

## THE BIRDS OF SIBERUT, MENTAWAI ISLANDS, WEST SUMATRA.

by

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### Summary

The island of Siberut is the largest of the Mentawai Archipelago, which lies 125 145 km from the coast of mainland West Sumatra. Primary lowland rain forest and freshwater swamp forest cover is extensive on Siberut, and supports a unique fauna with high levels of endemism, the most studied examples of which are the four endemic species of primates. The Mentawais also have an endemic species of Scopsowl *Otus mentawi* as well as 12 other birds endemic at the sub specific level. Unlike the primates and other mammals however, the avifauna has been poorly studied and its ecology is not well understood.

Information is provided on bird surveys carried out between August 1997 and March 2000 whilst the author lived and worked on the island for the Siberut National Park Authority. Data are presented for Siberut bird communities, including significant bird records during the 2½ year period. These records include 28 new species for the island, three new provincial records (White headed Stilt *Himantopus leucocephalus*. Gull billed Tern *Gelochelidon nilotica* and Pomarine Jaeger *Stercorarius pomarinus*) and a new record for Sumatra (Grey tailed Tattler *Heteroscelus brevipes*). A discussion about the threats to Siberut's forests and the future impact that these will have on the bird population of Siberut is given. An appendix lists all 134 species recorded on Siberut, with information on habitat, status and abundance.

### Introduction

Siberut is the largest and northern most island in the Mentawai Archipelago, which lies 125 145 kilometres from the west coast of West Sumatra Province. The island is approximately 100 km long and 35 40 km wide. The western half of the island has steep hilly terrain, but the hills only reach 350m above sea level. The eastern pan of the island is significantly less hilly with much swampy forest. The eastern seaboard has an irregular coastline with many mangrove lined inlets, and there are a number of small coral fringed islands off the eastern and southern coast.

The Mentawai Islands have been isolated from mainland Sumatra for the last 500,000 years (WWF, 1980), which has resulted in a unique flora and fauna with high levels of endemism. The Mentawais support four species of primates, three of which are endemic. Of all the 33 species of land mammals, fourteen (42%) are endemic to the Mentawais at species level and four (12%) are endemic subspecies (pers. comm. Paula Jenkins). The avifauna is also considered rich for a small island group with an endemic species *Otus mentawi* and 12 endemic sub species. However, the avifauna has been much under studied until the present survey, with only 116 species being recorded up to 1980 (WWF, 1980).

Siberut also has a unique human culture, still with surviving Neolithic characteristics. The traditional culture has very close ties to the forest and much of their spiritual beliefs have had positive consequences for the continued survival of their natural resources. In places where this ancient belief is

still practiced, much of the forest remains in good condition, unlike the island of Nias to the north and Sipora and the Pagai Islands to the south (N. Dymond, 1994; L. Patchouli, pers. Comm).

The Tei Tei Batti nature reserve covering just 6,500 hectares was formed when logging operations started on Siberut in the early 1970's. This was later extended to cover 56,000 hectares but protection of the forest resources was poor. Finally, in 1993, the western part of the island (190,500 hectares) was gazetted as a National Park in 1993 (see Figure 1). The Biodiversity Conservation Project funded by the Asian Development Bank was set up to carry out the Integrated Conservation and Development Project (ICDP) with indigenous peoples within and close to the national park boundaries. Working through VSO (Voluntary Services Overseas), the author was recruited to work on the programme for the conservation education and awareness components, from 29 July 1997 until 31 March 2000. During the project the author had the chance to visit many parts of the island and have taken the opportunity to carry out bird surveys as frequently as possible. The aim of carrying out informal bird surveys was primarily to obtain data for the national park and determine which parts of the park are sensitive with respect to bird fauna. In doing so much information has been collected on the avifaunal composition of most of the habitat types on Siberut.

### Forest Habitats

Over 50% of the island is covered in primary mixed evergreen lowland rain forest. A subtype on the tops of hills and ridges is dominated by species of *Dipterocarpus* and *Shorea*. These forests are typically tall with a sparse understorey; palms and climbers are also scarce. The forest on hill slopes and along inland valleys is far more heterogeneous with no particular family dominating; palms, rattans and climbers are more common. There are also small areas of freshwater swamp forest on flat low lying ground of the eastern half on the island. This is often dominated by *Terminalia phellocarpa*.

Thin strips of *Barringtonia* Beach forest occur along sandy beaches of the west coast and some southern islands. Excellent stands of *Rhizophora* and *Bruguiera* dominated Mangrove forest exist along the entire east and southeast coast and around the small islands off the coast. The mangrove zone is usually about 50-100m wide but in parts reaches 400-500m. For further reading on vegetation analysis see Whitten (1982a).

Secondary / disturbed forest of the above types covers about 20-30% of the island and cleared agricultural land approximately 15-20%. Much of the secondary forest takes the form of forest gardens (dominated by *Durio* spp. and other fruit trees), as traditional shifting agriculture fields (for banana, taro, sugar cane, cassava etc.) are replanted with fruit trees. Mature forest gardens often function as a forest habitat for much of the "primary forest specific" fauna. After 20-30 years this land is used again with crops planted under tall fruit trees. Traditional shifting agriculture is largely sustainable and subject to many taboos imposed by the indigenous culture. In this way, forest cover has been maintained almost throughout the entire island for the last 3,000 years, until modern development started to take place.

### Areas Studied

It was the author's initial intention to survey as many parts of the island as equally as possible in terms of effort and time. However, other work demands did not permit this and man records are from the southern half of the island, particularly in the vicinity of the national park offices, and Muara Siberut, the administrative town for South Siberut District (see Figures 1 and 2). Primary forest was well surveyed on Siberut, especially around Simabugai research station. Secondary forest, swamp forest and mature forest gardens have been well surveyed in the Sarereiket area and Maileppet.

The north has been surveyed to a lesser extent, at Sotboyak, Muara Sikabalan, Terekan Ilir and Pokai. Vegetation types are similar to those found in the southern part of the island and from the data collected, bird communities are very similar in the north and south. Shore birds have been surveyed during the northern winter at Muara Siberut and Muara Saibi and Muara Sikabalan. Several of the small satellite islands in the south were visited. Seabirds in the strait between the Mentawais and Padang received little attention as ferries to and from Siberut sail at night; however on the rare occasions that day crossings were made every effort was made to look for pelagic species.

