

**NOTES ON SOME SPECIES BREEDING AT BOOL LAGOON**

By GLEN STORR

Just before Christmas, 1947, Mr. S. E. Terrill and the writer spent four days in the Naracoorte district. Most of this all too short period was devoted to Bool Lagoon, where our member, Mr. Jack Hood, introduced us to several species of water-birds that were breeding at the time.

Young chicks of the Dusky Moorhen (*Galinula tenebrosa*) were really beautiful in their velvety black down, contrasted with the bright orange-red of the culmen and rudimentary frontal shield. At this tender age they could dive and swim with surprising ability.

Two big Teatrees (*Melaleuca*), isolated from the main group, provided nesting sites for the Little Pied Cormorant (*Phalacrocorax melanoleucus*). About 100 nests, placed from 10 to 30 feet above the water, contained eggs and young at all stages of growth. Some were nearly ready to fly and resembled their parents in plumage. Fledglings were clothed entirely in black down. A few pairs of the Little Black Cormorant (*Ph. sulcirostris*) nested among their more plentiful congeners. In the top of one of these Teatrees, a pair of Royal Spoonbills (*Platalea regia*) were also nesting.

A big colony of Nankeen Night-Herons (*Nycticorax caledonicus*) nested in high Teatrees detached from the main clump, although a few nests were seen in the Ibis rookery. Their nests were frail basins, about 12 inches in diameter and 6 inches deep, composed of Teatree twigs, and placed in forks 15 to 35 feet above the water. Jack Hood climbed one of these trees to a nest with an egg and two fledglings. From another nest he brought down a young bird for our inspection. It was about 15 inches long, with a well-developed bill and the big eyes and yellow iris of mature birds. Beautiful mottled-brown plumage was forming over its back and wings, while the legs and entire skin were bright green. Adult birds were only heard when flushed from the nest, when they uttered cries—"dock-dock-dock"—similar to the alarm notes of domestic fowl. When not brooding they perched quietly in

the top of high Teatrees with their bright yellow eyes exposed to the sun with no discernible discomfort.

Two nests of the Black Duck (*Anas superciliosa*) contained 9 and 10 eggs. Immediately above one of these was the nest of a Chestnut Teal (*A. castanea*) with 8 eggs. In another Teatree, a Grey Teal (*A. gibberifrons*) had its nest of 9 eggs. Four nests of the Hardhead (*Aythya australis*) contained 7, 8, 10 and 10 eggs. Three of the Blue-billed Duck (*Oxyura australis*) with 4, 6 and 6, and a nest of the Musk Duck (*Biziura lobata*) with only 2 eggs, were also pointed out by Mr. Hood. All these ducks nested in Teatrees.

Without doubt the Straw-necked Ibises (*Threskiornis spinicollis*) provided "the highlight" of the trip. Several thousands were then breeding in the south-eastern corner of Bool Lagoon. Their rookery covered the greater part of a fifty-acre area carrying big Paper-bark Teatrees and an adjoining Flag-swamp.

The most favored nesting sites were on masses of fallen dead timber in the heart of the Teatree patch. The earlier arrivals (indicated by bigger young and general absence of eggs) took up the central-eastern portion of this area. Later birds concentrated about the central-western area, with outliers in the Flags, wherever fallen trees afforded a base for nests.

The nests were substantial structures, averaging 14 inches in diameter and 6 inches deep, and composed of Teatree sticks about a foot long and quarter-inch thick, interwoven with green foliage and stems. The outer rims of nests were naturally flattened with usage, and it was apparent that green material was being added to them by brooding birds. Teatree saplings in the vicinity of nests were sometimes stripped entirely of foliage and bark. The slight egg-depression was usually lined with small pieces of the paper-like bark of Teatrees and occasionally with Duckweed, too. Most of the nests were built below 5 feet and ranged down to a few inches above water-level (the

depth of the water being from 12 to 30 inches). Some nests, placed on boughs or in forks of living trees, were up to 15 feet above the water.

Considerably less than half of the nests still contained eggs. Of 395 clutches (only a fraction of the total), one had 4 eggs, 88 had 3 eggs (22 per cent.), 284 had 2 eggs (72 per cent.), and 22 had 1 egg (6 per cent.). The frequencies for 2- and 1-egg clutches are probably unreliable. Many eggs were seen floating on the water, and in some cases laying was probably incomplete. Quite a few infertile or otherwise deserted eggs were seen, but from most of these nests containing single eggs the young from the good eggs could have left by then. The eggs were generally long and narrow, with smaller end somewhat acute. Occasionally one egg of a clutch was much shorter and blunter than its more normally shaped fellows.

