

EMB:WRB

September 27, 1954

Dr. D. L. Serventy  
Wildlife Survey Section  
Commonwealth Scientific and  
Industrial Research Organization  
Commonwealth of Australia  
Arundale Hall  
1 Museum Street  
Perth, W. Australia

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Dear Dr. Serventy:

I am writing in reply to your letter of June 29, addressed to Dr. R. C. Murphy and forwarded to the Commission by Dr. Leonard Carmichael of the Smithsonian Institution, concerning the possible hazard to migrating flocks of the Short-tailed Shearwaters (*Puffinus tenuirostris*) by our Pacific testing activities.

Since the Atomic Energy Commission established the Pacific Proving Ground as a test site at Bikini and Eniwetok Atolls, the Commission has conducted extensive biological surveys of the terrestrial and aquatic flora and fauna as part of its overall program. The scientists responsible for collecting and analyzing the ornithological data before and after testing activities, report that they have collected five different species of terns, two species of shorebirds and the golden plover at the testing site, but not any Shearwaters. This, of course, does not rule out the possibility that the Short-tailed Shearwaters might be found in these atolls even though our survey teams have not collected this bird.

In regard to possible detrimental effects from radiation, it is the opinion of the Biology Branch, based on long-term radiobiological studies, that there is little possibility the testing activities would have adverse effects on these birds. They have found only negligible amounts of radioactivity in some of the tissues and organs of terns and shorebirds at the Pacific Proving Ground. In the tissues of birds collected after a test series, only minute amounts were found in the muscles or skeleton. The differences in the amount and variability in the uptake of radioactive materials are most likely directly related to the food habits of birds.

In those areas of the Proving Ground where testing activities take place, the tropical vegetation has been extensively cleared to facilitate operations. These modifications have resulted in the birds moving to

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the undisturbed islands in the atolls. In these areas the birds are not only safe from the direct effects of the testing program, but the indirect effects as well.

We would like to inquire why the Committee on Pacific Conservation is primarily interested in this bird. I shall alert our ornithologists to keep a lookout for this bird, and will be happy to forward their observations to you.

Sincerely yours,

W. R. Boss, Physiologist  
Biology Branch  
Division of Biology and Medicine

CC: Chairman  
Dr. L. Carmichael,  
Smithsonian In.  
Dr. R. C. Murphy,  
Amer. Mus. of Nat.  
Hist., NYC

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