

The Fork-tailed Swift (*Micropus pacificus*, Latham 1801):
With Special Reference to its Occurrence in South
Australia.

By E. F. Boehm, Sutherlands, S.A. 9/8/39.

The Fork-tailed Swift visits South Australia at suitable times during the months of October, November, December, January, February, March, and April, and its appearance usually coincides with the approach, or existence, of unsettled weather conditions. Its general distribution extends from north-eastern Asia, and Japan to India, Formosa, Malaysia, New Guinea, and Australia; occasionally to Tasmania and New Zealand. It has been reported breeding in Siberia; north-east China; Japan and Formosa.

Mathews(1) states:—"This Swift was found breeding on the southern shores of Lake Baikal, and in Dauria by Godlewski. In Kentei, Khangai and Gobian Altai these birds always build their nests in rocks, sometimes choosing a suitable cavity and sometimes sticking their nests openly under some prominent ridge. Never seen in trees."

Cochrane(2) found the species nesting on a small unnamed island off the north-east coast of China. The breeding season was in June, and the eggs, of which from two to three formed

a clutch, were pure white in colour and elongated in shape. In eastern Siberia, Hall(3) saw these Swifts "nesting in large numbers in the perpendicular cliffs of the River Lena, about one hundred miles down the river from Vitim," on 16th June, 1903. He also saw some nesting in the market place at Yarkutsk. Here the nests were built upon rafters. According to Hall, the birds congregate in large numbers, but do not breed in close company.

Buturlin(4) reported the species breeding on the steppes of south-western Siberia and on the Yenisei and Lena Rivers.

Information regarding the Fork-tailed Swift was gathered from many sources by Sutton(5). Some of the observations and opinions quoted by him are conflicting, and indicate the need for much more resereach, so that the natural history of the bird can be more fully and accurately written.

Generally speaking, the species, when seen on the wing, looks somewhat like a rather large, dark-coloured Swallow with very long, narrow wings. Its white rump and great wing span of from 15 to 16 inches assist to establish the identity of the bird. The mode of flight differs from that of Swallows in being more steady and free from jerking movements.

In view of the fact that the Spine-tailed Swift (*Hirundapus caudacutus*) is believed to visit South Australia occasionally(6) it becomes necessary to distinguish between it and the species under review. Sullivan(7) who has experience in the field with both Swifts writes of *M. pacificus*:—"In the field, the white rump is not a good guide; it is not easily seen, and, when seen, may be confused with the white *under* the tail of *H. caudacutus*. The tail often does not show the fork clearly in flight. The easiest guide is the small size of the bird and the proportionately long, thin tail."

Sometimes large flocks of Fork-tailed Swifts appear in South Australia and move about in the vicinity of areas of unsettled weather. When they are high up, the high-pitched twittering of the birds comes faintly to one's ear and draws attention to their presence. On the mainland of China, Cochrane saw them "over the summits of the mountains hawking their prey with a subdued amount of screeching."

Single birds occasionally emit a wheezy screeching call when sweeping in wide semi-circles at high speed. At times the Swifts come close to the ground, apparently after insects, especially flying ants, which are often numerous in the humid atmosphere after rain in summer. McLennan(8) vividly

described a scene on Moa Island, Torres Strait. He wrote:— "They [the Swifts] fly at top speed, taking their prey—flying termites—without pause in flight. The air is full of sound with the hissing 'chuff, chuff, chuff' noise of wings." He thought the birds must fly at nearly 200 miles an hour. "How they manage to take their prey at such a high rate of speed is astonishing." "Hundreds of birds were making the air vibrant with the humming rush of wings. One minute the birds are down about the tree-tops; the next they are hundreds of feet on high, speeding elsewhere, whilst other flying forms take their place."

According to MacGillivray(9) the mouth, throat, and gizzard of specimens taken in North Queensland were crammed with flying termites.

In the face of strong wind, the Swifts often cease flying for a few seconds, with wings extended, and allow the wind to support them thus.

Ashby(10) has advanced the theory that these birds pick up a barometric depression at that particular part where the hot current of air from the north is about to be replaced by the cold westerly current, and he thinks they follow the westerly movement of the disturbance, continuing to make the same portion of the disturbance their hunting ground. He went on to say that, in effect, the Swifts follow their food supply of flying ants.

The disturbances generally have an easterly movement across Australia, not a westerly one, as stated by Ashby. It must be pointed out also that Swifts occasionally appear in the humid and calm weather following a disturbance. Of course, this remark necessarily applies to one locality, and the birds probably preceded the "change" somewhere else.

