

# FOSSIL BIRDS (AVES) FROM WEEKES CAVE, NULLARBOR PLAIN, SOUTH AUSTRALIA

by G. F. VAN TETS\*

## Summary

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At Weekes Cave, a sink hole on the Nullarbor Plain near Koonalda Station, South Australia, remains have been found of *Platibis flavipes*, Yellow-billed Spoonbill; *Accipiter fasciatus*, Brown Goshawk; *Falco cenchroides*, Nankeen Kestrel; either *Turnix velox* or *T. pyrrhothorax*, a buttonquail; *Cinclorhamphus cruralis*, Brown Songlark; *Cinclorhamphus mathewsi*, Rufous Songlark; *Poephila guttata*, Zebra Finch; and *Artamus leucorhynchus*, White-breasted Wood-swallow. Some of these birds require a less arid climate than has prevailed on the Nullarbor Plain in historic times.

## Introduction

Weekes Cave (N15) is a sink hole near Koonalda Station on the Nullarbor Plain in South Australia, near the border with Western Australia. Multiple entrances drop 10 m to a flat silt-floored chamber (Hill 1967). The bird bones reported in this paper were collected by members of the Cave Exploration Group of South Australia, and are part of the collections of the South Australian Museum (SAM). The bones were identified by comparisons with reference bones in the collections of the National Museum of Victoria and the Division of Wildlife Research, CSIRO.

### Family THRESKIORNITHIDAE

*Platibis flavipes* (Gould, 1838), Yellow-billed Spoonbill.

Almost complete skeleton (SAM, P17927).

### Family ACCIPITRIDAE

*Accipiter fasciatus* Vigors & Horsfield, 1827, Brown Goshawk.

Skull (SAM, P18060) and a synsacrum (SAM, P18061).

### Family FALCONIDAE

*Falco cenchroides* Vigors & Horsfield, 1827, Nankeen Kestrel.

Skull (SAM, P18062). This species nests and roosts in several caves on the Nullarbor Plain (Richards 1971).

### Family TURNICIDAE

*Turnix* sp., a buttonquail.

Four crania (SAM, P18063-6), and a right tibiotarsus (SAM, P18067) resembling *Turnix velox* (Gould, 1841) and *T. pyrrhothorax* (Gould, 1841). At present only *T. velox* occurs in the area (Condon 1968, McEvey & Middleton 1968).

### Family SYLVIIDAE

*Cinclorhamphus cruralis* (Vigors & Horsfield, 1827), Brown Songlark.

Sternum (SAM, P18068). One was noted on the Nullarbor Plain by McEvey & Middleton (1968).

*Cinclorhamphus mathewsi* Iredale, 1911, Rufous Songlark.

Skull (SAM, P18069).

### Family ESTRILDIDAE

*Poephila guttata* (Vieillot, 1817), Zebra Finch.

Skull (SAM, P18070).

### Family ARTAMIDAE

*Artamus leucorhynchus* (Linnaeus, 1771), White-breasted Wood-Swallow.

Three skulls (SAM, P18071-3).

## Discussion

Some of the bird species, notably the Yellow-billed Spoonbill and the White-breasted Wood-swallow, require wetter conditions than have prevailed on the Nullarbor in recent

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times. As a group, the bird remains found in the cave are those one would expect to see in savannah woodlands with areas of open grassland and shallow pools of water. They may have come on to the Nullarbor Plain during brief spells of exceptionally wet weather and sought shelter in the cave when the country dried up again.

The spoonbill may have become trapped in the sink hole after blundering into it. Some of the smaller birds may have been brought into the cave by hawks and owls. *Tyto novae-hollandiae* (Stephens), Masked Owl, formerly resided in caves on the Nullarbor Plain and

*Falco peregrinus* Tunstall, Peregrine Falcon, *F. berigora* Vigors & Horsfield, Brown Falcon, and *F. cenchroides*, Nankeen Kestrel, still reside in them (Hamilton-Smith 1967, Richards 1971).

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