

sometimes, but incorrectly, called the Golden-eye, this name being used and wanted for the very different species described above

The bill is nearly all of a blue-grey colour, only the tip being black, and is much brighter in the old males than in others

The length is about eighteen inches, the wing eight inches, the shank one and-a-half, and the bill just under two.

The female is a little smaller

The Tufted Pochard inhabits the northern part of the Old World, breeding in the north and migrating south in winter as far as Abyssinia, China and India and straying even to the Malay Peninsula and Polynesia. It is suspected of breeding in the hills in Abyssinia and may do so in India. It is rather a late breeder, laying in June, the eggs number eight and are pale olive green. As it has bred and multiplied most freely on the London park waters, and numbers fly about there unimpeded, it would be a good idea to introduce it on lakes in Indian hill stations. In India it is common in the Deccan, Central Provinces, and Chota Nagpur, it is also found in the Indo-Gangetic plain, but not abundantly. It does not appear to go further south in India than the northern part of the Coimbatore district. In Mampur it has been found very abundant, and has also been met with near Mandalay.

It commonly occurs singly or in small flocks, but sometimes in large numbers, and frequents open sheets of water, it is a very fine diver. On land it moves more awkwardly than any Pochard I know, hobbling as if lame in both feet. It is partial to animal food, and said to be not first-class for eating. It breeds more freely in captivity than do Pochards in general, and in the London Zoological Gardens in 1849 crossed with the White-eye, the resulting hybrids continuing to breed

either *inter se* or with the original parents for more than ten years—a fact to be remembered in dealing with doubtful Pochards, which should therefore whenever possible be submitted to some authority for identification.

## The Green-headed Pochard or Baer's White-eye.

*Nyroca bœri*, BLANFORD, Faun. Brit. Ind., Birds, Vol IV, p. 461.

VERNACULAR NAMES.—*Boro Lalbigra*, Cachar.

This Duck is somewhat slighter and less squatty in build than Pochards generally, being distinguishable in this respect even from its near ally the common White-eye.

The *male* has a dark glossy green head and neck and a glossy deep bay or chocolate breast; the upper plumage and wings are deep glossy brown, with the usual white on the quills, the under surface from the breast is white, and this extends halfway up the flanks, but above passes gradually into light-brown. The eyes are white, or very rarely, yellow.

The *female* is like the male, but has a rust-coloured patch on each side of the face at the root of the beak; the green of the head is less bright and is mixed slightly with rusty about the throat; the breast is lighter, nor is its colour so sharply defined from the white belly as in the male, and there is less white on the flanks. The *male in undress* assumes the rusty facial patch, and gets some white mottling on the breast, and the white appears to fade at this time off the flanks of both sexes.

The eyes of the female are brown, rarely grey or whitish.

The *young birds* are of a dirty light-brown, with wings and tail much as in the parents. The crown is blackish, and there is a rusty patch on the face as in the old female. The colour of the eyes is already quite different in the sexes even in this plumage, so it must develop early.

The length of the male of this species is about nineteen inches; the wing about eight inches; the shank about an inch and-a-half, and the bill two inches; the female is smaller than the male, especially as regards the bill. But females in this species appear to vary in size much more than males, and, as in the Tufted Pochard, some are much duller and less like the males than are others.

This Pochard inhabits Eastern Siberia, China, and Japan normally, but appears to be a bird of somewhat erratic habits. Even in China it is not always to be found easily, and to India it is certainly, I think, a most irregular visitor, though it has probably often been passed over for the White-eye, to which bird the young certainly bear a very close resemblance, though the old birds are easily distinguishable. It was apparently obtained from Bengal in 1825, and Blyth certainly got one female in the Calcutta bazaar in 1842 or 1843, but did not identify it, which is not surprising, seeing that this Duck had not then been recognized as a distinct species. Then, at the end of February 1896, I got eleven full-plumaged birds there, and after that the species came for a time in greater or less numbers every winter, being very common in 1896-97 and less so in 1897-98. I got three males and a female in February 1899, and saw what was either a small dull female or a hybrid with the common White-eye about the middle of January. We had in the Indian Museum other birds in plumage intermediate between the two White-eyes, and I therefore think that they inter-breed. In the cold weather of 1899-1900, I did not see more than half-a-dozen speci-

mens, but 1901 I again saw a few. In 1902, however, none appeared in the market.

The wild habits of this Duck are said to resemble those of the Common White-eye, next to be noticed, and it lays similar eggs; my own observations on its ways have been restricted to captives. It is a better walker than most Pochards, and, I have fancied, hardly so fine a diver. It certainly, judging from birds in the fine water aviary in the Alipore Zoological Gardens, rises more easily on the wing and flies with less effort than other Pochards. I noticed that at Alipore our birds could rise well up into the roof and fly round and round like the surface-feeding Ducks. In captivity in India the species appears to stand the heat less well than the common White-eye. I am ashamed to say, having had more to do with this species than probably any one that I do not know how it tastes! But Mr. E. C. Stuart Baker, who does, pronounces it very bad.

### The White-eye.

*Nyroca ferruginea*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 460.

VERNACULAR NAMES.—*Karchiya*, *Burur-muda*, H.; *Lalbigri*, *Bhuti-hans*, Beng.; *Burnu*, Sind; *Malac*, Nepal Terai.

This species, sometimes, but very erroneously, called a "Wigeon" by sportsmen, is the smallest of all our Pochards, being slighter, if not much shorter, than the Tufted species.

The male has the head, breast, and flanks, rich glossy bay or mahogany-red; the belly and stern are white, and the upper plumage and wings dark brown, with the usual white on the latter, and the inner quills glossed green. It appears not to go into *undress* at all. The

eyes are white, this colour appearing before the bird is in full plumage.

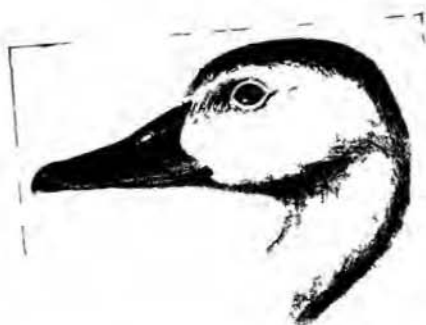
The *female* is much duller and darker in colour, has not the white belly so clearly defined from the breast, and has grey eyes, but is otherwise similar.

The *young bird* is of a general dirty yellowish brown, with wings and tail as in the old. It is rather reddish about the head generally, but shows no black shade on the crown, and by this and its smaller size can be distinguished from the young of the Eastern White-eye. The old birds on the water are easily distinguishable at a distance, not only by the size, but by the present species showing no white above the water-line except on the stern.

The male is about seventeen inches long, with a wing about seven, shank rather over one, and bill about one-and-three quarters. The females are smaller.

This little Pochard inhabits the Mediterranean area, Central and Eastern Europe, and South-Western Asia, having thus a more southerly range than most Pochards. It is resident, and breeds in Kashmir, and in winter visits the plains of India, being common throughout Northern India, as far East as Bengal; in Northern Burma, Assam, and Manipur, whence I have examined a pair, procured by Lieutenant H. H. Turner, and now in the Indian Museum. In Central India, the Central Provinces, and the Bombay Presidency, it is less abundant, but no rarity; but it occurs only occasionally about Ratnagiri and has not yet been recorded from Southern India or Ceylon.

This White-eye likes weedy waters, and does not associate in large flocks, rising, when disturbed, in twos or threes. It is a splendid diver, and owing to the localities it frequents, peculiarly difficult to capture if only winged. I do not think, however, it dives so well as the Tufted and Common Pochards. Before leaving India I had my water-fowl caught up from the Indian Museum



(Page 51)

**Small Whistler.**

H. G. G. G. G. G.



(Page 55)

**White-eyed Pochard.**

H. G. G. G. G.

tank by native fishermen with nets, and though the White-eyes of both species [this and *N. bairi*] were readily captured, I had to abandon the attempt to net the others mentioned. It breeds in the Kashmir lakes in June, laying nine or ten buff-coloured eggs in a nest made of dry rushes placed amid thick reeds, etc., close to the water. It is said to be very poor eating, but I have found it palatable enough, it was commonly eaten in Calcutta in my time.

There are a number of other Asiatic diving-ducks, which being mostly marine except in the breeding-season, are not likely to occur in India but may be expected to turn up on the Chinese Coast. They all present the typical diving-duck structure in a high degree of development, are mainly animal feeders and none are very good to eat.

## The Long-tailed Duck.

*Harelda glacialis* SALVADORI Brit Mus Cat Birds  
Vol XXVII p 389

This is a rather small but very distinct-looking Duck with a very short bill, shorter than the shank and the tail in the male with two long centre-feathers like the Pintail drake's, this peculiar type of tail only occurs in these two very dissimilar Ducks. The Long-tailed drake however retains his long tail-feathers always even when in undress plumage.

In his full plumage the male is mostly white but has most of the wings back lower breast and long centre tail-feathers black the head is greyish and there is a brown patch on the sides of the neck. The male in *summer undress* is mainly black with the under parts white the back variegated by chestnut edgings to the feathers and the face smoky grey.

The bill is slate colour with a broad band of salmon-colour the legs grey, and the eyes reddish-brown.

The *female* has an ordinary short tail, and is dull blackish above with lighter edgings on the shoulders, and white below, she also has the sides of the head dirty white, and the throat and neck brown.

The male is about twenty-two inches long, the long centre tail-feathers accounting for eight, with a bill just over the inch and shank about an inch and-a-half, the closed wing is nine

inches. The female, though little smaller, is, of course, much shorter on account of the different tail. This handsome Duck is as distinct in habits as in appearance. It is an Arctic bird, ranging all round the northernmost parts of the Northern Hemisphere, and migrating south in winter as far as Italy on the one side and South Carolina on the other. It is found in China and Japan at this season. In its winter haunts it is mainly a sea-duck, and the most oceanic of all, feeding in mid-water on small crustacea, etc., so that it is independent of the bottom. It is a fine diver, and, unlike most diving-ducks, lively and active on the wing, and ready to take flight. The call is a loud gabbling note and often uttered in fact the birds are so noisy that they are ungallantly called "Old-Squaw" in America. They breed in high latitudes, laying, about midsummer, half-a dozen or more greyish-buff eggs in a nest on the ground.

### The Harlequin Duck.

*Cosmonetta histrionica*. SALVADORI, Brit. Mus. Cat. Birds, Vol. XXVII, p. 397.

*Shinori-gamo*. Japanese.

The Harlequin is another rather small Duck of striking appearance with a short bill about the length of the shank. The tail is of rather more than ordinary length, and pointed, but not excessively long.

The *male* is mostly of a curious dark slaty-blue colour, more what one would expect in a pigeon than a duck, with the wings back and tail black, and flanks chestnut; there is also a streak of chestnut along the head from each eye, and the plumage is curiously diversified by white markings—a stripe along each side of the crown, a patch in front of the eyes and one over each ear, a stripe down the side of the neck, a bar across the neck at the lower part, and another in front of the wing, and sundry markings on the shoulders, and inner wing-feathers. The bill is slate-coloured and the legs brown; the eyes dark.

The *female* is drab above, getting paler on the underparts, with a dirty white forehead and a white patch before the eye, and spot on the ear, as in the drake; the underparts are also marked with white.

The male is about seventeen inches long, with the bill and shank rather over an inch, and the closed wing eight inches.

The distribution of this Duck is curious; it inhabits Greenland and Iceland, but is rare in Europe; it is at home in the Far East of Northern Asia and visits Japan in winter; it also breeds



in the North of the New World going as far as California on migration. It lays eight or more eggs about midsummer of a creamy colour and smooth surface. It is remarkable for its power of swimming in swift streams but frequents the sea in winter.

The Scoters (*Oedemia*) are large diving-ducks with good-sized bills black plumaged in the male and sooty-brown in the female sex, breeding inland in the north, and frequenting the sea in winter. They build on the ground and lay cream-coloured eggs. None occur in India but some may be looked for on the Chinese coast.

### The Common Scoter.

*Oedemia nigra* SALVADORI Brit Mus Cat., Birds  
Vol XXVII p 401

Is black all over in the male with the black bill which has a knob at the base marked with a broad bright yellow streak down the centre, the legs are dark olive. The female is dark brown with some white on the throat and abdomen a black bill and olive legs the eyes are dark in both. The male is about twenty inches long with bill about two and-a-half shank nearly two and closed wing nine and-a-half.

The common Scoter ranges from Iceland through Lapland east to the Taimyr Peninsula and winters as far south as the Mediterranean. It is not a very likely bird to occur in Eastern Asia where its place is taken by the following species —

### The American Scoter.

*Oedemia americana*, SALVADORI Brit Mus Cat., Birds,  
Vol XXVII, p 404

This is very similar to the last but has the knob on the male's bill all yellow, as is the upper bill generally but with a scarlet flush along the sides. Although chiefly an American bird, it is found in North East Asia and visits Corea and Japan in winter.

### The Velvet Scoter.

*Oedemia fusca*, SALVADORI Brit Mus. Cat., Birds,  
Vol XXVII p 406

Is a considerably bigger bird than the last two, with the dark plumage diversified by a white wing-bar in both sexes. The

black male has his bill, which is swollen at the base, black there and round the edge, orange-yellow elsewhere, and his legs red. He has also a small white patch under the eye. The dark-brown female has a large dirty white patch before the eye and a small one behind it, her bill is dark slate-colour.