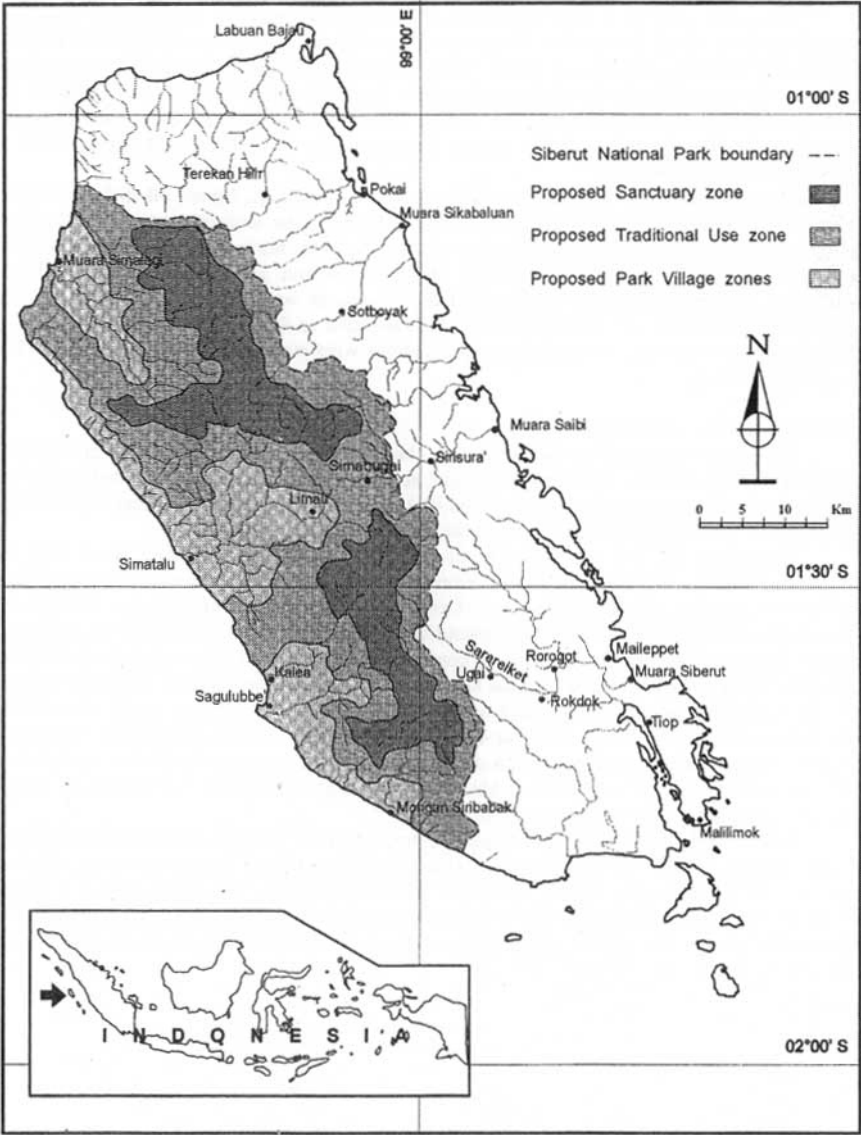
### Bird Communities on Siberut

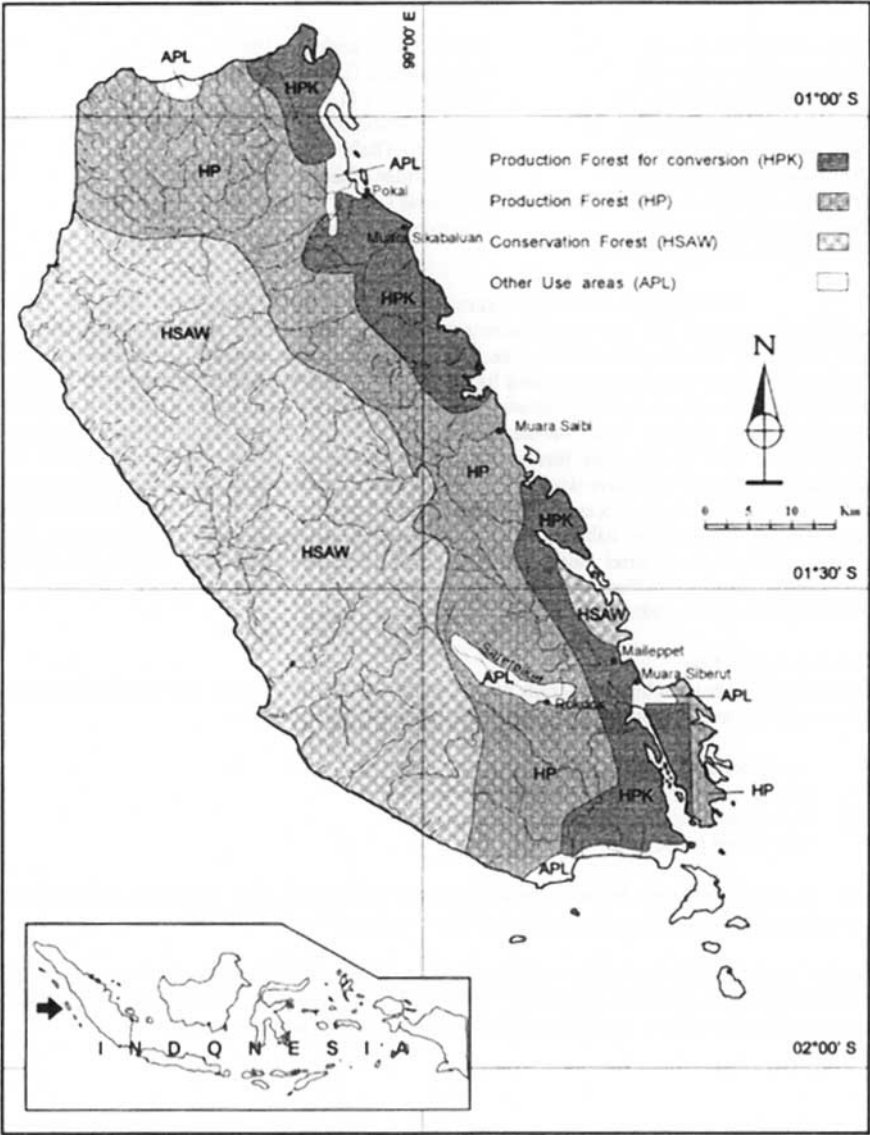
All species recorded by the author and his colleagues during 1997–2000 were listed in Appendix I. Nomenclature and sequence follow Andrew (1992). Those not recorded during this time but accepted as positive records are listed in Appendix II. Appendix I also details information on habitat use and relative abundance for all bird species on Siberut to date.

Throughout his 2½ years on Siberut the author concluded that there were very few differences between bird communities of primary forests and mature secondary forest / forest gardens. In addition, differences between forest types are difficult to diagnose through bird communities alone (with a number of exceptions for swamp forest specific species such as *Ciconia stormi*). Only small differences in avifaunal communities were recorded between heavily disturbed forest (including agricultural land) and the lowland rain forest or swamp forest. This may be due to the pattern of land use and management by the Mentawai people. Fields are nearly always small and surrounded by forests of different stages of succession. Almost everywhere, patches of primary forest are always present within a short distance and many of the 'forest' species have been recorded in and around forest fields. There are implications here relating to the relative success of ecological generalists on small islands.

A main area of interest is the unique composition of the avifauna at family level found on the Mentawais. Due to the long period of isolation from mainland Sumatra, and the relatively small size of the Mentawai Islands, combined with their distance from the mainland, a total of seventeen families of resident land birds found on mainland West Sumatra are not represented on Siberut. The absent families are listed below, with approximate number of species found in the lowlands of the adjacent mainland.

Figure 1. Map of Siberut National Park





### Absent families:

|                                 |                             |
|---------------------------------|-----------------------------|
| Pandionidae (Osprey 1)          | Picidae (Woodpeckers 16)    |
| Phasianidae (Pheasants 10)      | Chloropseidae (Leafbirds 5) |
| Turnicidae (Buttonquails 1)     | Paridae ( Tits 1)           |
| Rostratulidae (Painted Snipe 1) | Sittidae (Nuthatches 1)     |
| Podargidae (Frogmouths 4)       | Timaliidae (Babblers 25)    |
| Caprimulgidae (Nightjars 4)     | Rhipiduridae (Fantails 2)   |
| Trogonidae (Trogons 5)          | Artamidae (Wood Swallow 1)  |
| Capitonidae (Barbets 7)         | Zosteropidae (White eyes 1) |
| Indicatoridae (Honeyguides 1)   |                             |

The absence of these families has probably had a significant effect on forest ecology. For instance, the absence of barbets may have resulted in the great abundance of some fruit eaters on Siberut, such as the pigeons, as compared with lowland forests on mainland Sumatra. Similarly, vacant niches created by the absence of woodpeckers may have been filled by the Sumatran Drongo *Dicrurus sumatranus* in the Mentawais (Whitten, 1982 ,b). One of the most notable absentee families is the babblers, and there seems to have been little apparent nicheexpansion or shift by any other bird species in the Mentawais to occupy this niche (with the possible exception of the Olive winged Bulbul *Pycnonotus plumosus*). This relatively untapped niche may in part have been occupied by some of the Mentawaiian squirrels, rats and tree shrews, that specialise in low level habitats and are commonly heard and seen in all forest types. The ecology of the 'Jirit' Squirrel *Sundsciurus fraterculus* and Mentawai Ground Squirrel *Lariscus obscurus* is markedly different to their closest relatives on mainland Sumatra (Whitten and Whitten, 1987; WWF, 1980).

### **Annotated Bird LW**

The following annotated bird list ~Is records of new species for Siberut, threatened species and others of noteworthy importance. Species names are pre fixed as follows:

- \* New records for Siberut Island;
- \*\* New records for the west Sumatran islands;
- \*\*\* New records for West Sumatra province;
- # New record for Sumatra

The text occasionally includes notes [in brackets] on species previously recorded for Siberut, but only those named in bold have been recorded by the author during 1997 2000.

Pelagic species : Only the families of Procellariidae, Sulidae and Fregatidae have been recorded around the waters of Siberut. Absence of Tropicbirds and Storm petrels may be due to oversight and the difficulties of bird watching off the Mentawai coast in often heavy seas.

