

A NOTE ON PESTICIDE RESIDUES IN GREAT SHEARWATERS.

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The Great Shearwater (*Puffinus gravis*) breeds only on the Tristan da Cunha group in the S. Atlantic. The first leg of its northerly migration takes it six thousand miles up the west side of the Atlantic. No live bird of this species has been seen off Trinidad, but a number of dead or dying birds have been washed up on the E. coast in 1971-2. A fuller account of these records will be given in a forthcoming paper by C.T. Collins, and this note deals only with one aspect - possible contamination of these birds with pesticide residues.

Seabirds from many parts of the world have been found to carry considerable residues of organochlorine insecticides and the related polychlorinated biphenyls (PCB's), and so when three Great Shearwaters were found in fresh condition during Matura turtle patrols in 1972, it seemed a good idea to send tissue samples for residue analysis. Dr. W.R.P. Bourne of the U.K. Seabird Group arranged for analyses to be carried out by Dr. J. Bogan of Glasgow University. The result showed that liver and muscle from the two birds analysed did contain traces of DDE (a breakdown product of DDT) and PCB's, but at low levels (an average of 0.7 parts per million (ppm) DDE and 0.6 ppm PCB in the liver, with even less in the muscle). By comparison with other published analyses, it is clear that these residues were not the cause of death of these shearwaters, but nevertheless showed once again the general contamination of the oceans with persistent organochlorine compounds.

Dr. Bourne pointed out that various species of shearwaters which migrate across the equator are known to come to grief at the end of their long flights at times. His letter ends by humorously castigating me for not seeing the rest of the shearwaters fly past. Of course, it is kind of dark on those turtle patrols. . .