Some Habits of the Fork-tailed Swift

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Occurring in Australia only as migrants in the non-breeding season, the Fork-tailed Swifts *(Apus pacificus)* observed here apparently belong to the typical race which breeds over a wide area of the northern part of eastern Asia. Lack (1956) recognises three other subspecies, some of which are darker than the typical form. The species has occurred in Alaska as a vagrant.

In previous papers, the present writer (Boehm 1939, 1944) has given general accounts of the distribution and habits of the Fork-tailed Swift. Besides the numerous breeding areas on the mainland of Asia, the birds are known to breed on many islands off the coast of Asia from the Kuril Islands to Formosa (Bent 1940). While the nests are generally built in crevices in cliffs, they are also often built under the eaves of large houses and other similar buildings. In south-eastern Tibet the birds were observed by F. Ludlow sometimes nesting in lofty defence towers.

Jahn (1942) records the species nesting in association with House-Martins *(Delichon urbica)* in clefts in the crater walls of volcanoes in Japan. In Western Siberia Johansen (1955) noted occasional nests in factory chimneys and, more rarely, in old dry larch trees in the Yenisei Basin. He states that breeding colonies are attached to selected sites and use them regularly. The earliest appearances of the birds in southern central Asia were May 24 to May 30. Copulation takes place in the air, the pair fall earthwards to about 10-15 metres above the ground, when they separate and rise aloft once more.

Eggs are laid in June and July, and both sexes incubate. The young usually leave the nest during the first ten days of August, and the autumn migration appears to take place towards the end of that month.

Gerd Heinrich recorded Fork-tailed Swifts hunting together with the swiftlet (*Collocalia spodiopygia*) about the clouds of sulphur fumes emitted by the volcano Gamkonora in the North Moluccas.

The species occurs in Australia between September and April, and the birds are generally observed hawking for food in proximity to cyclonic weather. Although such powerful fliers, the birds do sometimes meet with disaster. Douglas (1956) reports that scores of Fork-tailed Swifts were lying dead on the beaches of Mandurah, W.A., in March 1956 after a cyclonic disturbance.

The hawking for insects is carried out at varying heights, probably depending on local air currents. Sometimes the Swifts are mere specks high in the sky, almost certainly more than a thousand feet from the ground, while at other times they fly at altitudes of less than 100 feet and come down as low as two or three feet above the ground. When

a particularly good spot is found, a flock will repeatedly sweep in somewhat circular flight over the area for perhaps half an hour.

A male specimen collected by the writer and measured in the flesh had a head and body length of 101 mm; wingspan 412 mm; wing 185 mm; width of wing at first primary 52 mm; culmen 8 mm; width of bill at gape 21 mm. These dimensions will serve to emphasize the remarkable anatomical adaptations of the species to the needs of long-distance migration and entirely aerial feeding over very large areas of country and seemingly without diurnal rest.

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Black legs in Curlew-Sandpiper.—Descriptions of the coloration of the legs and feet of the Curlew-Sandpiper (*Erolia ferruginea*) given in various ornithological works are not in agreement. The colour of the parts concerned is described either as "olive-brown", "olivaceous-tinged brown", "dull greyish-plumbeous", or "black".

In a review of "Field Guide to the Waders", 2nd. Ed., 1960, in *The Emu*, 61: 247-248, 1961, I questioned the occurrence of black legs in the species. My reasons were that I had found that olive-brownish coloured legs became black in colour in prepared specimens. However, I now have to record that black legs and feet do in fact occur normally in Curlew-Sandpipers.

During the course of a Wader survey at Buckland Park Beach, Port Gawler, on February 14, 1962, I collected two birds to check the coloration of the soft parts in different plumage phases. A male in partial nuptial plumage had black legs and feet, and the colour of those parts in a female in eclipse plumage was also black.—ERHARD F. BOEHM, Sutherlands, S.A., 15/2/62.