\* **Streaked Shearwater** *Calonectris leucomelas*. Tens of birds seen about 15–20 km from the east coast of Siberut on 10 Sep 99 and again on 16 Sep 99 (ca. 200 birds) flying and rafting with occasional **Wedge tailed Shearwater** *Puffinus pacificus*.

\* **Christinas Frigatebird** *Fregata andrewsi*. A single bird seen harassing a White bellied Sea eagle on 12 Oct 97, Muara Siberut. Sub adult male with greyish throat and brown median bar on upperwing coverts, but with black breast and white belly. Possibly same species seen at Muara Saibi, 6 Dec 97 but not seen at close range.

[**Lesser Frigatebird** *Fregata ariel*] Recorded by Whitten (1980) "often singly, but sometimes hundreds or more" (Marle & Voous, 1988; hereafter referred to as M&V), but the species was not recorded during 1997–1999.

**Great billed Heron** *Ardea sumatrana*. Lone birds were recorded on several occasions between Jan 98 and Dec 99 from Malilimok in the south to Labuan Bajau in the north. Good mangrove, mud flats and coral shelf that are suitable for this species still exist along the entire east coast.

**Purple Heron** *Ardea purpurea*. The second island record was of a single bird at Muara Sikabaluan on 24 Oct 99 in swampy abandoned fields and open secondary swamp forest (the first record was by N. de Sadeleer & R. de Schaetzen in 1985 (M&V)).

**Great Egret** *Casmerodius albus*. Second island record at Muara Siberut on 1 April 99, presumed non resident (first record, Whitten 1980).

**Cinnamon Bittern** *Ixobrychus cinnamomeus*. Recorded in secondary swamp vegetation at Muara Sikabaluan and Muara Siberut (first record, Mitchell 1982).

[**Black Bittern** *Ixobrychus flavicollis*]. Recorded by N. de Sadeleer & R. de Schaetzen in August 1985 (M&V) but it has not been recorded since.

**Storm's Stork** *Ciconia stormi*. The identity of sight records of *C. stormi* on Siberut was questioned by Holmes (1994) only because of the possible lack of awareness at that time that *C. episcopus* occurs widely on mainland Sumatra. This could have led to assumptions of identity; indeed the two species had previously been considered as conspecific (D. Holmes, *in litt.*). Several sightings now confirm the existence of *stormi* on Siberut, and it is assumed to be resident.

On 4 Oct 98, a single bird flew over the National Park offices in Mailleppet and landed on top of a dead tree at a distance of 40m, allowing clear views with binoculars for approximately 10 minutes. The bird showed white belly and neck, black upperparts, crown and breast extending half way up the neck. The facial skin around the eye was yellow. Colour of bill was not distinguishable due to poor light, but the bill was clearly slightly up turned. A second bird was seen at close range with binoculars on 25 Apr 99 over Simabugai. A single bird was seen roosting on a dead tree in open secondary swamps on the evening of 26 Sep 99, between Pokai and Muara Sikabaluan, and was observed again the following morning. One seen perched on mangrove edge at Malancan on the 29 Sep 99 may have been the same individual. Finally, one individual was observed circling low over the Sarereiket River on 4 Nov 99. The latter three sightings were at close range and observed for several minutes. These were of juvenile birds (pers. comm. D. Holmes/D. Wells) showing the following characteristics. Bill was

reddish and slightly upturned, the skin around the eye was yellow, upperparts, breast and front of the neck were black (with black extending up the to the base of bill and only a thin triangle of white on throat visible when preening), hindneck and undertail coverts were white.

The identity of two storks seen flying together over Sarereiket River Oct 97 remains unconfirmed.

**Raptors :** Nine species have been recorded on Siberia, three are considered migrants. Only two previously recorded species, Oriental Honey buzzard *Pernis ptilorhynchus* and Changeable Hawk eagle *Spizaetus cirrhatus*, were not recorded during 1997-1999.

**\*\* Black shouldered Kite *Elanus caeruleus*.** Single birds recorded hunting in the National Park office complex (secondary swamp forest and scrub) for the entire morning of the 11 Jan 98, and close to Muara Sibenit over clove plantations on 26 Nov 99.

**\* Japanese Sparrow hawk *Accipter gularis*.** A single male observed for one hour at close range, hunting from dead trees over agricultural land at Maileppet on 27 Nov 99. Small size, streaked breast, barred belly, lack of clear mesial stripe and flight, were distinctive. There have been no recent records for this species from the west Sumatran islands (M&V).

**\* Chinese Goshawk *Accipter soloensis*.** A single sub-adult bird seen in coconut plantations / mangrove edge on Masilok Island on 31 Jan 98. Identified from other accipters by clean greybrown upper parts with darker wings; under parts buff white with only faint barring on the flanks (subadult); tail barred black and brown; light grey head, nape and throat; yellow-orange iris; orange cere and feet. Another individual was seen in flight at Sagulubbe' on 27 Dec 99 clearly showing the black primaries on whitish underwings.

**Blyth's Hawk eagle *Spizaetus alboniger*.** This is an uncommon bird on Siberut found in primary mixed forest and swamp forest, recorded above Simbugai on 20 Sep 98, and at Pokai on 26 Sep 99. In flight, this individual showed black and white barred underwings and a single broad white bar in a black tail. The individual at Pokai was of an adult at rest, showing black upperparts, white throat, underparts appearing dark at a distance, but whitish boldly barred black on closer inspection. The black tail showed a single broad whitish bar. [A previous sighting of a very dark bird perched at some distance at Sirisire on 18 Sep 98 was thought to be another heavily barred individual of this species but could easily pertain to Changeable Hawk eagle *Spizaetus cirrhatus*, a species recorded on Siberut by N. de Sadeleer & R. de Schaetzen in 1985 (but not recently recorded), or indeed a dark Oriental Honey Buzzard *Pernis ptilorhynchus*, for which there are several records on Siberut, but none since 1980, (M&V).]

**Wallace's Hawk eagle *Spizaetus nanus*.** M&V note that previous sight records on Siberut by Whitten (WWF, 1980) should be verified. This species was recorded once near Sikabaluan at very close range in secondary swamp forest and banana / cassava fields on 28 Sep 99. A single individual was again



observed at close range in mature durian forest gardens and gliding over agricultural land near Mailleppet on 26 Nov 99.

Field notes taken at the time of the first (and longest) encounter detail a "*small and compact* [Hawk] eagle with a prominent erect, white tipped crest at rest. Head tawny brown head...brown mottled whitish upper parts; tail dark brown with *two distinct* broad light brown bars with a thin very light brown tip; underwing [coverts] light *rufous* with light brown barring and darker brown bars on flight feathers", seen in flight. It was suggested that the above description is that of a juvenile (pers. comm. D. Holmes), which is similar to, and almost impossible to differentiate from, *S. alboniger*.

However, investigations made with the National Museum of Natural History, Smithsonian Institution, Washington, DC revealed that a juvenile male *S. alboniger* specimen showed "tail brown with dark subterminal band, other bands less distinct with buffy edge to tip of feathers... underside of tail grey with brown sub terminal band, rest of bands less distinct and incompletely formed". Two immature (probably juvenile) *S. nanus* specimens showed tails with "upperside brown with dark sub terminal band, 3 4 additional distinct bands... underside of tail greyish with distinct dark bands (pers. comm. James Dean). The tail pattern observed on the Sikabuluan individual (which was seen clearly from behind and a field sketch of the tail made) fits *neither* that of a juvenile *alboniger* nor *nanus*. It was identical to that of an adult *nanus*, as shown in MacKinnon and Phillips, and Lekagul and Round (1991). Other circumstantial evidence is found in Lekagul and Round, who state that older immature *alboniger* "usually start to moult in some black feathers on both upperparts and underparts even before attaining adult tail pattern". There was no black on either of the individuals recorded. It is the conviction of the author (who has experience of *nanus* and *alboniger* from Lake Maninjau and Bukit Barisan Padang) that the individuals recorded were indeed of *nanus*, and probably sub adults due to a combination of juvenile and adult plumage characteristics.

Thiollay (in Holmes 1996) states that *S. nanus* is "the most narrowly associated [raptor] with the lowland rain forests, [and] is likely to be the first local raptor species to become extinct". Both sightings on Siberut were over heavily disturbed secondary forest and agricultural land.

\* **Peregrine Falcon** *Falco peregrinus*. This species was recorded by Mark Grantham who provided the following field notes: "Single bird, seen heading west, high over Muara Siberut Bay on 1 Apr 99. The very stocky build of this bird with broad wings and somewhat lazy, 'floppy' flight recalled Peregrine Falcon. Although high, and partially silhouetted, the upper breast appeared very dark with limited pale marking, suggesting the resident race '*ernesti*', which breeds on mainland Sumatra".

