Scot.* 21. *Wallace Orkney*, 16. *Debes Feroe Isles*, 138. *Pontoppidan*, ii. 80.

Le grand Plongeon. *Brisson av.* vi. 105. *Tab.* x. *Hist. d'ois.* viii. 251. *Pl. Enl.* 914. *Arct. Zool.* ii. 232.

THIS species inhabits the seas about the *Orknies*, 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 formed by nature under the wing for that end.

DESCRIPTION.

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

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

3. SPECKLED. Colymbus stellatus. C. cinereo-fuscus lineolis albidis varius subtus albus, capite et collo superioribus cinereis, pennis ad latera cinereo-albo fimbriatis. *Lath. Ind. orn.* 800. *id. Syn.* vi. 341.

Greatest speckled Diver, or Loon. *Wil. orn.* 341.

Raii Syn. av. 125.

Colymbus caudatus stellatus. *N. Com. Petr.* iv. 424.

C. stellatus. *Gm. Lin.* 587.

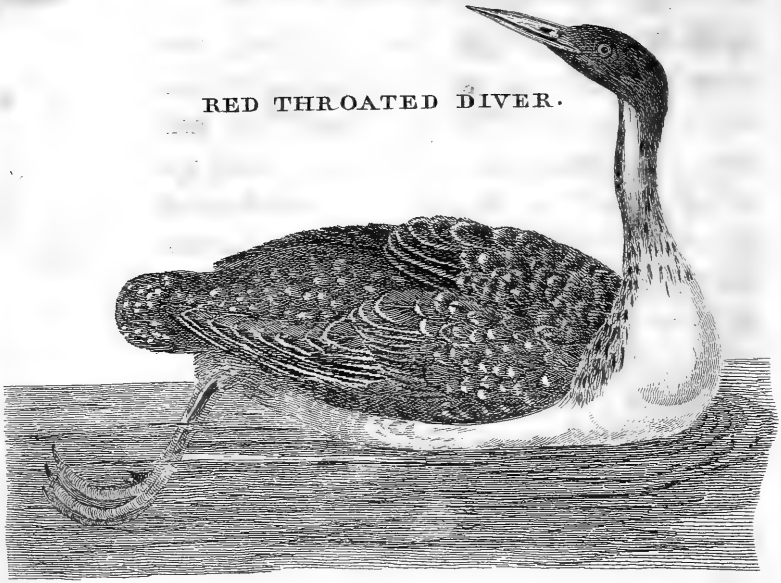
Le petit Plongeon. *Brisson av.* vi. 108. *Tab.* 10. *fig.* 2. *Hist. d'ois.* viii. 254. *Pl. Enl.* 992.

Mergus stellatus, *Danis* Soe-Hane. *Brunnich,* 130.

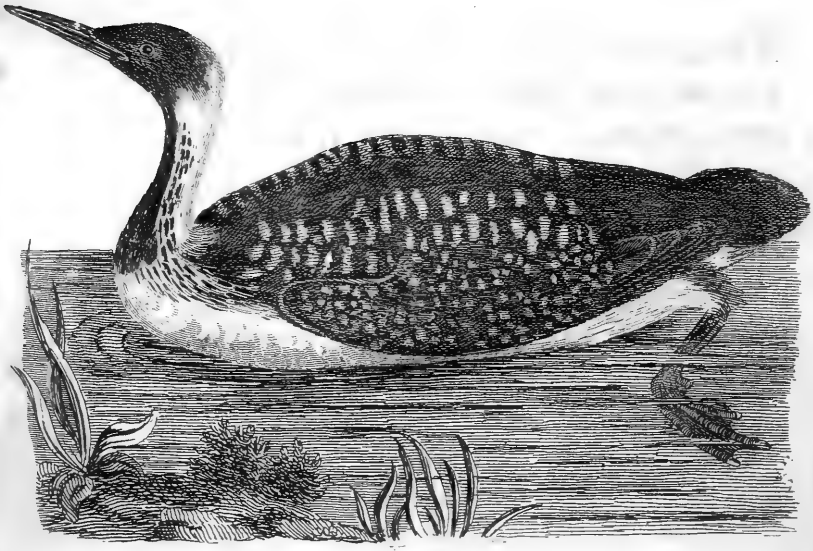
Br. Zool. 139. K*. *Arct. Zool.* ii. 233.

DESCRIPTION. THIS species weighs two pounds and a half; its length is twenty-seven inches; its breadth three feet nine. The bill is 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 of 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. The cheeks and whole under side of the body are 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.

RED THROATED DIVER.



BLACK THROATED DIVER. (P. 170.)



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.

4. RED THROATED.

Colymbus septentrionalis. C. corpore supra nigricante subtus albo, collo antice macula scutiformi ferruginea. *Lath. Ind. orn.* 801. *id. Syn.* vi. 344.
Edw. av. 97.
Gunner. Tab. 2. f. 2.
Colymbus septentrionalis. *Gm. Lin.* 506.
Le Plongeon a gorge rouge. *Brisson av.* vi. 111. *Tab.* ii. *fig.* 1. *Hist d'ois.* viii. 264. *Pl. Enl.* 308.
Islandis & *Norvegis* Loom v. Lumme, *Danis* Lomm. *Brunnich,* 132.
Br. Zool. 140. *Arct. Zool.* ii. 234.

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

DESCRIPTION.

three feet five inches. The head is small and taper; the bill strait, less strong; and in 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.

5. BLACK THROATED.

Colymbus arcticus. C. capite cano, collo subtus atro-violaceo, fascia alba interrupta. *Lath. Ind. orn.* 800. *id. Syn.* vi. 343.

Lumme. *Worm. Mus. Brunnich,* No. 133.

Northern Doucker. *Wil. orn.* 343.

Raii Syn. av. 125.

La Lumme. *Brisson av.* vi. 115. *Hist. d'ois.* viii. 261.

Colymbus arcticus. *Gm. Lin.* 587.

Faun. Suec. No. 150.

Speckled Diver. *Edw.* 146.

Arct. Zool. ii. 234.

DESCRIPTION.

A SPECIES somewhat larger than the last. The bill is black; the front black; the hind part of the head and neck cinereous; the sides of the neck marked with black and white lines pointing downwards; the fore part is of a glossy variable black, purple, and green. The back, scapulars, and coverts of wings are black,

marked the two first with square, the last with round spots of white; the quil feathers are dusky; the breast and belly white; the tail short and black; the legs partly dusky, partly reddish.

GENUS XX. 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.

1. BLACK BACKED.

Larus marinus. L. albus, dorso nigro. *Lath. Ind. orn.* 813. *id. Syn.* vi. 371.
Wil. orn. 344.
Raii Syn. av. 127.
Le Goiland noir. *Brisson av.* vi. 158. *Hist. d'ois.* viii. 405. *Pl. Enl.* 990.

Larus marinus. *Gm. Lin.* 598.
Faun. Suec. sp. 155.
Danis Blaae maage, *Norvegis* Svartbag, Havmaase. *Brunnich,* 145.
Br. Zool. 140. L. *Arct. Zool.* ii. 242.

DESCRIPTION.

THE weight of this species is nearly five pounds; the length twenty-nine inches; the breadth five feet nine. The bill is very strong, 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 are 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 quil 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. 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 *Anglesey*, 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*.*

* This appears to be the Less Black back Gull, described by Mr. *Montagu* as a distinct species in his Ornithological dictionary, in which he refers, as a synonym, to the Silvery Gull of the *Arctic Zoology*, but the latter was considered by Mr. *Pennant*, in the last edition of that work, as "only a Herring Gull whitened by extreme age."

Mr. *Montagu* gives it the following characters. "Head, neck, tail, and whole under parts, pure white; back, scapulars, and wing, dusky black; prime quills dusky, towards their end black; the point of the first is white with a black tip; the second the same with only a white spot in the black; the others very slightly tipped with white; two or three of the scapulars are also tipped with white; legs yellow; irides pale yellow; orbits red orange." ED.

2. SKUA.

Larus Catarractes. L. grisescens, remigibus rectricibusque basi albis, cauda subæquali. *Lath. Ind. orn.* 818. *id. Syn.* vi. 385. *id. Sup.* ii. 332.

Our *Cataracta*, I suppose the *Cornish* Gannet. *Wil. orn.* 348.

Raii Syn. av. 128.

Cataractes. *Sibb. Scot. tab.* 14.

Sea Eagle. *Sibb. hist. Fife.* 46.

Le Goeland brun. *Brisson av.* vi. 165. *Hist. d'ois.* viii 408.

Pontopp. Norw. ii. 96.

Skua Hoirei. *Clusii Exot.* 368, 369.

Larus Cataractes. *Gm. Lin.* 603.

Skua. *Brunnich, ornith.* 33.

Feroensibus Skue. *Islandis* Skumr. *Norvegis* Kav-Oern. *Brunnich,* 125.

Brown and ferruginous Gull. *Br. Zool.* 140. L. 6. *Arct. Zool.* ii. 247.

DESCRIPTION.

THE length of this singular Gull is two feet; the extent four feet and a half; the weight three

pounds. The bill is two inches one fourth long, very much hooked at the end, and very sharp; the upper mandible covered more than half way with a black cere or skin as in the hawk kind; the nostrils are 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 sur-

geon 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 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 ra-

* *Hoier in Clus. exot.* 369. *Brunnich*, 35.

† This work, for want of due encouragement, was never published. ED.

pacious bird seldom ventures near its quarters. The natives of *Foula* on this account levy 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 havoke 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.

Linnæus involves two species in the article *Larus Cataractes;* this, and the *arctic* bird of Mr. *Edwards*, birds of very different characters.

* *Hist. Kerry.* † *Hist. St. Kilda.* p. 158.

3. BLACK TOED.

Larus crepidatus. L. luteo fuscoque varius subtus pallidior, macula alarum alba. *Lath. Ind. orn.* 819. *id. Syn.* vi. 387. *id. Sup.* i. 268.

Cepphus. *Aldr. av.* iii. 38. *Wil. orn.* 351. *Raii Syn. av.* 129.

L'Abbe ou Stercoraire. *Brisson av.* vi. 152. *tab.* 13. *f.* 2. *Hist. d'ois.* viii. 441. *Pl. Enl.* 991.

The Cepphus. *Phil. Transact.* Vol. lii. 135.

Catharacta Cepphus, Strandhoeg. *Brunnich, ornith.* 126. *Arct. Zool.* ii. 246.

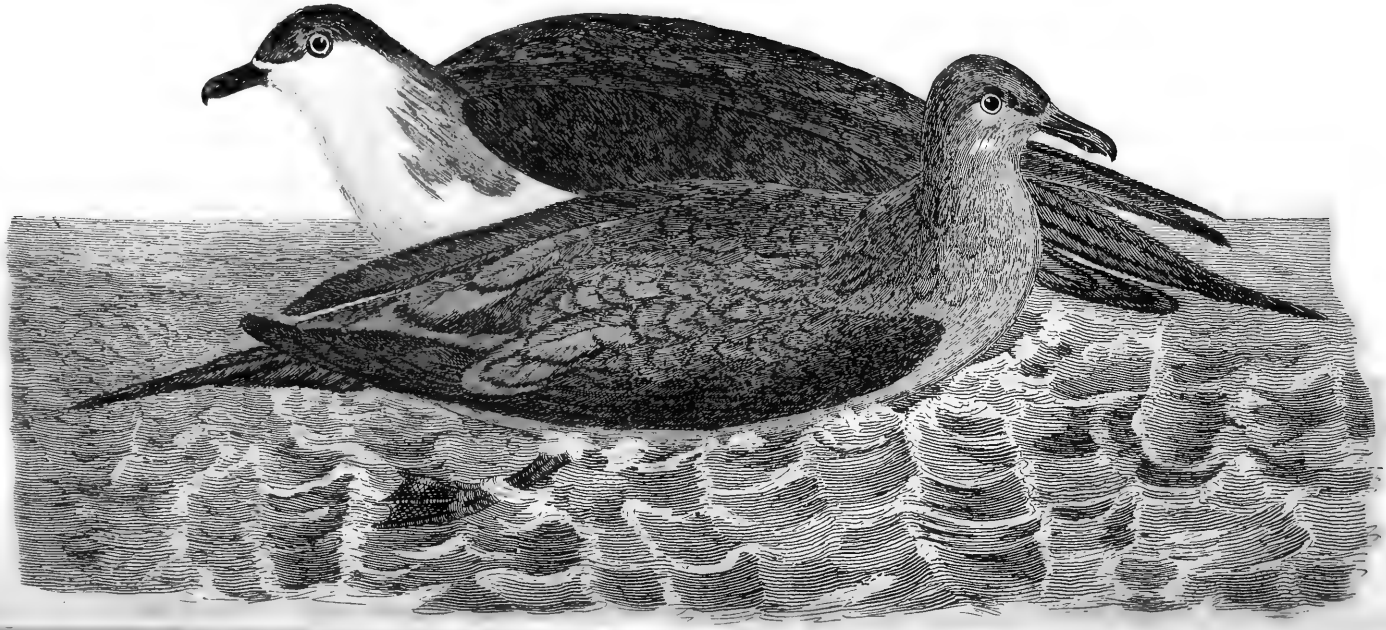
DESCRIPTION.

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 preceding species, the end black and crooked. The feathers of the forehead come rather low on the bill; the head and neck are of a dirty white; the 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 quil feathers are white; the exterior web, and upper half of the interior web black, but the lower part of the

WINTER GULL. (P. 185)

BLACK TOED GULL.
(P. 178)

ARCTIC GULLS.



latter white; the tail consists of twelve black feathers tipt with white, the two middle of which, are nearly 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 the late Dr. *Lysons* of *Gloucester*.

4. ARCTIC.

Larus parasiticus. L. supra niger, collo pectore et abdomine albis, rectricibus duabus intermediis longissimis. *Lath. Ind. orn.* 819. *id. Syn.* vi. 389. *tab.* 99.

The Struntjagger, or Dunghunter. *Marten's Spitzberg.* 87.

The Arctic Bird. *Edw. av.* 148. 149.

L'Abbe a longue queue. *Brisson av.* vi. 155. *Hist. d'ois.* viii. 445. *Pl. Enl.* 762.

Larus Parasiticus. *Gm. Lin.* 601.

Swartlasse, Labben, Elof. *Faun. Suec. sp.* 156.

Brunnich, 127.

Arct. Zool. ii. 246.

THESE birds are very common in the *Hebrides*. I saw numbers in *Jura*, *Islay*, and *Rum*, where they breed in the heath; if disturbed they fly about like the lapwing, but soon alight. They are also found in the *Orknies*,

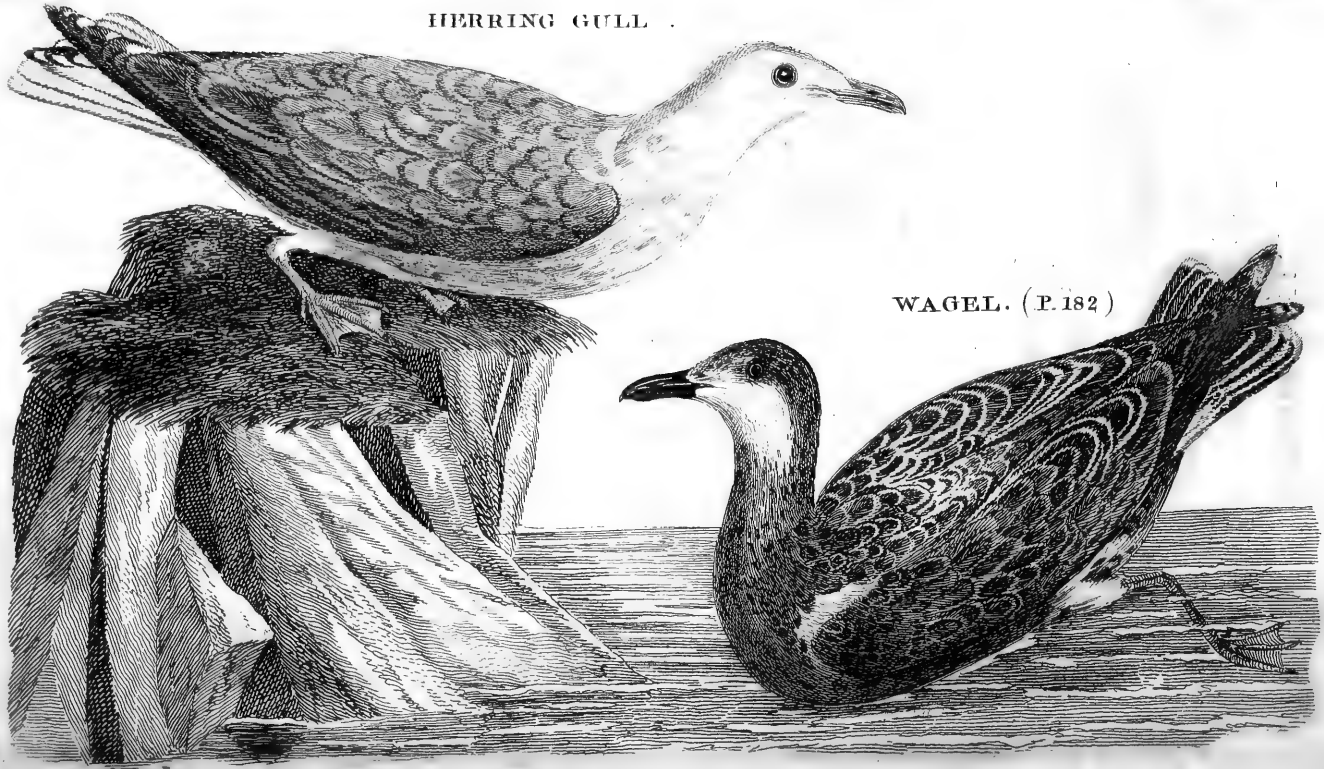
* Another has since been killed near *Horsham* in *Sussex*, and a third in *Lancashire*. ED.

where they appear in *May*, and retire in *August;* and also on the coast of *Yorkshire*, where they are known by the name of *Feaser*. All writers that mention this species agree, that it has the property of pursuing the lesser gulls so long, that they discharge the contents of the maw, and that it catches up and devours what they disgorge before it drops into the water; from which the name; *Linnæus* wittily calling it the *Parasite*, alluding to its sordid life.

DESCRIPTION. Its length 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. In

MALE. 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 are white; the hind part of the neck, and whole under side of the body of the same color; the tail consists of twelve feathers, the two middlemost nearly four inches longer than the others; the legs black, small, and scaly.

FEMALE. 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* took the figure of his female


HERRING GULL.
WAGEL. (P. 182)

Arctic bird, had lost those long feathers, so he has omitted them in the print.

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

5. HERRING.

Larus fuscus. L. albus, dorso fusco, pedibus flavis. *Lath. Ind. orn.* 815. *id. Syn.* vi. 372.
Burgermeister. *Martin's Spitzberg.* 84.
Herring Gull. *Wil. orn.* 345.
Larus cinereus maximus. *Raii Syn. av.* 127.
Le Goiland gris. *Brisson av.* vi. 162. *Hist. d'ois.* viii. 418.
Larus fuscus. *Gm. Lin.* 599. *Faun. Suec. sp.* 154.
Danis Silde-Maage. *Islandis* Veydebjalla. *Brunnich*, 142.
Grosse Staff Moeur. *Frisch*, ii. 218.
Br. Zool. 141. *Arct. Zool.* ii. 242.

DESCRIPTION.

THIS gull weighs upwards of thirty ounces; the length is 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 eyelids red; the head, neck, and tail white; the back, and coverts of the wings ash colored; the upper part of the five first quil feathers are black, marked with a white spot near their end; the legs are of a pale flesh color. These birds breed

* This error has been continued by *Gmelin*. ED.

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 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's faces.

(A.) WAGEL. Larus marinus. γ. L. albus, dorso cinereo, rectricibus apice nigris. *Lath. Ind. orn.* 814. *id. Syn.* vi. 375.
Great grey Gull, the Cornish Wagel. *Wil. orn.* 349.
Raii Syn. av. 130.
Le Goiland varié, ou la Grisard. *Brisson av.* vi. 167. *tab.* 15. *Hist. d'ois.* viii. 413. *tab.* 33. *Pl. Enl.* 266.
Larus nævius. *Gm. Lin.* 598.
Danis Graae-Maage. *Islandis* Kablabrinkar. *Brunnich,* 150.
Brown and White Gull. *Br. Zool.* ii. 422.
Wagel. *Arct. Zool.* ii. 243.

DESCRIPTION. 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 nearly 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 are 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 species, which (as well as the rest of the gull tribe) scarcely ever attains its true colors till after the first year; but it must be observed,* that the first colors of the irides, of the quil 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.

* Mr. *Pennant* afterwards altered his opinion, and in the *Arctic* Zoology, describes the Wagel as only the young of the Herring Gull. The Greater Black backed Gull in its immature state of plumage assumes the same mottled appearance, and is often confounded with it. ED.

6. COMMON. Larus canus. L. albus, dorso cano, remigibus primoribus extremitate nigris, quarta et quinta macula apicis nigra, extima extus nigra. *Lath. Ind. orn.* 815. *id. Syn.* vi. 378.
Galedor, Crocala, Galetra. *Aldr. av.* iii. 34.
Common Sea Mall. *Wil. orn.* 345.
Common Sea Mall, or Mew. *Raii Syn. av.* 127.
La Mouette cendrée. *Brisson av.* vi. 175. *tab.* 16. *fig.* 1. *Hist. d'ois.* viii. 379. *Pl. Enl.* 977.
Gabbiano minore. *Zinan.* 115.
Larus canus. *Gm. Lin.* 596.
Scopoli. No. 104.
Br. Zool. 142. *Arct. Zool.* ii. 245.

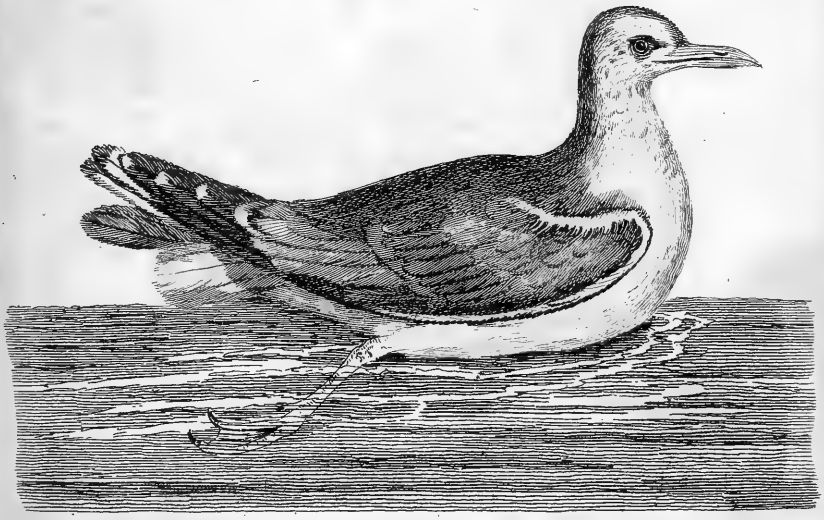
DESCRIPTION.

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

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;

KITTIWAKE (P. 186.)

COMMON GULL. (P. 184.)



being nothing but the half digested remains of earth-worms, on which these birds feed, and often discharge from their stomachs.*

Larus canus. β. L. cinereus subtus niveus, capite albo maculis fuscis vario, collo supra fusco, alis variis rectricibus albis fascia nigra. *Lath. Ind. orn.* 816. *id. Syn.* vi. 384.

Winter Mew, or Coddy Moddy. *Wil. orn.* 350.
Raii Syn. av. 130.
Gavia Hyberna, le Mouette, d'hiver. *Brisson av.* vi. 189. *Hist. d'ois.* viii. 437.
Br. Zool. 142.

(A). WINTER.

DESCRIPTION.

[THE common gull in the immature state of its plumage has been described by the name of the Winter Gull under the following characters.] The irides hazel; the bill two inches long, but the slenderest of any gull, black at the tip, whitish towards the base. The crown of the head, and hind part, and the sides of the neck, white, marked with oblong dusky spots; the forehead, throat, middle of the breast, belly, and rump, white; the back and scapulars of a pale grey, the last spotted with brown; the coverts of the wings of a pale brown, edged with white; the first quil feather black; the succeeding tipt with white; the tail white, cross-

* Vide *Morton's Nat. Hist. Northampt.* p. 353.

ed near the end with a black bar; the legs of a dirty bluish white.

Linnæus makes this species synonymous with the *Larus tridactylus* or *Tarrock;* but as we have had an 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.

7. KITTIWAKE.

Larus tridactylus. L. dorso canescente, rectricibus albis, digito postico mutico. *Lath. Ind. orn.* 817. *id. Syn.* vi. 393.
Larus Rissa. *Gm. Lin.* 594.
Le Goeland cendrè. *Pl. Enl.* 253.
Ritsa *Islandis,* incolis *Christiansoe,* Lille Solvet, Rotteren. *Brunnich,* No. 140.
Kittiwake. *Sibbald's hist. Scotl.* 20.
Arct. Zool. ii. 244.

DESCRIPTION.

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 are 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; the inside of the mouth

orange; the 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 *Bass Isle*, the vast rocks near the Castle of *Slains*, in the county of *Aberdeen*, and *Priestholm Isle*.

The young of these birds are a favourite 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.

