

An erroneous fossil record of *Chionis* from Australia

In their notice of a small collection of late Pleistocene avian remains from Victoria Cave, near Naracoorte, South Australia, van Tets and Smith (1974, *Trans. R. Soc. S. Aust.* 98: 225-227) have identified a single incomplete synsacrum as that of a Black-faced Sheathbill *Chionis minor*, a subantarctic species whose nearest residence to South Australia is removed many hundreds of leagues westward on islands in the south-western Indian Ocean. The remaining avian fossils from Victoria Cave were for the most part assigned to extant forms still to be met with in South Australia, the presence of the *Chionis* being explained as perhaps due to some individuals being 'rafted to Australia during a glacial period'. Such an extraordinary occurrence requires careful scrutiny; for, if the specimen were misidentified the record might eventually be accepted by the unwitting. Therefore, I examined the specimen in question (number P16731 in the South Australian Museum, Adelaide), a loan being speedily effected through the kind offices of Mr Neville Pledge.

As expected, a comparison revealed many substantial differences between the fossil specimen and the synsacrum of *Chionis minor*. In the fossil, the anterior face of the centrum of the first sacral vertebra is concave and saddle-shaped, with its width about twice its depth; in *Chionis* this centrum is convex and pentagonal in shape, with a central pit that is absent in the fossil. In the fossil the largest parapophyses are those of the third and fourth sacral vertebrae; in *Chionis* those of the fourth and fifth. The lateral intervertebral foramina are small and paired in the fossil but large and single in *Chionis*; likewise the dorsal fenestrae are much smaller in the fossil than in *Chionis*. This list of characters could be extended considerably, but the above ought to be sufficient to demonstrate that the fossil is far from being 'indistinguishable' from *Chionis minor*, as was asserted by van Tets and Smith. Rather, it appears to have decided similarities to the Passeriformes but to make any further determination of it would require more effort than the specimen deserved initially.

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On the display of Wilson's Bird-of-paradise

On 8 February 1975 I watched a displaying male of *Diphyllodes respublica* in the Berlin Tierpark and made a few diary notes. Some months afterwards, I came across Iredale's brief description of the display of a captive bird (*Birds of Paradise and Bowerbirds*, Melbourne 1969: 116; quoted by Gilliard, *Birds of Paradise and Bower Birds*, London 1969: 214) and found that my notes do not fully coincide with what Iredale wrote (as might be expected from such random observations in captivity). Because there was obviously no complete record of the species' display I decided to study the behaviour of that captive bird more thoroughly but I learnt that the bird had already died.

Notwithstanding their fragmentary character, my notes do contribute some details. I did not see the (possibly initial) sideways jerking of the head; initial phases are often omitted from birds' displays. I saw three phases, the first of which consisted in stretching the green breast shield laterally upwards. In phase two, the bird would protrude its head, expand (fluff out) the breast shield, erect the yellow cape-fan at a right angle to the body and ruffle the red feathers of the back to some extent. In the third phase, the male retracted the head and neck and expanded the breast-shield, as described by Iredale. The feathers of the back are smoothed down and the breast-shield is spread still more than it is even in the transverse plane and projects nearly at a right angle to the longitudinal axis of the bird. It was only in this part of the display that the bird would repeatedly drop the basally wide, lower mandible extensively to reveal the gape, which was pale yellow (not light green as in the bird observed by Iredale).

During these performances, the male would perch on a thin vertical sapling. If it uttered any call notes they were not audible from behind glass and among a noisy crowd of spectators.

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