

Andrew Chapman and Brenda Newbey re-visited Lake Boonderoo between 13-17 November 1996. The lake was accessed from a point 10 km south of the Trans Access road on the cut-line known as 'road 296'. A dinghy with outboard was used to assess birds; most parts of the lake including Ponton Creek were accessible. As the lake had dropped 2.7m since peak flood, which occurred probably in October 1995, the north-west part of the lake we accessed in 1995 was separated from the main body of water. In spite of a drop in depth of 2.7m, at all points along the shore examined the shoreline had only diminished between 50-100m. Methods of assessment were identical to 1995 except that better quantitative data were obtained ie. counts were more accurate, however they don't purport to be total numbers for the lake. The data do provide an accurate assessment of relative abundance in 1996 and some measure of changes in abundance and species composition between 1995 and 1996.

ANNOTATED LIST OF WATERFOWL

BLUE-BILLED DUCK (*Oxyura australis*)

Uncommon, 6 recorded, singly, a pair and flock of 3. Only in denser inundated woodland with canopies only above water.

MUSK DUCK (*Biziura lobata*)

Relatively common, 71 recorded, throughout lake except open water surface. Calling persistently.

FRECKLED DUCK (*Stictonetta naevosa*)

Uncommon, 10 recorded, 2 flocks of 4 and a pair; all sightings were in same area- an inundated shrubland with turbid water along Ponton Creek. A cohort of 3 may indicate recent breeding.

BLACK SWAN (*Cygnus atratus*)

Relatively common, 60 recorded, all adults, singly and flocks to 15

AUSTRALIAN SHELDUCK (*Tadorna tadornoides*)

Relatively common, 43 recorded, all adults, singly and flocks to 25.

PACIFIC BLACK DUCK (*Anas superciliosus*)

Relatively common, 42 recorded, singly and flocks to 15. Breeding record B/3 (1).

AUSTRALIAN SHOVELER (*Anas rhynchos*)

Scarce, 3 recorded, singly and a pair.

GREY TEAL (*Anas gracilis*)

Common, the most abundant anatid by an order of magnitude; 324 recorded. Flock size variable to maximum of 28. Breeding records B/1, B/5, B/6, B/7, B/4-one of each.

CHESTNUT TEAL (*Anas castanea*)

Uncommon, 27 recorded, singly, pairs and small flocks to 4. Our observations are consistent with those of last year ie. Chestnut Teal are mainly a shallow water, denser vegetation inhabiting species.

PINK-EARED DUCK (*Malacorhynchus membranaceus*)

Relatively common, 56 recorded, in small flocks to 8.

HARDHEAD (*Aythya australis*)

Uncommon, 28 recorded, singly and flocks to 9

(HOARY-HEADED GREBE (*Poliocephalus poliocephalus*)

Very common, with 834 recorded the most abundant and widespread waterfowl on the lake. Flock size variable to a maximum of 60. Usually present in relatively open water

WHITE-FACED HERON (*Egretta novaehollandiae*)

Uncommon, 14 recorded, singly and flocks to 6. Usually flying over inundated woodland.

GREAT EGRET (*Egretta alba*)

Scarce, only one bird recorded, flying over inundated woodland.

BLACK-TAILED NATIVE HEN (*Gallinula ventralis*)

Scarce, 3 recorded, on moist mud on lake edge.

EURASIAN COOT (*Fulica atra*)

Very common, 603 recorded, present throughout lake including on open water surfaces.

RED-NECKED STINT (*Calidris ruficollis*)

Very common, 450 recorded, but note that sightings were confined to 4-5 flocks of 100 each all seen at the same time and place. They were flying over the water in a relatively shallow embayment.

BLACK-WINGED STILT (*Himantopus himantopus*)

Relatively common, 46 recorded, in small flocks to 20, always in shallow water on edge of lake in open situations.

RED-NECKED AVOCET (*Recurvirostra novaehollandiae*)

Uncommon, 10 recorded in flocks of 4 and 6, flying and on edge of shallow embayment.

BLACK-FRONTED DOTTEREL (*Euseyonis melanops*)

Scarce, 3 recorded, singly and one pair, always on moist mud at lake edge.

RED-KNEED DOTTEREL (*Erythrogonys cinctus*)

Relatively common, 46 recorded, in pairs and small flocks to 4 on moist mud on lake edge. Juveniles present indicate recent breeding.

