

A SEA SNAKE IN THE DIET OF A WHITE-CAPPED ALBATROSS

DAVID STEWART

ABSTRACT

An Elegant Sea Snake *Hydrophis elegans*, is reported from the small intestine of a beach-washed immature White-capped Albatross *T. steadi* found on Fraser Island, Queensland. This is the first published record of an albatross eating a sea snake, probably whilst foraging on by-catch near a local fishing trawler.

OBSERVATIONS

On the 20 August 2002 John Schwarzrock found a beach-washed albatross of the *Thalassarche cauta* complex approximately 5 km south of Dilli Village, Fraser Island 25° 38' 54"S, 153° 05' 00"E. He froze the specimen and sent it to the Moggill QPWS Office with several other albatross specimens for identification and necropsy. The specimen was subsequently identified by DNA analysis as a White-capped Albatross *T. steadi* (Mike Double ANU pers. comm.).

On necropsy it was found to be an immature female that had died from drowning. The leading edge of her right wing was bruised and it had lost many feathers. There were no fat reserves and her pectoral muscles were wasted but otherwise she appeared healthy. A large object could be felt through the wall of her small intestine, so a small incision was made and the sea snake was removed. It had been swallowed head first. The snake was identified as an Elegant Sea Snake *Hydrophis elegans* (snout vent length 1.47 m) (R Hobson pers comm.). It appeared to be fresh and undamaged.

CONCLUSIONS

Albatrosses in the *Thalassarche cauta* complex (*T. cauta*, *T. steadi*, *T. salvini* and *T. erimita*) forage mainly on cephalopods and fish, particularly mackerel and red bait (Marchant and Higgins 1990). Prey is taken from the surface of the ocean (Ainley and Boekleide 1983; Barton 1979) by surface plunging (Gibson, 1960; Nicholls 1979), or by attending fishing boats to feed on offal and by-catch (Bartle 1974).

The Elegant Sea Snake is a common marine snake (Cogger 2000) that occurs mostly in turbid deep water (Heatwole 1999) and occasionally in estuaries (Limpus 1975). It commonly occurs in water between 10 and 35 m in depth, but maximum depths recorded include 80 metres deep 32 km offshore from Bundaberg, Queensland (Limpus 1975). Adults can grow to 1.7 m, though occasionally 2.0 m specimens are

been recorded (Cogger 2000). It is the most common species of sea snake taken as by-catch by prawn trawlers in the Bundaberg area (Limpus 1975; Ward 2000).

Sea snakes are not known in the diet of albatrosses in the *T. cauta* complex or any other albatross species (Cherel and Klages 1998; Tickell 2000). It is probable that this albatross took the sea snake as offal from a prawn trawler or fishing boat. Alternatively, it might have hunted the sea snake, since the dietary studies of the *T. cauta* complex have been conducted in southern latitudes where sea snakes occur only as rare vagrants. Given the severe bruising of the one wing it is concluded that the bird died from drowning following a collision at sea rather than the bite of the sea snake.

ACKNOWLEDGEMENTS

I wish to thank Mr John Schwarzrock (Queensland Parks and Wildlife Service), Mr R. Hobson (Queensland Parks and Wildlife Service) and Dr Mike Double (Australian National University, Canberra).

REFERENCES

- AINLEY, D.G. & BOEKELHEIDE, R.J. 1983. An ecological comparison of oceanic seabird communities of the South Pacific Ocean. *Studies Avian Biol.* 8:2-23.
- BARTLE, J.A. 1974. Seabirds of eastern Cook Strait, New Zealand in autumn. *Notornis*, 21 (2):135-166.
- BARTON, D. 1979. Albatrosses in the western Tasman Sea. *Emu* 79(1): 31-35.
- CHEREL, Y & N. KLAGES, 1998. A review of the food of albatrosses. P.p. 113 -136, in: Robertson G. and R. Gales (eds). *The Albatross: Biology and Conservation*. Surrey and Beatty & Sons. Chipping Norton, NSW.
- COGGER, H.G. 2000. Reptiles and Amphibians of Australia. Sixth edition. Reed New Holland: Sydney.
- GIBSON, J.D. 1960. Sea-bird log - Sydney to Cape Town and Panama to Sydney. *Emu* 60(1): 11-19.
- HEATWOLE, H. 1999. *Sea Snakes*. Sydney: UNSW Press.
- LIMPUS, C.J. 1975. A study of the ecology and toxicology of sub-tropical Queensland sea snakes (Hydrophiidae). M.Sc. thesis UQ.
- MARCHANT, S. & HIGGINS, P.J. 1990. (Eds.) *Handbook of Australian, New Zealand & Antarctic Birds: Vol. 1 Ratites to Ducks, Part A*. Melbourne: Oxford University
-

Press.

NICHOLLS, G.H. 1979. Underwater swimming by albatrosses. *Cormorant*, 6:38.

TICKELL, W.L.N. 2000. *Albatrosses*. Sussex: Pica Press.

WARD, T. M. 2000. Factors affecting the catch rates and relative abundance of sea snakes in the by-catch of trawlers targeting tiger and endeavor prawns on the northern Australian continental shelf. *Mar. Freshwater Res.* 51:155–64.

D. STEWART Conservation Research
QPWS, PO Box 64, Bellbowrie, QLD, 4070.
david.stewart@epa.qld.gov.au