\* **Slaty breasted Rail** *Gallirallus striatus*. Recorded at very close range at Muara Siberut in reed beds / swamp on 24 Dec 1999. [This species had previously been mistaken for Red legged Crake *Rallina fasciata* at the same location some months before in very poor light conditions. The latter species, the only rail previously recorded from Siberut, was not recorded in this survey].

Shore birds : Previously little studied on the Mentawais, 23 species (including 4 new records for the Mentawais and west Sumatran islands) were recorded along the east coast of Siberut.

**Malaysian Plover** *Charadrius peronii*. Previously recorded by A. Mitchell in Nov 1980 (M&V), a single male was seen in a mixed flock of shore birds and terns at Muara Saibi on 14 Apr and 22 Apr 98. A female was recorded at Muara Siberut beach 25 Sep 99, and a male and two females were recorded at Sagulubbe' on 28 Dec 99. Status remains indeterminate, as all records were made during the northern winter.

# **Grey tailed Tattler** *Heteroscelus brevipes*. The first confirmed record of this species in Sumatra (pers. comm. D. Holmes; Andrew, 1992) was of a solitary bird at the mangrove coral beach edge in Muara Siberut Bay on 1 Apr 99 (Grantham & Kemp, 2000). A single bird was recorded on the 8 and 10 Jan 2000 at exactly the same location as in the previous year and photographs were taken.

\*\* **Marsh Sandpiper** *Tringa stagnalis*. First recorded at Muara Saibi beach on 22 Apr 98, also at Muara Siberut on 1 Apr 99.

**Wood Sandpiper** *Tringa glareola*. The second record for Siberut on 7 Oct 97 on a riverbank at Sirisura', far inland.

\*\* **Great Knot** *Callidris tenuirostris*. Group of six birds seen on Muara Siberut beach 12 Oct 97. Five birds were still present until 22 Mar 98, two of which were showing some breeding plumage.

\*\*\* **White headed Stilt** *Himantopus leucocephalus*. A single bird, confirmed as the southern hemisphere taxon with black hind neck, was seen in a mixed flock of shore birds on the beach at Muara Siberut on 3 Oct 99, and later seen flying into fallow rice fields. This species is considered common in Way Kambas, Lampung Province, but has never been recorded further north in Sumatra than South Sumatra province. This is the first record for the western Sumatran islands and for West Sumatra province (M&V, Holmes, 19%).

**Oriental Pratincole** *Glareola maldivarum*. A group of about 70 birds was seen at Muara Siberut on 12 Oct 97, staying for three weeks. The second record was of a single bird on 22 March 98 at Muara Siberut. A third record was of a single bird seen flying south at Maileppet on 6 Oct 99. These records support the existence of a western migration route through Sumatra as noted by Holmes (1996).

\*\*\* **Pomarine Skua** *Stercorarius pomarinus*. A single bird was seen flying west with a large group of Streaked Shearwaters; off the south coast of Siberut on the 7 March 2000. White patches in the wings, white underparts with a mottled black breast, dark grey capped head and a wedged tail with slightly extended central tail feathers were clearly seen as the bird passed overhead. This species breeds in the Arctic and is a visitor to Indonesian waters during the northern winter.

\*\* **White winged Black Tern** *Chlidonias leucopterus*. Common during the northern winter in each of the three years on the east coast of Siberut. Breeding plumage was observed in some individuals on 14 Apr 98 in Muara Saibi, helping to differentiate from Whiskered Tern *C. hybridus*. The latter species was

previously reported in 1995 by LIPI (DepHutBun, 1998), but without published descriptions it is considered unconfirmed for Siberut.

\*\*\* **Gull billed Tern** *Gelochelidon nilotica*. The first record for this species along the west coast of Sumatra and the West Sumatran islands was of a single bird seen at very close range, in flight and at rest, over mud flats at Muara Siberut on 26 Nov 99. A distinctive medium sized whitish tern with shortish heavy black bill; all white head except black patch behind eye; white under parts and upper parts and wings all light grey (no black); feeding by shallow, skimming dives on to prey over sand and shallow pools with a slow strong flight.

**[Beach Thick knee** *Esacus magnirostris*}. Recorded by Whitten (*in litt.*) who described them as being "seen every day when....walking down the west coast". The beaches between Labuan Bajau and Sagulubbe' have not been surveyed and this species may still be present on Siberut. [Disturbance from the human population is minor, compared to some beaches in Java such as Alas Purwo where this species still occurs (M. Gratham, pers. comm.)].

**Large Green Pigeon** *Treron capellei*. A single large sized all green pigeon with pinkish red breast was seen flying west at Rorogot on 11 Sept 99. Even though seen briefly and at height, the unhurried flight and size readily distinguished it from other common Green Pigeons *T. vernans* and *T. curvirostra*. This species was previously recorded by N. de Sadaleer & R. de Schaetzen in 1985 (M&V).

**[Cinnamon headed Green Pigeon** *Treron fulvicollis*}. Previously recorded by Whitten (WWF, 1980; M&V) but not observed during 1997-1999.

\* **Jambu Fruit Dove** *Ptilinopus jambu*. Good views of a single male (emerald green upper parts; red face and white under parts; bright pink breast patch) at Rorogot in primary forest on 20 Aug 99. The bird was perched for about thirty minutes, later feeding with a mixed flock of Asian fairy Bluebirds, Olive winged Bulbuls, Black headed Bulbuls and Green Broadbills. This is a new record for Siberut and the first observation for any West Sumatran island since that on Nias in 1898 (M&V), where its continued survival is doubted by Dymond (1994).

\* **Spotted Dove** *Streptopelia chmensis*. Pair of Spotted Doves, known to be escapees from Muara Siberut, have successfully bred with now six birds being reported resident around Maileppet.

**Ruddy Cuckoo dove** *Macropygia emiliana elassa*. **Endemic subspecies**. A frequent bird of secondary and primary forests.

**Blue rumped Parrot** *Psininus cyanurus pontius*. **Endemic subspecies**. Commonly seen and heard in all secondary and primary forest throughout the island. On Siberut, in contrast to mainland Sumatra, this species certainly does not justify near threatened status (Collar *et al.* 1994).

**Blue crowned Hanging parrot** *Loriculus galgulus*. Possibly as abundant as the previous species but it is less vocal and conspicuous and therefore less frequently recorded. Most sightings were from open secondary forest.

**Hodgson's Hawk cuckoo** *Cuculus fugax*. Previously only recorded by Ripley in 1944 (M&V), this species is frequently seen and heard in secondary and primary forest throughout Siberut, more especially in primary forest.

\* **[Oriental Cuckoo** *Cuculus saturarus*]. A single record of two birds 2 km west of Muara Saibi on 7 Nov 97. Only one bird was seen clearly, and field notes taken at the time led to some confusion over species, as the birds were seen briefly at close range but against the light and silhouetted. The description included: "white/black barring on belly, diffuse grey breast, brownish upper parts, white iris and eye ring, blackish lores". The birds were silent. Initial identification using MacKinnon and Phillipps (1993) was of Common Cuckoo *Cuculus canorus* although the status of this species in Sumatra remains unresolved and the two species can only be positively separated by call (M&V; Boon & Boon Bolt, 1996). Identification is only tentative.

**Chestnut breasted Malkoha** *Rhamphococcyx curvirostris oeneicaudus*. **Endemic sub species.** Occasionally in secondary and primary forest and even found in mangroves, with records from around Maileppet, at Simabugai and Sagulubbe'. *oeneicaudus* differs considerably from *R.c.erythrognaethus* depicted in MacKinnon and Phillipps (1993), appearing black in the field and lacking the rufous tip to the tail, an indistinct dark chestnut breast, but with obvious red patch around the eye.

\*\* **Barn Owl** *Tyto alba*. A single bird shot by a local resident in Maileppet is the first record of a bird reaching the West Sumatra islands. There is also a local report of a "large white faced owl" from Muara Sikabaluan that may pertain to this species.