(A.) TARROCK.

Larus tridactylus. *β.* L. albicans, dorso canescente, rectricum apicibus excepto extimo nigris, pedibus tridactylis. *Lath. Ind. orn.* 817. *id Syn.* vi. 392. *id. Sup.* i. 268.
Gavia cinerea alia. *Aldr. av.* iii. 35.
Wil. orn. 346.
Raii Syn. av. 128.

Larus tridactylus. *Gm. Lin.* 595.
Faun. Suec. 157. *sp.*
La Mouette cendrèe tachetèe. *Brisson av.* vi. 185. *tab.* 17. *fig.* 2. *Hist. d'ois.* viii. 424. *Pl. Enl.* 387.
Tarrock. *Br. Zool.* 142. *Tab.* L. 3.

DESCRIPTION.

[AT an early period of life the Kittiwake has been described as a distinct species under the name of Tarrock; in that stage] 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 are of a dusky ash color. In lieu of the back toe, it has only a small protuberance.

8. BLACK HEADED.

Larus ridibundus. L. albidus capite nigricante, rostro pedibusque rubris. *Lath. Ind. orn.* 811. *id. Syn.* vi. 380. *id. Sup.* i. 268.

Cepphus *Turneri*. *Gesner av.* 249.

Larus cinereus tertius. *Aldr. av.* iii. 35.

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

Raii Syn. av. 128. *itin.* 217.

Pewit. *Plott's hist. Staff.* 231.

Puit. *Fuller's Brit. Worthies.* 318.

La Mouette rieuse a pattes rouges. *Brisson av.* vi. 197. *Hist. d'ois.* viii. 433. *Pl. Enl.* 970.

Gabbiano cinerizio col rostro, e colli piedi rossi. *Zinan.* 115.

Larus ridibundus. *Gm. Lin.* 601.

Br. Zool. 143. *Tab.* L. 5. *Arct. Zool.* ii. 254.

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 migratory, 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

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 noblemen's tables.*

The notes of these gulls distinguish them from any others, being like a hoarse laugh.

DESCRIPTION.

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; the back and wings ash colored; the tip, and exterior edge of the first quil feather black, the rest of that feather white; the next to that tipt with black, and marked with the same on the inner web.

* *Vide* Appendix.

Larus ridibundus. β. L. albus dorso cano, macula pone aures fusca. *Lath. Ind. orn.* 812.

Red legged Gull. *id. Syn.* vi. 381.

La Grande Mouette blanche. *Belon.* 170.

L. cinerarius. *Gm. Lin.* 597.

Larus albus major. *Raii Syn. av.* 129.

Wil. orn. 348.

La petite Mouette cendrée. *Brisson av.* vi. 178 *t.* 17. *f.* 1. *Hist. d'ois.* viii. 430.

Le petit Goiland. *Pl. Enl.* 969.

Larus canus. *Scopoli,* No. 104.

(A.) VARIETY.

THIS was taken in a trap near my house, *January* 25th, 1772, and seemed only a variety 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 extended a broad dusky bar, surrounding the hind part of the head; behind that was another reaching from ear to ear; the ends, interior, and exterior edges of the three first quil feathers were 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.

DESCRIPTION.

9. RED LEGGED.

Larus ridibundus. γ. L. albidus capite fusco maculis albis, dorso cano, rectricibus decem intermediis fascia nigra. *Lath. Ind. orn.* 812. ?

Larus crythropus. *Gm. Lin.* 597. ?

Brown headed Gull. *Lath. Syn.* vi. 383. ?

Red legged Gull. *Arct. Zool.* ii. 249.

DESCRIPTION.

[" BILL and legs of a blood-red color; the head and neck white, mottled about the former; the back and coverts of the wings of a fine grey; the lesser coverts mottled; the under side of the body, and the tail, white, the last tipt with black; size of the Black-cap Gull."

Such is the description of the Red legged Gull in the *Arctic Zoology;* the specimen shot in *Anglesey*, has been thus described by Mr. *Pennant* in a manuscript note.

" Legs long and slender, bright red; primaries black tipt with white, external edges white; back elegant light grey; rest of the plumage white."

Mr. *Montagu* considers this as the young of the Black-headed Gull, but Dr. *Latham**, in some observations with which he has recently favored the editor, supposes that it certainly is a distinct species, as no Gull in the immature state of its plumage has a back of an " elegant light grey color." ED.

* In the *Index ornithologicus* that eminent naturalist refers to the Red legged Gull of the *Arctic Zoology*, as a variety of the Black Headed Gull. ED.

Larus atricilla. L. albus, capite nigricante, rostro rubro, pedibus nigris. *Lath. Ind. orn.* 813. *id. Syn.* vi. 383. La Mouette rieuse. *Brisson av.* vi. 192. *tab.* 10. *f.* 1.	Larus major cinereus. *Baltneri Raii Syn. av.* 129. *Wil. orn.* 346. Larus atricilla. *Gm. Lin.* 600. *Montagu orn. dict.* *Arct. Zool.* ii. 645.	10. LAUGHING.

[THE length of this species is about eighteen inches; the extent three feet. The bill red; the head and the ends of the primaries black: the back and coverts of the wings, cinereous; all the rest of the plumage white; the legs black and long. DESCRIPTION.

It is an inhabitant of the *Bahama* isles, *Russia*, and some parts of *America*.

Mr. *Montagu* appears to be the only writer who records it among the incidental visitants of *Great Britain*. He saw a small flock near *Winchelsea* in the autumn of 1774, and two of the species near *Hastings*. ED.

Sterna obscura. St. supra fusca subtus alba, alis fusco cinereoque variis, capite nigro. *Lath. Ind. orn.* 810. *id. Syn.* vi. 368. Brown Gull. *id. Sup.* ii. 331.	The brown Tern. *Wil. orn.* 352. Sterna fusca. *Raii Syn. av.* 131. Sterna obscura. *Gm. Lin.* 608. *Faun. Suec. sp.* 159. *Br. Zool.* 143.	11. BROWN.

MR. *Ray* has left us the following obscure account of this bird; communicated to him by

DESCRIPTION.

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 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.

[Dr. *Latham*, in the second supplement to his *Synopsis*, thus describes a bird which fell under the observation of the late Mr. *Boys*, of *Sandwich*, and which he suspects to be this species hitherto so little known.

"Bill like that of the Cinereous Tern, but longer and more slender, yellow to the hook in the upper mandible and to the gibbous part of the lower, from thence black; length to the toes and tail fifteen inches and a half, to the tips of the wings eighteen inches; breadth eighteen inches; weight eight ounces and a half avoirdupois; the hind head and nape dusky; at the anterior angle of the orbit, a black spot, another of the same behind the ear; forehead, throat, fore part of the neck, belly, vent, and rump, pure white; back, scapulars, upper range of coverts next the body, grey; middle series of

coverts brown, edged and tipped with white; lower series grey, with white tips; bastard wing composed of three feathers black and white; quils deeply tipped with black fringed with white; middle of the feathers and the shafts white; outer web banded with black; inner webs with dusky, but deeper; secondaries dusky, tipped with grey; tail of twelve feathers, the two external ones white, the rest white with a bar of dusky; legs dusky orange; claws black." ED.

GENUS XXI. TERN.*

BILL strait, slender, pointed.
NOSTRILS linear.
TONGUE slender and sharp.
WINGS very long.
TAIL forked.
TOES: a small back toe.

1. COMMON. Sterna Hirundo. St. cauda forficata, rectricibus duabus extimis albo nigroque dimidiatis. *Lath. Ind. orn.* 807. *id. Syn.* vi. 361.
Sterna (Stirn, Spyrer, Schnirring). *Gesner av.* 586.
Aldr. av. iii. 35.
The Sea Swallow. *Wil. orn.* 352.
Raii Syn. av. 131.
Sterna major, la grande Hirondelle de mer. *Brisson av.* vi. 203. *tab.* 19. *fig.* 1. *Hist. d'ois.* viii. 331. *Pl. Enl.* 987.
Sterna hirundo. *Gm. Lin.* 606.
Tarna. *Faun. Suec. sp.* 159.
The Kirmew. *Marten's Spitzberg.* 92.
Islandis Kria. *Norvegis* Tenne, Tende, Tendelobe, Sand-Tolle, Sand-Tærrne. *Danis* Tærne. *Bornholmis* Kirre, Krop-Kirre. *Brunnich,* 151.
Grauer fischer. *Kram.* 345.
Schwartzplattige Schwalben-Moewe. *Frisch,* ii. 219.
Makauka. *Scopoli,* No. 3.
Greater Tern. *Br. Zool.* 144. *Tab.* L*. *Arct. Zool.* ii. 238.

* 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.

DESCRIPTION.

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, strait, slender, and sharp pointed; the crown, and hind part of the head, black; the throat, and whole under side of the 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 darting 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.

* They breed plentifully on *Priestholm* isle off the coast of *Anglesey*, depositing their eggs on the bare ground. ED.

2. LESSER. Sterna minuta. St. cauda forficata, corpore albo, dorso cano, fronte superciliisque albis. *Lath. Ind. orn.* 809. *id. Syn.* vi. 364.

Larus piscator (Fischerlin, Fel.) *Gesner av.* 587. *fig.* 588.

Aldr. av. iii. 35.

Lesser Sea Swallow. *Wil. orn.* 353.

Raii Syn. av. 131.

La petite Hirondelle de mer. *Brisson av.* vi. 206. *tab.* 19. *fig.* 2. *Hist. d'ois.* viii. 337. *Pl. Enl.* 996.

Sterna minuta. *Gm. Lin.* 608.

Hætting Tærne. *Brunnich,* 152.

Br. Zool. 144. *Tab.* L. 2. *Arct. Zool.* ii. 239.

DESCRIPTION. THE weight of this species 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, and of such an exquisite rich gloss, and so fine a white, that no satin can be compared to it: the back and wings are 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

* *North Wales.*

COMMON & LESSER TERNS.

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quit their breeding places at the approach of it, and do not return till spring. Their manners, haunts, and food, are the same with those of the former; but they are far less numerous.

3. BLACK.

Sterna fissipes. St. cauda emarginata, corpore nigro, dorso cinereo. *Lath. Ind. orn.* 810. *id. Syn.* vi. 366. *id. Sup.* i. 267.

Larus niger (Meyvogelin) *Gesner av.* 588. *fig.* 589.

Aldr. av. iii. 35.

The Scare Crow. *Wil. orn.* 353.

Our black cloven-footed Gull. *Idem.* 354.

Raii Syn. av. 131. *Idem.* 132. No. 6.

L'Epouvantail. *Brisson av.* vi. 211. *tab.* 20. *fig.* 1. *Hist. d'ois.* viii. 341. *Pl. Enl.* 333.

Sterna fissipes. *Gm. Lin.* 610.

Siælandis Glitter. *Brunnich,* 153.

Kleinote Moewe. *Frisch,* ii. 220.

Br. Zool. 145. *Tab.* L.* 1. *f.* 1. *Arct. Zool.* ii. 239.

DESCRIPTION.

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 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 are 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.

4. SANDWICH. Sterna Boysii. St. alba, dorso alisque canis, pileo nigro, fronte maculis albis remigibus nigricantibus, scapo albo. *Lath. Ind. orn.* 806. *id. Syn.* vi. 358. *id. Sup.* i. 266. Sterna cantraca. *Gm. Lin.* 606. *Boys. Sandwich. tab.*

DESCRIPTION. [THIS is the largest of the *British* Terns; its length being about eighteen inches. The bill is black, with the tip horn color; the irides hazel; the forehead, crown, hind part of the head, and sides above the eye, black; the rest of the head, neck, and under parts of the body and tail, white; the back and wings pale hoary

lead color; the first five quils hoary black, the inner webs deeply margined with white; the sixth like the others, but much paler; the rest of the quils like the back; the tail is forked; the outer feather six inches and a quarter in length; the wings reach rather beyond it; the legs and claws, the under part of the feet, dusky red.

These birds frequent the neighborhood of *Sandwich* in great numbers, and are not uncommon on the eastern coast of the kingdom. ED.

Sterna Boysii. β. St. cauda emarginata corpore variegato, macula aurium nigra. *Lath. Ind. orn.* 806. *id. Syn.* vi. 358.?
Sterna nævia. *Gm. Lin.* 609.?
La Guisette. *Brisson av.* vi. 216. *tab.* 20. *f.* 2. *Hist. d'ois.* viii. 339. *Pl. Enl.* 924.
Kamschatkan Tern. *Arct. Zool.* ii. 240.

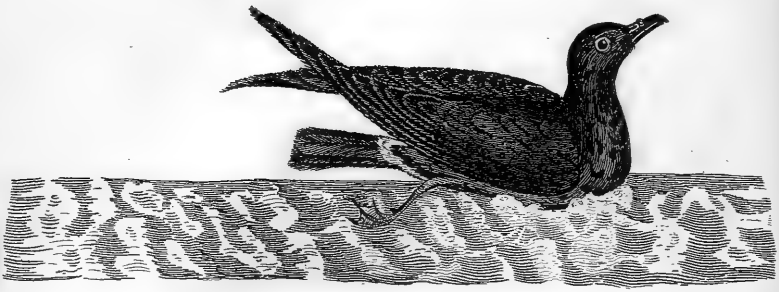
(A.) KAMSCHATKAN.

DESCRIPTION.

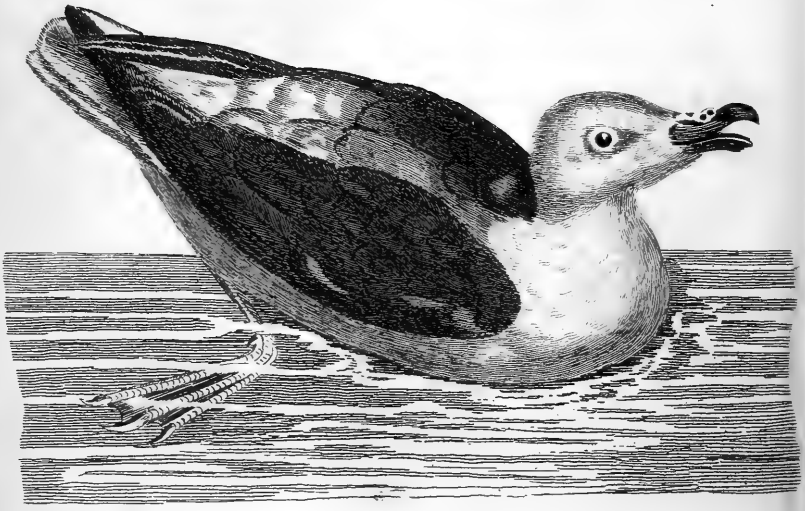
THE bill black; the forehead and space on each side of the bill white; the crown of the head black, which color is continued below, and on each side ends in a point behind and before; the cheeks, neck, beginning of the back, and the whole under side, white; the upper part of the back cinereous brown; the rest of the plumage, the wings, and the tail, grey, dark almost to duskiness on the ridge of the wings;

the tail slightly forked. Size of the Black Tern, but the bill shorter and thicker. Shot on the *Severn*, a few miles below *Shrewsbury*, and is among the elegant drawings of my friend *Joseph Plymly*, Esq. of *Longnor*.

STORMY PETREL. (P. 208.)



FULMAR. PETREL.



GENUS XXII. PETREL.

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

1. FULMAR.

Procellaria glacialis. Pr. albicans, dorso canescente, rostro pedibusque flavicantibus. *Lath. Ind. orn.* 823. *id. Syn.* vi. 403.
Wil. orn. 395.
Fulmar. *Martin's voy. St. Kilda.* 30. *Descr. west. Isles.* 283.
Fulmer. *Macauly's hist. St. Kilda.* 145.
Haffhest. *Clusii exot.* 368.
Procellaria cinerea, le Petrel cendrè. *Brisson av.* vi. 143. *tab.* 12. *fig.* 2. *Hist. d'ois.* ix. 325. *Pl. Enl.* 59.
Procellaria glacialis. *Gm. Lin.* 562.
The Mallemucke. *Martin's Spitzberg.* 93.
Hav-Hest. *Gunner, tab.* 1.
Procellaria glacialis. *Brunnich ornith.* 118.
Norvegis Hav-Hest, Mallemoke v. Mallemuke. *Brunnich,* 118.
Br. Zool. 145. *Tab.* M. 2. *Arct. Zool.* ii. 250.

THIS 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 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 who attempt to take them: so that they are, for the sake of this *panacæa*, 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.

DESCRIPTION. 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. They are likewise said to feed on sorrel, which they use to qualify the unctuous diet they live on. *Frederick Martens,* who had an opportunity of seeing vast numbers of this species at *Spitzbergen,* observes, that they are very bold, resort after the whale fishers in great flocks, and 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 near the spot; 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 disgorge its food.

2. SHEAR-WATER.

Procellaria Puffinus. Pr. corpore supra nigro subtus albo, pedibus rufis. *Lath. Ind. orn.* 824. *id. Syn.* vi. 406. *id. Sup.* i. 269.

Avis Diomedea, Artenna. *Aldr. av.* iii. 36.

Manks Puffin. *Wil. orn.* 333. *Raii Syn. av.* 134.

Shear water. *Idem.* 133. *Wil. orn.* 334.

Patines de oviedo. *Raii Syn. av.* 191. *Edw. av.* 359.

Procellaria Puffinus. *Gm. Lin.* 566.

Puffinus, le Puffin. *Brisson av.* vi. 131. *tab.* 12. *fig.* 1. is a variety of it. *Hist. d'ois.* ix. 321. *Pl. Enl.* 962.

Feroensibus Skrabe. *Norvegis* Skraap, Pullus. *Feroensibus* Liere. *Brunnich,* 119.

Manks Petrel. *Br. Zool.* 146. *Tab.* M. *Arct. Zool.* ii. 254.

DESCRIPTION.

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; the nostrils tubular, but not very prominent; the head, and whole upper side of the body, wings, tail, and thighs, are of a sooty 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 resort to the former in *February;* take a short possession of the rabbet burrows, and then disappear till *April:* they lay one egg, white and blunt at each end; 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, both on account of its serving as 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*.

3. STORMY. Procellaria pelagica. Pr. nigra uropygio albo. *Lath. Ind. orn.* 826. *id. Syn.* vi. 411. *id. Sup.* i. 269.
The Storm-finck. *Clusii exot.* 368.
Wil. orn. 395.
Small Petrel. *Edw. av.* 90.
Borlase's Cornwal. 247. *tab.* 29.
The Gourder. *Smith's hist. Kerry.* 186.
Assilag. *Martin's voy. St. Kilda.* 34.
Sib. hist. Fife. 48.
Procellaria, le Petrel. *Brisson av.* vi. 140. *tab.* 13. *fig.* 1. *Hist. d'ois.* ix. 327. *Pl. Enl.* 993.
Procellaria pelagica. *Gm. Lin.* 561. *Scopoli,* No. 95.
Stromwaders vogel. *Faun. Suec. sp.* 143.
Norvegis Soren Peder. St. Peders Fugl, Vesten-vinds Are Sonden-vinds Fugl, Uveyrs Fugl: *nonnullis,* Hare. *Feroensibus* Strunk-vit. *Brun.* 117.
Little Petrel. *Br. Zool.* 146. *Tab.* L. 5. *Arct. Zool.* ii. 255.

DESCRIPTION. 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. *Brunnich* tells us, that the inhabitants of the *Ferroe* 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 sake, chopped straw has been flung into the sea, 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 fluctu suspensa tumenti
> 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 *Cypselli* of *Pliny*, which he places among the *Apodes* of *Aristotle;* not because they wanted feet, but were Κακόποδα *, 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 *Cypselli* of *Aristotle* †:

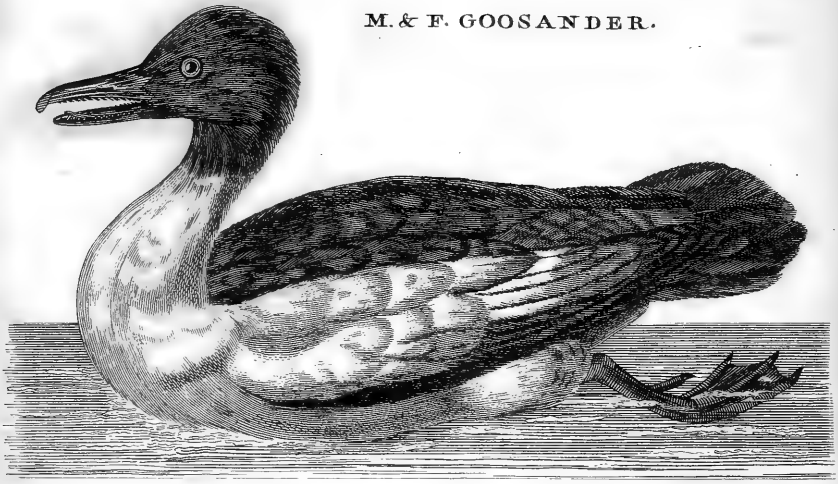
* *Arist.* 17. † P. 1067.

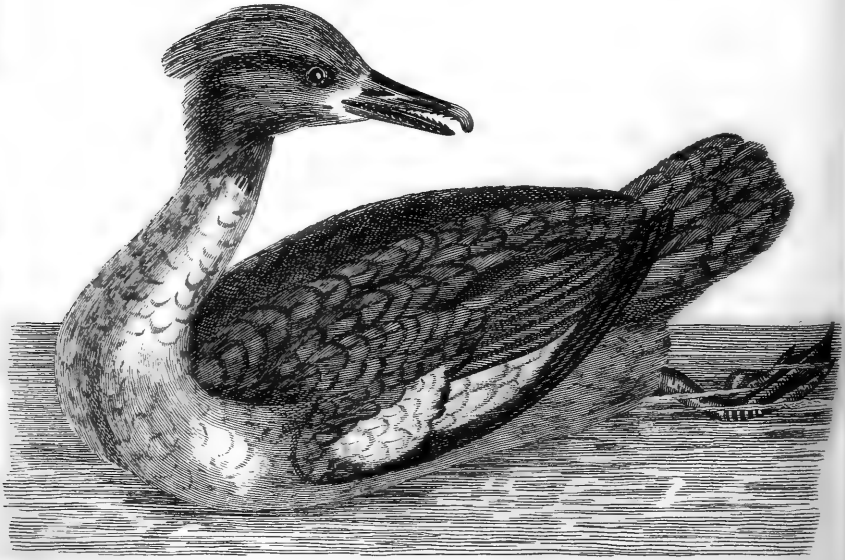
but a little attention to the text of each of those antient naturalists, is sufficient to evince that they are very different birds; the latter very accurately describes the characters of that species of swallow; while *Pliny* expresses the very manner of life of our *Petrel.*

"Nidificant in scopulis, hæ sunt quæ *toto mari cernuntur:* nec unquam tam longo naves, tamque continuo cursu recedunt a terra, ut non circumvolitent 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.

M. & F. GOOSANDER.





GENUS XXIII. MERGANSER.

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 toe longer than the middle.

1. GOOSANDER. (MALE.)

Mergus Merganser. M. subcristatus albus, capite collo supremo dorso remigibusque nigro-nitentibus, cauda cinerea. *Lath. Ind. orn.* 828. *id. Syn.* vi. 418. *id. Sup.* ii. 336. *id. Lin. Tr.* iv. 122.

Merganser (Merrach.) *Gesner av.* 135.

Aldr. av. iii. 113.

Goosander. *Wil. orn.* 335.

Raii Syn. av. 134.

Merganser, Le Harle. *Brisson av.* vi. 231. *Tab.* 22. *Hist. d'ois.* viii. 267. *Pl. Enl.* 951.

Meer-rache. *Kram.* 343.

See-Rache. *Frisch,* ii. 190, 191.

Mergus merganser. *Gm. Lin.* 544.

Wrakfogel, Kjorkfogel, Ard, Skraka, *Faun. Suec. sp.* 135.

Peksok. *Crantz's Greenl.* i. 80.

Islandis Skior-And. *Danis* Skallesluger. *Brunnich,* 92, & 93.

Br. Zool. 147. *Tab.* N. N.* *Arct. Zool.* ii. 257.

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; but in that season they have been shot in the *Hebrides*. They are uncommonly rank, and scarcely eatable.

DESCRIPTION.

The male weighs four pounds; its length is two feet four inches; the breadth three feet two. The bill is three inches long, narrow, and finely toothed, or serrated; 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 quil 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.

Mergus Castor. M. cristatus cinereus capite colloque supremo spadiceis, gula remigibus intermediis abdomineque albis. *Lath. Ind. orn.* 829. *id. Syn.* vi. 420. *id. Sup.* i. 270. *id. Sup.* ii. 336. *id. Lin. Tr.* iv. 122.

Mergus cirrhatus. *Gesner av.* 134.

Dundiver or Sparling fowl. *Wil. orn.* 335.

Mergus Castor. *β.* 545.

Merganser cinereus. *Brisson av.* vi. 254. *tab.* 25.

Le Harle femelle. *Hist. d'ois.* viii. 236. *Pl. Enl.* 953.

Mergus Gulo. *Scopoli,* No. 88.

Arct. Zool. ii. 257.

DUN DIVER. (FEMALE.)