The male is about twenty-two inches long, with a bill rather over two and-a-half, shank just under two, and wing rather over ten and-a-half.

This Scoter inhabits the northern parts of the Old World generally, migrating south in winter—unless indeed, records from Eastern Asia concern the next species.

### The Eastern Velvet Scoter.

*Oedemia carbo*, SALVADORI, Brit Mus Cat., Birds Vol. XXVII, p. 411

In this species the male's bill has a more definite knob at the base and is red at the sides, and the white eye spot is situated further back. It is the characteristic white-wing barred Scoter of North-Eastern Asia and is found in winter on the coasts of Japan and China.

### The Surf Scoter.

*Oedemia perspicillata* SALVADORI, Brit Mus Cat., Birds, Vol XXVII, p. 412

Is all black in the male, except for a white patch on the crown and another on the back of the neck, the bill is high and swollen all along, unlike that of any other Duck, and is gaily coloured with scarlet, yellow, white and black. The legs are red and the eyes white. The dark-brown female is marked with white on the back of the neck, the throat, and the face, her bill is dark slate, and less exaggerated in form than the male's.

The male is about twenty-one inches long, with the great bill two and-a-half, shank about two, and closed wing nine and-a-half.

This Scoter is an Arctic American bird, but also occurs in the East Asiatic coasts at times.

The Eiders are also northern diving-ducks, especially marine in habits. They breed in the high north on the ground, laying eggs of an olive or greenish drab colour. The males are chiefly black-and-white, and their females mottled-brown,

more like those of the surface-feeding Ducks, to which, rather than to the other diving-ducks, they are allied

### The Common Eider.

*Somateria mollissima*, SALVADORI, Brit. Mus. Cat., Birds, Vol XXVII p 425.

This Eider has a large strong bill with the feathering of the face running down it, both from the forehead and on the sides from the cheeks. The male is chiefly white above, black on the wings and below with a black cap and a patch of light green at the back of the head. His bill and feet are olive-green, and eyes dark. In dress he is nearly all black.

The female is mottled brown, sometimes with a black wing-bar bordered with white. The male is about two feet long, with a bill about two inches long, shank rather less, and closed wing nearly a foot. It is a large, heavy-looking Duck.

This bird, the celebrated producer of the Eider-down of commerce—or at least some of it—ranges from Iceland east to the Yenisei, and ranges south in winter to the Mediterranean, it is practically purely a sea-duck. It is replaced in America by a very nearly allied race (*S. dresseri*).

### The Pacific Eider.

*Somateria V-nigrum* SALVADORI, Brit. Mus. Cat., Birds, Vol XXVII, p 430.

Has an orange bill in the male, which also possesses a black V shaped mark on the throat. It inhabits the northern coasts of the Pacific and when breeding does not keep so close to the sea as the common Eider. It is this species which may be expected to occur on the Chinese coast in winter.

### The King Eider.

*Somateria spectabilis*, SALVADORI, Brit. Mus. Cat. Birds, Vol. XXVII, p 432.

In this species the male has a large knob on the forehead, his plumage is mostly white above and black below as in the Common and Pacific Eiders, but the cap is lavender-grey. The bill is red, orange on the basal knob, and the legs orange-red.

The female is like the common Eider female, but has the feathering of the forehead running down further than in that bird,

reaching the level of the nostrils, whereas in the common Eider female it does not come more than half-way. Beside, the present species is a smaller bird, with the male's bill only a little over two, the shank less than two, and the wing hardly over ten inches. This is purely an Arctic Duck, found all-round the world, but it has occurred in winter as far south as Venice, and may turn up in China.

### The Spectacled Eider.

*Arctonetta fischeri*, SALVADORI, Brit. Mus. Cat., Birds, Vol. XXVII, p. 422.

In the male of this curious Duck the plumage is mostly white above and dark-grey below, with the back of the head olive-green, but the most characteristic point is a satiny white patch, bordered with black, round the eyes, which is white; the bill is orange and the feet olive. The female is mottled-brown with a bluish bill.

The male measures about twenty-one inches, with the bill an inch long and the shank about one and-a-half; the wing is ten inches. This Duck inhabits the North Pacific, on both sides, but is best known as an American bird.

### Steller's Eider.

*Hemiconetta stelleri*, SALVADORI, Brit. Mus. Cat., Birds, Vol. XXVII, p. 419.

This is the smallest of the Eiders, with none of their characteristic peculiarities of bill or face, but very beautiful plumage in the male, which has long hanging shoulder-plumes, of a deep blue with white edgings. The general colouration is complicated and difficult to describe; the head is white, varied with olive-green and blue-black; there is a white patch on the wing, and a purple bar following it; the back is blue-black, and the under parts chestnut. The bill is gray and the feet brown, the eyes dark. The female is of a mottled-brown, with a purplish-black bar, bordered with white, on the wing.

The male is only about eighteen inches long, with the bill just under two inches, and the shank little over one; the wing measures about eight and-a-half.

Steller's Eider inhabits the high northern latitudes of both worlds, but is rare in the west of the Old World; it may perhaps be found to occur on the Chinese coast in winter.

## CHAPTER VI.

### True Ducks.—(Continued.)

HAVING now disposed of the diving *Anatinae*, we come to the pedestrian and perching contingent, characterized by bearing some resemblance, either in structure or habits, to the Geese, as the divers did to the Mergansers. I group together the genera composing this section purely for convenience, as they have often little in common and are not always nearly related. But the same may be said of some of the diving genera,\* which are nevertheless always grouped together; and it is important to break up this big sub-family into manageable groups.

The goose-like Ducks, then, have this common point of difference from the rest of the sub-family, that the bill and shank are about equally long; the latter may be short, and in that case the bill is so also. The bill is never *long*, but a comparatively short bill means a long shank for a Duck if the lengths are equal, an ordinary Duck's beak much exceeding its leg in length. Most of the present section have the sexes alike, or nearly so, in plumage, which is striking, and forms an easy means of identification.

The seven goose-like genera, comprising eight species,

\* I pointed out above, for instance, that the Golden-eye is nearer the Mergansers than the Pochards; and the Stiff-tail with its foreign allies (genus *Bristimatura*) do not closely resemble any other diving Duck, while in plumage at any rate they approach a surface-feeding Duck found in South America (*Heteronetta atricapilla*). The general resemblance in form of diving Ducks goes, no doubt, with the habit of diving—a habit which may be acquired, as I shall later have occasion to mention, by the surface-feeders. The Whistlers are also almost as much divers as Pochards are.

are easily distinguishable from each other and from all other Indian Ducks as follows —

The *Whistlers* (two species) by their short-quilled wings, which are all black beneath

The *Sheldrake* by its brilliant pied plumage of white, black and chestnut

The *Brahminy Duck* by its chestnut or buff plumage and black-and-white wings

The *Comb-duck* by its long dark wings, and white belly.

The *Cotton-teal* by its minute size (smaller than a pigeon) and inch-long bill

The *Mandarin Duck* by the primary-quills being silvery-grey on the outer and steel blue on the inner web,

The *Wigeon* by the combination of a bill less than two inches long with a ten-inch wing. All Ducks with a bill as short as this have a much shorter wing, not over eight inches. Besides, the blue-grey colour of the Wigeon's bill distinguishes it from all other short-billed species

The two Whistlers, so-called from their whistling note, belong to a very natural and easily recognizable genus. In addition to the colour of the under-surface of their wings, they are noticeable for the peculiar broad rounded form of these. Though large for the size of the bird, the wings have the pinion-quills very short, not showing when they are folded. The body is of unusual form for a Duck, being light and slim, with the thighs prominent, the legs are set far back, but close together, so that the birds walk without any of the usual swaying or waddling in the gait so proverbially characteristic of Ducks. The neck and shanks are long and the feet large, the middle toe being longer than the shank; the outer toe, however, does not nearly equal it in length, and the hind toe, which is unlobed, is longer than in other Ducks. The tail is very short and rounded, and the body short and narrow;



(Page 88)

**Shoveller.**

H. Grönvold, del.



(Page 78)

**Wigeon.**

H. Grönvold, del.

the bill presents no remarkable point. These birds, as above stated, walk well, though they do not come ashore much. Their flight is easier than that of most Ducks, but not swift or powerful, they perch freely, and dive for food like Pochards, but with more of a spring. They are omnivorous feeders, fair eating themselves, and build usually in trees. The sexes are alike in plumage, and the young differ very little from them. The two species, though much alike, are easily to be distinguished, as the descriptions will show, so that a key is unnecessary in this case.

### The Small Whistler.

*Dendrocygna javanica*, BLANFORD, Faun. Brit. Ind., Birds, Vol IV, p 430

VERNACULAR NAMES — *Silli*, *Silhahi*, *Chihed*, H. *Saral*, *Shareil*, *Harrali-hans*, Beng., *Hansrah*, Uriya, *Ade*, *Adla*, *Mahrathi*, *Horali*, Assam; *Tingi*, Manipur, *Yerra Chilluwa*, Tel., *Yerrundi*, Mal., *Chemba Tara*, Tam (Ceylon), *Saaru*, *Tatta Saaru*, Cing., *Si-sa-li*, Burmese.

This is, in spite of its somewhat awkward proportions, a neat-looking little Duck, with the head, neck, breast and flanks dun, crown of head brown, belly chestnut, and upper surface slate with chestnut bars. There is a *maroon patch at the root of the tail above*, and the wings are maroon and greyish black above.

*Young birds* are altogether dun below, with none of the chestnut colour.

The bill is dark-grey and black, eyelids bright yellow, eyes dark and feet dark-grey.

The length is about a foot and-a-half, the wing between seven and eight inches, and the bill and shank nearly two.



The Small Whistler is a common species almost throughout India, Ceylon, and Burma; it is found also in the Andaman and Nicobar Islands, and from the Malay Peninsula to Java. In the Himalayas and Panjab, however, it is not found, or only rarely, and is, of course, absent from desert tracts. It is resident, but moves about considerably at different seasons. It frequents wooded localities, perching much on trees, and prefers weedy ponds and marshes to open water. It generally builds on trees, either making a stick nest for itself, or appropriating the deserted home of some other bird; but it may build in herbage by the water. In most parts of India the breeding season is July and August, but in Ceylon may be as early as February. About a dozen white eggs are laid, and the young, if the nest is high up, are carried down in the feet of the parents. The flesh is said to be poor, but makes good soup. This Duck should not be allowed always to go unscathed by people who despise it as game, for natives are glad to eat it, and it is so quarrelsome with other Ducks that I have no doubt it tends to drive away more valuable species.

### The Large Whistler.

*Dendrocygna fulva*, BLANFORD, Faun. Brit. Ind. Birds, Vol IV, p. 432.

VERNACULAR NAMES :—*Burra Silli*, H.

This is a considerably bigger bird than the last, and of very ungainly appearance, owing to its large coarse head and bill and very big feet; the general body colour is chestnut throughout, not on the belly only; the upper surface is black with chestnut bars, the wings black, with a dark maroon patch, and a cream-coloured patch replaces the maroon at the root of the tail. There is a bold black streak down the back of the neck, a whitish shade round the middle of it, and some white dashes on the flanks, in this species.

The bill is grey and black, eyelids French-grey, eyes dark, and feet French-grey, or at any rate much paler than in the Small Whistler

The Large Whistler is about twenty inches long, with a wing about eight and-a-half, and bill and shank about two and-a-quarter

It has a very remarkable distribution, being found in Africa south of the Sahara and Madagascar, and in Central and South America, as well as in India south of the Himalayas, Ceylon, Pegu and Toungoo. In the Madras Presidency and the Deccan it is very rare, and fairly common in Lower Bengal, but over India generally it is scarce. Its rarity may be due to the abundance in India of the Small Whistler, which, I have observed it usually fears and gives way to. It has a stronger and more rapid flight than its relative, is said to be better eating, and occurs in small flocks. It builds in trees, the eggs are larger than those of the small species

### The Wandering Whistler.

*Dendrocygna arcuata*, SALVADORI Brit Mus Cat, Birds,  
Vol XXVII p 153

Is to a great extent intermediate in size and plumage between our two Indian species. The head has a distinct dark cap reaching down to the eyes and continued as a black streak down the back of the neck, the rest of the head and neck are dun passing into rich bay on the underparts and flanks, which latter are bordered by splashes of cream-colour forming a line along each side and there is a patch of cream colour on each side on the upper tail-coverts. The back is black with chestnut edgings to the feathers, and the wings black with a maroon patch on the shoulder, "but the most readily noticeable point is that the breast is spotted, though somewhat indistinctly, with black. The bill is jet-black, eyes dark, and feet dark slate-colour

The length of this Duck is about seventeen inches, with the bill and shank nearly two, and closed wing eight and-a-half.

It has a very wide distribution in the East Indies and reaches the Islands of the Pacific, ranging from Java through the Islands

to the Australia and even Fiji. In Australia it nests on the ground among grass—laying about a dozen creamy-buff eggs—and is found feeding out on plains at night. Some in confinement in the London Zoo much resemble the Indian Whistlers in their note, sociable habits, and diving for food.