How the Swifts pick up a heat wave travelling over a belt of country is a question raised by Cleland(11). I believe that they are first attracted, not by any sense of barometric pressure, but by the appearance on the birds' field of vision of the type of clouds which they associate with the approach of favourable feeding conditions. On one occasion a friend of mine saw a flock hawking about in front of a bank of low clouds which were advancing over a piece of country, and when the clouds changed their course somewhat the Swifts also altered their direction of flight, keeping in front of the cloud-banks.

In this connection it is interesting to note that Lord(12) has observed that the Swifts were attracted by rising smoke-clouds from bush fires, arriving there in huge numbers and following the fires for several days from early morning until late in the evening.

During their visits to South Australia, Fork-tailed Swifts appear to settle on trees, cliffs, and in flags and reeds to spend the night. White⁽¹³⁾ reported seeing a flock taking up their quarters for the night in the flags and reeds of a swamp at the Reedbeds, near Adelaide, and Newell⁽¹⁴⁾ records that he observed some perching on a tree towards evening, on Hindmarsh Island, S.A.

At Harrow, Victoria, Mr. Jas. Edgar once saw a large flock settle for the night in a big gumtree. They kept up a constant twittering till it was quite dark⁽¹⁵⁾.

In north-west Queensland, the Aborigines saw the Swifts only on the wing, and they were firmly convinced that the birds were without legs⁽¹⁶⁾.

Sutton⁽¹⁷⁾ listed most of the known occurrences of *M. pacificus* in South Australia up to 1927. The following additions have to be made to his list in order to bring the list of known records up to date:—October, 1937; November, 1928, 1930, 1937; December, 1927, 1929, 1932, 1938; January, 1905, 1928, 1930, 1932, 1933, 1934, 1938, 1939; February, 1933, 1935, 1938, 1939; March, 1917, 1930, 1931, 1932, 1934, 1935, 1937, 1938; April, 1925, 1934.

Examination of the available records shows that the species has appeared in this State during at least twenty-three different years. It has appeared in February in eleven different years; January in ten years; March in eight years; December in seven years; November in three years; April in two years; and October in only one year.

The earliest seasonal occurrence was on 25th October, 1937, near Moorook⁽¹⁸⁾, while the latest seasonal appearance was on 3rd April, 1925, on Hindmarsh Island⁽¹⁹⁾.

It is scarcely necessary to mention that owing to the limited number of ornithologists in South Australia, and the whole of Australia for that matter, the available records are of suggestive value only.

It would seem, however, that the whole of the time between the first seasonal appearance and the last appearance for the season, of the Fork-tailed Swift, is not spent in South Australia, for the birds undoubtedly wander over the whole Australian continent and the islands north thereof, keeping near or in areas of disturbed atmospheric conditions, or near bush fires, if such occur in weather suitable to the Swifts.

REFERENCES TO LITERATURE.

- (1) Mathews, G. M. "Emu," 32, p. 292.
- (2) Cochrane, Commodore Henry L. "Emu," 19, p. 176.
- (3) Hall, Robert. "Emu," 8, pp. 148-9; *ibid.*, 19, p. 90.
- (4) Buturlin, Sergius A. "Emu," 11, p. 98.
- (5) Sutton, J. "S.A. Orn.," 9, pp. 206-13.
- (6) "S.A. Orn.," 13, p. 133; *ibid.*, 14, p. 173.
- (7) Sullivan, C. "Emu," 31, p. 131.
- (8) McLennan, W. R., quoted by Campbell, A. J. "Emu," 20, p. 56.
- (9) MacGillivray, Dr. Wm. "Emu," 17, pp. 192-3.
- (10) Ashby, Edwin, quoted by Sutton, J. "S.A. Orn.," 9, p. 94.
- (11) Cleland, Prof. "S.A. Orn.," p. 219.
- (12) Lord, E. A. R. "Emu," 35, p. 216.
- (13) White, Capt. S. A., quoted by Sutton J. "S.A. Orn.," 9, p. 210.
- (14) Newell, Harry H. "Emu," 29, p. 277.
- (15) Campbell, A. J. "Nests and Eggs of Australian Birds," 2, p. 532.
- (16) MacGillivray, Dr. Wm. "Victorian Naturalist," 18, p. 57.
- (17) Sutton, J. "S.A. Orn.," 9, p. 96.
- (18) Sanders, S. "S.A. Orn.," 14, p. 173.
- (19) Newell, Harry H. "Emu," 25, p. 109.