**Mentawai Scopsowl** *Otus mentawi*. **Endemic species.** Frequently heard and seen in all parts of the island, but especially in secondary forest and swamp forests nearer the coasts. It is usually first heard at sunset with a regular medium pitched, typical scopsowl tone: "poo ... poo ... poo poo... poo poo... poo poo poo... poo poo poo", each note or phrase about 3 seconds apart, and each note rising in pitch very slightly. Pairs often duet to this call. This call is often heard throughout the night, as well as single 'poo' notes, and a harsh hissing. The owl can be easily called by imitations and 'pishing' and can be remarkable tame. It usually hunts from exposed perches in open areas of the forest, agricultural land and scrub, but is sometimes disturbed whilst on the ground, presumably catching prey.

**Brown Boobook** *Ninox scutulata*. This species is more frequently heard in primary lowland rain forest than the former species, and generally it is not as common.

[**Brown Wood Owl** *Strix leptogrammica*]. There has been no further confirmation of the 1982 voice record of N. de Sadeleer & R. de Schaetzen (M&V).

**[Javan Frogmouth *Batrachostomus javensis*].** A frogmouth like call was heard on several occasions at Rorogot. This was accompanied by a local resident's description of the bird's "wide mouth, long ear [tufts] and [its behaviour of] perching quite still with mouth open, pointing up in the air". This species remains to be confirmed, there being no sighting or sound recording. [Mitchell's (1982) record of Gould's Frogmouth *Batrachostomus stellatus* also remains unconfirmed].

**Edible nest Swiftlet *Aerodramus fuciphagus*.** The identity of most of the commonly observed swiftlets remains unconfirmed as no nest sites were visited. Both this species and Black nest Swiftlet *A. maximus* were recorded by Whitten (WWF, 1980) but only the former species has been included in this list, based on sight records of low flying birds. Both species are likely to occur and information from local residents suggests that this is the case as "two grades of nests" have been harvested from around Simalegi, in the west of the island. [Local residents also described a third type of 'green nest of no value', which may possibly pertain to Mossy nest Swiftlet *A. salangana*].

**Ruddy Kingfisher *Halcyon coromanda*.** An apparently rare kingfisher of mangroves on Siberut, although records exist for all the Mentawai islands (M&V). Recorded once at Tiop on 18 Sept 97 and once at Muara Sikabaluan on 5 March 2000.

**\*\* White breasted Kingfisher *Halcyon smyrnensis*.** A species that has greatly expanded its range on mainland Sumatra (M&V), the first record for the West Sumatran islands was of a bird seen and heard on 15 June 98 around Maileppet. Birds were subsequently seen often along the Sarereiket River and surrounding areas, and they had extended to the north of the island by 26 Sep 99, at Pokai.

**Rufous collared Kingfisher *Actenoides concretus*.** There was only a single sighting of this elusive kingfisher on Siberut, a female in secondary forest re growth away from the river at Simabugai (100m a.s.l.) on 25 May 99. Black bordered rufous collar and bright blue malar strip with a brownish crown, pale orange ish bill, bright orange breast, white belly and bluey green back could be seen well. The bird perched silently 2 metres above the ground for five minutes before taking flight without calling. A bird heard calling on 26 May 99 in primary forest 500 metres from the previous location (single whistle about every 1.5 seconds) was thought to be from the same species.

**Green Broadbill *Calypptomena viridis siberu*. Endemic subspecies.** Frequent records in primary forest and mature forest gardens and, rarely, in heavily disturbed secondary forest, from all parts of the island. More commonly heard than seen. The male *siberu* lacks the black spot above the eye of the nominate race.

**Olive winged Bulbul *Pynonotus plumosus*.** A very common species in all habitat types. No separate sub species has been described for the Mentawais, but birds appear to be a darker, dirtier brown than depicted in MacKinnon and Phillipps (1993), the yellow olive tinge in the wings being only visible in good light. More importantly, birds have creamy white eyes (brown in the immature) and not red as in

the nominate race. This variation may be the cause of confusion by Thompson (in Holmes 1994) who refers to a brown bulbul of the "*simplex brunneus erythrophthalmus* group" on Sipora Island, a species previously unknown to the Mentawais.

**[Yellow bellied Bulbul *Criniger phaeocephalus*].** This species has not been recorded since 1980 by Whitten (WWF, 1980) and is possibly no longer resident on Siberut.

\* **Richard's Pipit *Anthus novaeseelandiae*.** One record of a single bird in scrub and grassland around the National Park offices on 8–15 Nov 97, the bird remaining for one week, during which it was often seen feeding on the ground and resting on electricity wires within the office complex.

\* **Siberian Thrush *Zoothera sibirica*.** One sighting of a single bird on 8 Nov 97 at the National Park offices feeding / skulking on the ground in cassava fields and scrub edge. A conspicuous bird: upper parts and under parts slaty black; vent a lighter barred grey; white eye brow; white in underwing (seen during short flights into scrub) diagnostic.

\* **Oriental Reed warbler *Acrocephalus orientalis*.** First noted near Maileppet in Mar 98, but not positively identified. Observed again and positively identified on 1 Apr 99 at Muara Siberut, in reeds and fallow rice fields. There was no trace of these birds the following week.

\* **Zitting Cisticola *Cisticola juncidis*.** Only recorded once, at Sirisura' in the reed banks along a small tributary on 3 Nov 97. This species is presumed to be resident but probably frequently overlooked as its river edge habitat is not easy to access by foot, or is otherwise speedily passed by motor canoe en route to other areas.

\* **Arctic Leaf warbler *Phylloscopus borealis*.** A single bird feeding in secondary forest near Maileppet showed cream supercilium; rather indistinct wing bar (one); very whitish belly and flanks with slightly darker or streaked breast.

**Mangrove Whistler *Pachycephala cinerea*.** Only a single voice record was recorded, in mangrove forest near Tiop. However, this species was regularly found in small river valleys in primary mixed evergreen rain forest at Sotboyak and Simabuggai. There was initial confusion of the identity of this species as both sites are far inland (approximately 20 km) with altitudes of 100m–200m, and it was previously mistaken, in poor light, for Grey chested Rhinomyias *Rhinomyias umbratilis* which had also been recorded in similar habitats at nearby locations. However, the loud and distinctive (but sometimes variable) song, grey ear patch and less grey on the breast clearly differentiates between species.

\*\* **Yellow vented Flowerpecker *Dicaeum chrysorrheum*.** A single bird first seen on 7 Oct 97 in open secondary growth near Sirisura', feeding and calling with other flowerpecker and sunbird species. The bird was watched at close range for about one minute before flying off into a distant tree. Yellow vent; white under parts streaked with black; olive brown upper parts with browner head; white moustachial streak and throat. Other subsequent brief sightings were close to Simabugai during April 98, and at Rokdok in lightly disturbed Dipterocarp forest, 10 Sep 99.

\* **Olive backed Sunbird** *Nectarinia jugularis*. Old records exist from the southern Mentawai islands of Pagai and on Nias (M&V), and this bird may have been previously overlooked on Siberut, where it is occasionally encountered in secondary forest and agriculture / scrub throughout the island.

\* **Eurasian Tree sparrow** *Passer montanus*. The first record on Siberut was in March 1998. Passage to Siberut is thought to have been ship assisted as birds were seen on Siberut's passenger ferry, when leaving Padang and at sea, on several occasions. This species has only colonised the towns of Muara Siberut and Muara Sikabalan, and numbers are presently still low.

\*\* **Common Myna** *Acridotheres tristis*. A single bird at Muara Siberut on 23 Aug 99, feeding on debris on the beach represents the first record for the West Sumatran Islands. Like the previous species, this is expanding its range (Holmes, 1996). The sighting followed a very heavy storm from the south east, and it is possible that this assisted the bird's passage to the island.

**Ashy Drongo** *Dicrurus leucophaeus siberu*. **Endemic subspecies**. Frequent species of secondary and primary forests.

**Sumatran Drongo** *Dicrurus sumatranis viridinitens*. **Endemic subspecies**. This vocal species is very frequently encountered in all habitat types on Siberut. *viridinitens* lacks hair crests and is much smaller than the Hair crested Drongo *D. hottenlottus*, and has only a slightly upturned tail.

## Discussion

### Present Land Use and Threats to Forest Habitat

At present, the state of much of Siberut's forests is healthy, supporting high diversity and some of the rarer Sumatra birds. A low human population and a religious belief that is sympathetic to the sustainable use of natural resources have ensured that the forests have not been converted to secondary vegetation. However, many have abandoned traditional practices of cultivation, and at present much larger areas are being cleared especially for the cultivation of patchouli (or nilam, *Pogostemon cablin*, used for the production of patchouli essential oil) or other cash crops. These practices are quickly exhausting soil fertility and many of these newly opened areas are not replanted with native tree species. The continued cultivation of patchouli and abandonment of traditional values and agricultural systems is at present a serious threat to the remaining primary forest in the valleys. However, the price of nilam has dropped significantly and communities are looking towards other more sustainable, long term cash crops (coffee, cinnamon, cocoa), although plantations of these have not yet been developed to the large scale seen on mainland Sumatra.