### The Spotted Whistler.

*Dendrocygna guttata*, SALVADORI, Brit. Mus. Cat., Birds, Vol. XXVII, p. 184.

Is about the same size as the last species, but very differently coloured. The general hue above is brown, with lighter edges to the black feathers; the wings are brown, not black; the face and upper neck are greyish and finely pencilled, and the breast and flanks are spotted with white, the abdomen being nearly all white. The bill is black and the feet grey, the eyes brown.

This Duck is an East-Indian species, ranging from Mindanao in the Philippines through Celebes and the Moluccas to New Guinea.

The Sheldrake and Brahminy, though differing so strikingly in plumage, ought certainly to be kept in the same genus, as they are by some ornithologists. Even as to colour, their wings are almost identical, being white with black primaries, bronze-green secondaries, and chestnut tertiaries. The different species of Sheldrake (genera *Casarca* and *Tadorna*) are, indeed, so nearly related that they have been known to "throw back" when crossed, like domestic breeds of one species. In the London Zoological Gardens, in 1859, a female of the grey-headed South African Brahminy (*Casarca cana*) very like our bird, crossed with a male of the common Sheldrake (*Tadorna cornuta*), and the result was a couple of pencilled dark-grey birds, very closely resembling the Australian Grey Sheldrake (*Casarca tadornoides*). This reminds one forcibly of the case communicated to Darwin by Brent, wherein a cross between a white *Aylesbury* and a black *Labrador Duck* produced some birds resembling the wild Mallard, the ancestor of both!

Both Sheldrake and Brahminy are noticeable among

our Ducks for their graceful build, with long shanks and wings, nearly square tail and light body. They swim high in the water, and walk and run quickly and gracefully, the legs being set well forward. They are largely land feeders, omnivorous in diet, and build in holes. They are courageous and intelligent, and inclined to associate in pairs rather than in flocks.\* They are migrants, but the Brahminy builds in our limits in the Himalayas. The sexes are very similar in plumage, and the young closely resemble them.

### The Brahminy Duck or Ruddy Sheldrake.

*Casarca rutila*, BLANFORD, Faun Brit. Ind., Birds, Vol. IV, p 428

VERNACULAR NAMES — *Chakwa* (male), *Chakwi* (female); *Surkhab*, Lal, H, *Mungh*, Sind; *Bugri*, Beng.; *Sarza*, *Chakrawak*, Mahr.; *Bassana Chituwa*, Tel, *Kesar-pandia*, *Pandahansa*, Uriya; *Nir-bathoo*, *Nir-koli*, South India; *Hintha*, Burmese

The Brahminy has an ordinary-shaped, rather short bill. The general colour of the plumage is rich chestnut, varying from this to buff occasionally; the wings are white, black and bronze-green, as above described; the rump and tail black, and the head and neck buff. The male has in summer a black ring at the base of the buff neck, and the female has the fore part of the head white; otherwise they are alike. The bill, eyes, and feet are all dark.

The male Brahminy is about two feet long, with a fifteen-inch wing, and shank and bill about two and-a-half. The female is smaller.

This species breeds in Southern Europe, Northern Africa, and Western and Central Asia, especially in Tibet and Yarkand, migrating in winter to India, Assam,

Manipur, and Burma. It is not found on the Malabar Coast, nor in Tenasserim and the Malay countries, though it occurs in China and Japan.

It associates in pairs, though these may combine into flocks, feeding partly on grass, &c., like Geese, and partly on aquatic animals, such as shellfish, and even occasionally on carrion. Rivers are the favourite haunt of these birds, which are very wary, and often troublesome by alarming other birds. Many legends are attached to this showy species, the best known representing them as being inhabited by the spirits of unfortunate lovers, and their loud dissyllabic call certainly does resemble, as Mr. Stuart Baker has pointed out, the Hindustani equivalents for the dialogue *May I come, Chakwa ? No, Chakwi, &c.*, which they are supposed to carry on all night. They are not esteemed as food, but can be eaten if skinned previously. In Tibet they breed, generally in May and June, at elevations of 12,000 to 16,000 feet, the nest being in a hole of a bank or cliff. The eggs are white, and the young when hatched appear to be carried to the water by the parents.

### The Common Sheldrake.

*Tadorna cornuta*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 427.

VERNACULAR NAMES :—*Shah-Chakwa*, *Sajaid Surkhab*, *Rararia*, H. ; *Niraji*, Sind ; *Chandi Hans*, Calcutta dealers.

This Sheldrake is a smaller bird than the Brahminy, and has a somewhat peculiarly shaped bill, with the profile very concave or "dished" and the nail very small and bent sharply back beneath at an angle ; the bill grows much broader towards the tip, where it is furnished with lobes or lips. The male assumes a fleshy knob at the root of the bill in the breeding-season.

The colouration is very striking, being almost the gayest found in any Duck. It is mostly white, but the head is black-green, the wings white, black, green and chestnut, as in the Brahminy; a broad belt of chestnut goes right round the body at the shoulders and lower breast, and the scapulars, tip of tail, and a broad band down the centre of belly below the breast band are black. The stern is chestnut like the breast, but paler.

The bill is scarlet, and the legs flesh-pink. The *female* is like the male, but duller

The *young* differ from both in having no green on the head, which is brownish black marked with white on the face, and there is no chestnut or black below; moreover the markings above are dull, and the bill and feet pale livid fleshy. But they are recognizably like their parents. The eyes are always dark.

The *male* is about two feet long, with a wing of thirteen inches, and bill and shank about two and-a-quarter. Females are smaller

The Sheldrake breeds in the north temperate parts of Europe and Asia, migrating south in winter. At this season it is found in Northern India from the Indus Valley to Assam, and occurs also in Upper Burma. It is usually rare, but fairly common in places in Sind. It is essentially a sea-coast bird as a rule; hence probably its rarity in India, though it is more common than is supposed, I used to see one or more in the Calcutta bazaar every year. As it is very bad eating, and quite unmistakable when once seen, it should, I think, be spared by sportsmen, if only on account of its remarkable beauty of form, colour, and movement. It does not bear captivity well in India, though thriving in Europe. The male has a large, double, very thin, bony bulb in the windpipe, and his note is a whistle, while the female barks and quacks. It nests in burrows, either made by itself or appropriated from rabbits, and lays about a dozen yellowish-white eggs.

The so-called EGYPTIAN GOOSE (*Chenalopex aegyptiacus*) is included by M.M. David and Oustalet in their birds of China on the strength of the occurrence of one specimen, but this was probably an escaped bird, as the species is purely African, and often kept and freely bred in captivity, at any rate in Europe, where stray birds are often shot. It is really a large Sheldrake, not a true Goose, though about equal to the Bar-headed Goose in size. Its general colour is a pale brown or creamy-dun, with fine pencillings, with wings coloured as in a Sheldrake, a brown collar round the neck, brown patch round the eye and on the breast, and bright pink bill and legs.

## The Comb-Duck.

*Sarcidiornis melanonotus*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 423.

VERNACULAR NAMES.—*Nukta*, H. ; *Nakwa*, Chutia Nagpur ; *Naki hansa*, Uriya ; *Jutu chilluwa*, Tel. ; *Dod sarle haki*, Can. ; *Neer koli*, Coimbatore ; *Tau-bai*, Burma ; *Bowkbang*, Karen.

This although undoubtedly the nearest ally of the dainty little Cotton-teal, is a big, coarse-looking Duck, resembling a Goose in build, and (in the case of the male) in size. The head and feet are large, and the neck, wings, and shanks long. The wings are rounded, the tail almost square, and the bill rather short and high at the root, with the nostrils far forward for a Duck, and the nail large and powerful. The sexes are much alike except in size, but the young bird has a plumage of its own. The male has an upright fleshy comb at the root of the bill, most developed in the breeding season. The male's plumage is brilliantly glossed with metallic green, purple and bronze above ; the head and neck are white, speckled with metallic black, the flanks are clear pale grey, and the rest of the underparts white, with frequently a dash of rich yellow on the under tail-coverts at each side. This disappears in skins, and is not always present in the live birds.

The *female* is much like the male in plumage, but duller.

The *young* are brown where the old birds display metallic hues, and have the head and neck marked with brown much after the fashion of the female Cotton-teal, not spotted with black or white.

The eyes, bill, and feet, are all dark, as is the comb when present.

The male is very much larger than the female, measuring about two feet and-a-half, with a wing of fifteen inches, shank two and three-quarters, and bill about the same; it is much the largest of Indian Ducks proper. The female is not much over two feet long, with a wing about a foot, shank and bill about two inches.

The Comb-duck has a wide range in warm countries and is resident; it is found in India, Ceylon, and Burma, and also in Africa south of the Sahara and in Madagascar. It is common where there is plenty of wood and water, and rare or wanting in desert tracts. Nor is it common, if it occurs, in the districts south of Mysore, Bombay, the Deccan, Sind, the Western Punjab, and Tenasserim.

This Duck is usually found in small flocks in the cold weather, and at other times in pairs. It is a tree-duck, perching and breeding in trees; the nest being made in a hole or a fork, of sticks, leaves, feathers, &c.; the eggs, laid in July, August, or September, are seven to twelve in number, ivory-white and very glossy. In its attitudes on land and water this Duck resembles a Goose, but does not carry the neck so stiffly; and it flies faster and is a better diver. It is often called the Black-backed Goose, but is not a Goose either in structure, plumage, or habits, keeping much more to the water, and being a very silent bird. It is fairly good eating. The bill is powerful enough to draw blood when the bird is handled, and the slight wound so produced is apt to fester accord-



ing to my experience    The male has a small bony bulb in the windpipe.

### The Cotton-teal.

*Nettopus coromandrianus*, BLANFORD, Faun. Brit. Ind., Birds, Vol VI, p 433

VERNACULAR NAMES — *Girra*, *Girri*, *Girja*, *Gurgurra*, Hind., *Ghangariel*, *Gangani*, Beng., *Bullia-hans*, Dacca, Faridpur, Sylhet, *Dandana*, Uriya, *Lerriget-perriget*, *Meromderebet*, Kol, *Ade*, *Adla*, Ratnagiri, *Kalagat*, Burmese.

The Cotton-teal, in addition to its very small size, is noticeable for its rather 'dumpy' build, short wings, long rounded tail, short legs set far back, and large feet, with strong sharp claws. The bill is almost exactly like that of a Goose in miniature, but has the nostrils near the root, it tapers to the tip, and has a large nail forming the tip, but at the edges it has the ordinary ridging found in Ducks, not the teeth of a Goose's bill.

The plumage, like the general build, is not at all like that of a Goose, and it differs much in the two sexes, though there is some general correspondence. The *male* is largely white, with the crown metallic dark-brown, a broad black collar below the neck, the upper plumage metallic green and purple, there is a white patch on the primary quills; the flanks are pencilled with black, and the under tail-coverts black. The bill is black, the eye red, and the feet black, yellow down the sides of the shanks and toes.

The *female* is brown where the male shows his metallic hues. There is a brown line from the bill through the eye; the head and neck are speckled with brown and the breast pencilled with that colour; the flanks are brownish, and the under tail-coverts white, and there is no white patch on the pinion quills. The bill is yellowish.

brown, the eye dark, and the feet greenish yellow with black webs.

The *young birds* are like the female, and so is the male when in *undress*, except that he retains some green on the wings and the white patch on the quills. This bird is only about a foot in total length, with a wing of about half that, and an inch long bill and shank. It has been called the Goose-teal, Goslet, and Pigmy Goose, but wrongly, as there is nothing goose-like about it except the bill.

The Cotton-teal inhabits the greater part of India, and extends through Burma and the Malay countries to China in one direction and Celebes in another. A large variety of it inhabits Eastern Australia, where also a distinct species is found. It is a resident bird, never leaving the country altogether, rare in Malabar, the Bombay Presidency, and Kattywar, and absent from desert Rajputana, Sind, and the Western Punjab. It is very abundant in Lower Bengal, but does not now by any means outnumber all the other Ducks in the Calcutta bazaar, as it did in Mr Hume's time. It prefers well-wooded country with plenty of small ponds and marshes. It is a very fast swimmer and excellent diver, though usually a surface feeder, pecking about more like a Coot or Water-hen than a Duck, it will dive for food readily enough on occasion, but not very neatly. It is the most active flyer of all our waterfowl, being both swift and nimble, but it is a very poor walker, being although quite able to walk normally, curiously weak in the legs and unwilling to go far at a time, it perches freely. It builds in holes in trees and buildings, laying in July and August a dozen eggs or oftener less, ivory-white and very smooth. The young seem from native evidence quoted by Mr E C Stuart Baker to be carried down in the feet of the old bird, they are most beautiful and nimble little creatures, clad in dark-brown down with white markings. Cotton-teal moult in autumn,

losing all the quills, and it is then that the male goes into *undress*, remaining in this stage during winter. He has no bulb in the windpipe. His note ludicrously resembles the words "Fix bayonets," and is uttered in flight. The flesh is very poor eating in my opinion, not positively objectionable, but flavourless.

### The Mandarin Duck.

*Aex galericulata*, SALVADORI, Brit. Mus. Cat., Birds, Vol. XXVII, p. 76.