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 quil 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

* "Mr. *Montagu* in his ornithological dictionary, and Dr. *Latham* in his *Synopsis,* the first supplement, and in his very curious treatise on the *Tracheæ* of birds in the fourth volume of the *Linnæan* Transactions, considers the Dun Diver as a species distinct from the Goosander. In the second supplement, that able naturalist seems to change his opinion, and informs us, "that both sexes for the first season at least, have the appearance of the Dun Diver, which the female retains throughout life, whilst the male gradually gains the beautifully white plumage he is known by." ED.

† *Belon av.* 163.

under the title of *Bieure oyseau*, and asserts, that it builds its nest on rocks and in trees like the Corvorant.

2. RED BREASTED.

Mergus serrator. M. crista dependente, pectore rufescente variegato, collari albo, rectricibus fuscis cinereo variegatis. *Lath. Ind. orn.* 829. *id. Syn.* vi. 423. *id. Sup.* ii. 337. *id. Lin. Tr.* iv. 121. *tab.* 16. *f.* 1. 2.

Anas Longirostra. *Gesner av.* 133. *Aldr. av.* iii. 113.

The Serula. *Wil. orn.* 336.

Raii Syn. av. 135.

Lesser toothed Diver. *Morton's Northampt.* 429.

L'Harle hupé. *Brisson av.* vi. 237. *Hist. d'ois.* viii. 273. *Pl. Enl.* 207.

Braun kopfiger Tilger, Taucher. *Kram.* 343.

Mergus serrator. *Gm. Lin.* 546.

Pracka. *Faun. Suec. sp.* 136.

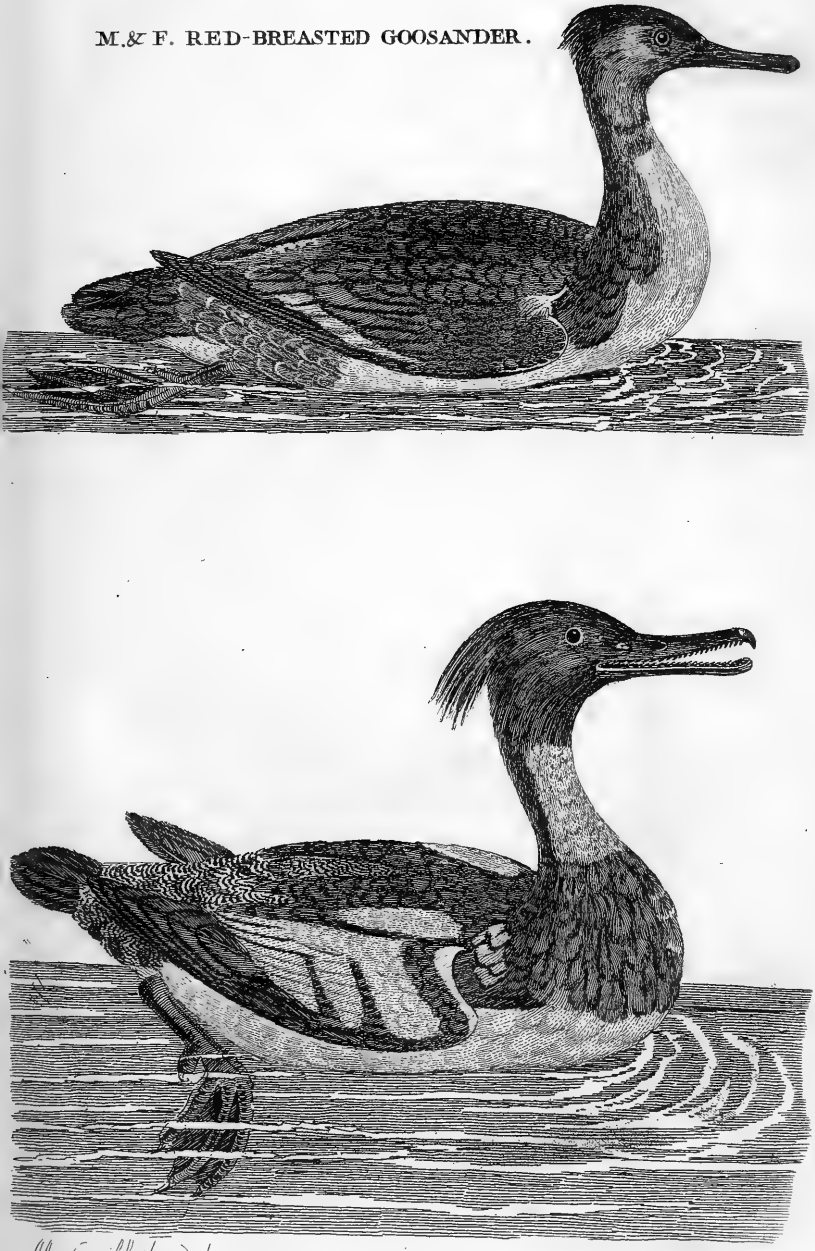
Danis Fisk-And. *Brunnich,* 96.

Br. Zool. 147. *Arct. Zool.* ii. 258.

DESCRIPTION.

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; the head and throat a fine changeable black and green; on the first is a long pendent crest of the same color; the upper part of the neck, of the breast, and the whole belly white; the lower part of the breast ferruginous, spotted with black; the upper part of the back black; near the setting on of the wings are some white feathers, edged and tipt with black; the exterior

M. & F. RED-BREASTED GOOSANDER.



M. Griffiths del

scapulars black; the interior white; the 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 ziczag lines of black; the 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 dusky; the tail short and brown; the legs orange-colored.

FEMALE.

The head and upper part of the neck of the female is of a deep rust color; the crest short; the throat white; the fore part of the neck and breast marbled with deep ash color; the belly white; the great quil feathers dusky; the lower half of the nearest secondaries black; the upper white; the rest dusky; the back, scapulars, 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*.

3. SMEW.

Mergus albellus. M. crista dependente, occipite nigro, corpore albo, dorso temporibusque nigris, alis variegatis. *(Mas.) Lath. Ind. orn.* 831. *id. Syn.* vi. 428. *id. Sup.* i. 271. *id. Sup.* ii. 338. *id. Lin. Tr.* iv. 124. *tab.* 16. *f.* 3. 4.

Mergus albellus. M. capite lævi griseo, fascia oculari nigra, macula suboculari alba. *(Femina.) Lath. Ind. orn.* 831. *id. Sup.* ii. 338.

La Piette. *Belon av.* 171.

Mergus rhenanus. *Gesner av.* 131.

Aldr. av. iii. 111.

White Nun. *Wil. orn.* 337.

Lough Diver. 338.

Raii Syn. av. 135.

Mergus albellus. *Gm. Lin.* 547.

Faun. Suec. sp. 137.

Le petit harle hupè ou le Piette. *Brisson av.* vi. 243. *Tab.* 24. *fig.* 1. & 2. *Hist. d'ois.* viii. 275. *Pl. Enl.* 449. 450.

Kram. 344.

Kreutz-Ente (Cross-Duck) *Frisch,* ii. 172.

Cimbris Hviid Side. *Brunnich,* 97.

Scopoli, No. 89.

Br. Zool. 148. *Tab.* N. 1. N. 2. *Arct. Zool.* ii. 261.

DESCRIPTION.

ITS weight is thirty-four ounces; the length eighteen inches; the breadth twenty-six. The bill is nearly two inches long, and of a lead color; 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 the 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.

FEMALE.

The female (considered in the last edition as a distinct species, under the name of the Red Headed Smew) 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 slightly crested, and of a rust 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.

GENUS XXIV. DUCK.

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

NOSTRILS small and oval.

TONGUE broad, edges near the base fringed.

FEET; middle toe the longest.

1. WILD SWAN.

Anas Cygnus. A. rostro semicylindrico atro, cera flava, corpore albo. *Lath. Ind. orn.* 833. *id. Syn.* vi. 433. *id. Sup.* i. 272. *id. Sup.* ii. 341. *id. Lin. Tr.* iv. 105. *tab.* 12.

Gesner av. 373.

Wild Swan, Elk, or Hooper. *Wil. orn.* 356.

Raii Syn. av. 136.

Edw. av. 150.

Le Cygne sauvage. *Brisson av.* vi. 292. *Tab.* 28. *Hist. d'ois.* ix. 3. *Pl. Enl.* 913.

Labod. *Scopoli,* No. 66.

Schwane. *Kram.* 338.

Anas Cygnus ferus. *Gm. Lin.* 501.

Swan. *Faun. Suec. sp.* 107.

Danis Vild Svane. *Cimbris* Snabel-Svane. *Brunnich,* 94.

Br. Zool. 149. *add. plates. Arct. Zool.* ii. 262.

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 *Lingey*, one of the *Western Isles*, and continue there till *March*, when they retire more northward to breed. A

* *Descr. West. Isles,* 71.

few continue in *Mainland*, one of the *Orknies*, and breed in the little isles of the fresh water lochs; but the multitude retires at the approach of spring. On that account, swans are there the countryman's almanack; on 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 lest frequented by mankind: accordingly we find, that the lakes and forests of the distant *Lapland* are filled during summer with myriads of water fowl, which in autumn return to us, and to other more hospitable shores.*

DESCRIPTION.

The length to the end of the toes is five 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.

* *Flora Lapponica*, 273. *Œuvres de M. de Maupertuis. Tom.* iii. p. 141, 175. According to the observation of that illustrious writer, the *Lapland* lakes are filled with the *larvæ* of the Gnat (culex pipiens. *Lin. syst.* 602.) or some other insect, that deposites its eggs in the water; which being an agreeable food to water fowl, is another cause of their resort to those deserts.

The cry of this kind is very loud, and may be heard at a great distance, from which it is sometimes called the Hooper. When they fly high, and numbers of different ages and sexes are joined together, their notes are far from disagreeable; and as some alledge, are even musical. On the contrary, the tame species is almost dumb, for it never emits the least sound beyond a hiss, which it does when provoked. Other distinctions between this and the next species, are these: the Hooper carries its neck erect, like a goose; the other bends it in swimming; and is far inferior to our tame Swan in size. This species has twelve ribs on a side; the other only eleven: this species has a windpipe with a double and great flexure, to which it owes the modulation of its voice; the windpipe of the other is strait.

These birds swarm during summer on the larger lakes and marshes of the *Tartarian* and *Siberian* deserts; but resort in vast numbers to winter about the *Caspian* and *Euxine* seas. Those of the eastern parts of *Siberia* retire beyond *Kamtschatka*, either to the coast of *America*, or the isle north of *Japan*. The *Russians* frequently tame this species; very rarely that which we call the Tame Swan.

2. TAME.*

Anas Olor. A. rostro rubro, basi tuberculo carnoso nigro, corpore albo. *Lath. Ind. orn.* 834. *id. Syn.* vi. 436. *id. Sup.* ii. 342.
Le Cygne. *Belon av.* 151.
Gesner av. 371.
Cygno, Cisano. *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. *Hist. d'ois.* ix. 1.
Anas Cygnus mansuetus. *Gm. Lin.* 501.
Swan. *Faun. Suec. sp.* 107.
Schwan. *Frisch,* ii. 152.
Danis Tam Svane. *Brunnich,* 44.
Br. Zool. 149. *add. plates. Arct. Zool.* ii. 265.

DESCRIPTION.

THIS is the largest of the *British* birds. It is distinguished externally from the wild swan; first, by its size, being much larger, weighing sometimes twenty-five pounds: secondly, by the bill, which in this is red, and the tip and sides black, and the skin between the eyes and bill 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

* This is called *tame,* because it is only found in that state in *Great Britain.* In *Russia,* and particularly in *Siberia,* it is found wild, and is in those countries very rarely kept tame; neither does it extend so far to the North. This species is unknown about *Padua,* or perhaps in other parts of *Italy.* It must therefore be from the other species which the poets formed their fable of the music of the swan.

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*.

> 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* stagnis, ripâve *Caystri*
> Innatat albus olor, pronoque 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 no where in greater quantity than on the salt water inlet of the sea, near *Abbotsbury* in *Dorsetshire*.

These birds were by the ancients consecrated to *Apollo* and the *Muses;*

—— ενθα κυκνος μελωδος
Μουσας θεραπευει. *Eurip. Iphig. in Taur. lin.* 1104.

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

—— Κυκνοι δε θεου μελπονΐες αοιδοι
Μηονιον πακτωλον εκυκλωσαντο λιποντες
Εβδομακις περι Δηλον. επηειραν δε λοχειη
Μουσαων ορνιθες, αοιδοταται πετεηνων.
Ενθεν ο παις τοσσαρδε λυρη ενεδησατο χορδας
Υστερον, οσσακι κυκνοι επ ωδινεσσιν αειραν:
Ογδοον ουκ ετ αειραν, ο δ'εκθορεν.

—— When from *Pactolus*' 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.

Upon this idea of their being peculiarly consecrated to *Apollo* and the *Muses*, (the deities of harmony) seems to have been ingrafted the notion the antients had of swans being endowed with a musical voice. Though this might be one reason for the fable, yet, to us there appears another still stronger, 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, ιδειν μεν γαρ ψυχην εφη την ποτε Ορφεως γενομενην κυκνου βιον αιρουμενην*. "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

* *De Republ. Lib.* X. *sub fine.*

to be real, which philosophers and poets only meant metaphorically.

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

> *Vare*, tuum nomen
> Cantantes sublime ferent ad sydera 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,

> Dant sonitum *rauci* per stagna loquacia cygni. *Æneid.* Lib. XI.

Thus he, as well as *Pliny*,* in fact, gave no credit to the music 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, men of all others of the most unbounded imagination. 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 κυκνοι αερσιποται,‡ "the lofty flying swans." Thus *Horace*, whilst he humbly com-

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

pares himself to a bee, contenting itself with the creeping thyme, sends his *Dircæum cygnum* into the clouds :

> Multa *Dircæum* levat aura *cygnum*,
> Tendit, *Antoni*, quoties in altos
> Nubium tractus. *Ode* II. *Lib.* IV.

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 feror
> Penna, biformis per liquidum æthera
> Vates:
> —— et album mutor in alitem. *Ode.* XX. *Lib.* II.

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

> Sublimi feriam sydera vertice.

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 continues 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

* *Platonis Phædo.* Ed. Cantab. 1683. p. 124.

that unusual melody, to the same sort of ecstasy that good men are sometimes said to enjoy at that awful hour, foreseeing the joys that are preparing for them on putting off mortality, Μαντικοι τε εισι, και προειδοτες τα εν Αδου αγαθα, αδουσι τε, και τερπονται εκεινην την ημεραν διαφεροντως η, εν τω προσθεν χρονω.* "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, though accounted for by *Plato*, seems to have been popular long before his time, for *Æschylus* alludes to it in his *Agamemnon; Clytemnestra* speaking of *Cassandra*, says,

—— η δε τοι, κυκνου δικην,
Τον υστατον μελψασα θανασιμον γοον,
Κειται.

—— She like the Swan
Expiring, dies in melody.

* *Platonis Phædo. Ed. Cantab.* 1683. p. 124.

3. GREY LAG.

Anas Anser. A. rostro semicylindrico, corpore supra cinereo subtus pallidiore, collo striato. *Lath. Ind. orn.* 841. *id. Syn.* vi. 459. *id. Sup.* i. 273. *id. Sup.* ii. 346.

L'Oye privèe, L'Oye Sauvage. *Belon av.* 156. 158.

Gesner av. 142. 158.

Aldr. av. iii. 42. 67.

Tame Goose, common wild Goose. *Wil. orn.* 358. *sp.* 1, 2.

Raii Syn. av. 136. *sp.* 3, 4.

L'Oye domestique, L'Oye Sauvage. *Brisson av.* vi. 265. *Hist. d'ois.* ix. 30. *Pl. Enl.* 985.

Oca domestica, Salvatica, Baletta. *Zinan.* 104.

Gus dikaya. *Russ. N. Com. Petr.* iv. 418.

Wild ganss, Einheimische ganss. *Kram.* 338. *Frisch,* ii. 155, 157.

Anas anser (ferus). *Gm. Lin.* 510.

Gas—will gas. *Faun. Suec. sp.* 114.

Crantz's Greenl. i. 80.

Danis Tam Gaas. *Brunnich,* 55.

Grey Lag, the Fen-Goose of *Lister. Ph. Trans. abr.* ii. 852.

Goss (*the tame*). *Scopoli,* No. 69.

Br. Zool. 150. *Arct. Zool.* ii. 268.

DESCRIPTION.

THIS is our largest species; the heaviest weigh ten pounds; the length is two feet nine inches; 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 hind part of the neck very pale, and at the base of a yellowish brown; the breast and belly whitish, clouded with grey or ash color; the back grey; the 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; the secondaries 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.

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 GOOSE.

Tame geese are of vast longevity. Mr. *Willughby* gives an example of one that attained eighty years. They are kept in vast multitudes in the fens of *Lincolnshire;* a single person has frequently 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 a 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 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 sitting. 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.

The geese are plucked five times in the year; the first plucking is at *Lady-Day,* for feathers

and quils, and the same is renewed four times more between that and *Michaelmas*, for feathers only. 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 goslins 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 prove cold, numbers of the geese die by this barbarous custom. When the flocks are numerous, 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; 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 *Hud-*

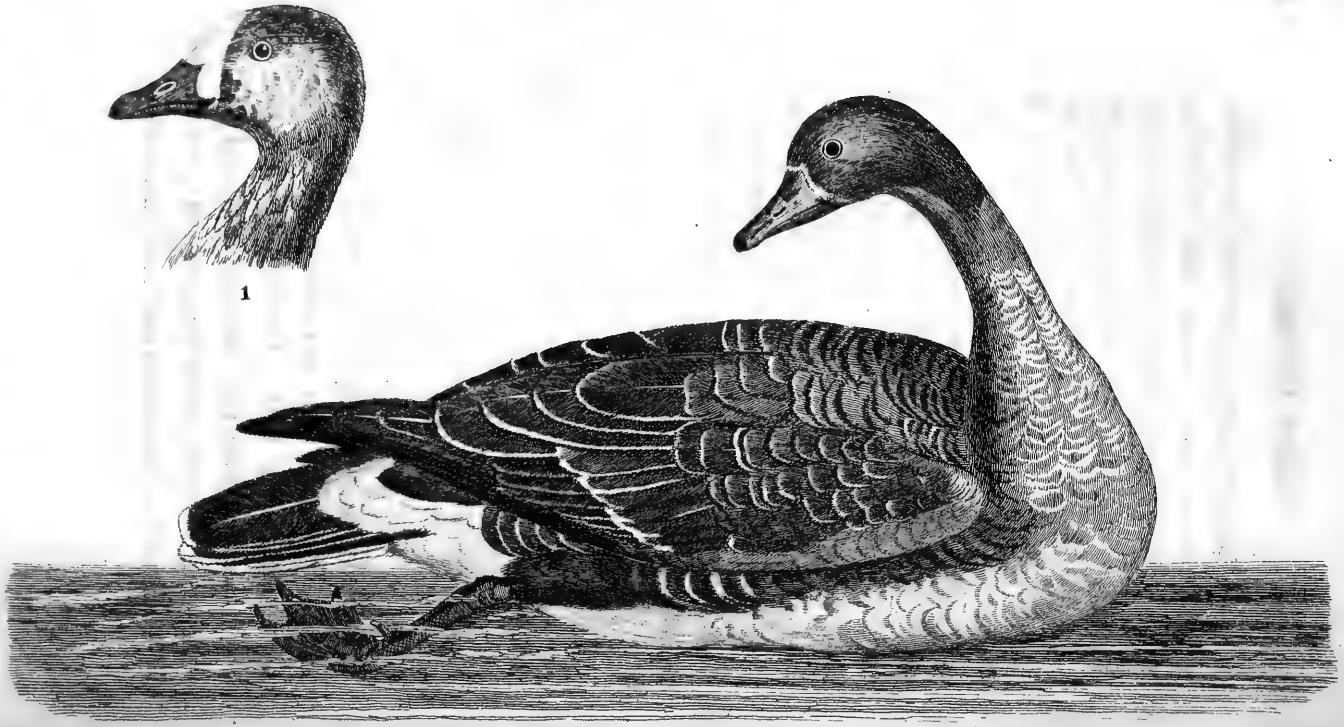
son's-Bay, *Greenland*, *Iceland* and *Norway*; our own islands west of *Scotland* breed numbers of these birds, and offer a profitable branch of trade to the poor inhabitants. *Hudson's-Bay* also furnishes a very fine feather, supposed to be of the goose kind.

The down of the swan is brought from *Dantzic*. The same place also sends us a considerable supply 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, 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 visited the Western isles, and brought some of the feathers home with a laudable design of promoting the

BEAN GOOSE.



1. WHITE FRONTED GOOSE. (P. 235.)

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* merchants could not be prevailed on to leave off their correspondence with *Dantzic*. 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 unction 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.

4. BEAN GOOSE.

Anas segetum. A. cinereo-fusca, subtus albida, alis griseis, tectricibus majoribus remigibusque secundariis apice albo. *Lath. Ind. orn.* 843. *id. Syn.* vi. 464.
Anas segetum. *Gm. Lin.* 512. *Br. Zool.* ii. 575. *Arct. Zool.* ii. 267.

DESCRIPTION.

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 preceding, is small, much compressed near the end, whitish and sometimes pale red in the middle,

and bluish at the nail and end of the lower mandible; the base (in the male) is bounded by a narrow bed of white feathers; the head and neck are cinereous brown, tinged with ferruginous; the breast and belly dirty white, clouded with cinereous; the sides and scapulars dark ash-color, edged with white or rust color; the back the same; the coverts of the tail white; the lesser coverts of the wings light grey, nearly white, the middle of a deeper grey tipt with white; the primaries and secondaries grey, tipt with black; the feet and legs saffron color; the 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*, when they retreat to the sequestred wilds of the north of *Europe*. In their migration they fly to a great height, cackling as they go, and preserve a great regularity in their motions, sometimes forming a strait line, at others assuming the shape of a wedge, which facilitates their progress; for they cut the air the readier in that form than if they flew indiscriminately.

5. WHITE FRONTED.

Anas albifrons. A. cinerea, fronte alba. *Lath. Ind. orn.* 842. *id. Syn.* vi. 463.
The laughing Goose. *Edw. av. tab.* 153.
Anas erythropus *(fœm.) Lin. syst.* 197.
Anas albifrons. *Gm. Lin.* 509.
Fiællgas. *Faun. Suec. sp.* 116.
L'Oye sauvage du nord. *Brisson av.* vi. 269.
L'Oierieuse. *Hist. d'ois.* ix. 81.
Polnische Ganss. *Kram.* 339.
Danis Vild Gaas. *Brunnich,* 53.
Br. Zool. 150. Q. 1. *Arct. Zool.* ii. 270.

DESCRIPTION.

THE weight of this kind is about five pounds and a half; the length two feet four inches; the extent four feet six. The bill is elevated, of a pale yellow color, with a white nail; the forehead white; the head and neck of the same color with those of the preceding species; the coverts of the wing, the primaries and secondaries darker; in the tail the ash color predominates; the ends of the feathers are white; in some, perhaps in young birds, of the same color with the other part of the tail; this, as in the two preceding, surrounded with a white ring. The breast and belly are of a dirty white, marked with spots of black; the legs yellow; the nails whitish. The female is inferior in size to the male, and the bed of feathers at the base of the bill, which in the other sex is of a pure white, is mottled with dusky; it also differs in having the breast and belly of an uniform light ash color.

These birds 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*. During summer, they inhabit *Hudson's* bay, the north of *Europe*, the extreme north of *Asia*, and in their migrations spread all over *Sibiria*.

Linnæus 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 *Whilk*; the other the *small Spanish Goose*, which he says is of the same color with the common goose, but no larger than the Brent goose; 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 *Cæsar*.

* The flocks were very numerous in the hard winter of 1794-5.

† It may here be remarked that the *Chinese* goose (*Arct. Zool.* ii. 297.) which breeds with the common species, the *Canada* goose (*ib.* ii. 265.) and the *Egyptian* goose (*Lath. Syn.* vi. 453.) have been introduced, and are to a certain degree domesticated in *Great Britain*. ED.

Anas erythropus. A. cinerea supra nigro alboque undulata, collo nigro, facie abdomineque albis. *Lath. Ind. orn.* 843. *id. Syn.* vi. 466.

L'Oye nonnette ou Cravant. *Belon av.* 158.

Brenta, vel Bernicla. *Gesner av.* 109. 110.

Aldr. av. iii. 73. *Phil. Tr.* ii. 853.

Bernacle, or Clakis. *Wil. orn.*

Raii Syn. av. 137.

Sibb. hist. Scot. 21.

Gerard's Herbal. 1587.

La Bernache. *Brisson av.* vi. 6. BERNACLE. 300. *Hist. d'ois.* ix. 93. *Pl. Enl.* 855.

Anas Erythropus *(mas,) Lin. Syst.* 197.

Gm. Lin. 512.

Fiællgas. *Faun. Suec. sp.* 116.

Schottische Gans. *Frisch,* ii. 189.

Anser brendinus. *Caii opusc.* 87.

Crantz's Greenl. i. 80.

Br. Zool. 150. Q. *Arct. Zool.* ii. 275.

THIS bird weighs about five pounds; the length is two feet one inch; the breadth four feet five inches. The bill is black, and only one inch three-eighths 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. DESCRIPTION.