Manau and other rattans are the most commonly extracted non wood forest products, sometimes intensively. This has a negative but not permanent impact on the forest as it often involves the felling of trees on which the rattan is climbing. Wood is only used for houses, dugout canoes and for larger resettlement schemes. Very little wood is exported at present and the forests are sufficiently extensive to supply the local demand. Gaharu (*Aquilaria* sp.) or aloewood was once heavily extracted

and is now locally extinct or occurs very infrequently. The forest also supplies traditional medicines but these are extracted at very low levels. Forest use and extraction occurs throughout the island, even in the remote area of the national park (especially for manau), but all of these activities are thought to have a minor negative effect on the avifauna.

Commercial logging companies operated on Siberut from 1969 until 1994, when permission from the Department of Forestry was withdrawn. No companies ever operated inside the present conservation area, but about 10–15% of the island was affected by these operations. Most of the areas logged have not regenerated well, although tree cover is present (mostly pioneer species).

In 1999 a change in government law has encouraged several companies to once again apply for permission for logging concessions in the Production Forest (HP) area demarcated by BAPPEDA (see Spatial Planning Map, figure 2). These new proposals include a 48,000 ha area for Universitas Andalas, Padang under the Land Grant College (LGC) scheme. If these companies are allowed to proceed with their plans, over 100,000 ha of primary forest could be exploited throughout the east and central part of the island and adjacent to the national park. A still worse fate for the conservation of the unique Mentawai ecosystem would be the proposed oil palm plantations along the eastern coast of Siberut. Two companies have applied for a total area of approximately 60,000 ha within the Production Forest for conversion areas (HPK).

### Hunting

The hunting of birds for a protein supplement using bow and arrow and tree resin traps has always been a part of the Mentawai traditional way of life. The impact on diversity and abundance was low and the more common larger birds found in secondary and agricultural vegetation were targeted. Traps were rarely set in the forest, where using bow and arrow is ineffective for small targets. However, the large recent influx of air rifles has started to disrupt the traditional situation and birds are now noticeably scarce around centres of population, all species being a potential target for hunters. There has also been a rapid increase in the bird trade from Siberut. With the increased scarcity of cage birds on neighbouring islands (especially Nias) and the mainland, trappers and traders have turned their attention to Siberut, especially for the still relatively common Hill Myna *Gracula religiosa* and Common Sham *Copsychus malabaricus*. Other species that are also traded off the island are White bellied Sea eagle *Haliaeetus leucogaster*, green pigeons *Treron spp.*, Pied Imperial Pigeon *Ducula bicolor* Ruddy Cuckoodove *Macropygia emiliana* (endemic sub species), Hanging parrot *Loriculus galgulus*, Pied Hornbill *Anthraceroceros albirostris*, Black naped Oriole *Oriolus chinensis* (endemic sub species), Magpie robin *Copsychus saularis* (endemic sub species) and Glossy Starling *Aplonis panayensis*. It is hoped that the management of the now established national park will be able to control the export of birds from Siberut and increase awareness amongst local communities about conservation issues. This will be a difficult job as staff numbers are low and the incentive to earn cash from outside traders is high.



### The Future for Avifauna on Siberut.

Siberut has the largest coverage of primary forest of any west Sumatran island and is invaluable as a conservation site for the endemic birds and other wildlife of these islands. Also the presence of threatened species such as Storm's Stork, Wallace's Hawk eagle, Blue rumped Parrot, and Large Green Pigeon, emphasize the value of protecting the habitats on these islands, that are so fast disappearing on the mainland. However, the future for Siberut is uncertain. It is clear that development of natural resource industries poses the greatest threat to conservation on Siberut. With increased local autonomy and the recent declaration of the Mentawai Islands as a Regency or *Kabupaten* (previously under Padang Pariaman Regency on the mainland), this process will only hasten as the region strives to collect its own revenue the greatest potential coming from oil palm plantations and logging. With the National Park protecting approximately 50% of the island, industries are focusing their attention on the remaining areas. If these plans are allowed to proceed, large areas of primary forest and nearly all of the swamp forest found on Siberut (habitat for Storm's Stork) are in danger of being lost.

Siberut National Park and UNESCO (under the Man and Biosphere Reserve programme) are currently working together to apply a framework for sustainable development and conservation policies for the long term benefit of communities and the unique Mentawai wildlife throughout the entire island. Increased capacity building of the national park authority, cooperation and awareness building of local communities about conservation issues, and the approval of Siberut as a Biosphere Reserve by the Indonesian Government, are still needed in order to achieve some of these aims. These are difficult tasks and Siberut will always need additional support from nongovernmental and national conservation organisations that advocate sustainable development that maintain ecosystems and support high levels of biodiversity and the livelihoods of local communities.

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#### Geographic Coordinates of Localities

|                  |                        |              |                        |
|------------------|------------------------|--------------|------------------------|
| Labuan Bajau     | 98°54.50'E; 00°55.40'S | Pokai        | 98°57.50'E; 01°04.80'S |
| Maileppet        | 99°11.10'E; 01°34.00'S | Rokdok       | 99°05.50'E, 01°36.30'S |
| Malancan         | 98°55.60'E; 01°03.70'S | Rorogot      | 99°07.60'E; 01°34.80'S |
| Malilimok        | 99°15.90'E; 01°45.20'S | Sagulubbe'   | 98°50.20'E; 01°36.90'S |
| Muara Siberu     | 99°12.60'E; 01°35.50'S | Simabugai    | 98°55.00'E; 01°21.90'S |
| Muara Siberut    | 99°05.00'E; 01°20.30'S | Terekan Ilir | 98°50.20'E; 01°04.80'S |
| Muara Sikabaluan | 98°59.50'E; 01°07.40'S |              |                        |

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## Appendix I

The following symbols are used:

- \* = New record for Siberut.
- \*\* = New record for the West Sumatran islands.
- \*\*\* = New record for West Sumatra Province.
- # = New record for Sumatra.

### Status

- R = resident, presumed breeding.
- M = migrant.
- Nb = non breeding ever summering.
- Br = breeding record
- Esc = escapee.
- ? = indeterminate.

E endemic species in die Mentawais.

E = endemic subspecies in the Mentawais.

e(b) = endemic subspecies in the Mentawais *and* Batu Islands.

e(n) = endemic subspecies in the Mentawais *and* Nias.

e(a) = endemic subspecies in all or most of the West Sumatran Islands.

End = Endangered (Collar *et al.* 1994)

Vul = Vulnerable

Nr = Near threatened

### Habitat

LRF = Lowland rain forest (primary and secondary).

SwF = Freshwater and peat swamp forests (primary and secondary)

Dis = Heavily disturbed forest and agricultural land

CoF = Coastal forests and beach habitats

Mgv = Mangrove Forest

Rvr = Riverine habitats

Bch = Beach and Coastal Mudflats

Pel = Pelagic

### Abundance (for relevant habitat)

r = Rare. 1 or 2 records only.

o = Occasional. Several records.

f = Frequent. Usually recorded on field surveys.

c = Common. Always recorded on field surveys.

