

Aquatic Birds breeding near Adelaide.

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On October 2nd, 1915, I had an opportunity, in company with Mr. C. F. Rischbieth, of visiting a samphire swamp on the Adelaide plains, where stilts were said to be nesting. When still about a quarter of a mile from the swamp we were met by a few white-headed stilts (*Himantopus leucocephalus*), which settled on the ground, and began to dance about with the wings drooping, in a helpless kind of way. As we got nearer more birds arrived from the swamp, and acted in the same way; all were at the same time uttering their bark-like notes. On entering the swamp Mr. Rischbieth almost at once found a nest containing a single egg, and as we got towards the centre nests became plentiful. About 20 nests were seen altogether, containing mostly three or four eggs, one only contained five. The nests were substantial structures built of samphire twigs, and placed on the top of samphire bushes growing in the water. Although so large they harmonised so well with their surroundings that they were by no means conspicuous, and on several occasions each of us waded within a few feet of a nest without seeing it. There had evidently been a recent rise in the water level, for two submerged nests were found, from one of which three eggs had been washed out, and were lying on the bottom. These eggs were taken, and on being blown proved to be slightly incubated. While hunting about for stilts' nests I found a grebe's nest with three eggs, covered over with green water weed. I supposed it was that of the hoary-headed grebe, as that is the commonest species in the locality, but on walking over to a patch of clear water, where some grebes were swimming, I was surprised to find that they were all black-throated grebes (*Tachybaptus ruficollis novae-hollandiae*). Afterwards about 15 grebes' nests were found, all except two were built in low samphire bushes level with the water, and were simply a mass of green water weed; the two exceptions were floating among some short green rushes. The nests contained from one to four eggs, most of them three. The nests containing one egg were evidently incomplete clutches, as the eggs were white, and were not covered over. Probably the theory that the eggs were covered for warmth and not concealment is correct, as the white fresh eggs are much more conspicuous than the nest stained partly incubated ones. One submerged nest was found. A nest of the red-kneed

dottrel (*Erythrogonys cinctus*) was found built of small samphire twigs and placed in the top of a samphire bush. It contained three slightly incubated eggs. This is the first time I have heard of this bird building a nest. As a rule the eggs are laid on a bare mud bank, surrounded by water, but in this case the swamp was so full that there was no suitable bank available, so the birds had evidently adapted themselves to circumstances. Mr. Tom Carter, of Western Australia, mentions (Mathews' Birds of Australia, Vol. III.) that he found the nest of the Western Australian sub-species "well concealed in a tuft of samphire," but says nothing of the construction of the nest.

A flock of 20 marsh terns (*Hydrochelidon leucopareia fluviatilis*) were flying over the swamp, and judging by the clamour they made when we approached some scanty nests built of green rushes, they were intending to breed, but no eggs were found.

In company with my son I visited the swamp again on October 16th. The stilts and grebes had nearly all hatched their young, and the marsh terns had disappeared. We did not succeed in finding a single stilt chick, though there must have been many of them about. I have never yet seen the chick of this bird. Young ones, just able to fly, are common enough, as are old birds and eggs. I fancy the chicks must be adepts at concealing themselves. On this second visit a pair of red-kneed dottrels evidently had eggs or young in the vicinity. I fancy the latter, for we quartered the ground, and searched for the eggs for nearly an hour without finding them. The behaviour of the old birds was most interesting, especially one manoeuvre of falling into the water as though shot, and lying partly submerged and feebly flapping with the wings. They rose easily from the water when we left the neighbourhood.