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* 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 is 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 often adheres to the bottoms of ships, or fragments of them, and were called *Tree-geese.*† They were also thought by some writers to have been the *Chenalopeces* of *Pliny;* they should have said *Chenerotes*, for those are the birds, that naturalist said, were found in *Britain;* but as he has scarcely left us any description of them, it is difficult to say which species he intended. I should imagine it to be the Brent-goose, which is far inferior in size to the wild

* *Amœn. Acad.* vi. 585. *Barent's Voy.* 19.

† The shell here meant is the *lepas anatifera. Br. Zool.* iv. 62. *tab.* 38. *f.* 9. *Lin. syst.* 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.

goose, and very delicate food: in both respects suiting his account of the *Cheneros*.*

Anas Bernicla. A. fusca, capite collo pectoreque nigris, collari albo. *Lath. Ind. orn.* 844. *id. Syn.* vi. 467.
Les Canes de Mer. *Belon av.* 166.
Aldr. av. iii. 73.
Wil. orn. 360.
Raii Syn. av. 137.
Bernacle. *Nat. hist. Ireland.* 192.
Brenta, le Cravant. *Brisson av.* vi. 304. *tab.* 31. *Hist. d'ois.* ix. 87. *Pl. Enl.* 342.

Anas Bernicla. *Gm. Lin.* 513. 7. BRENT
Belgis Rotgans, *Calmariensibus* Prutgas. *Faun. Suec. sp.* 115.
Cimbris Ray-v. Rad-Gaas. *Norvegis* Raat-v. Raatne-Gaas. *item* Goul-v. Gagl. *Brunnich,* 52.
Baum-Gans. *Frisch,* ii. 156.
Branta Bernicla. *Scopoli,* No. 84.
Br. Zool. 151. *Add. plates.* Q. *Arct. Zool.* ii. 274.

THIS is inferior in size to the Bernacle goose. 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 above and below the tail are white; the tail and quil feathers black; the legs black. DESCRIPTION.

* Anserini generis sunt *Chenalopeces:* et quibus lautiores epulas non novit *Britannia Chenerotes,* fere ansere minores. *Lib.* x. c. 22.

These birds frequent our coasts in the winter: in *Ireland* they are called *Bernacles*, and appear there 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 a portion of the stalk, which they dive for, bite off and leave the upper part to drive on shore. They abound near *Londonderry*, *Belfast*, and *Wexford*, are taken in flight time in nets placed across the rivers, and are much esteemed for their delicacy.

These birds migrate to most remote places to lay their eggs. They are found on the little isles on the coast of *Greenland*,* and again on those off *Spitzbergen*, where they were discovered on their nests in vast numbers in *June* 21, 1596, by *Barentz*.† They appear in small flocks in *Hoy Sound*, in the *Orknies*, but do not continue there; on the contrary, they winter in flocks of two hundred in *Horra Sound*, in the *Shetlands*, and are called there *Horra* geese.

The *Rat* or *Roadgoose*, of Mr. *Willughby*, p. 361, which at times has been known to frequent the *Tees*, agrees in so many respects with this kind, that we suspect it to be a young bird not come to its full plumage: the only

* *Faun. Groenl.* No. 41.

† *Dutch* Voyages, &c. 19. *Arct. Zool.* ii. 275.

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 *Linnæus** makes them synonymous, and describes the true Bernacle as the female of the White fronted goose.

8. RED BREASTED.

Anas ruficollis. A. nigra, collo rufo, corpore subtus macula ante oculos strigaque longitudinali colli utrinque albis. *Lath. Ind. orn.* 841. *id. Syn.* vi. 455.

Anser ruficollis. *Pall. Spic.* vi. 21. *tab.* 4.
Gm. Lin. 511.
Bewick Br. Birds, ii. 289.
Red breasted Goose. *Arct. Zool.* ii. 298.

DESCRIPTION.

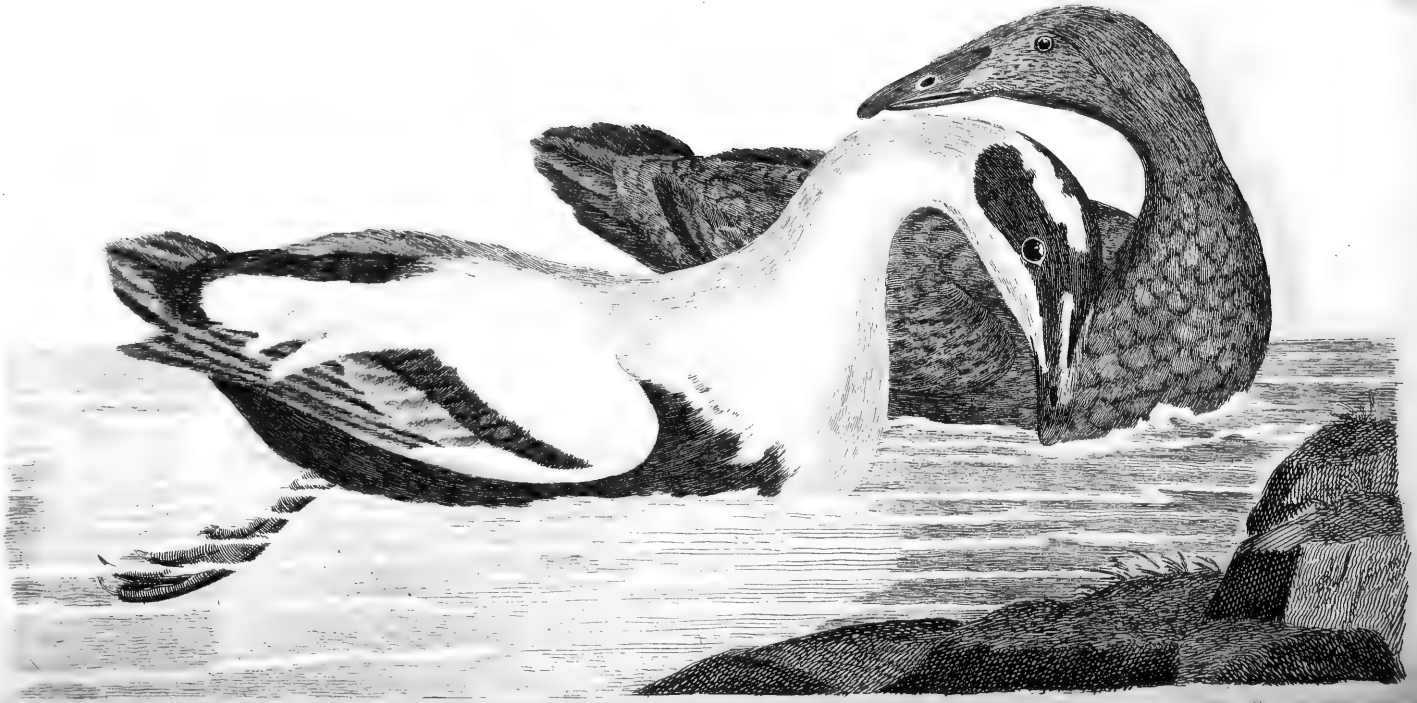
[THE length of this species is one foot ten inches; the extent three feet ten inches; the weight three pounds. The bill is short and black; between its base and the eyes is a great patch of white, bounded by black; the crown, chin, hind part of the head and neck, back, wings, and tail, are of an intense black; the

* *Faun. Suec.* 116.

sides are marked with a few white spots; the greater coverts tipt with the same color; the coverts of the tail white; the lower part and sides of the neck of a bright bay bounded by a narrow line of white; the breast and lower part of the neck divided from the belly and back by a circle of black and another of white; the legs black.

Two or three instances only are recorded of this beautiful species having been observed in *England.* It is supposed to winter in *Persia,* and is found to breed from the mouth of the *Ob,* along the coasts of the *Icy* sea, as far as the river *Lena.* Its flesh is highly esteemed and is quite free from any fishy taste. ED.

EIDER DUCK & DRAKE.



Sydt. Parkinson pinx.

9. EIDER.

Anas mollissima. A. rostro cylindrico, cera postice bifida rugosa. *Ind. orn.* 845. *id. Syn.* vi. 470. *id. Sup.* i. 274.
Wormius's Eider, or soft feathered Duck, the Cuthbert Duck. *Wil. orn.* 362.
Raii Syn. av. 141.
Great black and white Duck. *Edw. av.* 98.
Eider anas. *Sib. Scot.* 21.
The Colk. *Martin's description of the western isles.* 25.
Anser lanuginosus, l'Oye a duvet. *Brisson av.* vi. 294. *tab.* 29. *et* 30. *Hist. d'ois.* ix. 103. *Pl. Enl.* 208. 209.
Anas mollissima. *Gm. Lin.* 514.
Ada, Eider, Gudunge, Æra. *Faun. Suec. sp.* 117.
Pontop. hist. Norway. ii. 70.
Hor. hist. Icel. 65. *Debes Feroe* 137.
Egede's hist. Greenland. 92.
Mittek. *Crantz's Greenl.* i. 81.
Edder. *Brunnich,* 57. 66. *Monogr. tab.* 1. 2.
Duntur Goose. *Sib. Scot.* 21.
Br. Zool. 152. Q. *Arct. Zool.* ii. 276.

THIS useful species is found in the western isles of *Scotland*, particularly on *Oransa*, *Barra*, *Rona*, and *Heisker*, 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. The Eider duck 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 that, she will still lay, but the drakes must supply the down, as her stock is now exhausted; 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 was 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.

DESCRIPTION. This kind is double the size of the common duck: its bill is black; the feathers of the fore-

* *July* 15th. 1769.

head 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, which looks like a stain; 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 green.

FEMALE.

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 last row of the coverts of the wing, and the lesser row of quil feathers are 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.

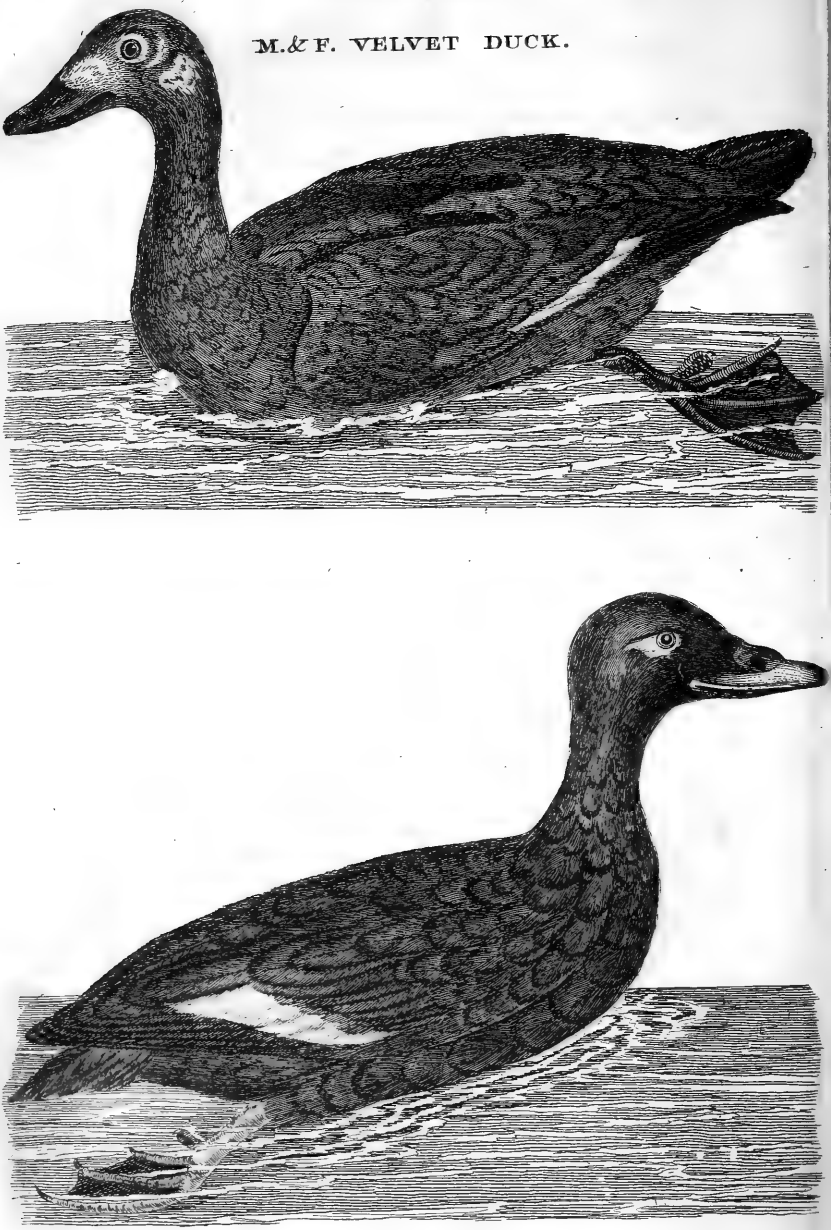
10. KING. Anas spectabilis. A. rostro basi gibbo compresso, carina pinnacea nigra, capite canescente. *Lath. Ind. orn.* 845. *id. Syn.* vi. 473.
Gm. Lin. 907.
Grey headed Duck. *Edwards,* 154.
Anas freti Hudsonis. *Brisson av.* vi. 365.
Le Canard a tete grise. *Hist. d'ois.* ix. 253.
Mus. Carlo. fasc. ii. *t.* 39 (*mas*). 40 (*femina*).
King Duck. *Arct. Zool.* ii. 277.

DESCRIPTION. [THE bill of this species of duck is red, and extends high up the forehead on each side, in form of a broad bean-shaped plate; the head and part of the back of the neck, light grey bounded by a line of black dots; the cheeks and neck as low as the grey color, pea-green; a narrow black line bounds the lower parts of the cheeks from the bar of the bill; the throat, neck, and breast, are white; the back, belly, and tail, black; the lesser coverts of the wings, and the primaries dusky brown; the secondaries black, glossed with rich purple; the coverts above them forming a great bed of white; the legs of a dirty red color. Its size nearly double that of the Mallard.

FEMALE. The female differs greatly in color, being for the most part black and brown; the belly dusky; the plate on the bill slightly eminent.*

* *Arct. Zool.* ii. 277.

M. & F. VELVET DUCK.



Inhabits *Hudson's Bay*, and in winter is found as low as *New York;* is common in *Greenland*, where its down is as useful to the natives as that of the Eider; extends from *Norway* to *Kamschatka*, and has been killed in the *Orknies*. ED. PLACE.

Anas fusca. A. nigricans, palpebra inferiore speculoque alarum albis. *Lath. Ind. orn.* 848. *id. Syn.* vi. 482. *id. Sup.* i. 274. *id. Sup.* ii. 350. *id. Lin. Tr.* iv. 119. *tab.* 15. *fig.* 3—7.
Anas nigra, rostro nigro rubro et luteo. *Aldr. av.* iii. 97.
The black Duck. *Wil. orn.* 363.
Raii Syn. av. 141.
Dale's hist. Harwich, 405.
Turpan. *N. Com. Petr.* iv. 420.
La grande Macreuse. *Brisson av.* vi. 423. *Hist. d'ois.* ix. 242. *Pl. Enl.* 956.
Anas fusca. *Gm. Lin.* 507.
Faun. Suec. sp. 109.
Gunner. Tab. v.
Incolis Christiansoe Svœrte. *Norvegis* Soe-Orre, Hav-Orre v. Sav-Orre, quibusdam Sorte. *Brunnich*, 48.
Nordische schwartze Ente. *Frisch*, ii. 165. Supl.
Scopoli, No. 68.
Br. Zool. 152. *Add. Plates. Arct. Zool.* ii. 278.

11. VELVET.

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; 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 DESCRIPTION.

of velvet; the legs and feet are red, the webs black.

FEMALE. 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 *Linnæus* gives the male.*

12. SCOTER.

Anas nigra. A. rostro basi gibbo, corpore toto nigro. *Lath. Ind. orn.* 848. *id. Syn.* vi. 480.

Black Diver, or Scoter. *Wil. orn.* 366.

Raii Syn. av. 141.

La Macreuse. *Ray's Letters,* 161.

Dale's hist. Harwich, 405.

La Macreuse. *Brisson av.* vi. 420. *Tab.* 38. *fig.* 2. *Hist. d'ois.* ix. 234. *Pl. Enl.* 978.

Anas nigra. *Gm. Lin.* 508.

Faun. Suec. sp. 110.

Br. Zool. 153. *Add. Plates. Arct. Zool.* ii. 280.

DESCRIPTION. THIS 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

* *Faun. Suec. last edit.* 39.

whole plumage is black, that of the head and neck glossed over with purple; the legs are black.

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

13. TUFTED.

Anas Fuligula. A. crista dependente, corpore nigro, abdomine speculoque alarum albis. *Lath. Ind. orn.* 869. *id. Syn.* vi. 540. *id. Sup.* ii. 355. *id. Lin. Tr.* iv. 117.
Un petit Plongeon espece de Canard. *Belon av.* 175.
Strauss endt. *Gesner av.* 107.
Querquedula Cristata. *Aldr. av.* iii. 91.
Wil. orn. 365.
Raii Syn. av. 142.
Le petit Morillon. *Brisson av.* vi. 411. *Tab.* 27. *fig.* 1. *Hist. d'ois.* ix. 231. *Pl. Enl.* 1001.
Kram. 341.
Anas fuligula. *Gm. Lin.* 543.
Wigge. *Faun. Suec. sp.* 132.
Norvegis Trol-And. *Brunnich*, 90.
Reiger-Ente, Strauss-Ente. *Frisch*, ii. 171.
Scopoli, No. 78.
Br. Zool. 153. *Arct. Zool.* ii. 300.

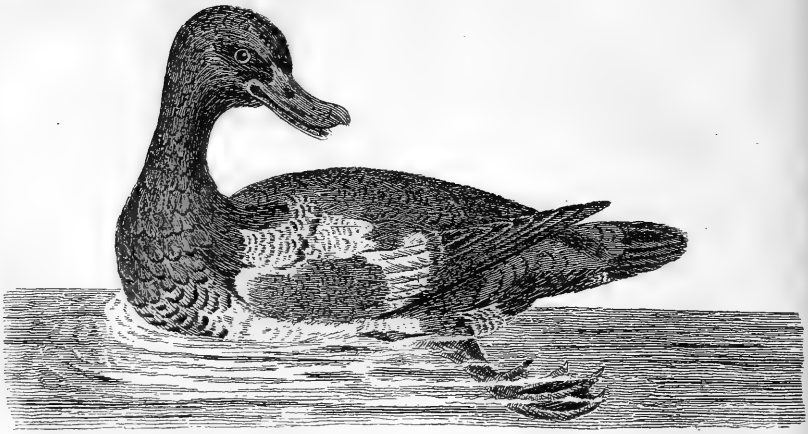
DESCRIPTION.

THIS 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

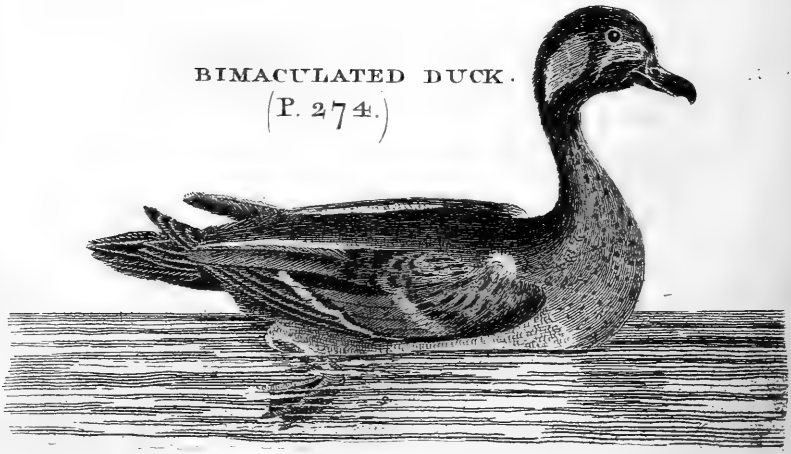
coverts of the wings are of a pure white; the quil feathers dusky on their exterior sides and ends, part of their interior webs are white; the secondaries white tipt with black; the rest of the plumage is black, varied about the head with purple; the tail is very short, and consists of fourteen feathers; the legs are 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 are of a pale yellow; 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.*

SCAUP DUCK.



BIMACULATED DUCK.
(P. 274.)



Anas Marila. A. nigra, humeris cinereo-undulatis, abdomine speculoque alari albis. (*Mas.*) *Lath. Ind. orn.* 853. *id. Syn.* vi. 500. *id. Sup.* ii. 351. *id. Lin. Tr.* iv. 115. *tab.* 14. *fig.* 3. 4.

Anas Marila. A. fusco-ferruginea, speculo alarum abdomine capitisque annulo ad rostri basin albis. (*Femina.*) *Lath. Ind. orn.* 853.

Bollenten. *Gesner av.* 120.

Scaup Duck. *Wil. orn.* 365. *Raii Syn. av.* 142.

Anas marila. *Gm. Lin.* 509. *Faun. Suec. sp.* 111.

Le petit Morillon rayè. *Brisson av.* vi. 416.

Le Millouinan. *Pl. Enl.* 1002.?

Danis Polsk Edelmand. *Brunnich,* 50, 51.

Schwartze wilde Ente. *Frisch,* ii. 193.

Br. Zool. 153. *add. plates. Arct. Zool.* ii. 290.

14. SCAUP.

DESCRIPTION.

THIS we described from some stuft 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 dusky; the lesser white, tipt with black; the belly white; the tail and feathers,

* When this happens, we have recourse to Mr. *Willughby* for the weight and measurements, whenever he hath noted them.

† Mr. *Montagu* says, its length is about twenty-one inches, and its weight occasionally thirty-five ounces. ED.

both above and below, black; the thighs barred with dusky and white strokes; the legs dusky.

FEMALE. [The head of the female is of a dark brown color; at the base of the bill is a band of white nearly half an inch broad, which passes round the forehead, cheeks, and throat; the breast is dark brown; the back and scapulars light grey, transversely waved with irregular dusky lines; the belly dirty white; the tail short, dark brown, and consists of fourteen feathers; the greater quil feathers the same; the secondaries white tipped with brown; the legs dusky blue; the webs black.]

Mr. *Willughby* acquaints us, that these birds take their name from feeding on *scaup*, or broken shell fish: they differ infinitely in colors; so that in a flock of forty or fifty there are not two alike.*

* A drawing of the female of this species was communicated to Mr. *Pennant* by the reverend *Hugh Davies*, about the year 1792. The same is figured in the *Museum Carlsonianum*, under the name of the *Anas frœnata*, and has been more recently given to the public in Mr. *Sowerby's British Miscellany*, pl. 62. under the denomination of the White faced Duck; he received his specimen from *Yorkshire*, and considers it as a distinct species. Dr. *Latham*, in his second supplement, p. 351, however clearly proves that it is the female Scaup. ED.

15. GOLDEN EYE.

Anas Clangula. A. nigro alboque varia, capite tumido violaceo, sinu oris macula alba. *Lath. Ind. orn.* 867. *id. Syn.* vi. 535. *id. Sup.* ii. 355. *id. Lin. Tr.* iv. *tab.* 15. *fig.* 1. 2.
Clangula. *Gesner. av.* 119.
Aldr. av. iii. 94.
Wil. orn. 368.
Raii Syn. av. 142.
Le Garrot. *Brisson av.* vi. 416. *Tab.* 37. *fig.* 2. *Hist. d'ois.* ix. 222. *Pl. Enl.* 976.
Schwartzkopfige Enten-Taucher. *Frisch,* ii. 183, 184.
Eiss Ente. *Kram.* 341.
Anas clangula. *Gm. Lin.* 523.
Knippa, Dopping. *Faun. Suec. sp.* 122.
Norvegis Ring-Oye, Hviin-And v. Quiin-And, Lund-And. *Incolis Christiansoe,* Bruus-Kop v. Blanke-Kniv. *Br.* 70, 71.
Scopoli, No. 71.
Br. Zool. 154. *add. plates. Arct. Zool.* ii. 281.

DESCRIPTION.

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.

FEMALE. The head of the female* is of a deep brown, tinged with red; the neck grey; the breast and belly white; the coverts and scapulars dusky and ash colored; the 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.

(A.) MORILLON.

Anas Glaucion. A. corpore nigricante, pectore nebuloso, speculo alarum albo lineari. *Lath. Ind. orn.* 868. *id. Syn.* vi. 537.
Le Morillon. *Belon*, 165.
Wil. orn. 368.
Raii Syn. av. 144.
Brisson av. vi. 406. *tab.* 36. *f.* 1. 2.
Anas glaucion. *Gm. Lin.* 201.
Scopoli, No. 72.
Grey headed Duck. *Br. Zool.* Ed. 2d. ii. 471.
Morillon. *Arct. Zool.* ii. 300.

DESCRIPTION. THIS is rather less than the Golden eye duck. The bill is 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 smaller red headed Duck. *Wil. orn.* 369. *Raii Syn. av.* 143.

the primaries black; the secondaries white; the breast and belly white; the tail dusky; the sides above the thighs black; the legs yellow.

This was bought in the *London* market. I am doubtful of the sex.

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

* Most modern naturalists have concurred in considering the Morillon merely as the young of the Golden Eye, and the fact is proved incontrovertibly by Dr. *Latham*, in his admirable treatise on the *Tracheæ* of birds in the fourth volume of the *Linnæan* Transactions, p. 119. It appears, however, that the same name is given occasionally to the young of the Scaup, of the Tufted Duck, and probably of other species, in the immature state of their plumage. ED.

