

## THE BIRDS OF PHI PHI LE ISLAND, KRABI, THAILAND

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### SUMMARY

At least 12 bird species are known or believed to breed on Phi Phi Le island (1.8 sq km) 25 km off the coast of Krabi province, Thailand. Palearctic migrants and off-season seabirds were also observed during the stay (20 November to 7 December). Some details are given of swiftlet nest exploitation by man.

### INTRODUCTION

Phi Phi Le island (7°41'N, 98°46'E) is 3.2 km long and 1.2 km wide at its widest point. Its area is about 1.8 sq km. Two islets known to locals as "the children" (Luuk Phi Phi Le) lie about 2 km south-east of the island's southernmost tip. The highest point of the island is 374 m above the sea. With its neighbour Phi Phi Don, it lies about 25 km from the western peninsular coast of Thailand.

Phi Phi Le is limestone and bounded by dramatic steep, sheer or overhanging cliffs, some over 200 m high. There is one large cave on the east coast. There are two main bays each with short sandy beaches, one on the west coast, and one on the east coast near the south end of the island. We camped on the latter. While much rock is exposed there is also a varied and widespread vegetation including tall trees in several places. From the largest forest area of 0.15 sq. km. approximately, some trees have been removed. There are no mangroves. The island has no permanent water or streams.

We stayed with two companions on this normally uninhabited island from 20 November until 7 December 1977. Notes were made of all birds seen, though little time was devoted specifically to ornithology.

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The observations are summarised in a systematic list. Twenty-two different species were observed by us and nineteen of them positively identified. Seven species are new to Krabi province and one appears to be only the second record for Thailand (HOLMES & WELLS, 1975; MEDWAY & WELLS, 1976). It is very likely that more intensive field work would have revealed several more terrestrial species. Indeed evidence for the nesting of a second swiftlet species was later found by M.J. Sandham.

Apart from a passing reference to nesting swiftlets (WHITE, 1967) there appear to be no previously published observations from this island though there are some from the neighbouring, larger and inhabited island of Phi Phi Don (MEDWAY & WELLS, 1976, who incidentally spell the latter Pipidon). The ornithologist C.B. Frith visited Phi Phi Le several times during the four years before our visit. D.W. Frith and Donald MacIver were there on 31 October 1977. After our visit, at our behest, Michael J. Sandham spent the night of 21 January 1978 in the main cave in the company of the swiftlet nest collectors.

The names and sequence of species follow MEDWAY & WELLS (1976) except for the scientific names of the swiftlets (see MEDWAY & PEY, 1977).

#### SYSTEMATIC LIST

**Frigate Birds** (Fregatidae). A mixed flock of up to 400 frigate birds circled daily over the island for about 3 hours from 1500 hours onwards.

Among them one male Great Frigate Bird, *Fregata minor*, first spotted by Martin Saunders, was identified on 30 November. Two more were observed on 1st and one on 2 December.

Male Lesser Frigate Birds, *Fregata ariel*, were identified on 28 November (one, by SK), 30 November (three) and 2 December (nine). Despite careful observation, no birds the same size as the Male Lesser but differently patterned, could be distinguished.

The balance, the majority of the frigate birds observed, fell into one of two categories. On 2 December, 39 out of 121 were all black from below except for an almost circular sharply contrasting white patch on the belly; this patch extended neither forward of the line of the leading edge, nor rearward of the line of the trailing edge of the wing. Most of the remaining 82 birds displayed a much larger area of white extending from the breast to the line of the trailing edge of the wing; while in a minority the white extended forward to include the head. To judge from the drawings in SLATER (1970), the 39 birds were certainly male Christmas Island Frigate Birds, *Fregata andrewsi*. Of the remainder, the black-headed birds were almost certainly female *andrewsi* and the white-headed ones probably immature *andrewsi*. The drawings of the male of this species in KING *et al* (1975) and in LEKAGUL & CRONIN (1974) appear to be inaccurate.

The record of the Lesser Frigate Bird appears to be the second for Thailand (HOLMES & WELLS, 1975; LEKAGUL & CRONIN, 1974) and the first for Krabi. The record of the Great Frigate Bird is the first record specifically from Krabi. The Christmas Island Frigate Bird has not previously been specifically recorded from Krabi, but has been collected from neighbouring Phuket (MEDWAY & WELLS, 1976).

It is worth mentioning that during nearly four years' residence up to November 1977 in a house on Phuket within sight of Phi Phi Le, C.B. Frith (personal communication) identified all three species of frigate bird mentioned above.