VERNACULAR NAMES:—*Oshidori*, Japanese.

The Mandarin Duck, quite apart from the wonderful decorations of the full-plumaged male, is at once distinguishable from all other Indian and Asiatic Ducks by the peculiar form of its wings, which are shaped more like a Pigeon's than a Duck's, the primary quills plainly showing for some distance beyond the short secondaries. In general form it much resembles the Cotton-teal, having a short goose-like bill and rather long rounded tail; but it also has a full crest, and stands higher on the legs than the Cotton-teal, while the feet are proportionately small; the eyes are larger than in any other Duck.

The *male* in full plumage is a most extravagantly decorated bird, his general "get up" being suggestive of a Bird-of-Paradise rather than a Duck. His crest, very long and full, is copper-red in front, metallic green behind, and white at the sides, the white also occupying the upper part of the face, but shading into buff as it nears the ruff of bright chestnut hackles which adorns the neck. The breast is purplish-maroon, and the abdomen white. But the wings are the most remarkable part of the bird; the innermost quill is expanded on its inner side into a chestnut fan three inches broad, while the outer web is of ordinary size and bright steel-blue;

the pinion-quills are silvery-grey on the outer and steely-blue on the inner webs. There are other elegancies in this little harlequin's plumage, but it would take too much space to describe them here, and the presence of the orange ruff and wing-fans, or of either separately, is quite enough for identification. The bill is rose-red, the eyes dark, and the feet dull orange with black webs.

The *female* is a sober-looking but dainty little bird, but always recognizable by the conspicuous silvery-grey and steely-blue primary quills, which are like those of the male. Her general colour above is plain brown, without any markings, shading to grey on the head and crest. There is a narrow white line round the eye, prolonged back into a streak. Her sides are mottled with creamy-buff, and the abdomen white as in the male. She has a horn-coloured bill and olive feet. The *male in undress* is almost exactly like the female, more so than in any other Duck, which is curious, seeing his extravagance in attire when in full plumage. The white round the eye, however, is less pronounced, and the head greyer. The only easy distinction, however, is the colour of the feet—in a fresh specimen—for they always remain orange in the male, though his bill sometimes turns dull like the female's and sometimes retains the beautiful rose tint of the full dress. *Young males* are like the old male *in undress*, and young females like their mother. The male is about seventeen inches long, with the bill and shank each about one and-a-quarter, and wing nine and-a-half. This extremely beautiful Duck, though well known as a captive in India—as, probably in all countries where there are Zoological Gardens and fanciers—is a very rare straggler there in the wild state, its proper home being Eastern Siberia, China and Japan. It also visits Amoorland in the summer. It is a very active Duck, a surface-feeder, and very nimble on land, in spite of its affinity to the Cotton-teal. It perches freely, and lays

its eggs, which are creamy-white, in holes in trees. Indeed it seems very much of a land and tree-duck, as it is sometimes found in oakwoods, feeding on fallen acorns, and flying up into the trees when disturbed. The male's note is a sort of snorting whistle, the female's a sneezing quack, not loud in either case. The male is much attached to his mate, caresses her like a Pigeon, and constantly shows off his fine plumage before her, when on the wing, however, all his finery is inconspicuous, and only the broad white eye-brows are noticeable. The only specimen which has occurred wild in India is a female shot out of a flock of six in Assam in March 1902.

### The Wigeon.

*Mareca penelope*,\* BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 445

VERNACULAR NAMES —*Peasan*, *Patari*, *Pharia*, *Chota-Lalsir*, H., *Cheyun*, Nepal, *Parow*, Sind.

The Wigeon is easily distinguished from all other Indian Ducks by its characteristic form. The bill is very short and tapers slightly, the shanks are also short, and the feet of moderate size. The wings are long and pointed, and the tail is pointed also. The sexes differ absolutely in plumage, and the male in *undress* differs from the female more than is usual with drakes in this stage. The male has a large bony drum in the windpipe.

The *male's* full plumage is of a general pencilled-grey colour, produced by fine black lines on white, the head

\* I have given the specific name of the Wigeon as it is now always written by naturalists; but it really ought to be *Penelope*, as Gesner and Linnæus had it, for this is the ancient Greek name of some kind of Duck, probably one with pencilled plumage, since *pena* means a web of cloth in process of weaving and reminds one of our term Canvas-back for the big American Pochar. It could hardly have been the Wigeon, since this was probably the Duck known as *daskas* "the grazer."

is chestnut, with a cream patch from beak to crown ; the breast brownish pink ; the tail-coverts are black ; the " shoulder " of the wing white, as is the belly , the wing-bar on the secondaries metallic green.

The *male in undress* is of a general reddish brown hue, mottled with darker, with blue-grey " shoulders " to the wings, and a white belly.

The *female* is mottled with dark and light brown with a white belly, and has usually no bar on the wing. The young resemble her, but the young male shows some green on the wing

The bill is French-grey with a black tip, and the feet grey , the eyes dark

The male measures about nineteen inches, with a bill of an inch and three-quarters and shank a little less. The wing is ten inches long Females are little smaller

The *Wigeon inhabits Europe, North Africa, and Asia*, breeding to the north and migrating southward in winter. It occurs sometimes on the North American coast, but the common Wigeon of North America is a distinct, though closely allied, species, *Mareca americana* \* To India and Burma the Wigeon is a fairly common visitor , it has not been recorded from Ceylon, nor in the Peninsula south of Mysore. It is somewhat local and irregular in its appearance where it occurs , thus Mr Oates failed to find it in Pegu, though McMaster found it common there, as Hume did in Manipur, and Vidal " in some years " in Ratnagiri. The name Wigeon is often misapplied , for instance, the Ducks so-called in South Africa and Australia are not Wigeon at all.

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\* In this the male has the head buff thickly speckled with black, with a green streak behind the eye, but with the same cream-coloured forehead as our bird , and the dull pink of the breast extends along the flanks. In other respects the plumage is like that of our Wigeon, and females are almost indistinguishable ; this species has occurred in Europe, and might possibly do so on the Chinese coast.

The Wigeon is not closely allied to the Ducks with which I have placed it ; its real affinities being with the true Teal, to be treated of later. It differs from these and most other Indian *Anatinae* in having the habit of grazing like a Goose, for which the short bill is well adapted. In gait and flight, however, this species resembles the ordinary surface-feeding Ducks, and like them is more or less omnivorous at times. It can dive well on occasion. Wigeons are found in flocks, parties, or alone, and frequent salt water as much as fresh ; they are not, in India, among the very best Ducks for the table. The male's note is very characteristic, a loud musical whistle—" whe-ew ", the female utters a low purring growl. She nests on the ground, and the eggs are creamy-white, the ducklings begin to graze early, while still tiny downy things.

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## CHAPTER VII.

### True Ducks (*concluded*).

THE other thirteen species of *Anatina* with which we have to deal comprise the ordinary surface-feeding Ducks, which do not, as a rule, either dive for food or perch, nor are they found much on land. In all of them the bill is noticeably longer, sometimes considerably, than the shank, which is short, being considerably exceeded in length by the middle toe. The outer toe is, however, not equal to the middle in length, leaving the foot comparatively small. The legs are set rather far back, but not so far as in the diving Ducks, and they walk fairly well, though with a waddling gait. The wings are of good size and pointed, and they fly well. They feed at the surface as a rule, or by reaching down with their tails in the air, seldom diving for food.\* They are divided into ten genera, of which three are at once marked off by striking colour, and two by peculiarities of form. The others are separated by characters so trifling that they would be better taken all together, their relationship being undoubtedly very close.

Of the peculiarly coloured genera, the sexes of which are recognizably similar,—

The *Wood-duck* is at once distinguished by its large size, dark body, and black and white wings with French-grey bar.

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\* At the same time, I have observed and recorded (Natural Science, 1892, Vol. I, p. 47) that the half-tame Mallards in the London Parks do sometimes dive for food, and also the Mandarin Duck (*Aix galericulata*) and the Chilean Pintail (*Dafila pinnicanda*); since this I have even seen the latter bird chasing and catching live fish under water like a Merganser! This was in St. James' Park, 24th July, 1894.



The *Pink-head* by its dark body, buff quills, and pink or pale drab head.

The *Marbled Teal* by its pale, washed-out-looking plumage, and silver-grey edgings to the pinion-quills.

Of the genera of peculiar form the sexes are very unlike, but the following structural characters distinguish them from all other Indian Ducks of this section.

The *Pintail* has a long sharp tail, half as long as the wing or longer.

The *Shoveller* has a huge mis-shapen bill, very long, and twice as broad at the tip as at the root.

Then come a number of species, referred to several genera, of which the male and female often present hardly any point of colour in common. They may, however, be sorted out partly by size and partly by the colour of the wing-bar.

Of the bigger Ducks, with the wing nine inches or over :—

The *Mallard* and its allies (three species) have a steel-blue or green wing-bar, edged with white.

The *Gadwall* has a white wing-bar and the fringing of the bill showing well below the upper chap.

The *Bronze-cap* has a black or green-black wing-bar and grey feet.

Of the smaller Ducks, or Teal, with the wing under eight and-a-half inches :—

The *Garganey* has the fringing of the bill just showing below the upper chap and the wing-bar dull green or wanting.

The *ordinary Teals* (three species) do not show the fringing of the bill when this is closed, and have the wing-bar black and brilliant green or bronze.

## The Wood-duck.

*Asarcornis scutulata*, BLANFORD, Faun Brit.  
Ind, Birds, Vol IV, p 424

VERNACULAR NAME —*Deo-hans*, Assam

The Wood-duck is a very big, coarse-looking species which, properly perhaps, occupies a genus to itself, for although of late stated to be allied to the Comb-duck, it presents very many points of difference from that bird. Its beak, besides being longer than the shank, is flatter than the other's, and inclined to widen instead of taper towards the tip, and does not grow a comb. The middle toe is much longer than the shank, instead of only a little, as in the Comb-duck, and the tail is markedly rounded, not nearly square as in that bird. In short, the Wood-duck much more resembles in the matter of form the ordinary Ducks of the Mallard genus (*Anas*). An examination of the drake's windpipe would probably settle the matter.

In colour the *male* is olive-brown above and dull chestnut below, with a white head and neck much spotted with black, and a green-glossed black breast, the 'shoulders' of the wings are white and the wing-bar slate-colour, separated from the white by a black band. The bill is orange or yellow blotched with black, the base becoming, in the male, swollen and red in the breeding-season, the eyes crimson or brown, and feet orange or yellow.

The *female* is like the male, but with paler bill and feet and considerably smaller. The *male* is over two feet and-a-half long with a fifteen-inch wing, shank nearly two and-a-half and bill nearly three inches. In both sexes the colour varies much according to the freshness of the plumage, newly-moulted birds being very bright and showing much more green gloss than those in old feathering.

This Duck is found as a resident in Assam, the Malay Peninsula and Java, in which last country it is believed to be domesticated. Unlike most of the other Ducks I am including in this section, it is an inveterate percher and haunts water surrounded by jungle. Mr E. Stuart Baker, our chief authority on this bird, has given some evidence tending to show that this species lays creamy-white eggs in holes of trees, and young birds are said to have been shot on the Dhansiri river in Assam, where this Duck is not rare in the Dibrugarh district; they keep in pairs or small flocks, and have a loud trumpeting call. They are very easily tamed, and Mr Baker found his specimens would dive and chase live fish under water, a strange habit for a bird of this type, a good walker and quite at home on land.

### The Pink-head.

*Rhodonessa caryophyllacea*, BLANFORD, Faun. Brit Ind, Birds, Vol IV, p 425

VERNACULAR NAMES — *Lal sir*, *Golab Lal-sir*, Hind., *Saknal*, Bengal, *Dumrar*, *Umar*, Nepal Terai and Tirhoot, *Golabi sir*, Calcutta dealers

Whatever may be the case with the Wood-duck, it is quite certain that the Pink-head stands very much alone among Ducks. It is not very remarkable as to form, being a slight-built Duck, with large but not long wings, a close-feathered, thin and angular-looking head and neck, and an ugly-shaped bill, very flat at the tip, and with the ridges lining it not well developed, but with a large nail.

Its colouring, however, is unique, not only among Ducks but birds in general. The *male's* plumage is generally of a glossy sepia, with buff wing-bar, and the pinion-quills also shaded internally with buff, the head and neck, with the exception of a broad black band down

the throat and front of the neck, are of a most crude and brilliant rose-pink, which does not harmonize at all well with the bright red eye, and white beak shading into flesh colour at base and tip

The *female*, though less striking in appearance, much resembles the male. She is, however, duller throughout, the pink of the head being especially dull and dirty; there is no black on the throat, but a black streak along the crown. This mark the male assumes when not in full colour. The bill of the female is black, with a cream bar between nostrils and root, eye duller than in male. The *young* are much like the female, but paler below, and with the head of a dull neutral tint instead of pink. The bill probably resembles that of the female in all young birds, but the youngest male I have seen already has a light bill in the skin, and even in slins the difference in colour in the bills still shows. The feet are purplish black in all. The male is about two feet long, with a wing about eleven inches, shank nearly two, and bill all but two and-a-half. The female is a little smaller.

