Holes in the Webs of Shearwaters

DURING THE COURSE of examining young and a few adult Wedge-tailed Shearwaters (Puffinus pacificus cuneatus) on Rabbit and Moku Manu Islands just off Oahu, in the fall of 1947, 23 of 38 birds checked at random were found to have holes in the webs of their feet. These holes varied in number and size from several large ones (see photograph) to one or more very small ones. As many as seven holes were found in a single foot. Sometimes, as is also shown in the photograph, the holes were marginal and formed gaps on the edges of the webs.

The holes were first found in young a few weeks old (smaller young were not observed). They rarely appeared in the feet of 25 marked young which were observed from the age of about 1 month to 3 months. Once formed in these older young, the holes remained essentially unchanged. Apparently the webs became tougher and thicker with age and less easily torn. Large holes, in particular, seemed to have been acquired during the first few weeks after the young hatched.

The explanation of the holes has not been conclusively determined. Small scabs have been noted on the feet of a number of young birds. I have picked off such scabs, as a bird might, and thus made or disclosed small web perforations. (Of 6 pin pricks made in the webs of 2 young, 1 small permanent hole resulted.) Further pecking or scratching at such a small hole might well lead to a larger one, for a tear in the web soon rounds out as the edges contract and heal.

The cause of the original small scabs, if they may be taken as the starting point in hole development, seems most likely to be the bites of the large hippoboscid flies (? Olfersia sp.) that very commonly infest the young. Small carnivorous ants are present and might cause irritation that would be pecked. Fighting between
young is not a possible explanation because the young seldom, if ever, leave their burrows during the first month or two. Nor does it seem likely that the parents are involved, since the feet of the young shearwaters are kept under the body and hidden by down.

Review of much of the literature on shearwaters has revealed no mention of holes in their webs although I know others have observed the condition here. It is possible that this is a local condition in these Hawaiian populations, where the species or large numbers of the parasitic fly might explain the frequency of holes in webs. The result is probably of no disadvantage to the adult birds in their swimming except in those few cases in which perforation progresses to an extent such as shown in the photograph.—Frank Richardson, Department of Zoology and Entomology, University of Hawaii, Honolulu, Hawaii.

Seventh Pacific Science Congress
FEBRUARY 2 TO 23, 1949

To be held at AUCKLAND and CHRISTCHURCH, NEW ZEALAND. Under the auspices of the Royal Society of New Zealand, and with the assistance of the Government of New Zealand.

ORGANIZATION

The Pacific Science Association has accepted the invitation of the Royal Society of New Zealand to hold the Seventh Pacific Science Congress in New Zealand in 1949. The forthcoming Congress has the same scope and purpose as those previously held, i.e., Honolulu (1920), Sydney and Melbourne (1923), Tokyo and Kyoto (1926), Batavia and Bandoeng (1929), Vancouver and Victoria (1932), and Berkeley, Palo Alto, and San Francisco (1939).

The Royal Society of New Zealand has appointed an Organizing Committee charged with the general arrangements for the Congress, with responsibility for perfecting the program and for local arrangements in Auckland and Christchurch.

MEMBERSHIP

The Pacific Science Association has a membership of 46 countries; i.e., those within or bordering the Pacific or having territorial responsibilities therein, and those which have carried out research in the Pacific. Each country holds membership through a Representative Institution, i.e., its National Academy or National Research Council, or organization of similar status.

Personal membership of the Congress is under three categories:

Official Members

1) Official delegates representing the constituent countries of the Pacific Science Association, restricted in number as determined by the Association.

2) Delegates otherwise accredited to the Congress by the governments of the participating countries or by agencies of those countries corresponding to the Royal Society of New Zealand.

3) Officers and honorary officers of the Congress, members of the Organizing Committee, chairmen and secretaries of standing committees of the Pacific Science Association, and chairmen of committees and sections.

4) Persons specially invited to attend by the President of the Congress.

Members

Members include those persons, other than official members, who are accredited to the Congress by scientific societies, universities, and other research organizations. Members will be accorded full privileges of the Congress.

Participants

This category includes all other registered attendants at the Congress, including ladies accompanying official members and members. Participants will be accorded full privileges of the Congress except that official members and members will be given preference in housing accommodation and on excursions. The registration fee for New Zealand participants will be £1: 1: 0.