16. SHIELDRAKE.

Anas Tadorna. A. rostro simo, fronte compressa, capite nigro-virescente, corpore albo variegato. *Lath. Ind. orn.* 854. *id. Syn.* vi. 504. *id. Sup.* i. 275. *id. Sup.* ii. 353. *id. Lin. Tr.* iv. 117. *tab.* 15. *fig.* 8. 9.

La Tadorne. *Belon av.* 172.

Anas maritima. *Gesner av.* 803, 804.

Vulpanser Tadorne. *Aldr. av.* iii. 71, 97.

Shieldrake, or burrough Duck. *Wil. orn.* 363.

Raii Syn. av. 140.

Anas Tadorna. *Gm. Lin.* 506.

Jugas. *Faun. Suec. sp.* 113.

La Tadorne. *Brisson av.* vi. 344. *tab.* 33. *fig.* 2. *Hist. d'ois.* ix. 205. *Pl. Enl.* 53.

Bergander *Turneri.* Chenalopex *Plinii.*

Danis Brand-Gaas, Grav-Gaas. *Norvegis* Ring-Gaas, Fager-Gaas, Ur Gaas, Rodbelte. *Feroensibus* Hav-Simmer. *Islandis* Avekong. *Br.* 47.

Kracht-Ente. *Frisch,* ii. 166.

Br. Zool. 154. *Tab.* Q. *Arct. Zool.* ii. 299.

DESCRIPTION.

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 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 rabbet 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 *slygoose*, 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.

17. MALLARD.

Anas Boschas. A. cinerea, rectricibus intermediis *(maris)* recurvatis, rostro recto torque alba. *Lath. Ind. orn.* 850. *id. Syn.* vi. 489. *id. Sup.* ii. 351.

Les Canards et les Canes. *Belon av.* 160.

Anas domestica. *Gesner av.* 113, 96.

Anas fera torquata minor. *Aldr. av.* iii. 83, 85.

Common wild Duck and Mallard. Common tame Duck. *Wil. orn.* 371, 380.

Raii Syn. av. 145, 150.

Le Canard domestique, le Canard sauvage *Brisson av.* vi. 308, 318. *Hist. d'ois.* ix. 115. *Pl. Enl.* 776, 777.

Einheimische ent. Stock ent. *Kram.* 341.

Anitra, Anitra salvatica, Cisone. *Zinan.* 105, 106.

Anas boschas. Anas domestica. *Gm. Lin.* 538.

Gras-and, Blanacke. *Faun. Suec. sp.* 131.

Fera, *Norvegis* Blaaehals v. Græs-And, aliis Stok-And. *Danis* Vild-And. *Brunnich,* 87.

Domestica, *Danis* Tam-And. *ibid.* 88.

Wilde Ente. *Frisch,* ii. 158. *fœmina.* 159.

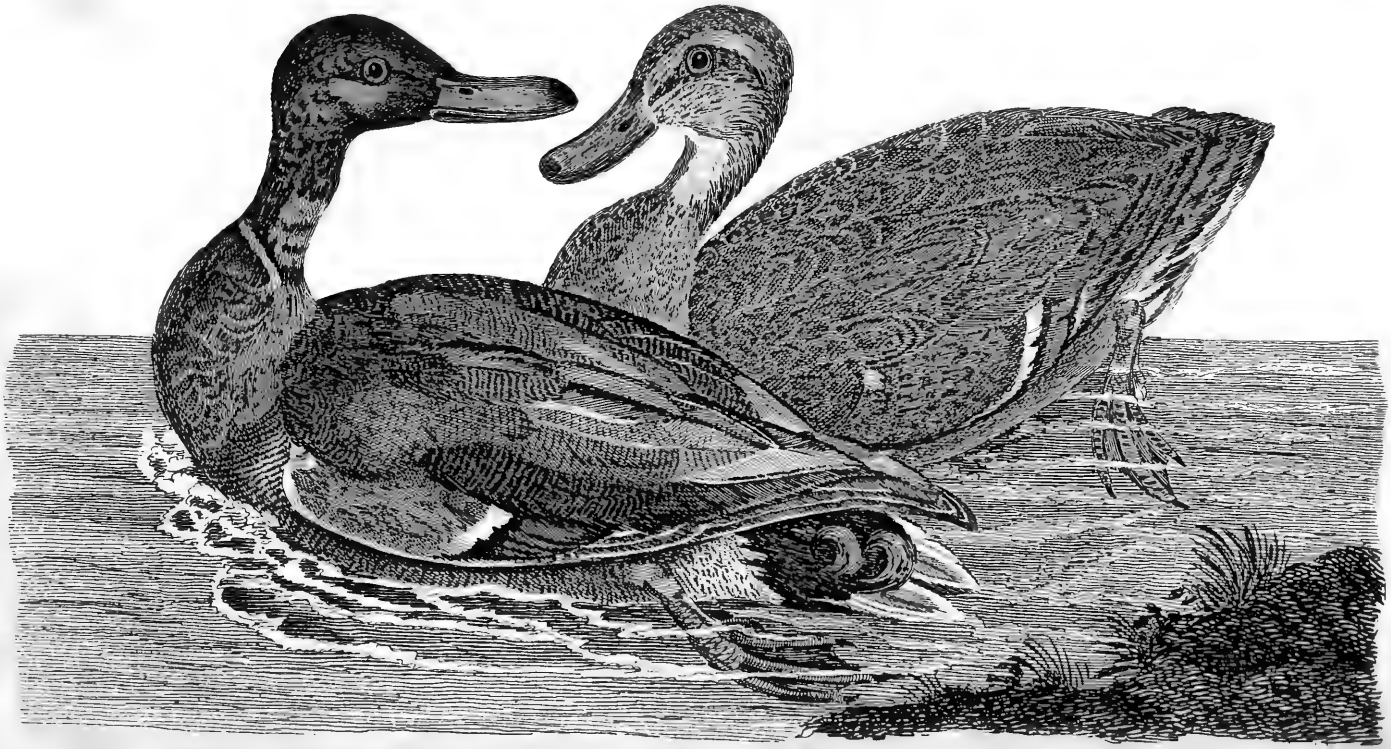
Ratza. *Scopoli,* No. 77.

Br. Zool. 155. *Arct. Zool.* ii. 287.

DESCRIPTION.

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

WILD DUCKS.



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 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.

TAME DUCKS.

The common tame species of ducks take their origin from these, and may be traced to them 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 clame 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 frighten the wild fowl from a quiet haunt, where they mean to sleep (during the day-time) 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 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 skreens in small quantities, to bring them forwards into the pipes, and to allure the wild fowl to follow, as this seed is light enough 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 sagacious nostrils. Along each pipe, are placed, at certain intervals, skreens 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 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 skreens (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, during this time, by direction of the decoy-man, plays among the skreens of

reeds, nearer and nearer to the purse-net; till at last, perhaps, the decoy-man appears behind a skreen, 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 period.

The *Lincolnshire* decoys are commonly set at a 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 are 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 consequently sell 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.

18. SHOVELER.

Anas clypeata. A. rostro extremo dilatato rotundato, ungue incurvo. *Lath. Ind. orn.* 856. *id. Syn.* vi. 509. *id. Sup.* ii. 353.

Anas latirostra (ein Breitschnabel.) *Gesner av.* 120.

Aldr. av. iii. 94.

Wil. orn. 370.

Raii Syn. av. 143.

Phasianus marinus. *Charlton ex.* 105.

Blue-wing Shoveler *(fœm.) Cat. Carol.* i. 96.

Le Souchet. *Brisson av.* vi. 329. *Tab.* 32. *fig.* 1. *Hist. d'ois.* ix. 191. *Pl. Enl.* 971.

Schauffl - ente, Loffl - ente. *Kram.* 342.

Anas clypeata. *Gm. Lin.* 518. *Faun. Suec. sp.* 119.

Kertlutock * *Krantz's Greenl.* i. 80.

Danis Krop-And. *Norvegis* Stok-And. *Cimbris* Leffel-And. *Brunnich,* 67. 68.

Schield - Ente, Loeffel - Ente. *Frisch,* ii. 161, 162. *fœm.* 163.

Scopoli, No. 70.

Br. Zool. 155. *Tab.* Q. 4. *Arct. Zool.* ii. 280.

DESCRIPTION.

THIS weighs twenty-two ounces: its length is 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 laminæ, 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

* *i. e.* Broad bill.

wings of a fine sky blue; those next the quil feathers tipt with white; the greater quil 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, 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. FEMALE.

Anas rubens. A. fusca, jugulo et pectore rubro-fuscis, speculo alarum purpureo albo marginato, cauda brevi alba. *Lath. Ind. orn.* 857. *id. Syn.* vi. 512. *Gm. Lin.* 519. 19. RED BREASTED SHOVELER.

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, serrated at the sides, and entirely of a brownish yellow color; the head large; the eyes small; the irides yellow; the breast and throat of a reddish brown, the latter paler, but both quite free from any spots; the DESCRIPTION.

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.

20. PINTAIL. Anas acuta. A. cauda acuminata elongata subtus nigra, occipite utrinque linea alba, dorso cinereo undulato. *Lath. Ind. orn.* 864. *id. Syn.* vi. 526. *id. Sup.* ii. 354.
Anas caudacuta (ein spitzschwantz) *Gesner av.* 121.
Aldr. av. iii. 97.
Sea Pheasant, or Cracker. *Wil. orn.* 376.
Le Canard a longue queue. *Brisson av.* vi. 369. *tab.* 34. *Hist. d'ois.* ix. 199. *Pl. Enl.* 959.
Schwalbenscheif. *Kram.* 340.
Raii Syn. av. 147.
Anas acuta. *Gm. Lin.* 528.
Aler, Ahlvogel. *Faun. Suec. sp.* 126.
Fasan-Ente. *Frisch,* ii. 160.
Brunnich in append.
Aglek. *Crantz's Greenl.* i. 80.
Scopoli, No. 73.
Br. Zool. 156. *Tab.* Q. 8. *Arct. Zool.* ii. 291.

DESCRIPTION. THE form of this species is slender, and the neck long: its weight twenty-four ounces; its length twenty-eight inches; its breadth three feet 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 *Legacy*, 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.

FEMALE.

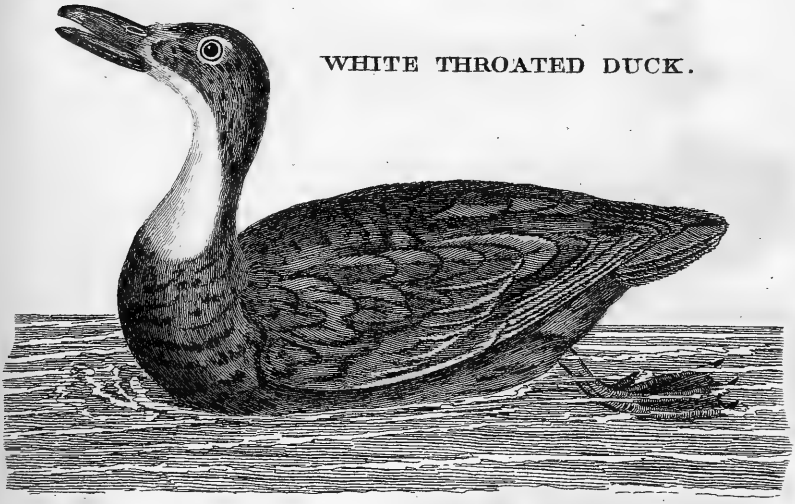
21. LONG TAILED.

Anas glacialis. A. cauda acuminata elongata, corpore nigro subtus albo. (*Mas adultus.*) *Lath. Ind. orn.* 864. *id. Syn.* vi. 528.
Wil. orn. 364.
Raii Syn. av. 145.
Long tailed Duck. *Edw. av.* 280.
Le Canard a longue queue d'Islande. *Brisson av.* vi. 379. *Hist. d'ois.* ix. 202. *Pl. Enl.* 954.
Anas glacialis. *Gm. Lin.* 528.
Norvegis Ungle, Angeltaske v. Troefoerer. *Feroensibus* Oedel. *Islandis* Ha-Ella v. Ha-Old. *Incolis Christiansoe* Gadissen, Klaeshahn Dykker. *Brunnich,* 75, 76.
Scopoli, No. 74.
Br. Zool. 156. *Tab.* Q. 7. *Arct. Zool.* ii. 291.

DESCRIPTION.

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 nearly four inches longer than the others, which are white; the legs dusky. These birds

LONG TAILED DUCK.



WHITE THROATED DUCK.

breed in the most northern parts of the world, and only visit our coasts in the severest winters.

22. HARLEQUIN.

Anas histrionica. A. fusca albo cæruleoque varia, auribus, temporibus linea gemina, collari fasciaque pectorali albis. *(Mas.) Lath. Ind. orn.* 849. *id. Syn.* vi. 485.
Gm. Lin. 534.
Le Canard a collier. *Brisson av.* vi. 362. *Hist. d'ois.* ix. 250. *Pl. Enl.* 798.
Dusky and spotted duck. *Edw.* 99.
Harlequin Duck. *Arct. Zool.* ii. 283.

Anas histrionica. A. grisea, auribus albis remigibus primoribus nigricantibus. *(Fœm.) Lath. Ind. orn.* 849. *id. Syn.* vi. 485.
Edw. 157. *Catesby*, i. 98.
Le Canard brun. *Hist. d'ois.* ix. 252. *Pl. Enl.* 1007.
La Sarcelle brune et blanche. *Hist. d'ois.* ix. 287. *Pl. Enl.* 799.
Anas minuta. *Gm. Lin.* 534.
Anas torquata. *ib.* 514.
Sowerby. Br. Misc. Tab. 6.

DESCRIPTION.

[THE Harlequin Duck was first announced as a *British* species by Mr. *Montagu* in his ornithological dictionary, and is figured by Mr. *Sowerby*, to whom a pair had been sent from *Scotland* by Lord *Seaforth*, in the second number of his *Miscellany*.

The bill is small and black; between the base of it and the eyes is a great white patch; the crown of the head is black, bounded by a light rusty line; the cheeks, chin, and neck are black; beneath each eye is a white

spot, below that a short line of white, pointing down the neck; the bottom of the neck on each side is bounded by a transverse line of white, beneath which is another of black; the breast, back, scapulars, and part of the belly are of a pleasant slate color; the breast on each side marked with semilunar stripes of white, beginning at the shoulders, and bounded on each side with a stripe of black; the wings and tail deep ash color; the rump, above and below, of a full black; the legs black. The female is almost wholly dusky, and is marked at the base of the bill with a white spot, and another behind the ear. The size is that of a Wigeon.

FEMALE.

Inhabits from *Carolina* to *Greenland*, and from the lake *Baikal* to *Kamschatka*. In *Greenland*, it frequents, during summer, the shady districts, and the most rapid rivers; in winter seeks the open sea. It feeds on shell-fish, spawn, and the *larvæ* of gnats. Swims and dives admirably, and is very clamorous.* ED.

* *Arct. Zool.* ii. 284, where the assertion that it "flies high and swiftly" should be expunged.

Anas ferina. A. cinereo-undulato, capite brunneo, fascia pectorali crisso uropygioque nigro. *Lath. Ind. orn.* 862. *id. Syn.* vi. 523. *id. Sup.* ii. 354.

La Cane a 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. 23. POCHARD.

Raii Syn. av. 143.

Anas ferina. *Gm. Lin.* 530.

Faun. Suec. sp. 127.

Penelope, le Millouin. *Brisson av.* vi. 384. *tab.* 35. *fig.* 1. *Hist. d'ois.* ix. 216. *Pl. Enl.* 303.

Danis Brun-Nakke. *Norvegis* Rod-Nakke. *Brunnich,* 80.

Br. Zool. 156. *Tab.* Q. 5. *Arct. Zool.* ii. 284.

ITS 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 of a bright bay; 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, 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. DESCRIPTION.

The head of the female is of a pale reddish brown; the breast is rather of a deeper color; FEMALE.

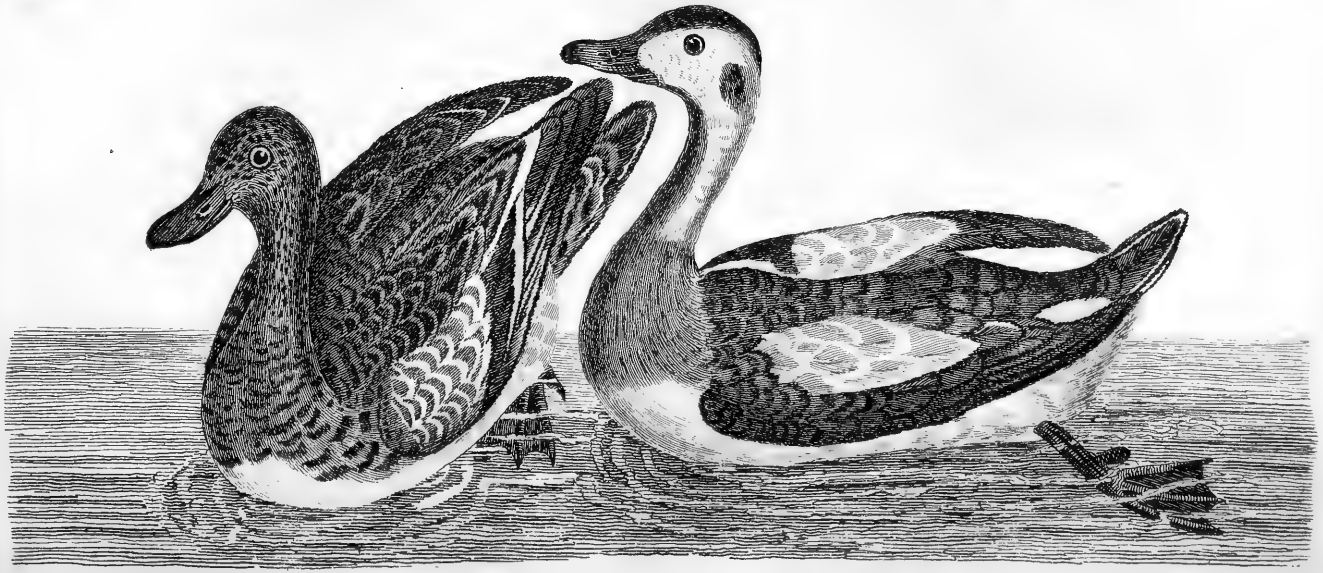
the coverts of the wings a plain ash color; the back marked like that of the male; the belly ash colored. These birds frequent fresh water as well as the sea, and being very delicate eating, are much sought for in the *London* markets, where they are known by the name of *Dun birds.*

24. RED. Anas ferruginea. A. fusco-rufa, abdomine albo, rostro dilatato pedibusque pallide cæruleis. *Lath. Ind. orn.* 866. *id. Syn.* vi. 526.

Anas rufa rostro pedibusque cinereis. *Faun. Suec. sp.* 47. *Arct. Zool.* ii. 304.

DESCRIPTION. THE description of this species was sent to us by Mr. *Bolton.* The weight was twenty ounces. The bill long and flatted, rounded a little at the base, serrated 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 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 *Linnæus,* who took his



RED DUCK. P. 272. LONG TAILED DUCK, P. 268.
a Variety.

description from *Rudbeck's* paintings; and adds, that it is found, though rarely, in the *Swedish* rivers.

Anas Penelope. A. cauda acutiuscula, crisso nigro, capite brunneo, fronte alba, dorso cinereo undulato. *Lath. Ind. orn.* 860. *id. Syn.* vi. 518. *id. Sup.* ii. 354.
Anas fistularis (ein Pfeifente). *Gesner av.* 121.
Penelope. *Aldr. av.* iii. 92.
Wigeon, or Whewer. *Wil. orn.* 375.
Raii Syn. av. 146.

Anas penelope. *Gm. Lin.* 527. 25. WIGEON.
Wriand. *Faun. Suec. sp.* 124.
Anas fistularis, le Canard siffleur. *Brisson av.* vi. 391. *tab.* 35. *fig.* 2. *Hist. d'ois.* ix. 169. *Pl. Enl.* 825.
Eissent mit weisser platten. *Kram.* 342.
Danis Bles-And. *Brunnich,* 72.
Br. Zool. 157. *add. plates. Arct. Zool.* ii. 302.

THE wigeon weighs near twenty-three ounces: the length is twenty inches; the breadth two feet three. The bill is lead colored, the end of it black; the head, and upper part of the neck, are of a bright light bay; the forehead paler, in some birds 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 specimens the coverts of the wings are almost wholly white; in others of a pale brown, DESCRIPTION.

edged with white; the greater quil 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 quil feathers white; the belly white.

FEMALE.

26. BIMACULATED. Anas glocitans. A. subcristata fusca nigro undata, capite viridi, macula ante poneque oculos ferruginea, pectore maculis nigris, speculo alarum viridi albo marginato. *Lath. Ind. orn.* 862. *id. Syn.* vi. 521.

DESCRIPTION. THE length is twenty inches; the extent twenty-five and a half. The bill is a deep lead color; the nail black; the crown of the head brown changeable with green, ending in a streak of brown at the hind part, with a small crest. Between the bill and the eye, and behind each ear is a ferruginous spot; the first round, the last oblong and large; the throat is of a fine deep purple; the rest of the head of a bright green, continued in streaks down the neck; the breast a light ferruginous brown, spotted with

black; the hind part of the neck, and back, dark brown waved with black; the coverts of the wings ash colored; the lower coverts streaked with rust color; the scapulars cinereous; the quil feathers brownish cinereous; the secondaries of a fine green, ending in a shade of black, and edged with white; the coverts of the tail a deep changeable green; the tail consists of twelve feathers, the two middlemost black; the others brown edged with white; the belly is dusky, finely granulated; the legs small, and yellow; the webs dusky.

Taken in a decoy in 1771, and commmunicated to me by *Edward Poore*, Esq.

27. GADWALL.

Anas strepera. A. speculo alarum rufo nigro albo. *Lath. Ind. orn.* 859. *id. Syn.* vi. 515. *id. Sup.* ii. 353.
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. *Hist. d'ois.* ix. 187. *Pl. Enl.* 958.
Anas strepera. *Gm. Lin.* 520.
Faun. Suec. sp. 121.
Cimbris Knarre-Gaas. *Brunnich*, 91.
Grave mittel-ente. *Frisch*, ii. 168.
Br. Zool. 157. *Tab.* Q. 3.
Arct. Zool. ii. 303.

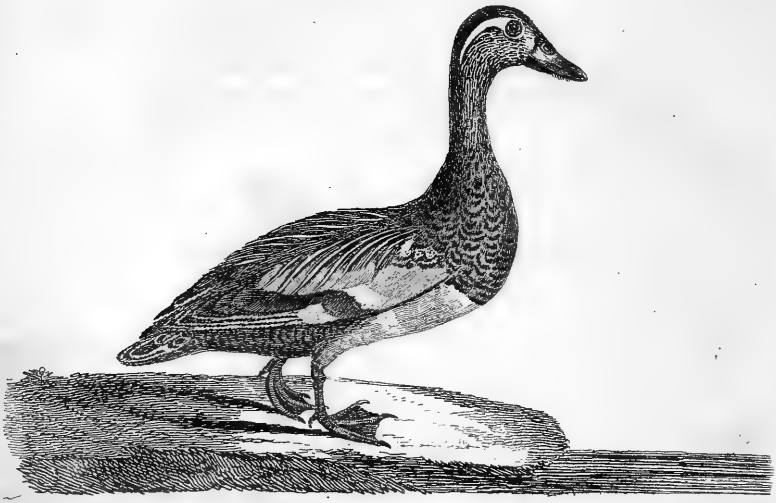
DESCRIPTION.

THIS species is rather inferior in size to the wigeon. The bill is two inches long, black,

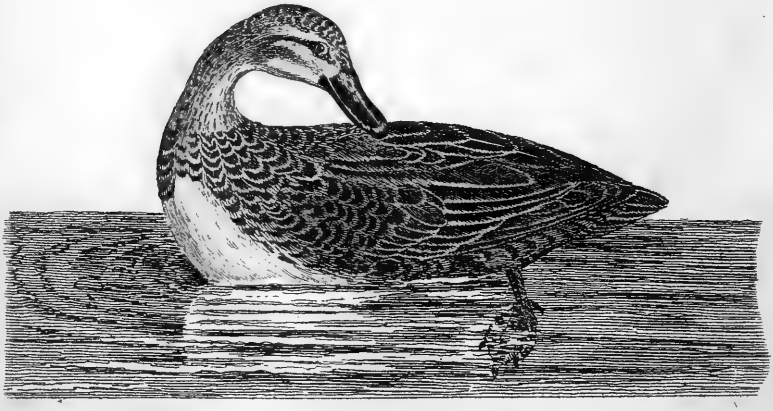
and flat; the head, and upper part of the neck, are of a reddish brown, spotted with black; the lower part, the breast, the upper part of the back, and scapulars, are beautifully marked with black and white lines; the belly is of a dirty white; the rump above and below is black; the tail ash colored, edged with white; the coverts on the ridge of the wing are of a pale reddish brown; those beneath are of a 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.

FEMALE.

GARGANEY.



FEMALE GARGANEY.