**Reef Egret, *Egretta sacra*.** This species was seen daily. All individuals were dark phase. The maximum number seen at one time was 5 around the bay on which we camped, at low tide on 23 November. The island population, including one bird on each of the southeasterly off-lying islets, was probably about 15 birds. They fed not only in the few bays but also along the barnacle-encrusted zone under the cliff overhangs. C.B. Frith (personal communication) put a Reef Egret off a nest on Phi Phi Le (no date available).

**Brahminy Kite, *Haliastur indus*.** One or two birds were seen on each of nine dates between 20 November and 7 December.

**Japanese Sparrowhawk, *Accipiter gularis*.** A bird was well seen on 21 November. During three previous weeks this species was identified frequently in Phuket province after one bird had been handled, released and watched in flight (BOSWALL & FRITH in press). Thus we were familiar with the species and we are confident of the island identification. This is the first record for Krabi.

**White-bellied Sea Eagle, *Haliaeetus leucogaster*.** On 31 October 1977 Dawn W. Frith and Donald MacIver saw two birds of this species at Phi Pei Le, the first record of this species for Krabi. Single birds were seen and heard by us on most days; at least two individuals were involved, one adult and one sub-adult. A nest, no doubt of this species, was seen in a tree near the top of one of the two off-lying islets.

**Osprey, *Pandion haliaetus*.** Single Ospreys were sighted on 23 November and 5 December. MEDWAY & WELLS (1976) and HOLMES & WELLS (1975) imply that the Osprey is unrecorded in Krabi, but DICKINSON (1966) reported a sight record for Phi Phi Don.

**Peregrine, *Falco peregrinus*.** A male and female were together put off a cliff on 21 November, a female was seen in the same vicinity on 22 November and 5 December, and a male on 23 November. Could these birds have been a mated pair? HOLMES & WELLS (1975) reported two Peregrines in Satun province whose behaviour suggested the birds may have been paired, all previous Malay Peninsula records of Peregrines having been of solitary birds. Is it possible this species breeds in southern Thailand?

**Common Sandpiper, *Actitis hypoleucos*.** Singletons foraging among barnacle-encrusted rocks were watched on 24 and 28 November and on 5 December.

**Unidentified terns, *Sterna* sp.** As we approached the island on 20 November and left it on 7 December several terns were seen about the size of Common Terns, *Sterna hirundo* and quite possibly of that species.

**Swiftlets** (Apodidae) C.B. Frith collected a nestling swiftlet from Phi Phi Le on 5 June 1976 which was identified as a Black-nest Swiftlet (*Aerodramus maximus* by Lord Medway (personal communication) as were two adults collected by M.J. Sandham on 21 January 1978.

M.J. Sandham who spent the night of 21 January 1978 at the cave with the nest collectors was told that about one in six of all the nests belong not to "black" swiftlets but "white" swiftlets which must be Edible-nest Swiftlets, *Aerodramus fuciphaga*.

We heard a number of swiftlets calling in the cave on 21 November and saw 3 birds entering the cave at dusk on 23 November. Outside the breeding season the birds apparently leave and return to the cave under the cover of darkness.

At our request, M.J. Sandham (a Thai speaker) in January 1978 enquired into the biology, economics and sociology of the swiftlet nest exploitation by questioning the leader of a team of five nest-collectors on Phi Phi Le, a man called Leet, and also Beng Yee Yieow, a former foreman with a concession holding company, and the proprietor of a shop on Phi Phi Don. A summary of the ornithologically more relevant facts follows. The swiftlets nest all round Phi Phi Le as well as on the two large off-lying islets. The fretted limestone offers many nesting opportunities besides that of the main cave. The foreman of the nesters was reluctant to say exactly how many nests are removed each season from Phi Phi Le and would only say "over 100 kilos", and that each kilo comprised "over 100 nests". If accurate these figures would suggest a minimum of 5,000 breeding pairs of swiftlets (both species together) since second nests are collected as well as first ones. (Until a new law was brought in in about 1976, third nests were collected but they were of even worse quality than second nests and contained traces of blood.)

The birds apparently begin to build their nests in late January or early February, the Chinese New Year (7 February in 1978) being traditionally regarded as the start of the breeding season. It is about a month before the first nests can be cropped

(in say early March) but the collectors apparently take up residence on the island two months before that (say early January). They stay for a total of about four or five months. This timetable means that eggs are laid in March and nestlings can be found at late as early August. *A. maximus* the larger, so-called "black" species, builds darker nests lower in the cave. These are less valuable than the "purer", lighter-coloured nests of the smaller so-called "white" swiftlets that attach their nests to the cave walls at higher elevations.