Appendix I List of Species Recorded on / around Siberut, Aug 1997 - Dec 1999.

| Species                         | English Name            | Mentawai Name  | Stat    | LRF | Swf | Dis | CoF | Mgv | Rvr | Bch | Pel |
|---------------------------------|-------------------------|----------------|---------|-----|-----|-----|-----|-----|-----|-----|-----|
| <i>Calonectris leucomelas</i> * | Streaked Shearwater     |                | m       |     |     |     |     |     |     |     | r   |
| <i>Puffinus pacificus</i>       | Wedge-tailed Shearwater |                | m       |     |     |     |     |     |     |     | r   |
| <i>Fregata andrewsi</i> *       | Christmas Frigatebird   |                | m       |     |     |     |     |     |     | r   | r   |
| <i>Ardea sumatrana</i>          | Great-billed Heron      | Seggu (Siunek) | r, Nr   |     |     |     |     |     |     | o   |     |
| <i>Ardea purpurea</i>           | Purple Heron            | Seggu          | m       |     |     | r   |     |     |     |     |     |
| <i>Casmerodius albus</i>        | Great Egret             |                | ?       |     |     | r   |     |     |     | r   |     |
| <i>Egretta sacra</i>            | Pacific Reef-egret      | Aro            | r       |     |     |     |     |     |     | f   |     |
| <i>Butorides striatus</i>       | Striated Heron          | Micou (Susuk)  | e(a), m |     |     |     | o   |     | f   | c   |     |
| <i>Icobrychus cinnamomeus</i>   | Cinnamon Bittern        |                | r?      |     |     | r   |     |     |     |     |     |
| <i>Ciconia stormi</i>           | Storm's Stork           | Manyang        | r, End  | r   | o   |     |     |     |     |     |     |
| <i>Elanus caeruleus</i> **      | Black-shouldered Kite   |                | r, br   | r   | r   |     | r   | f   |     | f   |     |
| <i>Haliastur indus</i>          | Brahminy Kite           |                | r, br   |     |     |     |     |     |     |     |     |
| <i>Haliaeetus leucogaster</i>   | White-bellied Sea-eagle | Piligi         | r, br   |     |     |     | f   | f   |     | f   |     |
| <i>Spilornis cheela sipora</i>  | Crested Serpent-eagle   | Piligi layuk   | e       | f   | o   | o   |     |     |     |     |     |
| <i>Accipiter gularis</i> "      | Japanese Sparrow-hawk   |                | m       |     |     | r   |     |     |     |     |     |
| <i>Accipiter soloensis</i> *    | Chinese Goshawk         |                | m       |     |     | r   | r   |     |     |     |     |
| <i>Spizaetus alboniger</i>      | Blyth's Hawk-eagle      | Piligi         | r       | r   | r   |     |     |     |     |     |     |
| <i>Spizaetus nanus</i>          | Wallace's Hawk-eagle    |                | r; Vul  |     | r   |     |     |     |     |     |     |
| <i>Falco peregrinus</i> *       | Peregrine Falcon        |                | ?       |     |     |     |     |     |     |     |     |
| <i>Gallinulus striatus</i> *    | Slaty-breasted Rail     |                | r       |     |     | o   |     |     |     |     |     |
| <i>Amaurornis phoenicurus</i>   | White-breasted Waterhen | Turu gougou    | r       | r   | f   |     | o   | c   |     |     |     |
| <i>Pluvialis squatarola</i>     | Grey Plover             |                | m       |     |     |     |     |     | o   |     |     |
| <i>Pluvialis fulva</i>          | Pacific Golden Plover   |                | m       |     |     |     |     |     | o   |     |     |
| <i>Charadrius peronii</i>       | Malaysian Plover        |                | ?, Nr   |     |     |     |     |     |     | r   |     |
| <i>Charadrius mongolus</i>      | Lesser Sand-plover      |                | m       |     |     |     |     |     |     | f   |     |
| <i>Charadrius leschenaultii</i> | Greater Sand-plover     |                | m, nb   |     |     |     |     |     |     | c   |     |
| <i>Numenius arquata</i>         | Eurasian Curlew         |                | m       |     |     |     |     |     |     | r   |     |
| <i>Numenius phaeopus</i>        | Whimbrel                |                | m       |     |     |     | o   | o   |     | o   |     |
| <i>Limosa lapponica</i>         | Bar-tailed Godwit       |                | m, nb   |     |     |     |     |     |     | c   |     |
| <i>Tringa totanus</i>           | Common Redshank         |                | m       |     |     |     |     |     | r   | o   |     |
| <i>Tringa stagnatilis</i> "     | Marsh Sandpiper         |                | m       |     |     |     |     |     |     | r   |     |
| <i>Tringa nebularia</i>         | Common Greenshank       | Pikpik         | m       |     |     |     |     |     |     | f   |     |
| <i>Tringa glareola</i>          | Wood Sandpiper          |                | m       |     |     |     |     |     | r   |     |     |
| <i>Xenus cinereus</i>           | Terek Sandpiper         |                | m, nb   |     |     |     |     |     | r   | c   |     |
| <i>Actitis hypoleucos</i>       | Common Sandpiper        | Ujap (Susuk)   | m, nb   |     | r   |     | c   | c   | f   | c   |     |

Appendix I - List of Species Recorded on / around Siberut, Aug 1997 - Dec 1999.

| Species                                     | English Name                | Montawai Name     | Stat  | LRF | SwF | Dis | CoF | Mgv | Rvr | Bch | Pel |
|---|-----------------------------|-------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|
| <i>Heteroscelus brevipes</i> #              | Grey-tailed Tattler         |                   | m     |     |     |     |     | r   |     | r   |     |
| <i>Arenaria interpres</i>                   | Ruddy Turnstone             |                   | m, nb |     |     |     |     |     |     | f   |     |
| <i>Gallinago stenura</i>                    | Pintail Snipe               |                   | m     |     |     | o   |     |     | o   |     |     |
| <i>Calidris tenuirostris</i> *              | Great Knot                  |                   | m     |     |     |     |     |     |     | r   |     |
| <i>Calidris alba</i>                        | Sanderling                  |                   | m     |     |     |     |     |     |     | r   |     |
| <i>Calidris ridgwayi</i>                    | Rufous-necked Stint         |                   | m     |     |     |     |     |     |     | o   |     |
| <i>Calidris ferruginea</i>                  | Curlew Sandpiper            |                   | m     |     |     |     |     |     |     | r   |     |
| <i>Himantopus leucocephalus</i> **          | White-headed Stilt          |                   | m     |     |     | r   |     |     |     | r   |     |
| <i>Glareola maldivarum</i>                  | Oriental Pratincole         |                   | m     |     |     |     |     |     |     | o   |     |
| <i>Chlidonias leucopertus</i> **            | White-winged Tern           | Lajap             | m, nb |     |     |     |     |     |     | f   |     |
| <i>Gelochelidon nilotica</i> ***            | Gull-billed Tern            | Lajap             | m     |     |     |     |     |     |     | r   |     |
| <i>Sterna hirsundo</i>                      | Common Tern                 | Lajap             | m, nb |     |     |     |     |     |     | c   |     |
| <i>Sterna sumatrana</i>                     | Black-naped Tern            | Lajap             | nb    |     |     |     |     |     |     | r   |     |
| <i>Sterna albifrons</i>                     | Little Tern                 | Lajap             | m, nb |     |     |     |     |     |     | f   |     |
| <i>Sterna bergii</i>                        | Great Crested Tern          | Lajap             | m, nb |     |     |     |     |     |     | o   |     |
| <i>Sterna bengalensis</i>                   | Lesser Crested Tern         | Lajap             | m     |     |     |     |     |     |     | r   |     |
| <i>Theron capalliei</i>                     | Large Green Pigeon          |                   | ?, Nt | r   |     |     |     |     |     |     |     |
| <i>Theron curvirostra</i>                   | Thick-billed Green Pigeon   | Lemendeu peulu    | e(b)  | f   | f   | o   |     |     |     |     |     |
| <i>Theron vernans</i>                       | Pink-necked Green Pigeon    | Lemendeu          | r     | c   | c   | c   | c   | c   |     |     |     |
| <i>Ptilinopus jambu</i> *                   | Jambu Fruit-dove            |                   | ?     | r   |     |     |     |     |     |     |     |
| <i>Ducula aenea</i>                         | Green Imperial Pigeon       | Nigorut           | e(a)  | c   | c   | o   |     |     |     |     |     |
| <i>Ducula bicolor</i>                       | Pied Imperial Pigeon        | Matnat            | r     |     |     |     | o   | o   |     |     |     |
| <i>Macropygia emiliana elassa</i>           | Ruddy Cuckoo-dove           | Keiba             | e     | c   | c   | c   |     |     |     |     |     |
| <i>Streptopelia chinensis</i> *             | Spotted Dove                |                   | esc   |     |     |     |     |     |     |     |     |
| <i>Chalcophaps indica</i>                   | Emerald Dove                | Egu'              | r     | r   |     | o   |     |     |     |     |     |
| <i>Patinus cyaneus pontius</i>              | Blue-rumped Parrot          | Galik             | e; Nt | f   | c   | c   |     |     |     |     |     |
| <i>Loriculus galgulus</i>                   | Blue-crowned Hanging-parrot | Aderek            | r     | r   | o   | f   |     |     |     |     |     |
| <i>Cuculus fugax</i>                        | Hodgson's Hawk-cuckoo       | Butset            | r     | o   | r   | f   |     |     |     |     |     |
| <i>Cuculus saturatus</i> "                  | Oriental Cuckoo             |                   | m     |     |     | r   |     |     |     |     |     |
| <i>Cacomantis merulinus</i>                 | Plaintive Cuckoo            | Kakoikoi / Koikoi | r     | f   | f   | c   |     |     |     |     |     |
| <i>Chrysococcyx xanthorhynchus</i>          | Violet Cuckoo               | Koikoi            | r     | r   |     |     |     |     |     |     |     |
| <i>Eudynamis scolopacea</i>                 | Asian Koel                  |                   | m     |     | o   | o   |     |     |     |     |     |
| <i>Romphococcyx curvirostris omeicaudus</i> | Chestnut-breasted Malkoha   | Kokot             | e     | o   |     | r   |     | r   |     |     |     |
| <i>Centropus sinensis</i>                   | Greater Coucal              | Kemut             | r     | o   | c   | c   | c   | o   | c   |     |     |

