

## Bird Life on Barmah Lakes

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The Barmah Lakes are situate in Victoria close to the River Murray, and about eighteen miles north-east of Echuca. On the opposite side of the river is Lake Moira. When the river is running high then narrow creeks or channels convey water from it into the northern parts of the Barmah Lakes, and at the southern end there is a wide outlet (divided by a small island), by which the water re-enters the river, and this outlet serves to drain the lakes as the height of water in the river gradually falls.

From December 25 to 29, 1932, both dates inclusive, Messrs. Ladwig and Mattingley, both foundation members of the then Australasian Ornithologists' Union, with Mr. Alec. Chisholm (not the member of the R.A.O.U. of that name) and I spent many hours daily on the river and lakes, and except for a little time occupied by fishing, we devoted our attention to observing the prolific bird life along the stream and on the broad, shallow waters of the lakes and the immense swampy areas adjoining them. On three successive days we spent several hours looking for Australian Snipe (*Gallinago hardwicki*), but we were disappointed, because we found only about ten of them. We expected to obtain series of photographs of nesting Whiskered Terns (*Chlidonias leucoparva*) and Great Crested Grebes (*Podiceps cristatus*), for in this locality a year earlier my three companions had seen numerous Terns and many Grebes nesting in one large colony, and the nests were so close to each other that some difficulty was experienced in keeping the flat-bottomed boat from destroying some of them. Here, again, we were disappointed, for, although we saw flocks of Terns on different parts of the lakes, we could find no nests, and from enquiries made of local folk with an intimate acquaintance with the lakes and their inhabitants, we were forced to the conclusion that the Terns were not breeding in the neighbourhood this season. Apparently the Grebes were absent, for we were unable to identify any.

But in other objects there was ample compensation for those disappointments. What a wealth of interesting bird life is to be met with in these wastes of waters! Remain quite still for a while on the shady side of a gigantic red gum tree near a weed-infested, swampy area, where the water is not more than six inches deep. Dotted at intervals over the area are numerous Nankeen Night-Herons (*Nycticorax caledonicus*), White-faced Herons (*Notophajus noron-hollandiae*), two or three stately Plumed Egrets (*Egretta intermedia*), and a few White Ibis (*Threskiornis molucca*), all motionless, intently watching the human intruder; but soon we are forgotten, and then the birds resume their occu-

pations of searching for food in the mud and shallow water, and as they move about many are seen which formerly were hidden. As the motor boat, which we used only on the river, ploughed its way along the stream, we disturbed many Grey Ducks (*Anas superciliosa*), Grey Teal (*Querquedula gibberifrons*), and Manded Geese (*Chenonetta jubata*), and from time to time we saw Black Swans (*Chenopsis atrata*) with their broods of Cygnets. The Swans, young and old, swam rapidly ahead of the boat until we were very close to them, when they scattered aside and swam towards the reed-lined banks, whence came the lively songs of Australian Reed-Warblers (*Aeronephalus australis*) and the plaintive notes of Little Grassbirds (*Megalurus gramineus*). Frequently we saw flashes of brilliant colour as Azure Kingfishers (*Alegone azurea*) darted along the river banks, where they had tunnels in which their eggs were deposited, or in which they were feeding their young progeny.

In the swamps there were several shallow creek-like depressions, holding good pools of water, and as we walked along these we saw many young Grey Ducks, which were unable to fly, but proved very skilful at hiding. There were also many mature Grey Ducks and Hardheads (*Nyroca australis*), which arose and flew swiftly away, and we disturbed many Cormorants—Black (*Phalacrocorax carbo*), Little Black (*P. ater*), and Little Pied (*Microcarbo melanoleucus*), which had been perched on logs, dozing, as a meal digested. Overhead White Cockatoos (*Kakatoë galerita*) screeched discordantly.

It was, however, along the margins of the lakes, where there were shallow water and muddy flats, that the feathered denizens were most numerous. When poling a small, flat-bottomed boat about the lakes large congregations of birds were to be seen in different directions in the distance. In one direction a flock of Australian Pelicans (*Pelecanus conspicillatus*) showed white against a background of reeds, in another many Straw-necked Ibis (*Threskiornis spinicollis*) could be seen, although they were much less conspicuous than the Pelicans; next, White-necked Herons (*Notophoja pacifica*) were observed in numbers; farther on the plumage of many White Ibis gave a snow-like coat to the vegetation. Nankeen Night Herons, White-faced Herons, and a few Yellow-billed Spoonbills (*Platalea flavipes*) were scattered about where the water was shallow, while Ducks of several species, Black Swans, Coots (*Fulica atra*) and Dusky Moorhens (*Gallinula tenebrosa*) kept to the more open water and reed beds well out in the lakes. A few Silver Gulls (*Larus nova-hollandiae*) were flying over the open water. However, we had a better estimate of the surrounding population when a shot was fired from a gun. Instantly there was a great commotion and flapping of wings, and the number of birds which flew aloft

was astounding, and we were then privileged to witness a sight never to be forgotten. Pelicans, which seem so ungainly when standing, formed into a long line and sailed over us with majestic grace, and were followed by an almost equally beautiful line of White-necked Herons, which birds were succeeded by a wave of Straw-necked Ibis. In a very short space of time most of the birds had mounted to a great height, the Pelicans reaching an altitude not attained by other species.

Adjacent to the lakes is a more or less swampy area about a mile square, which supports a fine growth of large eucalypts, and which has been chosen for nidification purposes by several species of birds which build their nests high in trees. We entered this area, and by its smell might have been aware of the use to which it had been put, even if we had not seen the nests. Wherever we looked many nests could be seen, and on nearly every nest we observed either young birds or a brooding mature bird. There were Nankeen Night Herons, White-faced Herons, White-necked Herons, White Egrets (*Egretta alba*), Plumed Egrets, and three species of Cormorants. The ground was littered with large pieces of shells of eggs from which chicks had hatched. Many young birds had fallen from nests, some of them being insufficiently feathered to prevent the accelerating effect of gravity, and they had been killed by the fall; others had their wing feathers developed to such an extent as to be able to come lightly to the ground uninjured. Two of these, one a Cormorant and the other a Night Heron, were caught and photographed. The young Cormorant, by using claws and beak, was able to climb up the trunk of a red gum tree to a height of about seven feet.

Many Whistling Eagles (*Haliastur sphenurus*) were seen over this gigantic colony, and we were inclined to think they would take many nestlings, but the local inspector for the Fisheries and Game Department assured us that the Eagles are carrion eaters, and are content with the young birds which are killed by falling from the nests. It would be interesting if we could obtain statistics as to the number of chicks of each species reared annually in this colony, which is said to cover about six hundred acres.

On slightly-raised banks from which the water has receded in some of the swamps many birds rested during daylight, and perhaps spent the greater part of the night there, and as some of them were moulting many beautiful feathers were seen on the banks. We thought those shed by Straw-necked Ibis were the most beautiful.

Of true migratory birds we saw only two small flocks of what appeared to be Red-necked Stints (*Erolia ruficollis*).

Adjacent to the lakes and swamps many other species of birds were noted, but they are not dealt with in detail here, for they would hardly fit under the title above.