The Pink-head is a purely Indian Duck, never leaving our area, nor occurring outside it. In most places it is rare, but fairly common in Upper Bengal in the districts of Purneah, Maldah, Bhagulpur, and in Tirhoot; in the rest of Bengal, Orissa, the Northern Circars, Oudh, and the North-West Provinces it occurs but rarely, and may straggle occasionally to Delhi, Mhow, and Ahmednagar on the west and Madras on the south, while from the east it has been recorded north of Bhamo. It frequents, in small or moderate-sized flocks, weedy ponds and swamps, generally those surrounded by jungle, and nests on the ground in high grass in June and July. The eggs are quite unique, white and nearly spherical in shape; about nine are laid. The male's windpipe has a most curious bulb, partly of bone and partly of membrane, the latter being supported by fine network of

bone ; his note is low, musical, and quite unlike that of any other Duck, resembling the syllables " wugh-ah ! " The flight is light and easy, and the habits those of a true surface-feeder, though there can be little doubt that the real relationships of this bird are with the Pochards on account of the colour of the wing and the structure of the windpipe. It is poor eating as a rule, and being so very striking and interesting a bird, should, I think, be perpetually protected ; though specimens might be legitimately captured for home fanciers, who have never yet, I believe, succeeded in breeding it.

### The Marbled Teal.

*Marmaronetta angustirostris*, BLANFORD, Faun.  
Brit. Ind., Birds. Vol. IV, p. 454.

VERNACULAR NAMES :—None known.

This is a small, slightly-built Duck, with a short full crest and a long narrow parallel-sided bill. Its peculiar coarsely-mottled mealy-looking plumage will at once distinguish it from any other Duck ; it shows two colours only, greyish brown and dirty white, with the exception of a wash of silver grey on the outside of the pinion-quills. The darker colour predominates above, and the lighter below, and there is no wing-bar ; the bill is grey and black, the eyes dark, and the feet dark or grey.

The *female* only differs from the *male* in being smaller, duller, and with less crest. The male is about a foot and-a-half long, with a wing of about eight inches, shank just under one and-a-half and bill just over two.

This Duck, which looks like a semi-albino of some other species, inhabits Southern Europe, especially Spain, Northern Africa, and South-Western Asia. In India it is chiefly known as a winter visitor to Sind, but it has occurred in the South-West Punjab, Bahawal-

pur, Northern Guzerat, Rajputana, the North-West Provinces, and Oudh, and near Calcutta. In Sind it affects rush-covered swamps, where it occurs in large numbers, the birds rising two or three at a time when disturbed, not all at once like most Ducks. It is said both to whistle and to quack: probably the voices of the sexes are different, as is so usually the case. It is probable, but not absolutely certain, that it breeds in Sind. The eggs are yellowish white, about ten in number, and the nest is placed on the ground among rushes in the countries where the bird breeds. Although differing so little from the female in outward appearance, the male of this species yet possesses the bony bulb in the windpipe so often found in drakes.

In the other species belonging to this section, the males in *undress*, females and young have the plumage mottled with light and dark in a very characteristic way, and some look much alike at first; but they are much easier to discriminate than young Pochards. Two of the genera are also, as remarked above, easily known by peculiarities of form, and the others may generally be distinguished by the colour of the wing-bar, which is different in each species, and common to all members thereof as a rule. The reason for the existence of this natural coat-of-arms is an interesting subject for speculation.

A theory has been advanced to the effect that the differing markings on the wings of allied birds are "recognition marks" whereby the individuals of each species are enabled to know their own kind, and hence verify the proverb about birds of a feather flocking together. There may be something in this, as it is obviously important that all the birds in a flock should keep "time" and observe formation in their evolutions, and so the occasional occurrence of alien individuals in flocks of other species cannot be held to be a serious objection to the theory. Nevertheless, the Ducks, which furnish

such excellent examples of differing wing-markings, also furnish evidence which is rather unfavourable to this recognition-colour idea. In the first place, several of the Pochards agree in having the same wing-pattern, and the flight of these is certainly not quite the same. And secondly, the wing-bar is not *always* constant in the same species in all its individuals; the female Wigeon, as we have seen, seldom has one, and it is generally absent in the female Pintail, though I knew at one time in India of no less than three female individuals of this species which acquired it, though without it at first. Also the female Garganey gets an approach to this marking with advancing age; so that it would seem that these two species are now acquiring the marking, which is not yet fixed. But if it were so important to the birds to know each other, the slower, weaker females would need to show their nationality more than the males, the more so as they are especially the members of the species which are so difficult to distinguish as to render a special recognition-mark necessary. In favour of considering the marking as an ornament is the fact that it is in some cases at any rate displayed in courtship, and this is, no doubt, the chief use of its presence.

### The Shoveller.

*Spatula clypeata*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 452.

VERNACULAR NAMES :—*Tidari*, *Punana*, *Tokarwala*, *Ghirah*, H. ; *Pantamukhi*, Beng. ; *Dhobaha Sankhar* (male), *Khikeria Sankhar* (female), Nepal ; *Alipat*, Sind.

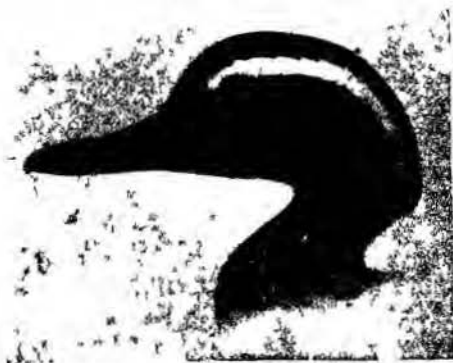
The Shoveller's one point—it can hardly be said of beauty, but of generic distinction from other Ducks—is its very large and curiously formed bill. This is twice as long as the shank, and twice as broad near the tip



(Page 104)

**Common Teal.**

H Grönvold, del



Page 101)

**Garganey.**

H Grönvold, del



as at the root, with the sides of the upper chap much turned down near the end, and furnished with a very deep and conspicuous fringe, forming a very perfect sifting apparatus. For the rest, it is a light-built Duck, with long pointed wings and rather small feet.

The *male's* head and neck are bright metallic green, the lower neck and breast white, belly and flanks bay followed by a white patch, rump and stern black-green, long pointed scapulars blue, black and white, the wings very bright, with blue shoulders and bright green bar bordered in front with white. The bill is black, eye yellow and feet orange.

The *female* is mottled dark and light brown, with a general tawny hue, the wing has a grey or grey brown shoulder and the wing-bar is duller green than in the male. Her bill is brown above, orange below, and her eyes brown. The *young* are like her, and the *male in undress* is similar, except for being darker and redder in hue, and retaining his brilliant wing-colouring.

The male is about twenty inches long, with a wing rather over nine, bill about three, and shank about one and-half. The female is smaller.

The Shoveller inhabits the greater part of the northern hemisphere, breeding in the temperate portion, and migrating south in winter, when it visits India, Ceylon and Northern Burma among other places. It becomes rarer to the southward than in Northern India, but is reported by a writer in the Rangoon Gazette, Nov. 26, 1908, as not rare in Pegu or Tenasserim, and Mr Oates has obtained a specimen from the Shan States. It does not ordinarily breed in India, but Layard found young birds in Ceylon, so it must sometimes do so. The nest is on the ground, and the eggs greenish buff. In India it haunts fresh water and is found singly or in small numbers, keeping to the shallows, for it is of all the Ducks most perfectly adapted for surface feeding. Captive birds have been noticed to assidu-

ously sift the water above feeding Pochards ; this I never saw done by a bird I long possessed, but I have observed the same habit in tame Teal (*Nettion crecca*) in England. The Shoveller is fond of dirty little village ponds, where it is very tame, and is said to be a very foul feeder ; its flesh is considered poor in India, but I must say the only one I ever ate was good enough, and in America, Audubon said that no good judge would pass a Shoveller to shoot a Canvas-back. The male Shoveller has a small bony bulb in the windpipe ; his note is a harsh short croak. It is interesting to note that when first hatched the duckling of this species has an ordinary-looking bill, and that the young drakes show the enlargement most as growth proceeds.

### The Pintail.

*Dafla acuta*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 447.

VERNACULAR NAMES :—*Sanh*, *Sink-par*, H. (N.-W. P.) ; *Kokarali*, *Drighush*, Sind ; *Dig-hans*, *Sho-lon-cho*, Beng. ; *Digunch*, Nepal ; *Nanda*, *Nanja*, Uriya ; *Laitunga*, Manipur ; *Tau-bay*, Burm.

The Pintail, despite its strikingly aristocratic appearance, has really but the faintest claim to generic rank. Its only peculiarity consists in its slender build, with long neck, long parallel-sided bill, and long pointed tail, of which the centre feathers in drakes reach a great length. The wings are also long, but the legs remain rather short.

The *male's* plumage is of a general pencilled-grey colour on the upper surface and flanks, produced by fine black lines on white ; the head is dull dark brown with a lilac gloss on each side behind the eyes ; the back of the neck black, with a white band on each side running

down to join the white of the fore-neck, breast and belly ; the stern and long tail-feathers are black, and just in front of the tail, on the flank, is a yellow-buff patch. The wing-bar is bronze-green, with a cinnamon bar in front and a white one behind. The scapulars are long, and black with pale edges.

The *female* is mottled with dark brown and buff or white, the markings being particularly clear and distinct ; she usually shows no coloured wing-bar, but two whitish ones where it should be. In both sexes the bill is black along the middle and grey at the sides, the eyes dark, and the feet grey. *Young birds* have darker and more uniformly-coloured bills.

The *male in undress* bears a general resemblance to the female, but the details of the marking are different, the light bars being nearly transverse, instead of following the outline of the feather ; and he shows the wing-bar as in full plumage. The young male appears to resemble him in this stage.

The *male* is about two feet long, but may be more or less according to the development of his long tail-feathers, which may measure over nine inches ; he has an eleven-inch wing, bill about two and-a-half inches, and shank over one and-a-half. The *female* is smaller and has a much shorter and less pointed tail, though this is still long for a Duck, and the transversely-barred feathers thereof are characteristic of her only.

Pintails have an exceedingly wide range, being found nearly all over the Northern Hemisphere ; in the United States they are known as "Sprigs." They breed mostly near the Arctic circle, nesting on the ground and laying greenish-grey eggs, and are only winter visitants to our area, occurring throughout India, Burma, and Ceylon. They are generally in flocks which are sometimes very large, and frequently composed of males only. They are remarkably rapid flyers, but do not rise so easily as might be expected from their light build. The male

has a bony bulb in the windpipe, and his voice is a faint soft note, while the female utters a harsh unpleasant quack, but they are silent birds as a rule, the females especially. They are always most excellent eating, and as they stand the hot weather well, might easily be kept through the summer for table purposes in any suitable tank or building. This species is particularly liable to show the rusty wash on the lower parts found in many Ducks; it is undoubtedly a stain, as a drake Pintail I had unpinioned showed it suddenly one day after a night's absence from the tank where he was living.

I once saw a semi-albino Pintail drake in the Calcutta bazaar, of a pallid whitish hue with flesh-coloured bill and feet, and Mr. M. Mackenzie, of Chuprah, wrote me once that he had got a snow-white female of this bird.

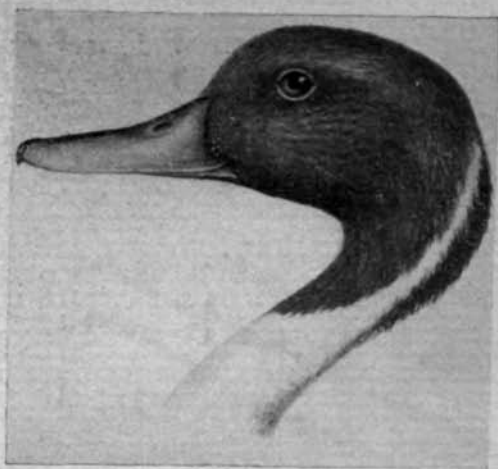
The Mallard, Spot-bill, and Yellow-nib are large Ducks of a somewhat heavy build, with big broad bills, they are about the same size, but are easily distinguished by the wing-marking, the wing-bar is steel-blue in the Mallard and Yellow-nib, in the Spotted-bill metallic green with a long white splash above and behind it.

## The Mallard.

*Anas boschas*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 435.

VERNACULAR NAMES :—*Nil-sir*, *Niroji*, H. ; *Lilg* (male), *Lilgahi* (female), Nepal.

The Mallard differs from all our Ducks in that the male's four middle tail-feathers are curled up; he is very different from the female in general plumage also. In general colour the male is grey, the effect being produced by a fine pencilling of dark brown on white, more or less marked; the head is bright metallic green, this colour



(Page 90)

**Pintail.**

H. Grönvold, del.



(Page 92)

**Mallard.**

H. Grönvold, del.

being separated by a white ring round the middle of the neck from the deep bay of the lower neck and breast ; the rump, stern, and curly tail-feathers are black, and the wing-bar steel-blue edged with white fore and aft. The bill is yellowish olive-green and the feet orange ; eyes dark.

The *female* is mottled with light and dark brown, with the wings and feet like the male ; her bill is commonly black with an orange tip and edges, but varies. The *male in undress* is like her, but black on crown and rump ; young males resemble him in this stage.

