

BIRD NOTES

winter following storms but the deaths of 1984 were higher in number than usual.

Dr Harrigan of Melbourne University's Werribee Veterinary Clinic identified the cause of death of the Victorian birds as being a toxin, and not an infectious disease. Birds were generally devoid of food in the stomach, and malnutrition was probably an important factor leading to their death.

Two birds sent to the Clinic from South Australia were similarly emaciated from lack of nutrition. Toxins from *Clostridium perfringes* were the probable cause of death; however, there was severe gastric ulceration caused by nematodes. Massive tape worm infestations were accentuating nutrition problems and liver flukes were present.

A further two live birds, which were in a severely weakened condition, were sent to the Struan Veterinary Laboratories. The laboratory report indicated that no fat deposits were present. The birds had swollen livers, which were half-filled with cysts and flukes. Gastric ulcers were also present. There was a mild infection of an unknown species of bodylice, and a moderate tapeworm infection of the small intestines. The kidneys were affected to a moderate degree with renal coccidiosis.

The deaths appear to be a natural phenomenon resulting from the unusual weather conditions. It seems that the severe storms of the 1984 winter stressed the penguins by rendering their food supplies harder to secure. This, coupled with the effects of internal parasites, caused malnutrition from which many penguins were unable to recover.

L. Delroy, South Australian National Parks and Wildlife Service, Box 1782, Adelaide. S.A. 5001.

Accepted 12 February 1985.

PENGUIN DEATHS IN THE SOUTH-EAST OF SOUTH AUSTRALIA.

The Advertiser of 18 July 1984 reported that 1,000 Little Penguins, *Eudyptula minor* had been found dead on beaches between South End and Carpenter's Rocks in the South East of South Australia. Further investigation, involving counts by the National Parks and Wildlife Service, showed that the actual number involved was only slightly in excess of 200. Deaths of penguins were also reported from southern and eastern beaches of Victoria although the numbers involved were less than in South Australia.

Both areas had been affected by heavy seas during the previous two or three weeks. Penguin deaths are regularly reported each