

The following sea and other birds were noted on the coast near Eyre, over a stretch of about 20 miles :—

OSPREY (*Pandion leucocephalus*).—Two noted.

TURNSTONE (*Arenaria interpres*).—Fairly common.

PIED OYSTER-CATCHER and BLACK OYSTER-CATCHER (*Hæmatopus longirostris* and *H. unicolor*).—Common.

RED-CAPPED DOTTREL (*Ægialitis ruficapilla*).—Common.

BANDED STILT (*Cladorhynchus leucocephalus*).—Two seen.

CASPIAN TERN (*Hydroprogne caspia*).—One seen.

CRESTED TERN (*Sterna bergii*).—Common.

SILVER GULL (*Larus novæ-hollandiæ*).—Common.

PACIFIC GULL (*Gabianus pacificus*).—Two or three seen.

WHITE-FRONTED HERON (*Notophoxyx novæ-hollandiæ*).—Several seen on the reefs.

REEF-HERON (*Demigretta sacra*).—A few on the reefs.

PIED CORMORANT (*Phalacrocorax hypoleucus*).—Common.

In addition, several small unidentified waders were seen.

Total number of land birds identified, 111 (including three doubtful species). Total number of sea-birds identified, 13. Grand total, 124; and, in addition, several unidentified sea-birds.

The observations were made during the months of September, October, and November (1908).

Notes on Ducks.

BY ROBERT HALL, C.M.Z.S., COL. M. B.O.U.

THE following observations, made at Swan Hill, upon the Murray River, refer to eleven species. The season 1906 was a specially good one for swimming birds—the best since 1872. The river had flooded the adjacent country for at least 1,000 miles along its course, the whole of the billabongs being filled and the back chains of waterholes converted into broad lakes. The present season is even better, the flood being higher than that of 1872. Accordingly, in 1906 there was an abundance of food, and the Ducks bred large families and hatched out young late in the season. In April the wading and swimming avifauna made a stirring and very interesting impression upon the glistening water surfaces all along the face of the river frontages. I had camped for several months.

Spatula rhynchotis, Lath. (Shoveller).—This is the most local of the Ducks, and may be found when nearly all the other species have gone north, or have distributed themselves. Their young are later abroad. To a limited extent only they nest in this district. When feeding one may distinctly hear them sieving in the mud. As with every other animal, they place their confidence in man until once shot at with a heavy gun. It is then difficult to approach near to a flock. It is a very quick flier. A flock will be asleep, and, if alarmed, the whole body will be

20 feet high in the air in the next instant. One "Blue-wing" will make as much noise as a whole flock of any other Duck. There is a hum in the wing as it rises. The males have a form of play by rising 15 to 20 feet directly above where they were swimming, and very quickly. They immediately fall back to their swimming position.

Anas superciliosa, Gmelin (Black Duck).—This species and the Teal are the first to pair and nest. Both young and adult love to fish about the lilies and "pussy-tail" weeds in search of shrimps and little "yabbies." A flock will get in close order to fish by themselves and not in conjunction with the Coots as some other Ducks do. By adopting this mass method they generally "bustle" the shrimps as the Pelicans do the beach fishes. When travelling a boat through the lagoon waters the shrimps and bream jump out because of fright. The birds appear to purposely frighten the shrimps in the shallow waters. The Cormorants will catch above as well as below when hunting in this way. On 29th April, 1907, as many as 300 Cormorants of mixed species were hunting in mass upon the weedy lagoons, where many Duck were also. The Black Duck is about the heaviest for its size, and invariably realizes the highest market price (Melbourne).

Nettion castaneum, Eyton (Teal).—As with the Black Duck, it is the earliest of the local species to pair and nest. In their feeding grounds they prefer plenty of mud in which to paddle their bills. They feed largely upon a small red beetle, which they pick from the blades of water weeds. No liking is shown for spiders.

Nettion gibberifrons, S. Müll. (Grey Teal).—I could not decide the species when on the wing.

Dendrocygna arcuata, Cuvier (Whistling Duck).—Evidently a rare species in this locality, for during the last 8 or 9 years only one flock has been seen (50 birds). About 30 years ago they were numerous, and it was a common sight to find them camped upon the dead limbs of the red gum trees. This is a very quiet Duck.

Aythya (Nyroca) australis, Gld. (White-eyed Duck).—This is one of the two species known as Widgeon or Hard-head. It fishes in conjunction with the Coots (*Fulica australis*). A flock of say 100 will find a large flock of Coots and watch them disturbing the shrimps in order to secure a share. The Coot collects its food below the surface, while the Hard-head catches the shrimp as it jumps in the air. The Hard-head catches two to the Coot's one. This is a diving Duck, and probably the only one that resorts to this method. The Coots appear to do all the work. Mussels form another food, which is found in the clayey banks of the river, into which the Ducks plunge their beaks, below the water surface. They prefer timbered lakes. A loud squawk is their signal to rise quickly.

Malacorhynchus membranaceus, Lath. (Pink-eared Duck).—This bird feeds in the same manner as the Shoveller (Blue-wing). It shovels about in the mud, head down and tail up, as it floats. The preference is for brackish lagoons, such as lakes Chapman and Tuchiwop.

Casarca tadornoides, Jard. (Shieldrake or Mountain-Duck).—Feeds upon the short mossy grasses in the same way as the Maned Goose. This causes quick decomposition of the bird when killed in summer.

Stictonetta naevosa, Gld. (Freckled Duck).—Here we have a Duck quiet, tame, and sleepy. Shooters say it has no sense of smell. Its voice is likened to the grunt of a Berkshire pig.

Chenonetta jubata, Lath. (Maned Goose, Wood-Duck).—This is a pasture feeder. I found it during this season to be very destructive of specially grown crops. The first crop (18 acres) of rice grown in Victoria for commercial purposes was completely destroyed by it. At other times it appears to feed on grass fields. It is a tame bird, and will even approach one, from an inquisitive turn of mind, the whole flock gradually getting nearer. It associates in large flocks.

Anseranas semipalmata, Lath. (Pied Goose).—Is a grass feeder. In 1902, the great drought year, farmers in this locality poisoned them because they were feeding almost entirely on the growing crops. Up to 1902 I knew them to be annually in thousands. Cultivation has driven them away for good, so far as present generations are concerned.

Bird Notes from Cleveland, Tasmania.

BY (MISS) J. A. FLETCHER.

PART II.

IN my last paper (*Emu*, viii., p. 210), I dealt with three varieties of lagoon birds.

Owing to the Cleveland lagoon partly drying up, the Bitterns (*Botaurus pæcilopterus*) did not nest here, but sought refuge in a large lagoon some distance away, and so I was unable to study them as I had wished. In the autumn of 1908 I found an old nest of these birds containing egg-shell fragments, but the swamp in which this was found remained dry all the year, and the birds did not return. The Bitterns when disturbed would stand in their characteristic attitude for a while and then rise and wing their way to another corner of the lagoon. On the 9th October last year they commenced their "booming" calls, and these were continued up to the second week of December. I remember early one morning flushing six Bitterns from their breakfast of water reeds. They were all, as far as could be seen,