

AMPHIBIANS, REPTILES AND MAMMALS OF THE MURRAY RIVER REGION BETWEEN MILDURA AND RENMARK, AUSTRALIA

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Introduction

This paper reports some observations made and specimens collected of amphibians, reptiles and mammals inhabiting the Murray River region between Mildura and Renmark, Australia, during 19 field trips from 1967-70. The picture obtained of the indigenous mammal population was bleak. Compared with the considerable number of species discovered as fossils in the sand lunette of Lake Victoria, N.S.W. (Marshall, this *Memoir*), and the accounts of species, to the order of 34, described for the Murray-Darling confluence and adjacent areas by Blandowski in 1856-7 (Wakefield 1966a), and by Kreft (1866), the mammal population today is severely impoverished in both species and numbers of individuals.

Some results of a field trip organized by the Fisheries and Wildlife Department, Victoria, to the Ned's Corner Station area, NW. Victoria, are included by courtesy of Mr J. K. Dempster. I thank Messrs J. Seebeck (Fisheries and Wildlife Dept.), Police Sgt J. Hobbs of Buronga, N.S.W., H. F. Thomas of Irymple, H. Hansen of Kulcurna Station, N.S.W., and H. E. Wilkinson (Mines Dept., Victoria), for information and field assistance. Mr A. J. Coventry identified and revised the taxonomy of the amphibians and reptiles, and Miss Joan Dixon confirmed the identification of mammals collected. Both are from the National Museum of Victoria.

Systematic List

Class AMPHIBIA

Order SALIENTIA Family HYLIDAE

Litoria peroni 28 June 1967. One specimen (CHR/10) from beneath bark of *Eucalyptus camaldulensis* root buttress, 4 m from nearest

water, oxbow on Scadding's property, Winjellie Station, near Lock 8, N.S.W.

Family LEPTODACTYLIDAE

Limnodynastes dumerili 7 May 1971. One specimen (CHR/2) from a dog's water dish, McPhee's Camp, SE. Lake Victoria, Dunedin Park Station, N.S.W.

L. fletcheri 10 May 1967. In drain beside freshly flooded lucerne, Keera Station, Victoria. One specimen (CHR/5).

Crinea signifera complex 25 Mar. 1969. One specimen (CHR/29) from cavity beneath skull of an aboriginal skeleton, partly exposed on lunette, Lake Victoria, Nulla Nulla Station, N.S.W.

Class REPTILIA

Order TESTUDINES Sub-Order PLEURODIRA Family CHELIDAE

Chelodina longicollis Nov. 1968. One specimen (CHR/27). Carapace only, not retained. Oxbow lake on Nampoo Station, N.S.W. The species is widespread and common within the riverine tract of the study area.

Emydura. None collected but living specimens and several carapaces recorded from time to time. Widespread and common within riverine tract of the study area.

Order SQUAMATA Sub-Order SAURIA Family GEKKONIDAE

Phyllurus milii Early July 1968. One immature specimen (CHR/26), collected by Mr K. Webster, Curator, Chowilla Dame Construction Site, from dead tree on hill W. of Monomon Creek, near dam site, and donated 1 Aug. 1968.

Heteronotia binoei 21 Mar. 1969. One specimen (CHR/31) from burrow in sand, collected

by Sir Robert Blackwood, lunette E. side of Lake Victoria, Nulla Nulla Station, N.S.W.

Phyllodactylus marmoratus 26 Sept. 1967. Two specimens (CHR/14-15) one from beneath bark of *E. camaldulensis*, Moorna oxbow, N.S.W., and one from beneath bark of fence post, Moorna woolshed, N.S.W. Common in district; frequently seen on walls of out-buildings at night.

Gehyra variegata 10 May 1967. One specimen (CHR/6) from beneath bark of *E. largiflorens*, Wallpolla Creek, Keera Station, Vic. 20 Mar. 1969. One specimen (CHR/30) from Nulla Nulla woolshed, N.S.W.

