

BREEDING OF THE LITTLE GREBE

By G. CLARKE.

The following is a brief synopsis of events, not altogether complete, of the breeding of a pair of Little Grebe (*Podiceps novaehollandiae*) on the main dam at the Para Wirra National Park, 20 miles NNE of Adelaide in the Mt. Lofty Ranges.

The dam occupies an area of some two and a half acres, and is situated at an altitude of approximately 900 ft. a.s.l. in Savannah Woodland, comprised mainly of the Blue Gum, *Eucalyptus leucoxylon*. The dam wall is formed by an earth bank and as it has been placed across a creekbed the resultant shape of the dam is a long narrow triangle with one small inlet on its northern side formed by a second, smaller creek. The depth of the water at the deepest point is approximately 8 to 10 feet, and the appropriate levels below the spillway wall are given. Surrounding the water is a narrow belt of mud, supporting little vegetation except a few rushes, *Juncus*; and odd introduced willows, *Salix*.

As the incubation period for this species is in the order of 19-20 days, and the eggs are laid on alternate days (data taken from the very similar European Little Grebe, *Podiceps ruficollis*, the probable date of incubation commencement lies between the 14th and 18th of October, 1963. This date is based upon my note for November 13, when two young were found with the adults, with three eggs remaining in the nest out of seven. At this time Mr. J. Hilton, Foreman at Para Wirra, reported that four chicks had hatched but two only were seen by myself. This site was not used during the 1964-65 season, and though birds were noted it is thought that increased human disturbance proved too much for them.

The dam is known to contain Yabbies (Arthropoda) and small fish 2 to 3 inches long of unidentified species, both of which probably form the diet of this grebe.

SYNOPSIS

September 14, 1963: A single bird on the dam.

November 3: Two birds noted.

November 13: The adults became very alarmed as the nest was approached, calling

continuously an agitated 'clip' or 'jip', a single note. The nest was found to be placed between a few sapling eucalypts 2 to 3 feet in height, standing in the water, and was composed mainly of rush stems (*Juncus*) 'anchored' between the saplings and resembling a pile of debris. The nest contained three eggs, stained an ochrous yellow.

November 20: Both adults with two young noted. Water level 8 inches below the spillway wall.

November 23: Two adults; the young were not seen.

December 1: Both adults were noted carrying material to a new nest site. Only one young bird seen. W.L. 12 inches below wall.

December 12: One bird sitting on the second nest, leaving only when approached too closely, covering the eggs on leaving. The nest was not disturbed, so it was not known how many eggs there were. One young bird being looked after by the second adult.

December 27: Two adults with one young, also a third adult which was not allowed to join the other birds. W.L. 22 inches below wall.

December 31: Again two adults with one young and one other adult present. A third nest had now been built in the small inlet.

January 2, 1964: Two adults plus one young of the first brood plus one young of the second brood. The third adult was still present. Sixty dives were timed whilst the birds fished over the midday hours, the times ranging from 3 to 25 seconds duration, the average time being 14.2 seconds. The three longest dives occupied 24, 25 and 25 seconds, and were made whilst the bird moved from one end of the dam to the other, under water.

January 3: Numbers as for the 2nd. The third nest had been dismantled, and a fourth constructed upon the base of the second.

January 12: Two adults with one immature and one young, the third adult having left.

January 19: Numbers as before. Oldest young bird now approximately ten weeks

old, the yellow face patch now visible. Dives were again timed, the average being 16.2 for 17 dives, ranging from 7 to 26 seconds. W.L. 28 inches below wall.

January 22: Two adults plus one immature plus one young noted.

January 31: Numbers as above but the immature bird was now fishing at the opposite end of the dam on its own, although it was seen with the others on one occasion. The head stripes of the juvenile plumage were now disappearing. An adult was now sitting on the fifth nest, which was a floating mass of dead vegetation anchored to a dead sapling.

February 5: The immature of the first brood had now disappeared. The second brood immature swam with one adult whilst the other adult incubated on the fifth nest.

February 12: Adult incubating hard, second brood immature with second adult.

February 16: Two adults with second immature.

March 1: Second brood immature had now disappeared; approximately eight weeks old. Adults with one young from third brood. W.L. 43 inches below wall.

March 14: Adults with two young from third brood, there being a noticeable difference in size between the two chicks.

March 22: One adult with two young.

March 27: Two young only.

March 31: Two immatures only.

April 8: Two immatures, feeding apart, but came together again at dusk.

April 12: Only one immature, the missing bird being about eight weeks old.

April 19: One immature. W.L. 54 inches below wall.

April 25: No birds seen, the last immature being 9 to 10 weeks old at this time. Water level 19 inches below wall, there having been significant rains in the previous week.

From the above fragmentary data it will be seen that three broods can be raised in one breeding season lasting five months, and this is in accord with the European Little Grebe in favourable seasons, it being accomplished on a falling water table.