SILVER GULL (*Larus novaehollandiae*)

Scarce, one bird recorded over open water surface.

TABLE 2 LAKE BOONDEROO 1996 PHYSICAL PARAMETERS

LOCALITY	DEPTH (m)	TDS(mg/l)	TEMP (°C)
31° 06.874'S 124° 22.246'E	7.8	4155	21.4
31° 08.096'S 124° 22.374'E	7.3	4130	21.4
31° 08.876'S 124° 21.591'E	13.7	4165	21.3
31° 10.524'S 124° 21.832'E	16.1	4160	22.6
31° 10.026'S 124° 20.387'E	2.4	4185	23.1
31° 07.597'S 124° 23.716'E	0.9	4735	26.8
31° 06.449'S 124° 23.465'E	0.5	4860	27.7
31° 08.992'S 124° 19.446'E	5.3	NA	20.8
31° 07.921'S 124° 18.848'E	3.5	NA	21.3
31° 07.931'S 124° 18.189'E	2.1	NA	22.2
31° 07.927'S 124° 17.103'E	2.1	7580	21.9
31° 08.367'S 124° 16.167'E	0.6	6040	22.6
31° 08.043'S 124° 19.636	5.6	4265	22.3
31° 06.925'S 124° 21.641	5.4	4175	21.8
31° 06.458'S 124° 23.142'E	0.5	4265	20.3
31° 06.699'S 124° 21.647	4.4	4400	19.2
31° 05.848'S 124° 21.155'E	1.8	4390	18.5

Comparison between the 1995 and 1996 data indicate that for most species numbers had increased over the year. This was particularly the case with Hoary-headed Grebe which was uncommon in 1995 but the most abundant species in 1996. The most likely reason for the increase for all species is an influx of birds as wetlands elsewhere in the Goldfields dried out during the summer of 1995/96. Pink-eared Duck and Grey Teal declined in number. Salinity only increased marginally and decrease in depth is consistent with annual evaporation rate indicating that there is little if any seepage to groundwater from the lake.

As was the case in 1995 most breeding took place in Ponton Creek where it is lined by larger, dead eucalypt trees which provide breeding hollows particularly for ducks. This general area also was the only place we observed Freckled Duck; in an area of inundated shrubland with shallow water. It was noticeable from the very few old nests recorded that the surrounds of the lake itself only seldom provide a suitable nesting situation; probably due to the open nature of the inundated woodland and possibly the lack of suitable nest construction materials.

A total of 23 waterfowl species recorded here exceeds the maximum of 22 recorded from an inland wetland in a review of 23 wetlands in 1992 by Chapman & Lane (in press).

The discovery of a large (total length 18cm) dead Goldfish Carp on the bank of Ponton Creek indicates this species found its way to Lake Boonderoo from elsewhere in the Goldfields during peak flood. This species could still be present but elsewhere in the Goldfields it has not been able to withstand salinities greater than approx. 15 000 mg/l. Likewise the claw of a Yabby on the shore indicates they too have found their way to the lake; Yabbies will be even less tolerant of increasing salinity than Carp; whether or not both species are still present is unknown.

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CHECKLIST OF LAND BIRDS RECORDED AT LAKE BOONDEROO

All birds listed were recorded in eucalypt and Myall/Black Oak woodlands surrounding the lake
(B) indicates breeding record

Emu	Galah
Whistling Kite	Aust. Ringneck
Wedge-tailed Eagle	Pallid Cuckoo
Aust. Hobby	Horsefield's Bronze Cuckoo
Nankeen Kestrel (B)	Richard's Pipit
Welcome Swallow	Tree Martin
Black-faced Cuckoo-Shrike (B)	Red-capped Robin
Grey Shrike Thrush	Willie Wagtail
Weebill	Inland Thornbill
Chestnut-rumped Thornbill (B)	Yellow-rumped Thornbill
Red Wattle Bird	Spiny-checked Honeyeater
Yellow-throated Miner	Yellow-plumed Honeyeater
Brown Honeyeater	Mistletoebird (B)
Striated Pardalote	Aust. Magpie-lark
Black-faced Woodswallow	Grey Butcherbird (B)
Pied Butcherbird	Little Crow
Cockatiel	