Family AGAMIDAE

Amphibolurus pictus 24 Mar. 1969. One specimen (CHR/30) from burrow in sand of lunette, Lake Victoria, Nulla Nulla Station, N.S.W. This species was quite commonly seen in sandy localities during hot weather.

A. barbatus 28 Sept. 1967. One specimen (CHR/16), immature, from edge of dry oxbow, Moorna Station, N.S.W. A widely distributed and frequently observed species.

Family SCINCIDAE

Egernia striolata 23 June 1968. Two specimens (CHR/20-21) found under bark of *E. camaldulensis*, Lindsay Island, Berribee Station, Vic. One specimen trapped F & W (17 Apr. 1967 to 2 May 1967) in Red Gum forest Potterwakagee Creek, Ned's Corner Station, Vic.

Tiliqua rugosa 6 May 1967. One specimen (CHR/1) from Lybra Paddock, Keera Station, Vic. Very common and widespread species. One recorded eating small yellow flowers and another eating road-killed *A. barbatus*. Two others seen feeding at road-killed rabbits. Following a few points or more of rain, these lizards are recorded in increased numbers, and frequently drinking from puddles.

Sphenomorphus quoyii 20 June 1968. One specimen (CHR/19) taken from Grey Butcher Bird (CHV/72), Lindsay River, Berribee Station, Vic. Four specimens trapped by F & W party in break-back traps along banks of Potterwakagee Creek, Ned's Corner Station, Vic., during period 17 Apr. to 2 May 1967.

S. fasciolata 26 Mar. 1969. One specimen

(CHR/32) in Nulla Nulla woolshed, N.S.W.

Lerista punctovittatum Early July 1968. One specimen (CHR/25) collected by K. Kempster from dead tree on hill W. of Monoman Creek, near dam site, S. Aust., and donated 1 Aug. 1968; 2 Aug. 1970. One specimen (JS 819) collected by Mr J. Seebeck from garden rubbish, Meringur, Vic.

Morethia bouleengeri. Twelve specimens (NMV D 15148-59 inclusive) collected by J. Seebeck, April 1967, in Ned's Corner-Lindsay Point area.

Varanus varius. No specimens. Widely distributed and common, more particularly within or near the riverine tract. Recorded by day and night. One seen carrying small dead rabbit, possibly a road-kill. One at Keera, Vic., semi-tame and regularly visits a caravan site, banks of Little Ranker Creek, for food scraps.

V. gouldii. No specimens. Widely distributed and common, more particularly in open areas away from the riverine tract. On two occasions, pairs were disturbed while they were engaged in possible courtship. Appear to be strongly territorial, and to have permanent homesites. Recorded by day and night. One seen feeding on road-killed Galah, Ned's Corner Station, Vic. Plate 36 insert shows one of a pair of Gould's Sand Goannas photographed at Lake Tyrrell, near Sea Lake, Vic., during 1971. Plate 36 provides circumstantial evidence that a goanna of this species attempted or succeeded in entering a nest burrow of the White-backed Swallow *Cheramoeca leucosterna* in an erosion gulch of the lunette, Lake Victoria, Talgarry Station, N.S.W.

Sub-Order SERPENTES

Family ELAPIDAE

Pseudechis australis 23 Apr. 1968. One specimen (CHR/17) collected by Mr G. Withers, 3 km NW. of Nulla Nulla Homestead, N.S.W. Several other individuals recorded during the study period. Widely distributed, chiefly in drier areas outside the riverine tract.

P. porphyriacus. No specimens. One individual, believed to be this species, seen on Murray River banks, 2 km downstream from Lock 9, on Ned's Corner Station, Vic., 9 May 1967.

Pseudojata textilis 27 Apr. 1968. One specimen (CHR/18) (not retained), killed by Mr K. Ellborough in haystack, Berribee Station, Vic. The species is widespread and quite common in drier areas of the district.