28. GARGANEY.

Anas Querquedula. A. macula alarum viridi, linea alba supra oculos. *Lath. Ind. orn.* 872. *id. Syn.* vi. 550. *id. Sup.* ii. 360.
La Sarcelle. *Belon av.* 175.
Querquedula varia. *Gesner av.* 107.
Scavolo, Cercevolo, Garganello. *Aldr. av.* iii. 89, 90.
Wil. orn. 377.
Querquedula prima Aldr. *Raii Syn. av.* 148.*
La Sarcelle. *Brisson av.* vi. 427. *tab.* 39. *Hist. d'ois.* ix. 260. *Pl. Enl.* 946.
Krickantl. *Kram.* 343.
Anas Querquedula. *Gm. Lin.* 531.
Faun. Suec. sp. 128.
Kriech-Ente. *Frisch,* ii. 176.
Norvegis Krek-And. *Quibusd.*
Saur-And. *Brunnich,* 81.
Scopoli, No. 75.
Br. Zool. 158. *Tab.* Q. 9.
Arct. Zool. ii. 304.

DESCRIPTION.

THE length of this species is seventeen inches; the extent twenty-eight. The bill is 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 and the upper part of the neck are of a pale purple, marked with minute ob-

* Mr. *Ray,* in his *Syn. av.* 147. describes a duck under the name of *Phaseas*; in *Yorkshire* it is called the widgeon: he says, the head and neck are brown, spotted with triangular black marks: the body, wings, and tail, dusky, edged with a paler color: on 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.

long 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 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.

FEMALE. The female is less than the male; the crown of the head is black; the edges of the feathers rust color; near the bottom of the upper mandible is a white spot; between the bill and the eye a yellowish spot; beyond the eye a line of white; beneath that a dusky line, and under that a dirty white one; the chin and throat are white; the hind part of the neck, brown; the fore part streaked with brown and white; the breast spotted with black and rust color edged with white; the belly white; the lesser coverts of the wings a brownish ash-color; the exterior sides of the greater coverts a fine grey; those which lie over the secondaries are tipt with white; the quil feathers are dusky; the secondaries tipt with white also edged on their outward sides; the tail consists of fourteen fea-

thers edged on their exterior sides and tipt with white.

In many places these birds are called the *Summer Teal.*

29. TEAL.

Anas Crecca. A. speculo alarum viridi, linea alba supra infraque oculos. *Lath. Ind. orn.* 872. *id. Syn.* vi. 551. *id. Sup.* i. 276. *id. Sup.* ii. 360.
Querquedula. *Gesner av.* 106.
Garganei. *Aldr. av.* iii. 90.
Wil. orn. 377.
Raii Syn. av. 147.
La petite Sarcelle. *Brisson av.* vi. 436. *tab.* 40. *fig.* 1. *Hist. d'ois.* ix. 265. *Pl. Enl.* 947.
Rothantl, Pfeiffantl. *Kram.* 343.
Spiegel-Entlein. *Frisch.* ii. 174.
Anas Crecca. *Gm. Lin.* 532.
Arta, Kræcka. *Faun. Suec. sp.* 129.
Cimbris Atteling-And. *Norvegis* Hestelort-And. *Danis* Communiter Krik - And. *Brunnich,* 82, 83.
Br. Zool. 158. *add. plates. Arct. Zool.* ii. 305.

DESCRIPTION.

THE male teal weighs about twelve ounces: the female, nine; the length is fourteen inches; the breadth twenty-three. The bill is 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 black; and has a green spot on the wing like the male.

FEMALE.

SUMMER TEAL.

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. *Linnæus** 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 *Linnæus*, was no other than the female of our teal.

* *Faun. Suec. sp.* 130.

† This error is continued in *Gmelin's* edition of *Linnæus*. ED.

GENUS XXV. CORVORANT.*

BILL strong, strait; and 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.

1. COMMON.

Pelecanus Carbo. P. cauda rotundata, corpore nigro, capite subcristato. *Lath. Ind. orn.* 886. *id. Syn.* vi. 593. *id. Sup.* ii. 363.

Mergus *Plinii* lib. x. c. 33.

Le Cormorant. *Belon av.* 161.

Corvus aquaticus, Carbo aquaticus. 136.

Phalacrocorax. *Gesner av.* 683. 350.

Aldr. av. iii. 108.

The Cormorant. *Wil. orn.* 329.

Raii Syn. av. 122.

Pelecanus Carbo. *Gm. Lin.* 573.

N. Com. Petr. iv. 423.

Le Cormoran. *Brisson av.* vi. 511. *tab.* 45. *The Male. Hist. d'ois.* viii. 310. *Pl. Enl.* 927.

Norvegis Skarv, Strand-Ravn. *Danis* Aalekrage. *Islandis* Skarfur. *Brunnich,* 120, 121.

Scharb, or See-Rabe. *Frisch,* ii. 187.

Scopoli, No. 98.

Br. Zool. 159. *Tab.* I. 1. *Arct. Zool.* ii. 309.

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

DESCRIPTION.

I HAVE weighed a bird of this species that exceeded seven pounds: the length three feet four; the extent four feet two. The bill is 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 reaches from the upper mandible round the eyes, and angles of the mouth; the head and neck are of a sooty 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 quil 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 fresh waters, where they make great havoke among the fish. They are remarkably voracious, having a most sudden digestion, promoted by the infinite quantity of small worms which fill their intestines. The corvorant, even when alive, has the rankest and most disagreeable smell of any bird. Its form is disgusting, its voice hoarse and croaking, and its qualities base: no wonder then that *Milton* should make *Satan* personate this bird, to *survey undelighted* the beauties of Paradise, and *sit 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 a congenerous sort, in fishing, and that not for amusement, but profit.†

* *Paradise Lost, Book* iv. l. 194, &c.

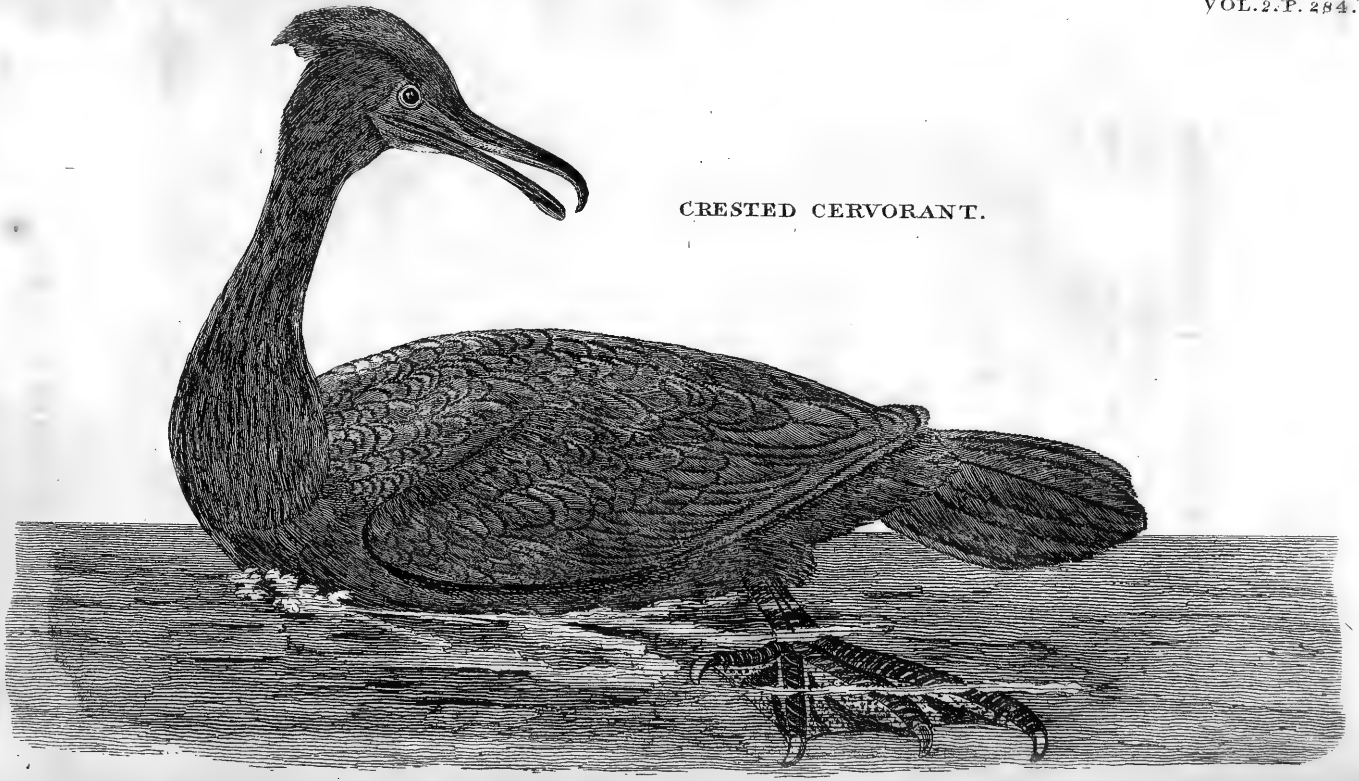
† *Duhalde* i. 316. The *Chinese* Corvorant. *Lath. Supp.* ii. 364. *Sir G. Staunton's Embassy to China,* ii. p. 388—412. *tab.* 72. ED.

2. CRESTED. Pelecanus cristatus. P. corpore viridi-nitente subtus obscuro, rostro pedibusque obscuris, capite cristato. *Lath. Ind. orn.* 888. *id. Syn.* vi. 600. *Gm. Lin.* 575.

Faun. Groenl. No. 58. *Brunnich, ornith.* No. 123.
Shag. *Brit. Zool.* ii. 610.
Crested Corvorant. *Arct. Zool.* ii. 312.

DESCRIPTION. THE Crested is much inferior in size to the common Corvorant: the length is twenty-seven inches; the breadth three feet six; the weight three pounds three quarters. The bill is narrow, dusky and hooked at the end; the irides fine green; the head is adorned with a crest two inches long, pointing 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 only of twelve feathers, of a dusky hue, tinged with green; the legs are black, and like those of the corvorant.

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 on trees: both swimwith their head quite erect, and are very difficult to be shot; for, like the Grebes and Divers, as soon as they see the



CRESTED CERVORANT.

flash of the gun, they 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.

3. SHAG.

Pelecanus Graculus. P. cauda rotundata corpore nigro subtus fusco, rectricibus duodecim, rostro edentulo. *Lath. Ind. orn.* 887. *id. Syn.* vi. 598.
Gm. Lin. 574.
Brunnich ornith. No. 121.
The Shag called in the North of England the Crane. *Wil. orn.* 330.
Corvus aquaticus minor. Graculus palmipes dictus. *Raii Syn. av.* 123.
Le petit Cormoran. *Brisson av.* vi. 516. *Hist. d'ois.* viii. 319.
Arct. Zool. ii. 309.

DESCRIPTION.

THE head and neck black, glossed like silk with green; the back and coverts of the wings of the same color edged with purplish black; the belly dusky and dull, the middle part cinereous; the tail consists of twelve feathers, dusky glossed with green; the legs black; the middle toe serrated. Its length two feet six; its extent three feet eight inches; weight four pounds.*

* Mr. *Montagu* considers this as the female, and the preceding as the male Shag, and says that they are distinguished from

I have seen several of the Shags shot among the *Hebrides*, but not one was crested. On the authority of the northern naturalists I therefore separate them.

4. GANNET. Pelecanus Bassanus. P. cauda cuneiformi, corpore albo, rostro serrato, remigibus primoribus nigris, facie cærulea. *Lath. Ind. orn.* 891. *id. Syn.* vi. 608. *id. Sup.* ii. 365.

Anser *Bassanus* sive *Scoticus*. *Gesner av.* 163.

Aldr. av. 68.

Sula. *Hoieri Clus. ex.* 367.

Hector Boeth. 6.

Soland Goose. *Wil. orn.* 328.

Raii Syn. av. 122.

Itin. 191. 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.

Macauly's hist. St. Kilda. 133.

Sula Bassana, le Fou de Bassan. *Brisson av.* vi. 503. *tab.* 44. *Hist. d'ois.* viii. 376. *Pl. Enl.* 278.

Pelecanus Bassanus. *Gm. Lin.* 577.

Norvegis Sule, Hav-Sul. *Brunnich*, 124.

Br. Zool. 160. *Arct. Zool.* ii. 310.

DESCRIPTION. THIS species weighs seven pounds: the length is three feet one inch; the breadth six feet two inches. The bill is six inches long, strait almost to the point, where it inclines downwards, and the sides are irregularly jagged, that it may hold its prey with more security; about an inch

the Corvorant by their inferior weight, and the number of feathers in the tail; he adds that they breed on our rocky coasts, and are never known to visit fresh-water rivers, or perch on trees. ED.

GANNET

Edwards Pinxt. R. Murray Sculpt.

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 sight; *Martin* tells us that *Solan* is derived from an *Irish* word expressive of that quality. From the corner of the mouth is a narrow slip 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 portion 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, it 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 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 *Souliskery*, near the *Orkneys;* the *Skelig Isles*, off the coast 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

NEST.

* This information we owe to that worthy prelate, the late Dr. *Pocock*, 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.

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 cannot,* "*without difficulty, hear your next neighbor'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 hunt-* "*ing for prey: if in sailing round the island* "*you survey the hanging cliffs, you may see* "*in every cragg or fissure of the broken 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.*"*

* *Est insula parva, Scoti Basse nominant, haud amplius mille passuum circuitu amplitudo ejus clauditur. Hujus insulæ*

Nor do the rocks of *St. Kilda* seem to be less frequented 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

superficies, mensibus Maio & Junio nidis ovis pullisque propemodum tota instrata est, adeo ut vix, præ eorum copia pedem liberè ponere liceat: tantaque supervolantium turba, ut nubium instar, solem cœlumque auferant: tantusque vociferantium clangor & strepitus, ut propè alloquentes vix audias. Si subjectum mare inde, tanquam ex edita turri & altissimo præcipitio despexeris, idem quoquo versûm, infinitis diversorum generum avibus natantibus prædæque inhiantibus, opertum videas. Si circumnavigando imminentem clivum suspicere libuerit; videas in singulis prærupti loci crepidinibus & recessibus, avium cujuslibet generis & magnitudinis, ordines innumerabiles, plures sanè quam nocte, sereno cœlo, stellæ conspiciuntur. Si advolantes avolantesque eminùs adspexeris, apum profecto ingens examen credas. De generat. Animal. Exercit. 11.

their whole dependance 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 20*d.* 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. They migrate 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 *Sardinæ*,

* *Buchanan*, in his "View of the Fishery of *Great Britain*," conjectures that the Gannets which frequent the island of *St. Kilda* destroy annually one hundred and five millions of herrings. ED.

fish resembling, if not the same with, our Pilchard.

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.

NAME. 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 *Corn-*

wall, 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. 174. the title of *Cataracta*, a name borrowed from *Aristotle*,* and which admirably expresses the rapid descent of this bird on 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

* Page 1045. † *Moyle's Works*, i. 424.

" *Chandour*, near *Mount-bay*, *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 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 pil-
" chards 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

* *Plinii*, lib. x. c. 44.

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 savors 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 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; 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. *Linnæus* classes 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*.*

(VAR.) SULA.

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 transmitted it to his friend *Clusius*.

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 sort, are entirely white.

* The Gannet is supplied with singular pellucid air-cells which connect the skin with the body, giving it a power of inflation, which materially contributes to its buoyancy in air and water, and enables it to float in the most tempestuous sea in perfect security, when in pursuit of its prey. *Montagu in Memoirs of Wernerian Society.*

APPENDIX.

APPENDIX.

No. I.

ADDITIONS TO THE HISTORY OF THE HORSE.
VOL. I. P. 3.

THE representative of this species* is a native of *Yemen*, in *Arabia Felix;* the property of the late Lord *Grosvenor*, taken from a picture in possession of his Lordship, painted by Mr. *Stubbs*, an artist not less happy in representing animals in their stiller 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. HORSE.

This horse, by its long residence among us, may be said to be naturalised, 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.*†

* Vol. i. *Plate* 1.

† 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,

* *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, through 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 *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.

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 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 lest touch with the stirrup sets these airy coursers in motion; they start forward with a fleetness which 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 lentæ moderamine virgæ,
Verbera sunt præcepta fugæ, sunt verbera
fræna.‡

* For an account of its speed, *vide Adanson's voy.* 85.

† *Tavernier's Travels,* i. 63.

‡ *Nemesion Cyneg.* 267.

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, and by permitting none but stallions of the first form to have 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 pre-

* The reader is here presented with an original attestation, some of which *M. D'Arvieux* 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 Usgute* the English Consul and with him *Sheikh Morad Ebn al Hajj Abdollah*, *Sheikh* of the County of *Safad*, and the said Consul desir'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 Shadûhi*,† but he was not satisfied with this but desir'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

† *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 Bastardy.*

served, for on them depends the future price of the foal.

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, as they are 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

which the Consul formerly bought of *Sheikh Morad*, is *Monaki Shadûki* of the pure Race of Horses, purer than Milk,† and that the Beginning of the Affair 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 Ebn 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. (*i. e.* 29 *January* 1772.)

Witnesses,

Sheikh Jumat al Falibau of the *Arabs* of *al Mohammadat*.
Ali Ebn Taleb al Kaabi.
Ibrahim his Brother.
Mohammed al Adhra Sheikh Alfarifat.
Khamis al Kaabi.

† *A Proverbial Expression.*

of the chace, and live by the plundering of travellers. The horses are never hurt by any servile employ; never injured by heavy burthens, or by long journies; enjoy a pure dry air, due exercise, great temperance, and great care.

Every horse in *Arabia* (except those which by way of contempt are called *Guidich*, or pack horses) has a degree of good qualities superior to those of any other place; yet 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 *Yemen* 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.

* *Wall*, on horses, 74.

It may be allowed here to give some account of the horses of other countries, which derive their origin, or at lest receive their improvement from the *Arabian* kind, for wheresoever 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: they are fed with chopped straw, mixed with barley, and instead of soiling, 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 journies, 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

* *Tavernier's Travels*, i. 145. † *Ludolph. hist. Æthiop.* 53.

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 article, 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.*

* *Univ. modern hist.* quoted from *Maillet* and *Pocock.*

† *D'Arvieux,* 173.

‡ *Shaw's Travels,* 238.

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 primæval 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 a 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.†

* *Cyneg. lib.* i. v. 284.

† *Job.* ch. xxxix. v. 19. to 25.

No. II.

ON TAKING WOLVES. Vol. I. P. 89.

Ex Autographo penes Dec. et Capit. Exon.

From Bp. Lyttelton's Collections.

JOHAN. comes *Moreton* omnibus hominibus et amicis suis *Francis* et *Anglicis* presentibus et futuris salutem sciatis nos conces.se reddidisse et hac carta mea 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 pharetras, et sagittas in terris suis deferendas extra regardum foreste mee, et quod 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 regardum foreste mee. Et ideo vobis firmiter

precipio, quod nullus eis, de hiis vel aliis libertatibus suis molestiam inferat vel gravamen. Hiis testibus *Will. Marescall. Will.* comite *Saresbur. Will.* com. de *Vernon. Steph. Ridell* cancellario meo, *Will. de Wenn. Hamone de Valoin, Rogero de Novoburgo, Ingelram de Pincoll. Rob. de Moritomari, Waltero Maltravers. Rad. Morin. Walt. de Cantelu. Gilberti Morin* et multis aliis.

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

No. III.

OF THE CHOICE OF HIS MAJESTY's HAWKS.

VOL. I. P. 210.

TO all those to whome this present Writinge shall come I Sr. *Anthony Pell* Knight Maister Faulkner Surveyor and Keeper of his Majesties Hawkes send greetinge, Whereas I am credibly informed that divers persons who doe usuallie bringe Haukes to sell doe commonlye convey them from shipbord and custome howse before such tyme as I or my servants or deputies have any sight or choise 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 theis 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 sell, 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 choise 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 Lannarett thirteene shillings and foure pence, for a Goshawke twentie shillings, for a Tassell of a Gosshawke 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.

ON COCK-FIGHTING. Vol. I. P. 371.

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 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 stiled Αλεκτρυων αγων; and became anniversary.

The Cock-pit, or ϒηλία, 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 least Quail-feeders, being called Ορτυγτροφοι; for it is certain that the antients prepared their birds for battle: great sums were layed on the event; and the *Lanistæ*, or Cockers, frequently totally ruined by their pursuit of the diversion. †

The custom spread soon, as is suspected, from *Athens* to *Pergamus* and *Troas*. In the first were annual Cock-matches: and their neighbours, the *Dardanii Troes*, seem equally addicted to the diversion, as is evident from

* *Ælian. Var. Hist.* ii. c. 20. † *Columella*, lib. viii. c. 2.

their coins, which had on them two fighting cocks.

On two antient gems, in the collection of Sir *William Hamilton*,* are strong memorials of this custom: on one is a Cock, with his head erect, carrying in his bill a palm-branch, in token of victory over another, which is 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, or cut off their combs and wattles.

The race of birds most esteemed by the antients, was that of *Tanagra*, a city of *Bœotia*, the Isle of *Rhodes*, *Chalcis* in *Euboea*, and the country of *Media*.† They preferred the larger kind, or what we call *Shakebags*. The hens of *Alexandria* in *Egypt*, called Μονόβοροι, 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

* *Archæologia*, vol. iii. tab. ix.
† *Plin. Nat. Hist.* lib. x. c. 21.
‡ *Geoponic.* lib. xiv. c. 7.

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 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.§

* *Herodian* iii. § 33. † p. 45. ‡ *Maitland London*, i. 131.

§ 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.

No. V.

ON THE SMALL BIRDS OF FLIGHT; BY THE HON^ble 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 systematical perfection, and is attended with a very considerable expence.

The nets are a most ingenious piece of me-

chanism, are generally twelve yards and a half long, 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 catched 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 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. *(See vol.* i. *p.* 484.)

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

* 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 it flutter ever so much in the raising.

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 the bird hath thus prematurely 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 *stopped bird* becomes white and more taper, as do its legs: in short, there is as much difference between a wild and a *stopped 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

* We have been lately informed by an experienced bird-catcher, that he pursues a cooler regimen in *stopping* his birds, and that he therefore seldom loses one.

disposes of his *call-birds* 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 sight 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 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 ecstacy 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

* It may be also observed, that the moment they see a hawk, they communicate the alarm to each other by a plaintive note; nor will they then *jerk* or call though the wild birds are near.

† 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.

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 *jerks* the oftenest, 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, *victa morte finit sæpe vitam, spiritu prius deficiente quám cantu.**

It may be here observed, that birds when near each other, and in sight, seldom *jerk* or sing. They either fight, or use short and wheed-

* Lib. x. c. 29.

ling 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 spray contiguous to the nest, during the time his mate is performing her parental duties. But that she should be silent, is also another wise provision of nature, for her song would discover her nest; as would a gaudiness of plumage, which, for the same reason, 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, such as, that they immediately kill the hens of every species of birds they take, being incapable of singing, as also being inferior in plumage; the pippets likewise are indiscriminately destroyed, as the cock does not

sing well; they sell the dead birds for three-pence or four-pence a dozen.

These small birds are so good, that we are surprised the luxury of the age neglects so delicate 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 singing birds* is well known.

Another particular we learned, in conversation with a *London* bird-catcher, was the vast price that is sometimes given for a single song bird, which 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 *Linnæus*, 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

* *Maximè tamen insignis est in hac memoria,* Clodii Æsopi *tragici histrionis patina sexcentis H. S. taxata; in quo posuit aves cantu aliquo, aut humano sermone, vocales.* Plin. lib. x. c. 51. The price of this expensive dish was about 6,843*l.* 10*s.* according to *Arbuthnot's* Tables. This seems to have been a wanton caprice, rather than a tribute to epicurism. T. P.

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 bulfinch, 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 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 surprise, 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.

No. VI.

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.

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)

* *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.

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 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 pas-

* For want of terms to distinguish the notes of birds, *Belon* 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." *Belon's* Hist. of Birds, p. 50.

† 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*.

sage, he commonly raises his tone, which he drops again when he is not equal to what he is attempting; just as a singer raises his voice, when he not only recollects 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 singing in a bird, except, perhaps, in the following lines of *Statius:*

——————— "Nunc volucrum novi
"Questus, inexpertumque carmen,
"Quod tacitâ statuere brumâ."
Stat. Sylv. L. IV. Ecl. 5.

A young bird commonly continues to *record* for ten or eleven months, when he is able to execute every part of his song, which afterwards continues fixed, and is scarcely ever altered.*

When the bird is thus become perfect in his

* The bird called a Twite (*See vol.* i. *p.* 467.) 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.

lesson, he is said to *sing his song round*, or in all its varieties of passages, which he connects together, and executes without a pause.

I would therefore define a bird's *song* 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 crotchets in an *adagio* movement, or whilst a pendulum swings four seconds.

By the first requisite in this definition, I mean to 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,

* 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.

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 master 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 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 sorts 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
"Effusus labor."

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

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

Ειτ' εισιν οι τεττιγες ουκ ευδαιμονες,
Ων ταις γυναιξιν ου δ' οτιουν φωνης ενι;
Comicorum *Græcorum* Sententiæ, p. 452. Ed. Steph.

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.

I have educated nestling linnets under the three best singing larks, the skylark, woodlark, and titlark, every one of which, instead of the linnet'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

* 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 linnet with the skylark song; a *nightingale-robin,* a robin with the nightingale song, &c.

linnet's song, but adhered stedfastly 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 linnet under a *vengolina*,* which imitated its *African* master so exactly, without any mixture of the linnet song, that it was impossible to distinguish the one from the other.