The most advanced of the young birds could fly for about 20 feet from tree to tree. They differed from adults, principally in their lack of "straw" plumes, dark grey legs, slightly shorter and less-curved bill, hind-neck greyish instead of white, and in the absence of purple and green reflections from the black portion of their plumage. The bill of fledglings was comparatively short, straight and flesh-colored.

The voices of the smaller young recalled those of domestic chickens. On the return of a parent, their cheeping increased in tempo, volume and pitch to a shrill trilling, accompanied by a vigorous to and fro movement of the bill. This latter so hindered the old birds that the transfer of regurgitated food took some time. When disturbed by an intruder young Ibises would often eject, without necessarily leaving their perch, what was probably a recent meal. Several of these pellets were examined and usually included some of the following—grasshoppers, green hairless caterpillars, small land-snails, beetles and small crustaceans (?), together with some aquatic vegetable matter.

The young soon began to leave the nest and clambered along the network of fallen boughs. As they grew stronger, they ventured further afield, climbing the branches of the trees above them in the company of birds of similar development. When one

walked towards such an assembly of young birds there followed a general movement away, the young Ibises moving along the branches to the edge of the tree and leaping into the next. Quite often they lost their footing, and after falling into the water, swam to the base of a tree or a bough lying at water-level. Gripping the branch with the under surface of the mandible, they would use their bill as a lever and scramble up with the aid of wings and feet. Although able to swim, smaller birds experienced much more difficulty. Displaying great tenacity, they sometimes struggled several minutes before gaining the top of floating timber. Apparently not all such efforts were successful, for a few bodies of dead youngsters were seen floating on the water.

There was no evidence of predation upon the young Ibises. Egg robbers such as Gulls and Crows were rarely seen near the rookery; also Swamp-hens (*Porphyrio*) were not observed in this area. A pair of Whistling Eagles (*Haliastur sphenurus*) that occasionally flew over the Teatrees, and Swamp-Harriers (*Circus approximans*) about the rushy margins of Bool Lagoon, were the only Hawks seen.

While travelling daily between the Lagoon and Naracoorte, we did not notice many Ibises—only a few scattered throughout grazing paddocks. It seemed, then, that many of the birds flew several miles to feeding grounds. At all times of the day, and from all directions, small groups of Ibises could be seen returning to the colony, usually at considerable height, in fast, direct flight.

Whenever we approached the rookery, the parents of well-grown young would promptly desert the nest-site and fly up high above the area, to be joined later by those birds still incubating. The latter would not generally tolerate an approach nearer than 30 yards. Having left their nests, 15 to 30 minutes or more would elapse before they would return and resume brooding. The parents of nearly full-grown young did not return at all while an intruder remained in the rookery. Consequently throughout each day there were always one or more big flocks of adults, circling high above the rookery.

A few hundred White Ibis (*Th. molucca*) also nested at the Lagoon. Apparently they

commenced breeding later than *spenicollis*, for they shared with the last of the latter, fallen timber among the Flags immediately to the west of the Teatrees. Most of their nests still contained eggs, clutches of three being slightly more prevalent than those of two. We saw only a few of the all-white downy young. When flushed from the nest the adults joined the big flocks of their more numerous relatives overhead.

The relations between the two species of Ibis seemed amicable, which could be attributed to the lack of opposition between them over feeding grounds. In fact, most of the White species probably found no need to leave the Lagoon for food. Numbers of them could always be seen foraging in the shallower water.

Other species observed at Bool Lagoon are listed—Marsh Tern, Spurwinged Plover, White Egret, White-faced Heron, Brown Bittern, Black Swan, Tree-Martin, White-fronted Chat, Little Grass-bird, Reed-Warbler, Fantail-Warbler, Pipit, Magpie, Welcome Swallow, Willie Wagtail and Brown Thornbill. Nests of the three latter species were found out in the Lagoon, three to four hundred yards from land. Scarlet Robins, Blue Wrens and Silvereyes were found in Teatrees a similar distance from the shore, and, no doubt, nested there also.

Our last day was spent with Messrs. Attili and Hood. Using a flat-bottomed boat, we inspected various swamps between Joanna and Naracoorte. Mr. Terrill and I were shown, among other things, nests of the Coot (*Fulica*), Crested and Little Grebes, Yellow-billed Spoonbill, White-necked Heron, and of the Sacred Kingfisher. We also appreciated our first observation of the Long-billed Corella in the field.

Eventually a short, but very interesting trip was concluded. My lasting memories are those of the Ibis rookery—wading in cool, still waters, the shady Teatrees, the characteristic but inoffensive odour of many birds, the trilling clamor of a thousand baby Ibises, with a background of grunts from their less vocal elders.

However, this phenomenon is perennial. I can but advise my readers to spare a few days some future summer to see for themselves and experience the emotions that my pen all too feebly expresses.