Notechis scutatus. No specimens. Widespread and common within the riverine tract. Recorded by day and night.

Vermicella annulata. One specimen (CHR/4) collected by Miss Heather Fox among sticks on partly cleared country at Meringur, Vic., May 1967 and donated 10 May 1967.

Class MAMMALIA

Order MONOTREMATA

Tachyglossus aculeatus. No specimens. Jan. 1968. One adult female captured by fishermen and brought to Kulcurna Station Homestead from the Murray River banks nearby. Later released locally. Typical feeding excavations of this species are widespread through every habitat in the district. Animals common and widespread, if evidence of typical excavations accepted as such.

Order MARSUPIALIA

Sminthopsis crassicaudata. No specimens. Rabbit trappers J. May (on Noola Station, N.S.W., 1970) and K. Cass (on Nulla Nulla Station, N.S.W., 1967) were able to describe small jumping mice with plump tails that they had seen one or twice in open sandy areas during late dusk. An F & W Environmental Studies Section field trip to Ned's Corner Station and surrounds succeeded in obtaining one specimen (70-163) SW. of Lake Walla Walla, Vic. The specimen was taken during September 1970.

S. murina. No specimens or records. However, a healthy captive was in possession of Sgt J. Hobbs at the Police Station, Buronga, N.S.W., on 23 Feb. 1967. It was captured at Lake Gol Gol (Hobbs 1968).

Acrobates pygmaeus. No specimens. However, reports by local inhabitants indicate that the species is probably moderately common through the *E. canaldulensis*-*E. largiflorens* association along the riverine tract. Similar findings were made by the F & W party during

1970. A specimen taken on or near Ned's Corner Station years previously had been handed to a naturalist in Mildura.

Trichosurus vulpecula 23 Feb. 1967. The Lock master, Mr G. Thomas, of Lock 9, N.S.W., informed us that Brush-tailed Possums were plentiful in the immediate vicinity, especially in the weeping willows along the river. Tourists and overnight campers fed some semi-tame individuals at the Lock. Numerous fresh and old droppings were seen 24 Feb. 1967. A badly decomposed body of an adult seen near the fowl pen of Nelwood Station, S. Aust., on the Murray R. banks. Fresh dropping present 24 Sept. 1968. Left ramus found on banks of Murray R., Top Island, Berribee Station, Vic. (C10794) 26 Sept. 1968. Rami found SW. corner of Lake Walla Walla, Ned's Corner Station, Vic. (C 10795) 22 Nov. 1968; complete skull with rami, Murray R. bank at Fisherman's Cliff, Moorna Station, N.S.W. (C 10796).

Macropus robustus (erubescens?) First indications of the possible presence of Euros in the district were obtained from J. Hobbs of Buronga, N.S.W. Subsequent questioning of local residents proved that many knew of their presence. A few denied their existence. Examples were later seen by NMV members, and were reliably reported by other interested persons. A specimen was finally obtained.

The F & W party (December 1967) reported that Mr Peter Probert of Rufus River, N.S.W., had seen mobs of up to 20 in an area known locally as 'The Basin'.

The NMV observations and collected information indicate a small and apparently discontinuous population linked, it is considered, with the extensive range of the Euro through S. Aust., central W. New South Wales and W. Queensland. Previous mammal studies in the region (Blandowski 1856-7, reported by Wakefield 1966a, Kreffit 1866, Marlow 1958, Wakefield 1966a, b), have not mentioned the presence of *M. robustus*. All the records gained during 1967-70 are from the New South Wales sector of the proposed Chowilla Dam inundation area.