This *vengolina-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

* 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 siskin). 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 *Hampstead*, of a *vengolina's* breeding with a *Canary* bird.

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 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 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 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), 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 fidler and ballad-singer 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 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 neighbors' 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 con-

tinue 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.*

* 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 sung as little.

Most of those *Canary* birds, which are imported from the *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 20l. duty for such a number, yet, upon the whole, it answers to sell these birds at 5s. a piece.

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

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.

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,

* 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.

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

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

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

* 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.

chiefly from contending with another bird, or indeed against almost any sort of continued noise.

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 sulky 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 hen-bird sings, because this talent would be still more dangerous during incubation; which 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 color 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 composed of

* For the same reason, most large birds are wilder than the smaller ones.

" 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 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

* Dr. *Wallis* is mistaken in part of what he supposes to be the cause of shrillness in the voice, " Nam ut tubus, sic tra-
" chea longior, & strictior, sonum 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.

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 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 so 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 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.

* There have been instances indeed of persons who could whistle the notes of birds, but these are too rare to be argued from.

† These bullfinches also form a small article of commerce, and are chiefly brought from the neighborhood of *Cologne*.

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, on 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), 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 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 multo, 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 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 both singers 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

* 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 *Purcel*, two parts in three of his compositions are in the flat third.

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 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 singer; 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 singers 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 stedfastly 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, that there cannot possibly be much variety in the part of the second bulfinch.

Though several birds have great musical powers, yet they seem to have no delicacy of sensations, as the human singer 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 swell.

They are easily imposed upon by that most imperfect of all instruments, a bird-call, which

* Mr. *Zeidler*, who plays the violincello at *Covent Garden* theatre.

† 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 disused, 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.

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 *Romans*, upon which we never try the same experiment. *Moschus* addresses nightingales and swallows which were thus instructed:

> Αδονιδες, πασαι τε χελιδονες, ας ποκ' ετερπεν,
> Ας λαλειν εδιδασκε.
>
> *Moschi Idyl.* III.

Pliny mentions both a cock, thrush, and nightingales, which articulated:*

"Habebant & *Cæsares* juvenes *turdum*,† "item *luscinias* Græco atque Latino sermone "dociles, præterea meditantes in diem, & as- "sidue nova loquentes longiore etiam con- "textu."

* *Lib.* X. *c.* 21 & 42.

† Ibid. The other *turdus* belonged to the Empress *Agrippina*.

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 perdix,
"Et quæ *Bistonio* queritur soror orba cubili."*

Stat. Sylv. lib. ii. ecl. 4.

* 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 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 *sturnus*, 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 broussailles.§

† Επηλυγαζομεναι υλην. 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.

As we find, from these citations, that so many different sorts of birds have learned to

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-"niunt receptaculum, ut contra feras abunde valentur,"† as also in the 52d chapter of his tenth book, that the *perdix* lay 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 περδικων, οι κακκαβιζουσιν, οι δε πριουσι.‡

Now, the word, κακκαβιζουσι 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 κακκαβιζει and *caccabat*.

I find, indeed, that *M. de Buffon* contends§ that the περδιξ of *Aristotle* does not mean the common partridge, but the *bartavelle*, 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 par-

* *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.

† Lib. x. c. 23. ‡ Lib. iv. c. 9. § Orn. T. H. p. 422.

speak, and as I have shewn that a sparrow may be taught to sing the linnet's note, I scarcely know what species to fix upon, that may be considered as incapable 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

tridge 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 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 *sturnus*, 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 *starna* 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 *sturnus* is supposed to signify only a starling.

* See *Olina*.

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.

If the birds differ little in shape or size (particularly of the beak*) the imitation is commonly so strong that

> "Mirè sagaces falleret hospites
> "Discrimen obscurum." HORAT.

* 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 circum-

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,

stances 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, and that if such and such changes did not soon take place, the case was desperate. He frequently also refused to prescribe, if the bird felt too light in the hand, or he thought that there was not sufficient time to bring about an alteration in the dung.

* The *Angola* Finch. *Lath. Syn.* iii. 309. *Buffon Hist. d'ois.* iv. 80. *Edwards tab.* 129. Ed.

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 pro-

* Lib. x. c. 21.

curing a livelihood but by copying music, and this is one of the reasons why so few compositions are 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

* Mons. *de Buffon* says, that the quadruped which he terms the *huarine*, may be heard at the distance of a league. *Ornith. Tom.* I.

also observed the breath of a robin (which exerted itself) so condensed in a frosty morning, as to be very visible.

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,*

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.†

Pipe rattle, Bell pipe, Scroty, Skeg, Skeg, Skeg, Swat swat swaty, Whitlow whitlow whitlow, from some distant affinity to such words.

* Mr. *Henshaw* 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 Queen *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 reed sparrow sing likewise in the night; and from hence, in the neighborhood 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.

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 singer.

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 *Mons. 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.

	Mellowness of tone.	Sprightly notes.	Plaintive notes.	Compass.	Execution.
Nightingale - - - - -	19	14	19	19	19
Skylark - - - - - -	4	19	4	18	18
Woodlark - - - - -	18	4	17	12	8
Titlark - - - - - -	12	12	12	12	12
Linnet - - - - - -	12	16	12	16	18
Goldfinch - - - - -	4	19	4	12	12
Chaffinch - - - - -	4	12	4	8	8
Greenfinch - - - - -	4	4	4	4	6
Hedge-sparrow - - -	6	0	6	4	4
Aberdavine (or Siskin)	2	4	0	4	4
Redpoll - - - - - -	0	4	0	4	4
Thrush - - - - - -	4	4	4	4	4
Blackbird - - - - -	4	4	0	2	2
Robin - - - - - - -	6	16	12	12	12
Wren - - - - - - -	0	12	0	4	4
Reed-sparrow - - -	0	4	0	2	2
Black-cap, or the Norfolk Mock nightingale†	14	12	12	14	14

† *Brit. Zool.* i. p. 476.

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 *Frenchmen.**

But it is not only in tone and variety that the nightingale excells; the bird also sings (if I may

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 é un ucello, (per quanto dicono) molto canoro, ma io tale non lo stimo. Delle uova é del nidi, p. 53.

‡ They call this bird a *kate.*

so express myself) with superior judgement 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

* 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*. Mimic Thrush. *Arct. Zool.* ii. 14. *Lath. Syn.* iii. 40.

the concert in the *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 insects (their com-

* See *Rochefort's Hist. des Antilles*, T. I. p. 366.—*Ph. Tr. Abr. Vol.* III. p. 563.—and *Catesby*.

† 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 *Tyroleze*, that his best market for *Canary* birds was *Constantinople*.

mon 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 wood-lark, 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,

* Vol. I. p. 219.

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,

* The Sedge Warbler described at page 517 of the first volume of this work, is the completest *British* mocking bird. Ed.

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 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 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; not 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 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

* The nightingale, indeed, is perhaps an exception to this general observation.

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.

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 in-

* 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.

strument 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 expence, 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.

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 experi-

* *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.

ments and observations; I shall therefore no longer defer subscribing myself,

Dear Sir,

Your most faithful

Humble Servant,

DAINES BARRINGTON.

No. VII.

OF THE MIGRATION OF BRITISH BIRDS.

Quam multæ 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 abundance or failure of fruits and 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 acknowledgements to two eminent pens that have treated this subject as far as it related to rural œconomy; 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.

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

* *Vide* Preface.

† In Mr. *Montagu's* Ornithological Dictionary are many excellent observations on the migration of birds. Mr. *Markwick* has also treated the same subject in the first volume of the *Linnean* Transactions, and Mr. *Lambert*, in the third, has given some account of those of the feathered tribe which visit *Wiltshire*.

Ed.

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 generical order, and as far as possible, trace each species of bird to its retreat.

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.

FALCONS.

Eagles, and all the ignoble species of this genus breed in *Great Britain;* of the proper *Falcons,* we only know that which is called the *Peregrine,* which builds its nest annually in the rocks of *Llandudno, Caernarvonshire;* and the *Gentil,* and the *Goshawk,* 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

* Printed for *W. Sanby, Fleet-Street, London,* 1767. Price One Shilling and Six-pence.

are birds of prey, and having at all times in this island means of living, are not obliged to quit their quarters.

SHRIKES. The *Flusher*, or *red back Shrike*, and the great *Shrike*, breed 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 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.

ROLLER. ORIOLE. The *Roller* and *Oriole* are merely occasional visitants. ED.

CUCKOO. Disappears early in autumn; the retreat of this and the following bird is quite unknown to us.

WRYNECK. Is a bird that leaves us in the winter, and revisits us in the spring a little earlier than the *Cuckoo*. If its diet be ants alone, as several assert, the cause of its migration is very evident.

WOODPECKERS. Continue with us the whole year; their food

being insects and their *larvæ*, which lodge themselves at all times in the bark of trees.

Continues here through all seasons. KINGFISHER.

Resides in this country the whole year. NUTHATCH.

Is not uncommon on the Continent; it has twice or thrice been seen in *England*, in the summer months. ED. BEE-EATER.

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*. HOOPOE.

Never leaves the country. CREEPER.

The whole tribe, except the *Quail*, lives here all the year round: that bird either leaves us, or else retires towards the sea-coasts.* GROUS.

The Great and Lesser Bustard inhabits our downs and their neighborhood all the year; the other species is migratory. BUSTARDS.

Some few of the *Ring-doves* breed here; but the multitude that appears in the winter, is so disproportioned to what continues 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 *Rock Doves* also PIGEONS.

* *Vide* Vol. I. p. 367. of this work. † *Amœn. Acad.* IV. 592.

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 winter, at lest 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.

THRUSHES. 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.

GROSBEAK. The *Haw* and *Cross-billed Grosbeak* come here at such uncertain times, as not to deserve the names of birds of passage; they breed in *Austria*. I suspect the *Pine Grosbeak* breeds in the forests of the Highlands of *Scotland*. The *Bulfinch* and *Green Grosbeak* never quit the island.

CHATTERER. 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 *Haw* and *Cross-billed Grosbeaks* come here but seldom; they breed in *Austria*. I suspect that the *Pine Grosbeak* breeds in the forests of the Highlands of *Scotland*. The other species, with the exception of the rare *White-winged Crossbill*, breed in *England*. GROSBEAKS.

All the genus inhabits this kingdom throughout the year, except the *Greater Brambling*, which is forced here from the north in very severe seasons. BUNTINGS.

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 with their young to others. All finches feed on the seeds of plants. FINCHES.

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 *Fly-catcher*, *Nightingale*, *Black-cap*, *Pettychaps*, *Wood*, *Reed Grasshopper Warblers*, *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 FLY-CATCHERS, LARKS, WAGTAILS, AND WARBLERS.

observed several *Wheat-ears* in the isle of *Purbeck*, on the 18th of *November*. 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 *larvæ*.

SWALLOWS, AND GOATSUCKER. Every species disappears at the approach of winter.

WATER BIRDS.

OF the vast variety of water fowl that frequent *Great Britain*, it is amazing to reflect how few are known to breed here: the cause which 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 a 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 scarcely 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 birds*

(the *Heron* excepted) being on the ground, and exposed to every one: as rural œconomy 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 which 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 BIRDS.

[THE *Spoonbill* has been seen in *Norfolk*, in *April;* and in *Devonshire*, in the winter months.] SPOONBILL.

The *White Heron* is an uncommon bird, and visits us at uncertain seasons; the common kind and the *Bittern* never leave us. HERONS.

[The *Glossy Ibis*, the only species which has visited *England*, was seen in *Anglesey*, and on the banks of the *Thames*, in the month of *September*.] IBIS.

The *Curlew* breeds sometimes on our mountains; but, considering the vast flights which appear in winter, we imagine that the greater CURLEWS.

part retire to other countries: the *Whimbrel* breeds in the *Grampian Hills,* in the neighborhood of *Invercauld.*

SNIPES. The *Woodcock* breeds in the moist woods of *Sweden,* and other cold countries. Some *Snipes* breed here, as does the *Redshank,* 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 common *Sandpiper* breeds in this country, and resides 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 with us the whole year. The *Ringed Plover* breeds in *England;* the *Golden* 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 forsake us in the spring,

* 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.*

Grallæ (tanquam conjuratæ) unanimiter in fugam se conji-

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.

COURSER. PRATINCOLE.

[The *Courser* and *Pratincole* are among the rarest visitants of this island.]

RAILS AND GALLINULES.

Every species of these two *genera* continue with us the whole year; the *Crake Gallinule* excepted, which 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 *Anglesey* 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*.

ciunt, ne earum unicam quidem inter nos habitantem invenire possumus. *Amœn. Acad.* IV. 588.

Scolopaces et *Glareolæ* incredibilibus multitudinibus verno tempore in *Polonia* et *Borussia* nidulantur; appropinquante autumno turmatim evolant. *Klein de av. errat.* 187.

FIN-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 *Fossdike* in *Lincolnshire;* but quit their quarters, in winter. They are then shot in different parts of the kingdom, which they visit I believe not regularly but accidentally.

AUKS AND GUILLEMOTS. 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 *Llandudno* 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

* *Amœn. Acad.* IV. 590.

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. DIVERS.

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 *Orknies* and in the *Hebrides*. The rest of the tribe breed dispersedly on all the cliffs of *Great Britain*. The *black headed* on our fens and lakes. GULLS.

Every species‡ breeds here; but leaves us in the winter. TERNS.

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 PETRELS.

* *Faun. Suec.* No. 150. *Crantz, Greenl.* I. 82. 83.

† *Barry*, in his History of the *Orkneys*, p. 304, says that this species builds on a bank of a lake in *Hoy*, and in other places. ED.

‡ The *Sandwich Tern* may perhaps be an exception. ED.

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 nestles on the *Blasquet* isles off *Kerry*, and that it is the *Gourder* of Mr. *Smith*.*

MERGANSERS. 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.

DUCKS. 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*. The rest contribute to form that amazing multitude of water fowl, that annually repair from most parts of *Europe* to the woods and lakes of *Lapland* and other *arctic* regions,‡ there

* *Smith's hist. Kerry*, 186.

† Goosanders pair in the breeding season and build their nests in the small holms in the loch of *Stennis*. *Barry Hist. of Orkneys*. 302. ED.

‡ *Barentz* found the *Bernacles* with their nests in great numbers in *Nova Zembla*. *Collect. voy. Dutch East-India Company*, 8vo. 1703. p. 19. *Clusius* in his *Exot*. 368. also observes, that

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 hardier 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*, the *long-tailed Duck*, and the different sorts of *Goosanders* which then visit our coasts.

CORVORANTS.

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

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 *Swallow tailed Shield Duck* breeds in the *Icy Sea*, and is forced southward only in the very hard winters. *Amœn. Acad.* IV. 585.

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 water affords *larvæ* innumerable of the tor-

* *Flora Lapponica* Lectori in Proleg.

† A disciple of *Linnæus*, speaks thus of their food: *Lappania*, ubi victum ex *larvis* et *pupis* culicum, altrix paravit numinis munificentia. *Amœn. 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 insecte, &c. *Œuvres de M. de Maupertuis*, III. 116.

menting *Gnat*. 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 *Linnæus*, 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.†

* *Flora Lapponica*, 273. *Amœn. acad.* IV. 570.

† It may be remarked, that the lakes of mountanous rocky countries in general are destitute of plants: few or none are seen on those of *Switzerland*; and *Linnæus* makes the same observation in respect to those of *Lapland*; having, during his whole tour, discovered only a single specimen of a *lemna trisulca*, 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 grass; and the *ranunculus aquatilis*, No. 234. which are all he enumerates in his *Prolegomena* to that excellent performance.

No. VIII.

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 their 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.	Of the foules called rees,	200 dozen.
In ale, -	300 tunne.	In peacockes, -	104.
Wyne, -	100 tunne.	Mallardes and teales,	4000.
Of ypocrasse	1 pype.	In cranes, -	204.
In oxen, - -	104.	In kyddes, -	204.
Wylde Bulles, -	6.	In chyckens,	2000.
Muttons, - -	1000.	Pigeons, -	4000.
Veales, - -	304.	Conyes, - -	4000.
Porkes, - -	304.	In bittors, -	204.
Swannes, - -	400.	Heronshawes,	400.
Geese, - -	2000.	Fessauntes, -	200.
Capons, - -	1000.	Partriges, -	500.
Pygges, - -	2000.	Wodcockes, -	400.
Plovers, - -	400.		
Quales,	100 dozen.		

Curlewes, - 100.
Egrittes, - - 1000.
Stagges, buck and roes, 500 and mo.
Pasties of venison colde, 4000.
Parted dishes of gellies, 1000.
Playne dishes of gellies, 3000.
Colde tartes baked, 4000.
Colde custardes baked, 3000.
Hot pasties of venison, 1500.
Hot custardes, 2000.
Pykes and breames, 608.
Porposes and seals, 12.
Spices, sugared delicates, and wafers plentie.

Besides the birds in the above list, there are mentioned, in the particular of the courses,* *Redshanks*, *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

* *Leland's collectanea*, vi. 2.

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 kalendar to embellish the table, and St. *Paul*, St. *Thomas*, St. *Dunstan*, and a whole multitude of *angels*, *prophetes* and *patriarkes*,* 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 porposes and seales, indelicate as they may seem at present, in old times were admitted to the best tables: the former, at lest, 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 Houshold 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,

* *Leland's collectanea*, vi. 23. † *Caii opusc.* 113.

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.

Fesauntes, 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, Redeshankes, Reys, Pacokes, Knottes, Dottrells, Larkys* and *small byrdes.*

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.

* P. 104. 424.

		Page.	Price.
Cranys, the Crane,	ii.	7,	16d.
Hearon-sewys, the Heron,	—	10,	12d.
Mallards,	—	258,	2d.
Teylles, Teal,	—	279,	1d.
Woodcock,	—	40,	1d. or 1d.½.
Wypes, Lapwings,	—	66,	1d.
Sea-gulls, Black-headed Gull,	—	189,	1d. or 1d.½.
Styntes, Purrs,	—	94,	6d. a dozen.
Quails,	i.	366,	2d.
Snipes,	ii.	60,	3d. a dozen.
Partridges,	i.	365,	2d.
Red-shanks,	ii.	57,	1d.
Bytters, Bitterns,	—	14,	12d.
Pheasants,	i.	372,	12d.
Reys, Land Rails,*	ii.	119,	2d.
Sholardes, Shovelers,	—	264,	6d.
Kyrlewes, Curlews,	—	34,	12d.
Peacocks,	i.	369,	12d.
Sea Pies,	ii.	112.	
Wigeons,	—	273,	1d.

* 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.

		Page.	Price.
Knots,	ii.	76,	1d.
Dotrels,	—.	102,	1d.
Bustards,	i.	376,	
Terns,	ii.	197,	4d. a dozen.
Great birds,			Ditto.
Small birds,			12d. a dozen.
Larks,			12d. for two dozens.

No. IX.

GARDENIAN HERON? JAMAICA NIGHT HERON.

P. 98.

[THE bird mentioned at page 98 of this volume, as having been shot near *St. Asaph*, is supposed, by the reverend *Hugh Davies*, to be the *Jamaica* Night Heron of *Latham Ind. orn.* 679. He has favored the editor with the following minute description of this rare subject. ED.

DESCRIPTION.

" The length of this species is about twenty inches; the general color of the plumage is a light ash colored brown, variegated with white. The feathers on the back, the scapulars, and the coverts of the wings, have a triangular

white spot at the end of each; in the feathers of the back of the neck, and upwards to the crown of the head, the white mark at the end is lengthened to a stripe. The throat is white, with a few longitudinal light brown lines, and the feathers down the neck and breast, which last are long and pendent, are of the same color, the sides of each being more distinctly marked with a stripe of the brown; the belly and thighs are much of the same color but lighter; the vent is white. The quil-feathers are dusky-ash-colored, tipped with white, and reach nearly to the end of the tail, which is of an uniform ash-colored grey. The bill is dark brown, the *lorum* and orbits naked and greenish; irides fine pale yellow. It has a short crest somewhat inclining downwards. The legs and feet are a dull green; the toes very long, the claw of the middle one serrulated on the inside.

I think this a species perfectly distinct from the *Ardea Nycticorax*, notwithstanding Dr. *Latham's* mark of doubt. If we may reason from analogy, the specimen from which this description is taken, seems to bear one particular character of a male bird; in the common Heron the pendent feathers on the breast are not found on the female subject, and the

general plumage of this seems to have little or nothing in common with the female of the *A. Nycticorax.*

This curious and rare species was shot on a tree near *St. Asaph* in the year 1810, and, in fine preservation, makes one of the subjects in the collection of ——— *Bainbridge*, Esq.

H. Davies.

No. X.

A SYSTEMATIC ARRANGEMENT OF THE BIRDS OF GREAT BRITAIN, WITH THE NAMES IN THE ANTIENT BRITISH.

LAND BIRDS.

GENUS I.

FALCON.

1.	Golden Eagle,	Eryr melyn.
2.	Black Eagle,	Eryr tinwyn.
3.	Sea Eagle,	Mor-Eryr.
4.	Cinereous,	Eryr cynffonwyn.
5.	Osprey,	Pysg Eryr: Gwâlch y weilgi.
6.	Gyrfalcon,	Hebog chwyldro.
7.	Peregrine Falcon,	Hebog tramor, Cammin.
8.	Grey,	Hebog Gwalch.
*9.	Gentil,	Hebog mirain.
10.	Lanner,	Hebog gwlanog.
11.	Goshawk,	Hebog Marthin.

12. Spotted,	Bod mannog.
13. Rough legged.	
14. Kite,	Barcud.
15. Buzzard,	Bod teircaill.
16. Honey Buzzard,	Bod y mel.
17. Moor Buzzard,	Bod y gwerni.
18. Hen-Harrier.	Barcud glâs.
19. Ringtail,	Bod tinwyn.
20. Ash colored Falcon.	
21. Kestrel,	Cudyll côch.
22. Hobby,	Hebog yr Hedydd.
23. Sparrow Hawk,	Gwepia.
24. Merlin,	Corwalch, Llymysten.

II.

OWL.

*1. Eagle,	Y Ddylluan fawr.
2. Long eared,	Dylluan gorniog.
3. Short eared,	Dylluan glustiog.
4. White,	Dylluan wen.
5. Tawny,	Dylluan frech.
6. Brown,	Aderyn y Cyrph.
7. Little,	Coeg Ddylluan.

III.

SHRIKE.

1. Great,	Cigydd mawr.
2. Red backed,	Cigydd cefn-goch.
3. Wood chat,	Cigydd glâs.

IV.

CROW.

1. Raven,	Cigfran.
2. Carrion,	Brân dyddyn.
3. Rook,	Ydfran.
4. Hooded,	Bran yr Jwerddon.
5. Magpie,	Piogen.
6. Jay,	Screch y Coed.
7. Red legged,	Brân big gôch.
8. Jackdaw,	Cogfran.
9. Nutcracker,	Aderyn y cnau.

V.

ROLLER.

*1. Chattering,	Y Rholydd.

VI.

ORIOLE.

*1 Golden,	Y Fwyalchen felen.

VII.

CUCKOO.

1. Common,	Cog.

VIII.

WRYNECK.

1. Wryneck,	Gwas y gôg, Gwddfdro.

IX.

WOODPECKER.

1. Green,	Cnocell y coed, Delor y derw.
2. Great spotted,	Delor fraith.
*3. Middle.	

4. Lest spotted, Delor fraith beiaf.
†5. Hairy.
†6. Great black.

X.

KINGFISHER.

1. Common. Glâs y dorlan.

XI.

NUTHATCH.

1. Europæan, Delor y enau.

XII.

BEE-EATER.

†1. Common.

XIII.

HOOPOE.

1. Common, Y Goppog.

XIV.

CREEPER.

1. Familiar,	Y Grepianog.

XV.

GROUS.

1. Wood,	Ceiliog coed.
2. Black,	Ceiliog dû.
3. Red,	Ceiliog Mynydd, Jâr fynydd.
4. Ptarmigan,	Coriar yr Alban.
5. Partridge,	Coriar, Petrisen.
6. Quail,	Sofliar, Rhinc.

XVI.

BUSTARD.

1. Great,	Yr araf ehedydd.
*2. Lesser,	Araf ehedydd Lleiaf.
3. Thick-kneed,	Y Glin-braff.

XVII.

PIGEON.

1. Common,	Colommen.
2. Stock.	
3. Ring,	Ysguthan.
4. Turtle,	Colommen fair, Turtur.

XVIII.

STARE.

1. Common,	Drydwen, Drydwy.
2. Water ouzel,	Mwyalchen y divir.
†3. Penrith ouzel.	

XIX.

THRUSH.

1. Missel,	Tresglen, Pen y Llwyn.
2. Fieldfare,	Caseg y ddryccin.
3. Throstle,	Aderyn bronfraith.
4. Redwing,	Soccen yr eira, Y dresclen gôch.

5. Blackbird,	Mwyalch, Aderyn dû.
*6. Rose colored.	
7. Ring-ouzel,	Mwyalchen y graig.

XX.

CHATTERER.

1. Waxen,	Sidan-gynffon.

XXI.

GROSBEAK.

