

Unusual prey item for Australian White Ibis: Longfin Eel

Alan Stuart¹, Virginia Leitch² and Ross Zimmerman³

¹133 Barrenjoey Rd, Ettalong Beach 2257 NSW, Australia. alanstuart400@gmail.com

²35 Church St, Newcastle 2300 NSW, Australia. leitchvirginia@gmail.com

³15 Fern Valley Rd, Cardiff 2285 NSW, Australia. ssorss1@gmail.com

Received 23 October 2023, accepted 27 October 2023, published online 30 October 2023.

INTRODUCTION

The main diet of the Australian White Ibis *Threskiornis moluccus* is aquatic wildlife (Marchant & Higgins 1990). Three studies of stomach contents have been reported for the species (McKeown 1934; Carrick 1959; Lowe 1984). McKeown (1934) examined the stomach contents of three Australian White Ibis in south-western New South Wales, finding mainly insects, spiders, freshwater mussels and freshwater crayfish. Carrick (1959) assessed the stomach contents of 202 birds from sites distributed between northern Victoria and southern Queensland. He found that the main dietary components by weight were frogs, fish, freshwater crayfish, beetles, crickets and grasshoppers. Lowe (1984) studied the stomach contents of 17 Australian White Ibis. In seven birds which had been foraging in intertidal habitats beside Westernport Bay in south-eastern Victoria, the main items in the stomach were isopod crustaceans such as shrimps and crabs. In ten birds which had foraged terrestrially, the stomach contents mainly comprised earthworms, insects and gastropod molluscs.

The range of prey items listed above are relatively small-sized. For example, most insects weigh only a few grams, while shrimps can weigh 5-15 g depending upon the species. Freshwater crayfish are larger – for example, a fully-grown Yabby *Cherax destructor* weighs 75-80 g but young ones are about 20 g (AZ Animals 2023). There is one report of an Australian White Ibis taking a “fish eel” (Fordyce 1973). However, that report had little detail.

OBSERVATIONS

On 14 October 2023 at around 10:30 am when we were on Ash Island (the western section of Kooragang Island in the Hunter Estuary) we were watching an Australian White Ibis foraging in a shallow freshwater pond (32.8594°S, 151.7220°E) and saw it capture an eel. Later inspection of our

photos revealed the prey to be a Longfin Eel *Anguilla reinhardtii* of estimated length 30-40 cm. We estimated the size of the eel by comparing it with the ibis’s bill (**Figure 1**). The bill of an Australian White Ibis is 149-158 mm long for females and 183-197 mm for males (Australian Bird Study Association 2019).



Figure 1. An Australian White Ibis on Ash Island carrying its Longfin Eel prey (Photo: Alan Stuart).

For about a minute, the ibis repeatedly picked up the eel, shook it and then dropped it back into the shallow water. During this time, the bird also moved the eel 5-10 m from the point of capture. Some of that movement was because a nearby Great Egret *Ardea alba* had approached, seemingly with the intention of snatching the prey. Eventually the egret desisted.

The ibis then started to nibble all along the eel’s body. It did that several times, going in either direction (an example is shown in **Figure 2**). It then attempted to ingest the eel, by transferring it along the down-facing bill into the oral cavity and swallowing it whole (**Figure 3**). However, it soon regurgitated the eel and did some more nibbling along the length of the eel’s body. After that, it walked out of our line of vision, still carrying the eel.

The process, from the ibis first starting to nibble the eel's body, took about two and a half minutes.



Figure 2. The Australian White Ibis nibbling at its prey (Photo: Ross Zimmerman).



Figure 3. The Australian White Ibis making the first attempt to ingest the eel (Photo: Alan Stuart).

DISCUSSION

There had been little rain in the Newcastle area in the preceding several months and the pond was drying out. Possibly, the eel was more exposed than normal to predation because of the pond having become smaller and shallower.

An adult Longfin Eel is about 150 cm long and weighs around 2 kg (Gomon & Bray 2021). We estimated the Ash Island eel to be 30-40 cm long; hence its weight was probably 400-500 g. Clancy (2011) investigated the weights for Longfin Eel

eaten by Black-necked Stork *Ephippiorhynchus asiaticus* in northern New South Wales and found similar results (weight range 480-600 g). Clearly, a Longfin Eel of any age would be considerably heavier than the normal prey items for Australian White Ibis.

We suggest that the purpose of the nibbling action by the ibis was to crush bones of the eel's skeleton, making the prey easier for the ibis to ingest. Clancy (2011) has described similar behaviour by Black-necked Stork when it is eating eels.

ACKNOWLEDGEMENTS

We thank Tom Kendall for his help in identifying the species of eel.

REFERENCES

- Australian Bird Study Association (2019). Bird in the Hand (Second Edition): Australian White Ibis. www.absa.asn.au, accessed 22/10/2023.
- AZ Animals (2023). Yabby. <https://a-z-animals.com/animals/yabby/>, accessed 21/10/2023.
- Carrick, R. (1959). The food and feeding habits of the Straw-necked Ibis, *Threskiornis spinicollis* (Jameson), and the White Ibis, *T. molucca* (Cuvier) in Australia. *CSIRO Wildlife Research* 4(1): 69-92.
- Clancy, G.P. (2011). The feeding behaviour and diet of the Black-necked Stork *Ephippiorhynchus asiaticus australis* in northern New South Wales. *Corella* 36(1): 17-23.
- Fordyce, J. (1973). Field notes: White Ibis fishing for eels. *Bird Observer* 498: 4.
- Gomon, M.F. and Bray, D.J. 2021. *Anguilla reinhardtii* in 'Fishes of Australia', <https://fishesofaustralia.net.au/home/species/1426>, accessed 15/10/2023.
- Lowe, K. W. (1984). 'The feeding and breeding biology of the Sacred Ibis *Threskiornis aethiopicus* in southern Victoria'. Ph.D. Thesis, University of Melbourne, Victoria.
- McKeown, K.C. (1934). The food of birds from southwestern New South Wales. *Records of the Australian Museum* 19(2): 113-135.
- Marchant, S. and Higgins, P.J. (Eds) (1990). 'Handbook of Australian, New Zealand and Antarctic Birds Volume 1: Ratites to Ducks'. (Oxford University Press: Melbourne.)