Euros were seen along the river cliffs of

Moorna, Lake Victoria, Nampoo, Warrakoo, Kuleurna and Tareena Stations, and at Lake Victoria in dense marginal vegetation and erosion gulches on Nulla Nulla, Talgarry and Noola Stations. Most of the sightings were of single animals. At both Talgarry and Noola, Euros were disturbed from dense patches of cumbungi and reeds, beneath red gums along the shore of the lake. They made their escape via the long erosion gulches to scrub patches more than a kilometre back from the lake. During 1970 a specimen (CMH/28) was collected by Mr Hans Hansen at Kuleurna Station. The body was frozen at Mildura, and forwarded to the NMV some months later. Hansen had shot at least one other example some months earlier, during late 1969.

M. fuliginosus melanops. The Black-faced Grey (Mallee) Kangaroo is extremely common and widespread within the study area. Scores of sightings, of mobs up to 40, were made during 1967-70. They tend to be more numerous in or close to forested and scrubby areas. Frequently mixed mobs of this species plus *Megaleia rufa* were seen. The species is commonly shot for dog food, sometimes because of alleged competition with sheep, by property owners and staffs of many stations on both banks of the Murray. In drought years the numbers of individuals increases markedly, probably due to food and water shortages further from the river. Shooting pressure, including the engagement of professional shooters, increases at such times. The 1967/8 summer was such a season. Skeletons of more than 200 kangaroos, mostly *melanops* were found on a dump on the banks of the Anabranche, Neilpo Station, N.S.W., early in 1970.

Specimens obtained: limbs, considerably eroded (CHM/2), from Brown's Paddock, Keera Station, Vic., 21 Apr. 1967. Whole carcase and a head (CHM/5-6), 2 May 1967, Keera Station, Vic., deep frozen for display skinning at NMV. Skull, tibia, and fibula, 15 Mar. 1969, coll. E. D. Gill, lunette E. side of Lake Victoria, Talgarry Station, N.S.W.

Megaleia rufa. The Red Kangaroo is extremely common and widespread on both sides Plate 36 insert shows one of a pair of Gould's

sightings, of mobs up to 15, were made during 1967-70. Most of the remarks made for *M. fuliginosus melanops* apply also to this species, except that the species is commonly seen out in the open, away from dense scrub. However, Red Kangaroos were also met within dense red gum-black box forest at times. The F & W party recorded more than 54 sightings of this species in their log book during their observation period from 17 Apr. to 2 May 1967. All these sightings were in NW. Victoria, and it was noted (Dempster 1967) that the animals were mainly associated with the Ned's Corner Land System (Rowan and Downes 1963).

Specimen obtained: fragmented skull, from erosion gulch, cliff at Nampoo Station, N.S.W., 25 Nov. 1968 (CHM/23 = C10797).

Order CHIROPTERA

Bats were frequently seen, but rarely identified.

Taphozous australis. One specimen obtained from abandoned nest of a Fairy Martin, *Petrochelidon aerial*, by H. Hansen on the cliffs at Kuleurna Station, N.S.W., during the winter months of 1968. Preserved as a spirit specimen (CHM/26).

Nyctophilus geoffroyi. Very common within the study area, occupying both trees and buildings. Specimens collected: 3 males, 1 female collected by H. Hansen in out-building of Kuleurna Station, N.S.W., 18 Feb. 1968 (CHM/9-12). CHM/12 donated C.S.I.R.O. Division of Wildlife Research collection (CM 2343). 1 male found dead in shearers' quarters, Nulla Nulla Station, N.S.W., 23 Oct. 1968, collected by H. E. Wilkinson (CHM/21). 1 male found dead, same locality, 6 Oct. 1969 (CHM/27).

Order RODENTIA

Hydromys chrysogaster. No specimens; widespread and common along the Murray R. and associated waterways within the study area. Once seen in broad daylight, but usually at dusk or at night with spotlights. 23 May 1969. A water rat swam from an island in Moorna East oxbow lake, Moorna Station, N.S.W., to a dense reed bed by the bank. Alarm calls were given by several Dusky Moorhens *Gallinula tenbrosa* as it approached.

The F & W party trapped 3 and shot 1 on the Victorian side of the Murray (Pottawackagee Creek) (Dempster 1967).