The *male* is about two feet long, with a wing about eleven inches ; bill about two and-a-half, and shank about one and-a-half ; the female is smaller and considerably lighter.

The Mallard, like many others of our Ducks, has a very wide range, being a resident throughout the temperate regions of the Northern Hemisphere ; some birds migrate south in winter. With us it breeds in the Himalayas and Kashmir, and in winter is common in the Western Punjab and Sind, not rare in the North-West Provinces, Oudh and Behar, and occasionally occurs in Guzerat, the Central India Agency, the Deccan, Bengal, Assam, and Northern Burma ; in Southern India, Ceylon, Pegu, and Tenasserim it is unknown. Although by no means widely or universally distributed over India, this is the most familiar of all Ducks, being the common wild species of Europe, and the ancestor of our various tame breeds, except the Muscovy, which comes from a very distinct South American bird (*Cairina moschata*), a tree-haunting species more nearly allied to our Comb-duck. The domestication of the Duck is not so very ancient, since Columella, a Roman agricultural writer of about the beginning of the Christian era, recommends that Ducks should be kept in netted enclosures to prevent their flying away, and that the stock should be increased by taking the eggs of the wild birds and

putting them under hens—showing that Ducks were about as much domesticated then as Pheasants are now; a fact which makes their general loss of the power of flying, while this has been retained by the Goose, particularly interesting. The Mallard is, indeed, one of the easiest of all birds to tame and breed; it also crosses very freely with other Ducks, and stamps its impress on the hybrid in a very noticeable way, as far as coloration is concerned. Those who require a large Duck for the table out here should not try to introduce the heavy European breeds, which are unsuited to the country, but cross the country Ducks with the Muscovy, by which means a large Duck is produced, weighing over six pounds, and of excellent flavour. It is of course barren, but there is no difficulty in making the cross as often as required. The wild Mallard is one of the best of all Ducks for the table, though remarkably omnivorous in its habits; it is usually found in small or large flocks. The *male* has a bony drum in the windpipe, and any one who has noticed poultry must have observed the difference in the voice of the sexes, the drake's hoarse faint quack sounding as if he had a very bad cold. The Mallard breeds in Kashmir in May and the first half of June, laying six to a dozen greenish white eggs in a nest of grass, &c., on the ground. In England it not unfrequently builds in trees, the young ones being allowed to fall and take their chance.

### The Spotted-bill.

*Anas pæcilorhyncha*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 436.

VERNACULAR NAMES:—*Garm-pai*, *Garm-par*, *Bala*, *Gugral*, H.; *Hunjur*, Sind; *Naddun*, Nepal Terai; *Kara*, Manipur; *Tau-bay*, Burmese.

In the Spotted-bill the male and female are alike, and

the wings are proportionately shorter than in the Mallard; the Spotted-bill, however, stands higher on its legs. The general plumage is mottled light and dark, much as in the females of other Ducks of this section, with a general greyish cast. The fore-part of the body is mostly light, the hinder dark, the rump and stern being quite black. The wing-bar is metallic green, edged white fore and aft, and the outer webs of the inner quills are white, making a long white splash on the wing; this is often stained with brown in the female. The bill is very characteristic, orange or scarlet at the root, black for most of its length, and broadly tipped with brilliant yellow varying to orange, in fact, Mr. F. Gleadow told me that in Sind he has found the tip and root of the bill about the same colour, here in Bengal they are very different. The eyes are dark, and feet bright red, varying to orange, the old males having them brightest. The female is not much smaller than the male in this species.

*Young birds* are less spotted below and, when first fledged, usually have the black of the bill not reaching the sides, and the red patches only indicated by an orange shading at the base, the sides of the bill being yellow. In some, however, the black spreads right across the bill, and the two basal red patches are defined, much earlier than in others.

The Spotted-bill is always confined to the Indian Empire, and is found throughout India south of the Himalayas, Assam, Manipur, the Upper Irrawaddy Valley above Mandalay, and the Shan States, but is rare in Lower Burma. In Ceylon it is found, but is not common. It frequents fresh water, and is found, according to season, in pairs or small parties, as a rule. The breeding-season for this species varies according to locality, being in Northern India generally from July to September.

The eggs are greyish-white, and six to twelve in number, and the nest, made of grass and rushes, is placed on



the ground in cover or on a low branch of a tree. The Spotted-bill flies as quickly as the Mallard, and swims and dives better, being very hard to catch if wounded ; its note, in both sexes, is much like that of this its ally. It has been introduced into European collections of waterfowl, and breeds well, sometimes hybridizing with the Mallard ; and this hybrid is at least partly fertile. But the intermixture of these two very beautiful and distinct species is strongly to be deprecated, except for the purpose of a scientific experiment.

It would appear that the female Spotted-bill prefers the Mallard to her own drakes, for on two occasions, on Mr W. Rutledge's premises, a Spotted-bill Duck has mated with a Mallard-coloured tame drake, in spite of the presence of males of her own species. In one case eggs were laid, and in the other, the birds were several times seen to pair.

### The Yellow-nib.

*Anas zonorhyncha*, SALVADORI, British Museum Catalogue of Birds, Vol. XXVII, p. 211.

This Duck is very like the Spotted-bill, but has a blue wing-bar like the Mallard, with no white in front of it, and very little white on the tertiaries ; there is no red on the bill, and the yellow tip of this is smaller than in the Spotted-bill ; and the whole belly is dark, while in that species it is light and spotted down to the thighs. The *female* is paler than the *male*, and the *young* are lighter still, and resemble the Spotted-bill in having a white border in front of the wing-bar and a considerable amount of white on the tertiaries.

In the *Asian* for January 10th, 1899, page 376, "Earth-worm," writing from Kengtung, South Shan States, enumerated 24 *A. zonorhyncha* as shot there in the previous year, and showed that it bred there. Its usual breeding place is North-East Asia, including

Japan, and the eggs are ivory white. Since then Mr. H. N. Thompson (Journal, As. Soc., Bengal, Vol. LXIX, pt. II, pp. 141, 142) has recorded it as common in these States, and as meeting at the Fort Stedman lake with the Spotted-bill, hybrid birds often occurring in this locality. A specimen of the Spotted-bill from Tamilone, Upper Burma, and another from Yunnan, collected by the late Dr. J. Anderson and in the Indian Museum in my time, showed no red on the bill, though adult, and might have had some *zonorhyncha* blood. At the same time observers will need to be careful in imputing a hybrid origin to intermediate specimens, since, as above noted, the young Yellow-nibs are much more like the Spotted-bill than their parents, though the blue wing-bar ought to distinguish them. The Yellow-nib also has a proportionately longer wing, it inhabits China, Japan and the Kurile Islands, Mongolia and Eastern Siberia, and has full claim to rank as one of our Indian Ducks, as in addition to the above records, several collectors have met with it from 1901 onwards in the Dibrugarh district.

### The Australian Wild Duck.

*Anas superciliosa*, SALVADORI, Brit. Mus. Cat., Birds, Vol. XXVII, p. 206.

This Duck which is the "Black Duck" of Australia and "Grey Duck" of New Zealand sportsmen closely resembles the Mallard and Spotted-bill in size, form, note, and general habits. Its colour, however, is noticeably different, being of a very dark chocolate brown with narrow paler edgings to the feathers; the sides of the head are buff, with a very distinct black eye-beak, and the wing-bar is metallic green with black edgings fore and aft. The bill is slate-colour and the feet dull orange. There is no sex difference, both drake and duck having the same sombre plumage, which reminds one of the dark brown often seen in tame Ducks. Although occurring as near the Indian Empire as Java, and ranging through the East Indies, this is essentially a Pacific-region species.

being the common wild Duck not only of Australia and New Zealand, but of New Guinea and even Polynesia, where very few Ducks are found. It lays about a dozen eggs of a creamy or greenish-white, but, though so very similar to the Mallard and Spotted-bill in most respects—indeed, it will in captivity interbreed with them with the greatest readiness—it is much more of a tree-builder, the nest being placed indifferently either on the ground or in a hole or stump of a tree or in the deserted nest of some other bird.

## The Gadwall.

*Chaulelasmus streperus*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 440.

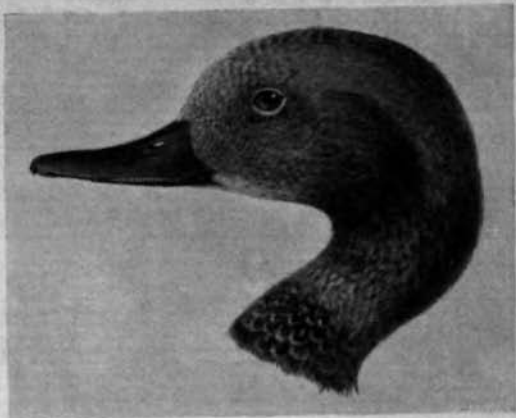
VERNACULAR NAMES:—*Mila*, *Bhuar*, *Beykhur*, H. ; *Peing-hans*, Beng. ; *Mail*, Nepal ; *Burd*, Sind.

The Gadwall, though one of the larger Ducks, is a delicately formed bird, with long wings, small feet, and a narrow bill, of which the fringing shows well below the upper chap.

The *male* has the head and neck closely speckled brown, the breast mottled black and white ; the general plumage brownish-grey, the effect produced by a pencilling of black and buff ; the belly is white, the rump and stern are black, and the wing-bar is white behind with a black patch before ; there is an ill-defined patch of deep chestnut on the flat of the wing. The bill is black and the feet orange, more or less dull, with black webs ; the eyes dark.

The *female* is mottled dark and light brown, with a white belly, the wing-bar is like that of the male, but there is only a little chestnut on the wing. The feet and legs are like the male's, but the bill is orange at the sides to a greater or less extent as a rule, though not invariably.

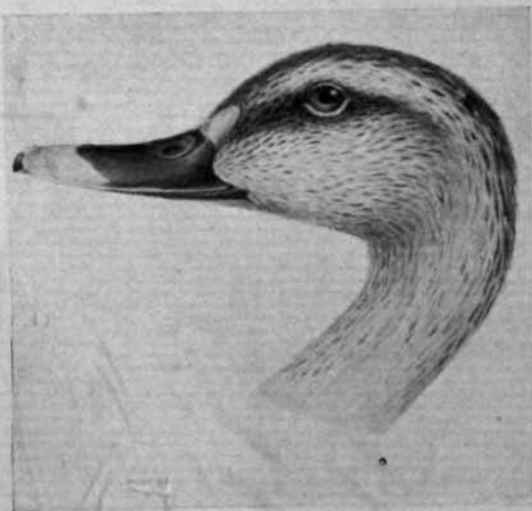
*Young birds and males in undress* resemble the female, but the former are more spotted below, and the wing-



(Page 98)

**Gadwall.**

H. Grönvold, del.



(Page 94)

**Spotted-bill.**

H. Grönvold, del.

coloration is not distinct ; their narrow, well-fringed bill and orange-tinged feet will, however, distinguish them from any other species. The *male in undress* retains the wing-colours. The male is about twenty inches long with a wing about ten, bill about two, and shank about one and-a-half. Females are smaller.

The Gadwall, like several of the Ducks of this section, ranges through the greater part of the Northern Hemisphere, breeding in the temperate zone. In winter it is common in Northern India, to Assam, Manipur, and Upper Burma, but it is not known to reach Pegu, Tenasserim, the Peninsula south of Mysore, or Ceylon. It is a common bird in the Northern India, frequenting fresh water in general in large or small flocks. It is more active and graceful in its movements than the Mallard or Spotted-bill, and more noisy, though the call is weaker. Gadwalls are usually good eating, but may at times be ill-flavoured, as recorded by "Chain-Snaffle" in *The Asian*, December 20th, 1898, page 301. The male has a bony bulb in the windpipe, but I am not aware how his voice differs from that of the female, as I presume it does. There was in the Indian Museum a very curious hybrid between this species and the Mallard, which was obtained in the Calcutta bazaar. In plumage it much resembles a male Teal (*Nettion crecca*), but its large size, yellow feet, and the chestnut and white on the wing show its relationship to be rather with this species.

### The Bronze-Cap.

*Eunetta falcata*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, page 438.

VERNACULAR NAMES :—*Kala Sinkhur*, Oudh

This bird, rather unjustly set down as a Teal, for it is of very fair size, certainly does not deserve generic distinction from the Gadwall, which it most resembles in

size and build, though not showing the fringing of the bill externally.

The male only shows remarkable peculiarities. These are a bushy, silky, mane-like crest, long satre-shaped tertiaries, and tail-coverts so ample as to cover the tail completely. The female is quite an ordinary-looking Duck.

The *male's* head is bronze and green ; the throat and fore neck white with a dark green collar below the middle ; the body plumage resembles that of the Gadwall, with a coarsely mottled breast and finely pencilled body, but the colours are pure black and white, making a clear delicate grey in combination. The wings are plain grey with a black-green bar ; the rump black, and the stern black in the middle and yellow-buff at the sides. The long hanging plumes in the wings are black with pale grey borders, and do not show till the rest of the male plumage is fully developed. The bill is black, the eyes dark, and the feet grey. The *female* is almost exactly like the female Gadwall, but the wing-bar is black, sometimes edged with white, and the feet grey, so that she can easily be distinguished from that bird. The bill is also entirely black, while the Gadwall's is orange below at all events. The *young* and the *male in undress* resemble the female, but the latter shows some green gloss on the head.

