

MOULT IN ALBATROSSES: A COMMENT

R.K. Brooke & B.L. Furness in *Cormorant* 10:27-30 (1982) give some useful information on moult in mollymawks, but, contrary to the claim in their first sentence, theirs is not the first attempt "to elucidate the modes of moult of flight feathers of albatrosses". A well-known recent paper with information on that topic is that of Harris (1973) in *Ibis* 115:483-510. He examined no less than 1 487 Waved Albatrosses *Diomedea irrorata*, many of known age, for wing moult. He also examined moult in six other species of albatrosses in most of which he found two or more generations of primaries in the wing. Long ago, however, Witmer Stone (1900) in *Proc. Acad. Nat. Sci. Philadelphia* of that year, pp. 4-49, described the moult conditions in five male and six female Blackfooted Albatrosses *D. nigripes*. Stone encountered an unusual complication in that in some birds the state of the moult of one wing was different from that of the other.

Checking the moult condition of birds of unknown age and provenance caught at sea may yield insights into the moulting process, but in view of the various complications it would be much better if the conditions could be followed at known stages of the lives of marked birds. How practicable this would be is another matter. One can hardly determine the moult state of live birds without extensive handling, and to capture marked individuals repeatedly on their breeding grounds might well stress the birds, change their normal behaviour and perhaps, through changing hormone levels and the like, change the course of their moult. Is there a better way?

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HISTORY OF THE STUDY OF FLIGHT FEATHER MOULT IN ALBATROSSES

I value John Warham's comments (*Cormorant* 14: 54 (1986)) on the history of our understanding of the moult patterns of flight feathers of albatrosses. As a result I have now examined W. Stone (*Proc. Acad. Nat. Sci. Philadelphia* 1900: 4-49). He provides further evidence of wave moult in the Blackfooted Albatross *Diomedea nigripes* to that listed in Brooke (*Cormorant* 9: 13-18 (1981)). I did refer to Harris's (*Ibis* 115: 483-510 (1973)) work on the Waved Albatross *D. irrorata* in my original contribution (*op. cit.*). On rereading Harris's paper I find that it is a more insightful contribution than I had remembered when writing *Cormorant* 10: 27-30 (1982). I shall be only too happy to emphasize his contribution when I next write on this topic: I have a draft paper which requires further work before I would care to submit it to an editor.

Virtually all moult of albatross flight feathers takes place at sea, not on the breeding grounds. Perhaps our Australian colleagues in New South Wales could make a point of recording moult of the birds they catch for ringing? I suppose they sometimes have retraps which would provide data on the progress of moult of individual birds. But for the foreseeable future most new data on moult of albatross flight feathers will have to come from birds that have died for one reason or another. I agree that this is not satisfactory but, like Dr Warham, I cannot visualize a more practical approach. It will, I fear, be a long time before the ecological reasons for the perceived patterns and for the frequent occurrence of interrupted moult in albatrosses are elucidated.

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