Mus musculus. Widespread, common, occasionally to plague proportions. Numerous in some reed and cumbingi beds, particularly along the Frenchman Creek and associated waterways. Reached plague proportions in 1969/70, following drought of 1967/68 summer, and a very favourable summer in 1968/69.

Order LAGOMORPHA (introduced)

Oryctolagus cuniculus. Widespread, common in localized concentrations. Subject of commercial trapping, recreational shooting and trapping, mass and local eradication programmes by poison, virus, fumigation and ripping of burrows. A competitor of all herbivores in the district, as elsewhere. Can cause erosion, frequently severe, especially if sheep are also present. Burrows sometimes afford shelter for native mammals (e.g. echidna) and reptiles.

Lepus europaeus. The hare is widespread, but not particularly numerous in the district. A few seen by NMV members, usually at night crossing roads, or in open country or near irrigated pasture.

Order CARNIVORA (introduced)

Vulpes vulpes. The Red Fox is widespread and common in the study area. Seen by day and night. Numerous dead animals seen. Approaches station buildings by night to feed. Specimens collected: 5 skulls (C 10789-93) from various localities within the study area.

Canis familiaris. Domestic dogs were owned on practically every station and property visited. Many are employed to work stock, to hunt kangaroos and rabbits or as guards. Occasionally, dogs were seen alone far out in the bush.

Felis catus. Cats also were found on most properties visited, and out in the bush or paddocks well away from dwellings.

Order ARTIODACTYLA (introduced)

Capra hircus. Several mobs of wild goats are known in the study area, the largest, of more

than 40, being on Nulla Nulla and Talgarry Stations, N.S.W. Here they have caused or increased erosion of the sand luncte on the E. side of Lake Victoria. Their observed habit of climbing every prominence in their path has assisted the rapid increase of both sheet and headward erosion. An unfortunate by-product was that many newly exposed fossil mammal and Aboriginal skeletons were destroyed before they could be excavated.

Sus scrofa. Feral pigs are widespread and common, particularly in the red gum and black box forests of the watercourses. They inhabit dense lignum clumps, and make nocturnal forays onto surrounding paddocks and irrigated pastures to feed. They also commonly eat carrion, and dig for roots and freshwater mussels *Veleunio ambiguus* along dried oxbows and creeks. Many escaped from captivity during floods in 1951 and 1956 to boost the existing population.

References

- DEMPSTER, J. K., 1967. A preliminary survey of the fauna on the site of the proposed Chowilla Reservoir (Part 1), April-May 1967, for the Chowilla Dam Sub-Committee, Aust. Fauna Authorities Conference. Typescript, 16 pp.
- HOBBS, J., 1968. The re-discovery of the grey marsupial-mouse in Sunraysia. *Sunraysia Nature Res. Trust, Fifth Rep.*, pp. 81-5.
- KREFFT, G., 1866. On the vertebrated animals of the Lower Murray and Darling, their habits, economy, and geographical distribution. *Trans. Phil. Soc. N.S.W.* (for 1862-5), pp. 1-33.
- MARLOW, B., 1958. A survey of the marsupials of New South Wales. *CSIRO Wildlife Res.* 3: 71-114.
- ROWAN, J. N. and DOWNES, R. G., 1963. A study of the land in North-Western Victoria. *Soil Cons. Auth. Vict. T.C.* 2.
- WAKEFIELD, N. A., 1966a. Mammals of the Blandowski Expedition to north-western Victoria, 1856-57. *Proc. R. Soc. Vict.* 79: 371-91.
- , 1966b. Mammals recorded for the mallee. *Proc. R. Soc. Vict.* 79: 627-36.

Explanation of Plate 36

Photograph of scratchings by a Gould's Sand Goanna at the burrow entrance of a White-backed Swallow, interpreted as a predatory attack. Superimposed is the head and forelimbs of a goanna of this species.

Photo—author.