The Bronze-cap is common in Eastern Asia, breeding in Siberia, where it nests on the ground, and lays up to ten cream-coloured eggs, and wintering to the southward in China, Japan, &c. To the westward it is rare, though it even extends to Europe at times ; but it occasionally visits India and Upper Burma in winter ; it has also twice occurred in Manipur.\* No doubt the female often gets passed over as a female Gadwall ; and during my time we had quite a rush of this species, as we had of Bær's

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\* A specimen procured there was in the Indian Museum, presented by the late proprietor of *The Asian*.

Pochard, for during the cold weather of 1898-99, I got no less than six specimens, four females and two males, from the Calcutta bazaar, whence I had got a male in 1897. During the cold weather of 1899-1900, the species was quite common in the bazaar; I saw about a dozen, all females with the exception of two, a quite immature and a nearly full-plumaged male. Mr. C. M. Inglis also procured a male in Tirhut, on January 18th, 1900; and Mr. M. Mackenzie wrote me that he had got four specimens in Chapra, three males and a female. In the winter of 1900-1901 the bird turned up again in fair numbers, although the season was a very bad one for wildfowl, and I saw only a few Bær's Pochards. In January and February 1902, I noted as many as sixteen, but most of those I saw were females. Any one getting hold of living specimens of this very beautiful and unmistakable Duck should keep them alive for some zoological collection. In India, it usually appears in very small numbers, but probably occurs in flocks when it is common as elsewhere. One of my drakes uttered a cry, when frightened, like an ordinary duckling. There is a small bony bulb in the windpipe of the male, and the female's note is different, being a quack much like that of the female common Wild Duck.

### The Garganey or Blue-winged Teal.\*

*Querquedula ciria*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV., p. 449.

VERNACULAR NAMES:—*Chaitwa*, *Khaira*, *Patari*, H.; *Chang-roib*, *Girta*, Bengal.

With this species we begin the series of Teals, which are all birds of small size. The present one's only strik-

\* This is the usual name given to this species in India by sportsmen, but the *real* Blue-winged Teal (*Querquedula discors*) is a North American bird, which has visited Europe a few times and may turn up in China. In it the male has the shoulders really blue, like the Shoveller's and the head lavender with a white vertical crescent between bill and eye.

ing point is that the fringing of the bill just shows below the upper chap, the blue wing being confined to the male.

The *male's* colouration is very complicated, but he can always be recognized by his pinky-brown head closely speckled with white, with black crown and large white eyebrow : the breast, rump and stern are mottled brown and black ; the wing " shoulders " are lavender grey, and the wing-bar dull light metallic green with a broad white border fore and aft , the belly is white and the flanks white, coarsely pencilled with black , the long pointed scapulars are streaked with French grey, black and white. The eyes are brown, and the bill and feet purplish grey. Mr. E. C. Stuart Baker, however, has met with one specimen with orange feet.

The *female* is mottled with dark brown and whitish, and has no wing-bar, or a very faint indication of one. The eyes, bill and feet resemble those of the male.

The *male in undress* is exactly like the female except for the wings. He is later than most other Ducks in acquiring the full dress, not being in perfect plumage till the end of winter. The long scapulars are the last part of the male plumage to develop. . *Young males* resemble him. The male is about sixteen inches long, with a wing about seven and-a-half, shank rather over one, and bill about one-and-three-quarters. Females are smaller.

The Garganey appears to be peculiarly liable to albinism. I have observed no less than six of a peculiar pallid variety, showing more or less of the usual markings in a pale washed-out shade. A pair of these are shown in the Bird Gallery of the Indian Museum, the male of which lived for some years in the Calcutta Zoo ; and I exhibited another pair, obtained in the bazaar, to the Asiatic Society. Since then a skin of an almost pure white specimen was submitted to me for identification, the bill and feet of which had evidently been dark



in life. But this was an exception, for the feet and bill of these albinistic birds, as far as I have been able to observe, are flesh-coloured, and hence they ought never to be mistaken for the Marbled Teal, which has dark bill and feet, and is besides a much larger bird and very differently marked, the mottlings being very coarse. Our Blue-winged Teal has a wide range in the old world, breeding through a great part of the temperate zone in Europe and Asia, and wintering in North Africa, North China and Southern Asia as far as the Philippines and Celebes. It is one of our commonest winter visitants, occurring throughout India, Ceylon and Burma. It arrives early and leaves late, and is almost always in flocks, often large. It occasionally breeds with us, as young have been obtained in Oudh and at Moulmein. The eggs are creamy-white, six to thirteen in number, and deposited in a grass nest lined with down on the ground. The Garganey is a good bird for the table, if not quite equal to the Common Teal, and like that bird thrives excellently in confinement if suitable accommodation be provided, standing the hot weather well. The male has a peculiar inward guttural croak; he is provided with a bony bulb in the windpipe, larger than that present in the Common Teal, and differently formed.

The Common Teal and its allies, the Clucking and the Andaman Teal, are placed together in one genus (*Nettion*), though they differ considerably *inter se*, especially the last named. They are all small delicately formed Ducks, with the bill not showing the fringing below the edges of the upper chap, and they all have a wing-bar of black and metallic-green or bronze. Independently of the difference of size and proportions they may be easily distinguished by this marking, as follows:—

The *Common Teal* has the wing-bar half black and half green longitudinally, with a broad white or buff-and-white border in front.

The *Clucking Teal* has it bordered narrowly in front with cinnamon, and then half black and half green transversely.

The *Andaman Teal* has the wing-bar velvety-black, with a bronze or bronze-green streak running through it longitudinally, and a big white patch in front.

## The Common Teal.

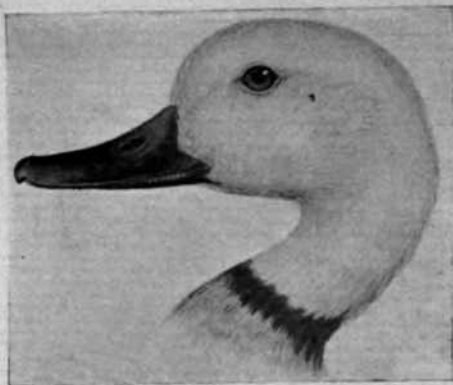
*Nettion crecca*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 443.

VERNACULAR NAMES:—*Chota Murghabi*, Kerra, *Lohya Kerra*, *Putari*, *Souchuruka*, H. ; *Narorb*, *Tulsia-bigri*, Beng. ; *Baigilagairi*, Nepal ; *Kardo*, Sind. ; *Killowai*, Tamil ; *Sorlai-haki*, Can.

This Teal is the smallest of its genus, and with the exception of the Cotton Teal, our smallest Duck. It has for its size a large head and bill, the latter narrow and nearly parallel-sided ; otherwise it is a very delicately formed little creature.

The *male* is pencilled-grey in general colour, being marked with fine black lines on a white ground ; the head is chestnut, with a broad metallic-green stripe bordered with cream colour running back from the eye. The breast is buff with round black spots ; the belly white ; the scapulars and stern black and cream, and the wing-bar very brilliant metallic-green above, velvet-black below, with a buff and white anterior border, and a white edging behind. The bill is black, eyes brown, and feet grey.

The *female* is mottled with dark brown and whitish, but has the wing-bar like that of the male, only not quite so bright, and with no buff ; by it she can easily be distinguished from the very similar female Blue-winged Teal, as well as by her narrower bill not showing the



(Page 69)

H. Grönvold, del.

### **Brahminy Duck.**



(Page 74)

H. Grönvold, del.

### **Cotton-teal.<sup>9</sup>**

fringe, and rather smaller size. Eyes, feet and bill as in the male, but the last not so black.

The *male in undress* bears a general resemblance to the female, but, as in the Pintail, differs in details of marking. *Young birds* resemble the female, but are more spotted below. Probably young males are like the male in undress.

The male is about fifteen inches long, with a wing of about seven and-a-half, bill about one-and-three-quarters and shank just over the inch. Females are not much smaller.

This Teal has a wider range than the Blue-winged, not only inhabiting Europe, North Africa, and Asia, in the temperate portions of which it breeds, laying some times more than a dozen ivory-coloured eggs in a nest on the ground, straggles at times to the East Coast of North America, on which continent it is, however, generally replaced by a very similar species, the American greer winged Teal, *Nettion carolinense*. It is a very common winter visitor to India, and probably occurs over the whole of our area, as it ranges as far as the Philippines although not yet recorded from South Tenasserim. It keeps generally in small flocks, or even may be found in pairs or singly, on small pieces of water as well as on land, unlike the Garganey. It has a smarter flight than the latter bird, and is better eating, both wild and tame. It adapts to captivity equally well, and is easily kept. I have several individuals of this species kept in the Duck Aviar, at the Calcutta Zoological Garden, which had acquired the habit of perching like Tree-ducks on the narrow ridge of gable-topped nesting-boxes—a thing Blue-winged Teal confined with them never seemed to do. The male whistles and quacks, the female being responsive to the latter sound and the male for the former. The male has, as above implied, a bony bulb to the wing.

## The Clucking Teal.

*Nettion formosum*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 442.

VERNACULAR NAMES:—None known.

This species is considerably larger than the Common Teal, but has a proportionately much shorter and broader bill, the male also has long pointed scapulars like the Blue-winged Teal.

The *male's* plumage is somewhat complicated to describe, but he cannot easily be mistaken for any other Duck, by reason of his buff head, with black crown separated by a white line from the metallic green streak passing back from the eye, and black throat sending up a black streak on each side to the lower eyelid. The back and rump are grey-brown, with an area of delicate blue-grey, formed by minute black and white lines, on each side of the shoulders, while pencilling re-appears on the flanks. The long pointed scapulars are chestnut, buff, and black, and the breast pinky-buff, darker at the sides and with black round spots in the middle. The belly is white, and the stern mostly black with chestnut edges and preceded by a white bar. The wing-bar shows first a cinnamon band, then a bronze-green one, then a black, and is finished off with white. The *tertials* are edged with buff.

The *female* resembles the male in the colour of the wings, otherwise she is mottled grey-brown, very like the female Common and Blue-winged Teal. But the wing-markings alone will easily distinguish her, to say nothing of the larger size with proportionately short bill, this being no longer than in the Common Teal.

The *male in undress* is like the female, but with a redder breast and plain back. When nearly in full plumage the head-markings are dulled by fine brown

edgings to every feather, though still quite distinguishable.

The bill is dark bluish-grey, the eyes brown, and the feet blue-grey or olive, but in the female I got in Calcutta, the beak was olive at the root, spotted with black, and black at the tip, as well as having the feet olive-yellow with grey webs. But this was an exceptional specimen, as she had the plumage of the male in undress, although, on dissection, the eggs in her ovary were plainly perceptible.

The *male* is about sixteen inches long, with a wing about eight, bill about one-and-three-quarters, and shank about one-and-a-half. The female is little smaller.

This very beautiful Teal properly belongs to Eastern Siberia, China, and Japan, breeding in the north of this area, occasionally, however, it straggles to the westward even as far as Europe. In India it is excessively rare, only about four instances of its occurrence having been recorded till the cold weather of 1898-99, when I got the above-mentioned female in the Calcutta bazaar, and Mr. M. Mackenzie of Rajaputtee, Chuprah, a male in the Sarun District, both of which were reported in *The Asian*, on 16th December 1898, Mr. E. L. Barton, of Bombay, shot a male about twenty miles from Ahmedabad in Guzerat, and since then the Indian Museum has received the head of a male, shot at Jaipur, on April 6th, 1899, by Mr. C. Barker. Another was shot in the district of Dibrugarh by Colonel Row.

The Calcutta female, the only one of that sex hitherto recorded from India, was in my time exhibited in the Bird Gallery of the Indian Museum along with the first recorded Indian specimen, a full-plumaged male obtained, also in the Calcutta bazaar, by Blyth in 1844, and then, alas! in very poor condition. This is therefore a bird to be looked out for, as no doubt there are and have been more about; though it must be noticed that the last few years have been unusually remarkable for an invasion of

India by East-Asiatic waterfowl, of which we have had the Green-head Pochard (*Nyroca bari*) in numbers, the Dwarf Goose (*Anser erythropus*), the Bronze-Cap (*Eunetta falcata*) as above noted, and now this species, one of our very rarest visitants in the ordinary way.

That these birds had been habitually visiting us and had been overlooked, I do not for a moment believe. It is far more reasonable to suppose that they come at long intervals only or in very fluctuating numbers. A proof of this was furnished to me by Mr. W. Rutledge, who, in dealing in animals in Calcutta for forty years, had never had this Teal or the Bronze-Cap offered for sale by the natives, though he had imported specimens from China as fancy birds.

The Clucking Teal's chief peculiarity appears to be that to which it owes its name, its harsh and frequently repeated clucking call; this is constantly being uttered by the males, and will very likely prove to be confined to that sex.

### The Andaman Teal.

*Nettion albigulare*, BLANFORD, Faun. Brit. Ind., Birds, Vol. IV, p. 444.

