

toma); then, later, the Black-browed Mollymawk (*T. melanophrys*) appeared. When off Port MacDonnell a few Silver Gulls were in the wake; two Southern Skuas (*C. lonnbergi*), two Black-browed Mollymawks (*T. melanophrys*), and, for the first time, two Shy Albatrosses (*Diomedella cautus*). This latter bird has the beak and under surface of the wings coloured similarly to those of the Wandering Albatross (*D. exulans*), but its upper surface is more after the pattern of the Mollymawks, but not so dark, being more grey than brown, with a few white spots over the base of the pinions.

About 1 p.m. Cape Bridgewater came into view, and later the Lawrence Rocks, off Portland, Julia Percy Island looming up ahead soon after. Several Skuas followed the boat for the greater part of the day, four being in attendance towards sunset, together with twelve Black-browed Mollymawks (*T. melanophrys*) and two Yellow-billed Mollymawks (*T. chlororhynchus*). No Shy Albatrosses (*D. cautus*) were seen in the afternoon. A few White-faced Storm-Petrels (*Pelagodroma maripa*) were seen skimming over the sea. One Gannet was seen when near the Lawrence Rocks, where they breed.

27th June.—We entered Port Phillip Heads early in the morning. Two Shy Albatrosses (*D. cautus*) and two Black-browed Mollymawks (*T. melanophrys*) followed for a few miles down the Bay, and then left us to the Silver (*L. novæ-hollandiæ*) and Pacific Gulls (*Gabianus pacificus*).

### Nesting of White-rumped Swift (*Cypselus pacificus*).

BY (COMMODORE) HENRY L. COCHRANE, R.N., M.B.O.U.

OFF the north-east coast of China, and within easy reach of a well-frequented neighbourhood, lie two islands. Both are so designated on the chart. Certainly the nearer of the two is worthy of the name, but the outer one is nothing more nor less than a rock, and not a large one at that. True, it possesses a beacon on its highest point; but, even with this added distinction, it is somewhat of a stretch of dignity to confer the importance of an island upon such an unpretentious lump of broken limestone.

From its very insignificance probably arises the fact of its immunity from observation, and only the necessity of an annual whitewashing of the beacon aforesaid ever occasions the rock to human visitation. That anything living should for an instant dream of making a home on this small, inhospitable boulder seemed the remotest of contingencies; and, when it was reported after one of these annual whitewashings that "Martins" had been encountered in the crevices there, the statement was received with considerable incredulity.

No time was lost in making further investigation, the weather being propitious, and the time of year—early June—equally so. For any form of rock-visiting or beach-landing—given reasonably moderate weather—there is no boat more suitable than the

Chinese sampan, of the northern pattern. Handy, roomy, and wonderfully dry in a choppy sea, they are almost invariably handled by their owners with a degree of skill altogether admirable. Such a craft was ideal for a trip to the beacon rock. After a journey of three-quarters of an hour a landing was easily effected where a tumbled mass of stone made a convenient footing for stepping off.

Beyond the hurried departure of a Cormorant (*Phalacrocorax pelagicus*), which had been drowsily sunning itself on the far side of the rock, no sign of life was visible, and the bare inhospitability of the situation became more apparent than ever. A careful search was evidently necessary. From end to end the rock was seamed with cracks and fissures, some horizontal, but chiefly in a vertical direction. For the most part they were deep and narrow—awkwardly so when it was a case of inserting one's arm, the surface being rough and uneven and frequently encrusted with a multitude of minute barnacles. Although the area was so restricted, it was a little time before anything was discovered, until in a deep rift near the highest portion of the rock the secret was revealed.

At a distance of 6 feet down the cliff was placed a small, round, straw-built nest, on which was sitting a White-rumped Swift (*Cypselus pacificus*, Latham), while underneath the nest, and clinging to it with its claws, was the second parent, presumably the male. These beautiful Swifts, unharmoniously named "White-rumped" from the position of the white patch, are to be met with all along the littoral of this part of China. On summer evenings they may be seen over the summits of the mountains hawking their prey, with a subdued amount of screaming. Though searched for in the rocky ravines which abound everywhere, their breeding haunts had never been brought to light; and here, of all places, on a small outlying sea-girt rock, they had suddenly and unexpectedly been discovered in the actual domestic process!

Neither bird made any immediate attempt to escape until an arm was inserted into the cleft from the side, which it was possible to do for a little way with difficulty. Then the female scrambled off the nest, and, by using feet and wings, struggled herself into freedom and flew away. The male bird made a more or less ineffectual effort to escape, but was easily caught and examined. A splendid specimen—brownish-grey on the back, shading to a lighter tint on the breast, broad white band across the rump; large, dark liquid eyes slightly sunk in the head, and claws as sharp as needles. Holding the bird with its claws tightly clutching a gloved finger, the wings were expanded and fluttering in the desire for liberation, and gave an excellent idea of the powers of flight possessed by this restless inhabitant of the upper air. Then, throwing the hand up, and at the same moment releasing the claw-hold, away into the blue, with swinging wing-beats, the "Pacific" Swift passed out of sight.

The nest, which contained two eggs, was completely circular, slightly concave in the centre. It was compactly constructed of

straw, with a stray feather or two knit together and stiffened with some glutinous matter, the product of the bird. In total diameter it measured 3 inches across, and was firmly and horizontally wedged between the two faces of the cleft. The eggs were pure white, of the regular Swift-like pattern and shape.

A little distance away, in a horizontal crack, a second nest was found containing three eggs. No birds were in attendance, however, and during the remainder of the visit no more Swifts were seen. It was obviously early in the season, and breeding was only beginning. Two other visits were paid to the rock, five days later, and ten days after that. On the second occasion two or three pairs of Swifts were flying over the rock. Three more nests were found, each containing two eggs, and one further nest with two eggs at the final visit. All these nests and eggs were similar to those already described, likewise the situations. In one case the crack in the rock was so narrow that it must have been a matter of impossibility for the sitting bird to turn herself in the nest, and not one of the sites was such that free flight was obtainable before a preliminary scramble either up or along had been undertaken.

When one considers this wind-swept, spray-splashed rock, of small size and isolated position, its adoption as a breeding station, even for so small a colony of Swifts, is not easily understood. Immunity from disturbance, human or animal, must be the explanation, though compensated for by risks of danger from storm and sea. Certainly, most of the nests were wonderfully placed with regard to shelter and seclusion, as far as those desirabilities were available, but the frequency of gales all through the summer, so well known to those familiar with that stretch of coast, must have given many an unpleasant experience to the temporary inhabitants forming this interesting little settlement.

In the Bay of Kiaochau, whilst lying off an uninhabited island of considerable size, myriads of these Swifts were observed on one of the last days of August. It was evidently a resort and breeding-place of much importance. The evening air was alive with them, and over and round the island they flew in every direction, twisting and wheeling like a gigantic swarm of bees. Their screams, however, were inconsiderable, and this appears to be a marked distinction between *Cypselus pacificus* and the familiar European bird.

Time, and, above all, the very pressing circumstances of the occasion (the exigencies of the Great War), prevented any closer acquaintance than could be gained from this wonderful and enjoyable sight.

[In view of Mr. Gregory Mathews's recent statement ("Birds of Australia," vii., p. 277) that the nest and eggs of the White-rumped Swift have not yet been "authenticated," and following on Mr. Robert Hall's note (*Emu*, ante, p. 90), Commodore Cochrane's interesting observations are especially welcome. The fact that there may be sub-species or races of a bird does not affect the species in reality, otherwise there would be questions of authenticity of the eggs of many species that have been described.—Eds.]