1. Haw,	Gylfinbraff.
*2. Pine.	
3. Cross-billed,	Gylfingroes.
†4. White-winged.	
5. Bulfinch,	Y Chwybanydd, Rhawn goch.
6. Green,	Y Gegid, Llinos werdd.

XXII.

BUNTING.

1. Common,	Brâs y ddruttan, Brâs yr yd.

2. Yellow,	Llinos felen.
†3. Cirl.	
4. Reed,	Golfan y cyrs.
5. Tawny,	Golfan rhudd.
6. Snow,	Golfan yr eira.
7. Mountain,	Yr Olfan leiaf.

XXIII.

FINCH.

1. Gold,	Gwas y Sierri.
2. Chaff,	Asgell arian, Winc.
3. Brambling,	Bronrhuddyn y mynydd.
4. Sparrow,	Aderyn y to, Golfan.
5. Tree Sparrow,	Golfan y mynydd.
6. Siskin,	Y Ddreiniog.
7. Linnet,	Llinos.
8. Red-headed,	Llinos bengoch.
9. Less red-headed,	Llinos bengoch leiaf.
10. Twite,	Llinos fynydd.

XXIV.

FLY-CATCHER.

1. Spotted,	Y Gwybedog.
2. Pied,	Clochder y mynydd.

XXV.

LARK.

1. Sky,	Hedydd, Uchedydd.
2. Wood,	Hedydd y coed.
3. Tit,	Cor Hedydd.
†4. Dusky.	
†5. Pipit.	
6. Field,	Hedydd y cae.
7. Red,	Hedydd rhudd.
8. Lesser Crested,	Hedydd coppog.

XXVI.

WAGTAIL.

1. White,	Brith y fyches, Tinsigl y gwys.
2. Yellow,	Brith y fyches felen.
3. Grey,	Brith y fyches lwyd.

XXVII.

WARBLER.

1. Nightingale,	Eos.

2. Redstart,	Rhonell goch.
3. Redbreast,	Yr Hobi goch. Bron-goch.
4. Blackcap,	Penddu'r brwyn.
†5. Greater Petty-chaps,	Y Ffigysog.
†6. Lesser Petty-chaps.	
7. Hedge,	Llwyd y gwrych.
8. Yellow,	Dryw'r helyg. Sy-widw.
†9. Wood.	
10. Golden-crested,	Yswigw, Sywigw.
11. Wren,	Dryw.
12. Sedge,	Hedydd yr helyg.
13. Grasshopper,	Gwich hedydd.
14. Reed.	
15. Wheatear,	Tinwyn y cerrig.
16. Whin-chat,	Clochder yr eithin.
17. Stone-chat,	Clochder y cerrig.
18. White-throat,	Y gwddfgwyn.
†19. Lesser White-throat.	
*20. Dartford.	

XXVIII.

TITMOUSE.

1. Great,	Y Benloyn fwyaf.

2. Blue,	Y Lleian.
3. Cole,	Y Benloyn lygliw.
4. Marsh,	Penloyn y cyrs.
5. Longtailed,	Y Benloyn gynffonhir.
6. Bearded,	Y Barfog.
7. Crested.	

XXIX.

SWALLOW.

1. Chimney,	Gwennol, Gwenfol.
2. Martin,	Marthin Penbwl.
3. Sand,	Gennol y glennydd.
4. Swift,	Marthin dû.

XXX.

GOATSUCKER.

1. Nocturnal,	Aderyn y droell, Rhodwr.

WATER BIRDS.

GENUS I.

SPOONBILL.

1. White,	Y Llydon big.

II.

HERON.

1. Crane,	Goran.
2. Common,	Cryr glâs.
3. Bittern,	Aderyn y bwnn, Bwmp y Gors.
4. Little,	Aderyn y bwnn Ueiaf.
5. White,	Cryr gwyn.
6. Egret,	Cryr coppog Ueiaf.
†7. Night.	
†8. Redbilled.	
†9. Squacco.	
†10. Gardenian.	
†11. African.	

III.

IBIS.

†1. Glossy.

IV.

CURLEW.

1.	Common,	Gylfinhir.
2.	Whimbrel,	Coeg ylfinhir.
†3.	Pygmy.	

V.

SNIPE.

1.	Woodcock,	Cyffylog.
2.	Godwit,	Rhostog.
*3.	Cinereous,	Rhostog llwyd.
4.	Red,	Rhostog rhûdd.
†5.	Red breasted,	Cwttyn dû.
6.	Jadreka.	
7.	Greenshank,	Coeswerdd.
8.	Redshank,	Coesgoch.
*	Cambridge.	
9.	Spotted,	Coesgoch mannog.

10.	Common,	Ysnittan, y Fyniar.
*11.	Great,	Ysnid.
12.	Jack,	Giach.
†13.	Brown.	

VI.

SANDPIPER.

1.	Lapwing,	Cornchwigl.
2.	Grey,	Cwttyn llwyd.
†3.	Yellow-legged.	
4.	Ruff,	Yr Ymladdgar.
5.	Knot,	Y Cnut.
6.	Ash colored,	Y Pibydd glâs.
7.	Spotted,	Y Pibydd mannog.
†8.	Selninger.	
9.	Black,	Y Pibydd dû mannog.
10.	Gambet.	
11.	Turnstone,	Huttan y môr.
*	Hebridal.	
†12.	Equestrian.	
13.	Green,	Y Pibydd gwyrdd.
*	Wood.	
14.	Red,	Y Pibydd coch.
*	Aberdeen.	
15.	Common,	Pibydd y traeth.
†16.	Greenwich.	
17.	Dunlin,	Pibydd rhuddgoch.

18.	Brown,	Y Pibydd rhudd.
19.	Purre,	Llygad yr ych.
*20.	Little,	Y Pibydd lleiaf.

VII.

PLOVER.

1.	Golden,	Cwttyn yr aur.
2.	Long-legged,	Cwttyn hîrgoes.
3.	Dottrel,	Huttan.
4.	Ringed,	Môr Hedydd.
5.	Sanderling,	Llwyd y tywod.

VIII.

COURSER.

†1. Cream-colored.

IX.

PRATINCOLE.

†1. Austrian.

X.

OYSTER CATCHER.

1. Pied,	Piogen y môr.

XI.

RAIL.

1. Water,	Cwtiar.

XII.

GALLINULE.

1. Spotted,	Dwfriar fannog.
1. Crake,	Rhegen yr yd.
3. Common,	Dwfriar.

XIII.

PHALAROPE.

1. Grey,	Pibydd llwyd llydandroed.
2. Red,	Pibydd côch llydandroed.

XIV.

COOT.

1. Common,	Jâr ddwfr foel.
2. Great,	Jâr ddwfr foel fwyaf.

XV.

GREBE.

1. Great-crested,	Gwyach gorniog.
Tippet,	Gwyach. Tindroed.
2. Eared,	Gwyach glustiog.
3. Dusky,	Gwyach leiaf.
4. Little,	Harri gwlych dy bîg.
5. Blackchin,	Gwyach gwddfrhûdd.
†6. Red-necked.	
†7. Sclavonian.	

XVI.

AVOSET.

1. Scooping,	Pîg mynawd.

XVII.

AUK.

1. Great,	Carfil mawr.
2. Razor-bill,	Carfil, Gwalch y pen-waig.
Black-billed,	Carfil gylfinddu.
3. Puffin,	Pwffingen.
4. Little,	Carfil bâch.

XVIII.

GUILLEMOT.

1. Foolish,	Gwilym.
Lesser,	Chwilog.
2. Black,	Gwilym dû. Eas gan longwr.

XIX.

DIVER.

1. Northern,	Trochydd mawr.
*2. Imber,	Trochydd.
3. Speckled,	Trochydd bâch.
4. Red-throated,	Trochydd gwddfgoch.
5. Black-throated,	Trochydd gwddfdu.

XX.

GULL.

1.	Black-backed,	Gwylan gefn-ddu.
2.	Skua,	Gwylan frech.
3.	Black-toed,	Yr Wylan ysgafn.
4.	Arctic,	Gwylan y Gogledd.
5.	Herring,	Gwylan benwaig.
	Wagel,	Gwylan rûdd a gwyn.
6.	Common,	Gwylan lwyd, Huccan.
	Winter,	Gwylan y gweunydd.
7.	Kittiwake.	
	Tarrock,	Gwylan gernyw.
8.	Black-headed,	Yr wylan benddu.
†9.	Red-legged.	
†10.	Laughing.	
11.	Brown,	Yr wylan fechan.

XXI.

TERN.

1.	Common,	Y fôr-wennol fwyaf. Yscraean.
2.	Lesser,	Y fôr-wennol leiaf.

3. Black,	Yscraean ddû.
†4. Sandwich.	
Kamschatkan.	

XXII.

PETREL.

1. Fulmar,	Gwylan y graig.
2. Shear-water,	Pwffingen Fanaw.
3. Stormy,	Cas gan Longwr.

XXIII.

MERGANSER.

1. Goosander,	Hwyad ddanheddog.
2. Red-breasted,	Trochydd danheddog.
3. Smew,	Lleian wen.

XXIV.

DUCK.

1. Wild Swan,	Alarch gwyllt.
2. Tame Swan,	Alarch.
*3. Grey Lag Goose,	Gwydd.
4. Bean Goose,	Elcysen.
5. White-fronted,	Gwydd wyllt.
6. Bernacle,	Gwyran.

7.	Brent Goose,	Gwyran fanyw.
†8.	Red-breasted.	
9.	Eider,	Hwyad fwythblu.
†10.	King.	
11.	Velvet,	Hwyad felfedog.
12.	Scoter,	Y fôr-Hwyad ddû.
13.	Tufted,	Hwyad goppog.
14.	Scaup,	Llygad arian.
15.	Golden eye,	Llygad aur.
*	Morillon,	Hwyad benllwyd.
16.	Shieldrake,	Hwyad yr eithin. Hwyad fruith.
17.	Mallard,	Cors Hwyad. Garan Hwyad. Hydnwy.
18.	Shoveler,	Hwyad lydanbig.
19.	Red breasted Shoveler,	Hwyad fron-goch lydanbig,
20.	Pintail,	Hwyad gynffonfain.
21.	Long-tailed,	Hwyad gynffon gwennol.
†22.	Harlequin,	
23.	Pochard,	Hwyad bengoch.
24.	Red,	Hwyad frech.
25.	Wigeon,	Chwiw.
*26.	Bimaculated.	
27.	Gadwall,	Y gors Hwyad lwyd.
28.	Garganey,	Hwyad addfain.
29.	Teal,	Cor Hwyad. Brach Hwyad.

XXV.

CORVORANT.

1. Common,	Mûlfran. Môrfran.
2. Crested.	
3. Shag,	Y Fulfran leiaf.
4. Gannet,	Gan. Gans.

*** The birds marked * are not in the octavo edition, 1768. Those distinguished by † have been added since the edition of 1776. Ed.

No. XI.

CATALOGUE OF THE EUROPEAN QUADRUPEDS AND BIRDS, *Extra-Britannic.*

SINCE the great use of Mr. RAY's *Sylloge stirpium* EUROPÆARUM *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 and birds of *Europe*, formed from the works of the general naturalists, from the *Faunæ* of different countries, and from my own observations. The arrangement of quadrupeds is according to the order I have adopted in my History of Quadrupeds, that of birds to that of Dr. *Latham* in his *Index Ornithologicus*, to which the reader is severally referred.

CLASS I. QUADRUPEDS.

Genus.	*Species.*	*Hist. Quad.*	*Place.*
Ox	Wild - - -	i. 16	Lithuania.
	Buffalo - -	28	Italy.
Sheep	Common -	37	
	Var. B. Cretan	38	Hungary.
	Var. I. Fat rumped	42	Russia.
	H. Corsican	45	Corsica.
Goat	Ibex - - -	55	Alps.
Antelope	Chamois -	72	Alps, Pyrenees.
	Scythian -	98	Poland, Moldavia.
Deer	Elk - - -	105	N. of the Baltic.
	Rein - - -	111	N. of the Baltic.
Hog	Wild - -	140	Germany, France, &c.
Dog	Wolf - -	248	Germany, France, &c.
	Arctic - -	255	Lapland.
Cat	Lynx - -	301	Germany, France, &c.
Bear	Brown - -	ii. 1	Germany, France, &c.
	Polar - -	5	Within the arctic circle.
	Glutton -	10	Lapland, Poland.
Weesel	Sarmatian -	38	Poland, Russia.
	Genet - -	74	Spain.
	Pilosello -	*ib.*	France, Spain.
Otter	Lesser - -	80	Poland, N. of Europe.
Hare	Calling - -	111	Eastern Russia.
Beaver	Castor - -	114	Lapland to Languedoc.
Porcupine	Crested - -	122	Italy.
Marmot	Alpine - -	128	Alps, Pyrenees.
	Bobak - -	131	Poland, Russia.
	Earless - -	135	Bohemia, Hungary.

Genus.	*Species.*	*Hist. Quad.*	*Place.*
DORMOUSE	Fat - - -	ii. 158	France, south. Europe.
	Garden - -	159	France, south. Europe.
RAT	Scherman -	182	Alsace.
	Rustic - -	189	Germany, Russia.
	Soricine -	190	Alsace.
	Little - -	191	Russia.
	Lemmus -	198	Norway, Lapland.
	Gregarious -	206	Germany and Sweden.
	Hamster -	*ib.*	Austria, Silesia.
	Blind - -	214	Poland, Russia.
	Talpine -	219	Eastern Russia.
SHREW	Musky -	221	Between the Volga and Ika.
	White toothed	228	Environs of Strasbourg.
	Square tailed	*ib.*	Environs of Strasbourg.
	Carinated -	*ib.*	Environs of Strasbourg.
	Unicolor -	*ib.*	Environs of Strasbourg.
WALRUS	Arctic - -	266	Northern parts.
SEAL	Mediterranean	273	Mediterranean sea.
	Tortoise-headed	276	On various coasts.
	Leporine -	277	White sea.
	Harp - -	279	Iceland. White sea.
BAT	Serotine -	317	France.
	Pipistrella -	318	France, Russia.

CLASS II. BIRDS.

I. RAPACIOUS.

Genus.	*Species.*	*Ind. orn.*	*Place.*
VULTURE	Cinereous - -	1	On the highest hills.
	Alpine - - -	2	Southern parts.
	Ash-colored -	*ib.*	South. parts, Arragon.
	Golden - - -	3	Alps.
	Maltese - - -	5	Malta.
	Black - - -	6	Sardinia.
FALCON	Black eagle - -	10	Various parts.
	Bald eagle - -	11	Various parts.
	White eagle - -	14	Alps and banks of the Rhine.
	Rough-footed eagle	*ib.*	Various parts.
	Spotted eagle -	15	Various parts.
	Lesser white-tailed eagle - - -	*ib.*	Various parts.
	Jean le blanc eagle	*ib.*	France.
	Dransberg eagle -	16	Near Goettengen.
	Russian eagle -	17	Russia.
	Black kite - -	21	Germany.
	Austrian kite -	*ib.*	Austria.
	Harpy - - -	25	France, Germany.
	Sclavonian - -	26	Sclavonia.
	Marginate - -	*ib.*	Sclavonia.
	Collared - - -	28	Sweden.
	Long-tailed - -	29	Russia.
	Common - -	30	Various parts.
	Iceland - - -	32	Northern regions.
	Doubtful - -	*ib.*	Sweden.

Genus.	*Species.*	*Ind. orn.*	*Place.*
FALCON	Sacre - - - -	34	Various parts.
	Starry - - - -	35	Various parts.
	White Lanner -	38	Various parts.
	Bohemian - -	43	Germany.
	Ingrian - - -	46	Russia.
	Stone - - -	47	Various parts.
	Mountain - -	48	Various parts.
	Minute - - -	50	Malta.
OWL	Scandinavian -	53	Lapland.
	Zorca - - -	56	Italy, Sardinia.
	Carniolic - -	*ib.*	Carniola.
	Scops - - -	*ib.*	France and other parts.
	Snowy - - -	57	Lapland.
	Austrian - -	61	Carniola.
	——— white	*ib.*	Austria.
	——— rufous	*ib.*	Carniola.
	——— ferrugi-nous - - -	62	Austria near Idria.
	Solognese - -	*ib.*	France.
	Hawk - - -	*ib.*	Sweden.
SHRIKE	Grey - - -	68	Northern regions.
	Lesser grey - -	71	Italy.
	Short-tailed -	76	Hungary.

II. PIES.

CROW	Russian - -	159	Lapland, Russia.
	Alpine - - -	165	Switzerland.
	Hermit - -	166	Switzerland.
CUCKOO	Great spotted -	208	Southern parts.
	Pisan - - -	211	Italy.
WOODPECKER	Grey-headed -	236	Norway, Switzerland.
	Three-toed -	243	Various parts.
BEE-EATER	Yellow-headed -	270	Southern parts.
CREEPER	Green - - -	281	Carniola.
	Wall - - -	294	Southern parts.

III. PASSERINE.

Genus.	*Species.*	*Ind. orn.*	*Place.*
STARE	Collared - -	323	Carniola, Carinthia.
THRUSH	Reed - - -	334	Various parts.
	Rock - - -	335	Italy, southern parts.
	—— lesser - -	336	Switzerland, Austria.
	Blue - - - -	*ib.*	Italy, Crete.
	Solitary - - -	345	France, Italy.
GROSBEAK	Northern - -	388	Northern regions.
BUNTING	Ortolan - - -	399	Southern parts.
	Foolish - - -	402	Southern parts.
	Mustachoe - -	403	France, Provence.
	Lesbian - - -	404	France, Provence.
	Lorrain - - -	*ib.*	France.
	Military - -	412	Malta.
	Brumal - - -	*ib.*	Tyrol.
FINCH	Ring - - -	435	Germany.
	Foolish Sparrow	436	Italy.
	Speckled do. -	*ib.*	Italy.
	White-tailed do.	*ib.*	Italy.
	Short-tailed do.	*ib.*	Italy.
	Dalmatic do. -	437	Dalmatia.
	Crimson crowned	438	Sweden.
	Arctic - - -	*ib.*	Sweden, Norway.
	Lapland - - -	440	Northern regions.
	Snow - - -	*ib.*	Various parts.
	Serin - - -	454	Southern parts.
	Citril - - -	*ib.*	Southern parts.
	Strasburgh - -	460	Environs of Strasborg.
FLYCATCHER	Leucomele - -	469	Eastern Russia.
LARK	Italian - - -	492	Italy.
	Marsh - - -	495	Germany.
	Meadow - -	*ib.*	Various parts.
	Black - - -	496	Russia.

Genus.	*Species.*	*Ind. orn.*	*Place.*
LARK	Calandre	496	Italy.
	Shore	498	Germany, Russia.
	Crested	499	Various parts.
	Undated	500	France, southern.
	Testaceous	*ib.*	Gibraltar.
	Portugal	*ib.*	Portugal.
WAGTAIL	Cinereous	502	Various parts.
	Yellow-headed	504	Russia.
WARBLER	Passerine	508	France, Italy.
	Black-headed	509	Sardinia.
	Moschite	*ib.*	Sardinia.
	Babbling	*ib.*	France, Italy.
	Bog-rush	510	Various parts.
	Aquatic	*ib.*	Italy.
	Tethys	512	Italy.
	Gibraltar	513	Spain.
	Red-tail	*ib.*	France.
	Rufous	516	France, Germany.
	Epicurean	517	Various parts.
	Fig-eater	*ib.*	Italy.
	Blue-throated	521	Various parts.
	White-breasted	522	Germany, Russia.
	Strapazina	530	Spain, Italy.
	Provence wheat-ear	531	France.
	Spotted wheat-ear	532	France.
TITMOUSE	Norway	563	Norway.
	Azure	*ib.*	Russia.
	Toupet	567	Northern regions.
	Penduline	568	Poland, Italy.
	Languedoc	*ib.*	France.
SWALLOW	Rock	576	Carniola.
	Crag	*ib.*	Southern parts.
	White bellied	582	Southern parts.

IV. GALLINACEOUS.

Genus.	*Species.*	*Ind. orn.*	*Place.*
PIGEON	Collared turtle	607	Various parts.
GROUS	White	639	Lapland.
	Rehusak	640	Lapland.
	Helsingian	*ib.*	Sweden.
	Hazel	*ib.*	Germany, Poland.
	Pin-tailed	641	France.
PARTRIDGE	Francolin	644	Spain, Italy.
	Arragonian	645	Spain.
	Damascus	646	France.
	Mountain	*ib.*	Various parts.
	Greek or red	647	Southern parts.
	Kakilik	655	Turkey.
	Gibraltar quail	656	Spain.
	Andalusian quail	*ib.*	Spain.

V. WATER BIRDS.

* WITH CLOVEN FEET.

HERON	White stork	676	Various parts.
	Black stork	677	Various parts.
	Collared	678	Italy about Bologna.
	Obscure	679	Sclavonia.
	Rufous	681	Italy about Bologna.
	Swabian	*ib.*	Banks of the Danube.
	Rayed	*ib.*	Banks of the Danube.
	Squaiotte	686	Italy about Bologna.
	Chesnut	*ib.*	Silesia.
	Red-legged	*ib.*	Italy about Bologna.
	Castaneous	687	Russia.
	Ferruginous	688	Russia.

Genus.	*Species.*	*Ind. orn.*	*Place.*
HERON	Rufous - - -	692	Germany.
	Snowy - - -	696	Russia.
	Black - - -	697	Silesia.
	Crested purple -	*ib.*	Switzerland.
	Greater bittern -	698	Italy.
	Purple - - -	*ib.*	Banks of the Danube.
IBIS	Black - - -	707	Russia.
SNIPE	Belgic - - -	716	Flanders.
	Dusky - - -	724	Lapland.
	Terek - - -	*ib.*	Northern Russia.
SANDPIPER	Greater lapwing	726	Italy about Bologna.
	Swiss - - -	728	Russia, France, Switzerland.
	Waved - - -	732	Denmark and Norway.
	Uniform - -	*ib.*	Iceland.
	Dusky - - -	*ib.*	France, Germany.
	Freckled - -	*ib.*	France, Russia.
	Grisled - - -	733	Various parts.
	Striated - - -	*ib.*	Northern regions.
	Black - - -	738	Banks of the Rhine.
PLOVER	Alwargrim - -	742	Northern regions.
	Gregarious - -	745	Eastern Russia.
	Spur-winged. A.	748	Russia.
PRATINCOLE	Spotted - - -	754	Germany.
GALLINULE	Brown - - -	771	France.
	Grinetta - -	772	Italy about Bologna.
	Speckled - -	*ib.*	Germany.
	Yellow legged -	773	Germany.
	Piping - - -	*ib.*	Germany.
COURIER	Italian - - -	787	Italy.

** WITH WEBBED FEET.

FLAMINGO	Red - - - -	788	South. parts, Sardinia.
GUILLEMOT	White - - -	798	Holland.
TERN	Cinereous - -	808	Italy.

Genus.	*Species.*	*Ind. orn.*	*Place.*
TERN	Hooded - - -	809	Russia.
GULL	Little - - -	813	Southern Russia.
	Glaucous - -	814	Sweden, Iceland.
MERGANSER	Imperial - -	829	Sardinia.
DUCK	Snow goose -	837	Northern regions.
	Gulaund - -	843	Iceland.
	Lapmark - -	859	Denmark, Norway.
	Western - -	866	Sweden.
	Red crested - -	870	Italy.
	Iceland - - -	871	Iceland.
	Sparman - -	876	Baltic sea.
	Gmelin - - -	*ib.*	Russia.
PELICAN	White - - -	882	Danube.

INDEX

TO THE FIRST AND SECOND VOLUMES.

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END OF THE SECOND VOLUME.

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TABLE OF ERRATA.—VOL. I.

Page 70. For " DIV. II. SECTION I. DIGITATED. TEETH cutting," &c. Read, " DIV. II. DIGITATED. SECTION I. TEETH cutting, &c."

124. Transfer " GENUS XII. HARE," from line 2 to line 6, before " TOES five, &c."

176. l. 4, for " Narhwal," r. " Narwhal."

181. l. 19, for " of the *Linnæan*," r. " of the ninth volume of the *Linnæan*, &c."

254. l. 9, prefix an asterisk to " EARED."

Page 262. Note. The editor is informed that the *Scops* or lesser-eared Owl, has recently been shot in *Yorkshire*. ED.

268. l. 6, for " meat" r. mice.

359. bottom line, for " green; above the top," r. " green above; the top."

476. l. 23, for " This and the wood lark," r. " This, the wood lark and the tit lark."

507. bottom line, for "]" substitute " ED."

560. l. 19, for " nook" r. " noon."

The mark ([) distinguishing the additions made by the editor, to be affixed to the paragraphs pp. 181. 183. 241. 243. 246. 368.

VOL. II.

Page 142. l. 15, after " description given," add, " of this bird."

148. l. 4, from bottom, for " These speciess weigh," r. " This species weighs."

151. Note, l. 4, for " sixth," r. " fifth."

153. l. 1, for " varies," r. " vary."

401. l. 11, 12, for " 98" r. " 28."

396. l. 8, for " *Nevell*," r. " *Nevill*."

Omit the stop after Generic name in the references to *Latham* in Vol. I. at pp. 363. 366, 376. 380. 383. 392. 394. 475. 500. 502. 505. 511 514. 516, 517. 521. 532. 534, 535. 537. 540.

Vol. II. at pp. 7. 10. 14. 59. 63. 66.