VERNACULAR NAMES:—None known.

This is the largest of the genus, but has proportionally the smallest wings; its bill is also short, like that of the Clucking Teal.\* The sexes are alike. The colour is a mottled brown, very dark, almost chocolate in fact. The throat, fore-neck, and a ring round the eye are white, as is a patch in front of the wing-bar, which is velvet-black with a longitudinal bronze-green streak in the middle, and a narrow lower border of white formed by the white edging of the first secondary.

The white on the head shows a tendency to spread, and in one Indian Museum specimen, a fine male,

extends all over the surface ; possibly this is a matter of age, as old birds get white at the root of the beak. At any rate this variation is now quite common, and nearly all the living specimens I have seen brought from the Andamans show it. Such specimens have bred in the London Zoological Gardens, but their young were as described below, with no white on the face.

*Young birds* have no white round the eye.

The bill and feet are blue-grey and the eyes reddish-brown or red.

The male is about seventeen inches long, with a wing rather over seven-and-half, bill about one-and-three-quarters, and shank under one-and-half ; females are smaller.

The Andaman Teal is resident in the Islands from which it takes its name, but is not confined to the South Andaman alone, as has been supposed, for Captain A. R. S. Anderson, I.M.S., late Surgeon-Naturalist to the *Investigator*, states in his Report for 1897-98, page 7, that he found a flock on East Island, the most north-easterly of the group. It may also straggle occasionally to the mainland, as one, the fragments of which were sent to the Indian Museum, was recorded some years ago in *The Asian* from Burma, where it had been shot from among a flock of Whistlers.

This Teal frequents, in pairs or flocks, both fresh and salt water, apparently preferring the former. Unlike most of the Ducks of this section, it perches freely, and it is active both on land and water. I have seen some of the specimens in the Calcutta Zoo dive for food like Pochards ; it is not very timid, and has a peculiarly soft noiseless flight as I have been able to observe in unopinioned specimens at large in the London Zoo. I noticed that the drakes were very pugnacious ; they also assisted in the care of the young, unlike most of the typical Ducks. The note is a low whistle in the male and a quack in the female. The nest has



been found in August ; it was made of grass and placed on the ground ; the egg is cream-coloured and smooth.

### The Oceanic Teal.

*Nettion gibberifrons*, SALVADORI, Brit. Mus. Cat., Birds,  
Vol. XXVII, p. 255.

This Teal with which the Andaman Teal was formerly confused, is a widely-ranging species, found through the islands from Java to Australia and New Zealand. It has a close general resemblance to the Andaman Teal, but has a more speckled head, no white eye-ring at any age, and no white border to the first secondary quill. It lays about a dozen creamy-white eggs in holes in trees. In Australia there is another race or species (*Nettion castaneum*) in which, while the female is like both sexes of the sombrely coloured Oceanic Teal, the male has a very distinct plumage, the head being dark glossy-green, and the breast and flanks bay with black spots. This form has been known to stray to Java, so deserves mention here.

## APPENDIX I.

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### SYNOPTICAL TABLE OF THE INDIAN ANATIDÆ.

THE DIAGNOSTIC CHARACTERS given in this table apply to the species as a whole, irrespective of age, sex or season.

#### FAMILY CHARACTER.

Ducks in the wide sense are web-footed water-fowl with a straight beak armed with teeth or ridges along the edges of both chaps.

#### SUB-FAMILY I.—SWANS (p. 8)

Size larger than tame Goose, neck exceedingly long, face bare.

Bare face pale—

*Whooper* (p. 11).

Bare face dark—

*Mute Swan* (p. 9).

#### SUB-FAMILY II —GEESE (p. 14).

Size smaller\* than tame Goose, usually bigger than tame Duck  
nostrils central; plumage grey or brown, pale-barred.

Bill well over two inches; feet flesh-colour—

*Gray Goose* (p. 17).

Bill under two inches, black at root—

*Pink-footed Goose* (p. 19).

Bill two inches, feet orange—

*White-fronted Goose* (p. 20).

Bill well under two inches, feet orange, size hardly bigger  
than tame Duck—

*Dwarf Goose* (p. 21).

Plumage pale clear grey, with orange black-tipped bill—

*Bar-headed Goose* (p. 23).

Plumage very dark with white markings and red or buff  
breast—

*Red-breasted Goose* (p. 24).

## SUB-FAMILY III.—MERGANSERS (p. 29).

Size that of tame Duck or smaller, bill toothed, tapering more than twice as broad at root as at tip

Beak lead-colour, under two inches—

*Smew* (p. 35)

Beak reddish, well over two inches, with about eighteen teeth between nail and nostril—

*Red-breasted Merganser* (p. 33)

Beak reddish, well over two inches, with about fifteen teeth between nail and nostril—

*Goosander* (p. 31).

## SUB-FAMILY IV.—TRUE DUCKS (p. 38)

Size between tame Goose and Duck, generally smaller than tame Duck; bill with lower chap shutting into upper, sides generally parallel or getting wider towards the end, and nostrils (with one exception) nearer root of bill than tip

SECTION A —*Diving Ducks, with outer toe as long as middle or longer, and hind toe with a deep lobe or flap giving it a leaf-like outline* (p. 38)

1. Bill with nostril nearer tip than root—

*Golden-eye* (p. 42)

2. Bill normal wing only about six inches from knuckle to tip—

*Stiff-tail* (p. 43)

3. Bill normal, wings well over seven inches, usually with a white bar

Bill and feet more or less red or orange—

*Red-crested Pochard* (p. 45)

Wing with no white bar—

*Common or Red headed Pochard* (p. 48).

Bill broadened at tip, greatest breadth equal to distance between nail and nostril, no crest—

*Scaup* (p. 50)

Bill shaped as above, but a crest present—

*Tufted Pochard* (p. 51)

Bill not much broadened, crown chestnut or brown—

*White-eyed Pochard* (p. 55).

Bill not much broadened, crown dark green or blackish—

*Green-headed Pochard* (p. 53).

SECTION B.—*Walking or Perching Ducks, with outer toe shorter than the middle, hind toe with narrow lobe or none and bill about as long as shank* (p. 63).

- 1 Size very small, less than Pigeon, bill an inch long—  
*Cotton Teal* (p. 74).
2. Size larger, quills short and ~~not~~ showing in closed wing. Plumage mostly chestnut, with cream bar above tail—  
*Large Whistler* (p. 66).  
Plumage mostly dun, with maroon bar above tail—  
*Small Whistler* (p. 65)
3. Size large, wings long-quilled, tips of quills showing plainly inclosed wing  
Plumage chestnut, with black-and-white wings—  
*Brahminy* (p. 69)  
Plumage white and black, with red or fleshy bill and feet—  
*Sheldrake* (p. 70)
- 4 Wings dark, body mostly white—  
*Comb Duck* (p. 72)
- 5 Bill short, small and French-grey or blue—  
*Wigeon* (p. 78)
- 6 Tips of quills showing plainly inclosed wing, silver-grey on outer web, steel-blue or inner—  
*Mandarin Duck* (p. 76).

SECTION C.—*Ordinary surface-feeding Ducks, with outer toe shorter than middle, hind toe with narrow lobe, bill markedly longer than shank* (p. 81)

- 1 Bill very long, twice as broad at tip as root—  
*Shoveller* (p. 88).
- 2 Bill ordinary, tail long and pointed—  
*Pintail* (p. 90).
- 3 Bill and tail ordinary, wing nine inches or over.  
Wing-bar French-grey—  
*Wood-duck* (p. 83)  
Wing-bar fawn—  
*Pink-head* (p. 84)  
Wing-bar metallic green, with a white border and long white splash above—  
*Spotted-bill* (p. 94).  
Wing-bar steel-blue, outside of inner quills of wing tipped white—  
*Yellow-nib* (p. 96).  
Wing-bar steel-blue, with white borders only —  
*Mallard* (p. 92).  
Wing-bar white—  
*Gadwall* (p. 98).

Wing-bar black—

*Bronze-cap* (p. 99).

4 Bill and tail ordinary, wing  $8\frac{1}{2}$  inches or under.

Plumage grey-brown and whitish, no wing-bar, silver-grey edging to quills—

*Marbled Teal* (p. 86)

Bill with fringing showing below upper chap, wing-bar light dull green or none—

*Blue winged Teal* (p. 101)

Wing-bar cinnamon, green, black and white in succession—

*Clucking Teal* (p. 106)

Wing-bar white or buff and white in front, then half black and half green—

*Common Teal* (p. 104)

Wing-bar velvet-black, with a longitudinal bronze streak and large white patch in front—

*Andaman Teal* (p. 108)

## APPENDIX II

### TABLE OF COLOURS OF FULL-PLUMAGED MALES.

If one had the only old males to deal with the study of Ducks would be ridiculously easy, as no two can possibly be mistaken for each other with ordinary observation. But as the majority of birds obtained will not be full plumaged males, it will be found better to work out specimens by the details previously given. If any showy bird be noticed however or a large bag be made, this table will be handy for no doubt the *easiest* way is to learn the drakes and then find the ducks to match them. Where the sexes are similar the fact is noted with an *asterisk*.

SWANS (p. 8) — *Plumage all white*

- \* Bill black bright yellow at root and on face—

*Whooper* (p. 11)

Bill orange-red with a black knob at root—

*Mute Swan* (p. 9)

GEESE (p. 14) — *Plumage grey or brown, pale-barred by its lighter*  
*eases*

- \* Bill fleshy-pink—

*Gray Goose* (p. 17)

- \* Bill pink and black—

*Pink-footed Goose* (p. 19)

- \* Forehead with a broad white cross band—

*White-fronted Goose* (p. 20)

- \* Forehead with a long white blaze—

*Dwarf Goose* (p. 21)

- \* Head white with two black bars—

*Bar-headed Goose* (p. 23)

- \* Plumage mostly black with chestnut breast—

*Red-breasted Goose* (p. 24).

MERGANSERS (p. 29) — *Bill very narrow and tapering, plumage*  
*pied.*

Head mostly white—

*Smew* (p. 35)

Head dark-green, all under surface from neck salmon-white—

*Goosander* (p. 31)

Head dark-green, breast reddish-brown with black streaks—

*Red-breasted Merganser* (p. 33)

DUCKS PROPER (p 38).—Bill broad, nearly parallel-sided, and rounded, plumage various never all white nor nearly uniform grey or brown

## LARGE DUCKS

- \* Foxy-red, with black and white wings—  
*Brahminy* (p 69).
- \* White and black, with chestnut belt and scarlet bill—  
*Sheldrake* (p 71)
- Bronze-green and white with a big black comb on the bill—  
*Comb-duck* (p 72)
- \* Black and rusty, with white shoulders and white and black head—  
*Wood-Duck* (p 83)
- \* Bill red yellow and black long white splash on wing—  
*Spotted bill* (p 94)
- \* Bill black with yellow tip blue wing bar—  
*Yellow-nib* (p 96)
- Green head white collar chocolate breast curls in tail—  
*Mallard* (p 92)
- Scarlet bill chestnut bushy head black belly—  
*Red-crowned Pochard* (p 45)
- Long sharp tail dull brown head white breast—  
*Pintail* (p 95).

## MIDDLE-SIZED DUCKS

- Chestnut head with cream blaze pinky breast white shoulders—  
*Wigcon* (p 78)
- Bronze head with long mane long sabre-shaped plumes in wing—  
*Bronze cap* (p 99)
- Speckled head, pencilled breast wing chestnut black and white—  
*Gadwall* (p 98)
- Big broad bill, green head, bay belly blue shoulders—  
*Shoveller* (p 88)
- Bright rose-pink head black body, buff quills—  
*Pink-head* (p 84)
- Chestnut head grey body, black breast and stern—  
*Common or Red headed Pochard* (p 48)
- Green-black head, black breast and stern pencilled body—  
*Scaup* (p 50)
- Deep-green head, bay breast, white belly—  
*Green-headed Pochard* (p 53)

- Black body, white belly and flanks—  
*Tufted Pochard* (p. 51).  
 Ruff of chestnut hackles, and chestnut fan-feathers in wings—  
*Mandarin Duck* (p. 76).  
 Mahogany-red body, pearl eyes—  
*White-eyed Pochard* (p. 55).  
 Deep green head, white-and-black body—  
*Golden-eye* (p. 42).  
 Sky-blue bill, white head, pencilled-brown body—  
*Stiff-tail* (p. 43).  
 Chestnut body, black-and-chestnut back, cream above  
 tail—  
 • *Large Whistler* (p. 66).  
 Dun body slate and dun back, maroon above tail—  
*Small Whistler* (p. 65).

## SMALL DUCKS.

- Pale grey-brown and white, with silver-grey edging to  
 quills—  
*Marbled Teal* (p. 86).  
 Chocolate, with white throat and ring round eye—  
*Andaman Teal* (p. 108).  
 Buff head with black and green stripes—  
*Clucking Teal* (p. 106).  
 Brown head with white eyebrow, French-grey shoulders—  
*Blue-winged Teal* (p. 101).  
 Chestnut head with green eye-streak, pencilled-grey body—  
*Common Teal* (p. 104).  
 White with black cap and metallic green wings—  
*Cotton Teal* (p. 74).