The national Thai government sells three-year concessions for the exploitation of swiftlet nests. A Phuket company, Laem Thong, is reliably reported to have paid 2 million Baht (about £50,000) for a concession that covers Phi Phi Le and 10 other islands in the provinces of Krabi, Phangnga and Trang.

Copies of the unpublished paper by Sandham (1978) have been deposited in the library of the Siam Society and the Alexander Library, Oxford, England. Earlier Thai contributions on the same subject are those of Dunlap (1907) and Giles (1936).

**Black-capped Kingfisher, *Halcyon pileata*.** Single birds were seen perched on rocks at low tide on 25 and 28 November and 3 and 4 December. These are the first records for Krabi province.

**Pacific Swallow, *Hirundo tahitica*.** During circumnavigation of the island one bird or a pair were usually flushed from four particular points low on the cliff, suggesting the occupation of territories. A further pair was seen on three dates over a particular hill top. This is the first record of this species for Krabi.

**Large-billed Crow, *Corvus macrorhynchus*.** One bird or 2 together were seen on five dates.

**White-rumped Shama, *Copsychus malabaricus*.** Song heard on 6 and 7 December.

**Unidentified thrush (Muscicapidae).** A bird perched on limestone seen clearly but briefly on 3 December was to a European ornithologist at once reminiscent of a Song Thrush, *Turdus philomelus* as regards

proportions, posture and general colouration. It was probably an immature Blue Rock Thrush, *Monticola solitarius*, and may well have been of the resident race *madoci*.

**Blue Whistling Thrush, *Nyophonus caeruleus*.** This very shy species was heard on most days and fleetingly observed on several, usually at dusk. On 4 December 2 apparently seeking cliff roost sites were clearly seen, and the following evening 4 were watched just before sundown, one of which entered a small cave just above high water mark.

**Ferruginous Flycatcher, *Muscicapa ferruginea*.** From field notes taken down before any book was consulted a bird of this species was identified on 5 December. The bird was watched for ten minutes at ranges down to five metres with 8 x 30 binoculars. This is the first record of this species for Krabi.

**Black-breasted or Yellow-bellied Sunbird, *Nectarinia jugularis*.** This species was heard calling daily, heard singing on most days, and often fleetingly seen. A male and female out of a party of 6 were clearly observed and positively identified on 4 December. Nine were present on 6 December.

**Unidentified Sunbird (Nectariniidae).** A male sunbird with red throat and upper breast and red on the nape briefly seen on 4 December was probably a Yellow-backed Sunbird, *Aethopyga siparaja*.

**Tree Sparrow, *Passer montanus*.** A single, apparently tired, bird perched in a bush by our camp for a few minutes on 23 November and was filmed. There are very few truly off-shore records of this species (D.R. Wells, personal communication).

#### DISCUSSION

Of the 23 bird species known from Phi Phi Le or its immediate waters 12 are proven or probable nesters, 5 are passage migrants or winter visitors from the Palearctic, 4 are non-breeding seabird visitors, and one is an accidental visitor from the local mainland.

The known or likely breeding birds are: Reef Egret, Brahminy Kite, White-bellied Sea Eagle, Black-nest Swiftlet, Edible-nest Swiftlet, Pacific Swallow, Large-billed Crow, White-rumped Shama, Blue Rock Thrush, Blue Whistling Thrush, Black-breasted Sundird and probable Yellow-Backed Sunbird.

Off-season birds from the north either passing through the island or spending the (northern) winter there are Japanese Sparrowhawk, Osprey, Common Sandpiper, Black-capped Kingfisher, and Ferruginous Flycatcher.

The 4 visiting seabirds are the Great, Lesser and Christmas Island Frigate Birds and the unidentified tern.

The one accidental visitor from the local mainland is the Tree Sparrow.

It must be emphasised that more intensive field work among the more vegetated areas of the island might well have revealed a few more nesting species. But even if this had been shown the island clearly has no more than an impoverished avifauna.

No other small islands off the coasts of the Malay peninsula appear to have been studied in detail though MEDWAY & WELLS (1976) do compare the avifaunas of several of the large islands. However, BROCKELMAN & NADEE (1977) have preliminarily surveyed the avifauna of the Surin Islands 53 km off the west coast of peninsular Thailand, north of the isthmus of Kra.

Their biogeographic analysis of the birds of the islands, an up-to-date assessment that takes full account of contemporary scientific thought on the composition of island avian communities generally, helps us to understand why so few species breed on Phi Phi Le. Limiting factors probably include the small size of the island, its thin shape, the absence of fresh water, the fewness of the different habitat types and the distance of the island from the mainland.

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