| Species                             | English Name               | Mentawai Name       | Stat | LRF | SwF | Dis | CoF | Mgv | Rvr | Bch | Pel |
|-------------------------------------|----------------------------|---------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| <i>Tyto alba</i> *                  | Barn Owl                   |                     | ?    |     |     | r   |     |     |     |     |     |
| <i>Otus mentawi</i>                 | Mentawai Scopsowl          | Tobat               | E    | o   | o   | f   |     | o   |     |     |     |
| <i>Ninox scutulata</i>              | Brown Boobook              |                     | r    | f   | o   | r   |     |     |     |     |     |
| <i>Aerodramus fuciphagus</i>        | Edible-nest Swiftlet       | Lagi-lagi           | r    |     |     | o   |     |     | o   |     |     |
| <i>Collocalia esculenta</i>         | Glossy Swift               | Lagi-lagi           | e(b) | c   | c   | c   | c   |     | c   |     |     |
| <i>Hemiprocne longipennis</i>       | Grey-rumped Tree-swift     | Lagi-lagi toktuk    | e(a) | c   | c   | c   | c   |     |     |     |     |
| <i>Hemiprocne comata</i>            | Whiskered Tree-swift       | Lagi-lagi toktuk    | r    | f   | o   | f   | r   |     |     |     |     |
| <i>Alcedo atthis</i>                | Common Kingfisher          | Sikoplatat'         | r,m  |     |     |     | o   | o   | o   |     |     |
| <i>Alcedo mentining</i>             | Blue-eared Kingfisher      | Sikoplatat'         | r    |     |     |     |     |     | f   |     |     |
| <i>Ceyx erithacus</i>               | Oriental Dwarf Kingfisher  | Sikoplatat'         | r    | o   | r   |     |     |     | r   |     |     |
| <i>Pelargopsis capensis</i>         | Stork-billed Kingfisher    | Makakak             | e(a) |     |     |     | f   | f   | o   |     |     |
| <i>Halcyon coromanda</i>            | Ruddy Kingfisher           | Sikoplatat'         | r    |     |     |     |     | r   |     |     |     |
| <i>Halcyon sylvnensis</i> **        | White-throated Kingfisher  | Makakak             | r    |     | r   | o   |     |     | o   |     |     |
| <i>Halcyon chloris chloristera</i>  | Collared Kingfisher        | Makakak             | e(a) |     |     |     | f   | f   |     |     |     |
| <i>Actenoides concretus</i>         | Rufous-collared Kingfisher | Ngong               | r    | r   |     |     |     |     |     |     |     |
| <i>Merops philippinus</i>           | Blue-tailed Bee-eater      | Kororok             | m    |     |     | o   | o   | o   | o   |     |     |
| <i>Eurostoimus orientalis</i>       | Common Dollabird           |                     | m    | r   |     | r   |     |     |     |     |     |
| <i>Anthraccoceros albitrostris</i>  | Asian Pied Hombill         | Kailaba             | r    | c   | c   | o   |     |     |     |     |     |
| <i>Calyptomena viridis sibiru</i>   | Green Broadbill            | Lui-lui'            | e    | f   | o   | r   |     |     |     |     |     |
| <i>Pitta moluccensis</i>            | Blue-winged Pitta          | Mong                | m    |     |     | r   |     |     |     |     |     |
| <i>Hirundo rustica</i>              | Barn Swallow               |                     | m    | c   | c   | c   | c   | c   | c   | c   |     |
| <i>Hirundo tahitica</i>             | Pacific Swallow            |                     | r    |     |     | o   |     | o   | o   | o   |     |
| <i>Dendronanthus indicus</i>        | Forest Wagtail             | Ping-ping           | m    | f   | f   | f   | f   | o   |     |     |     |
| <i>Molacilla flava</i>              | Yellow Wagtail             | Liddai              | m    |     |     |     | o   |     |     | f   |     |
| <i>Molacilla cinerea</i>            | Grey Wagtail               | Liddai              | m    |     |     | o   | c   |     | c   | o   |     |
| <i>Anthus novaeseelandiae</i> *     | Richard's Pipit            |                     | ?    |     |     | r   |     |     |     |     |     |
| <i>Corvinia striata</i>             | Bar-bellied Cuckoo-shrike  | Arau'               | r    | o   | o   |     |     |     |     |     |     |
| <i>Coracina finbrata</i>            | Lesser Cuckoo-shrike       |                     | r    |     | r   |     |     |     |     |     |     |
| <i>Pycnonotus melanoleucos</i>      | Black-and-white Bulbul     |                     | r    | o   | r   |     |     |     |     |     |     |
| <i>Pycnonotus atriceps</i>          | Black-headed Bulbul        | Taktak              | r    | o   | f   | f   |     |     |     |     |     |
| <i>Pycnonotus plumosus</i>          | Olive-winged Bulbul        | Rotdot              | r    | c   | c   | c   | o   | c   | c   |     |     |
| <i>Irena puella</i>                 | Asian Fairy Bluebird       | Patpat              | r    | f   | f   | o   |     |     |     |     |     |
| <i>Lanius tigrinus</i>              | Tiger Shrike               |                     | m    |     |     | o   |     | r   |     |     |     |
| <i>Copsychus saularis pagiensis</i> | Oriental Magpie-robin      | Lucabe/ Siagailobba | e    | f   | c   | c   | o   | c   |     |     |     |
| <i>Copsychus malabaricus</i>        | White-rumped Shama         | Datdat n'ake        | e(n) | c   | f   | f   |     |     |     |     |     |

| Species                                 | English Name                | Mentawai Name        | Stat | LRF | SwF | DIS | CoF | Mgy | Rvr | Bch | Pel |
|---|-----------------------------|----------------------|------|-----|-----|-----|-----|-----|-----|-----|-----|
| <i>Zoothera sibirica</i> *              | Siberian Thrush             |                      | m    |     |     |     |     |     |     |     |     |
| <i>Acrocephalus orientalis</i> *        | Oriental Reed-warbler       |                      | m    |     |     | r   |     |     |     |     |     |
| <i>Cisticola juncidis</i> *             | Zitting Cisticola           |                      | r    |     |     | r   |     |     |     |     |     |
| <i>Orthotomus ruficeps concinnus</i>    | Ashy Tailorbird             | Kullak               | e    | c   | c   | c   | c   | c   | c   |     |     |
| <i>Phylloscopus borealis</i> "          | Arctic Leaf-warbler         |                      | m    | r   |     |     |     |     |     |     |     |
| <i>Rhinomyias umbratilis</i>            | Grey-chested Rhinomyias     |                      | r    | o   |     |     |     |     |     |     |     |
| <i>Muscicapa dauurica</i>               | Asian Brown Flycatcher      |                      | nb   | r   | r   |     |     |     |     |     |     |
| <i>Callicicapa ceylonensis</i>          | Grey-headed Flycatcher      |                      |      | r   | f   | c   | o   |     |     |     |     |
| <i>Hypodmyis azurea leucophila</i>      | Black-naped Monarch         | Joutol               | e    | f   | c   | o   |     |     |     |     |     |
| <i>Pachycephala griseola</i>            | Mangrove Whistler           |                      | r    | o   |     |     |     | r   |     |     |     |
| <i>Dicaeum chrysosoreum</i> *           | Yellow-vented Flowerpecker  |                      | r    | r   |     | r   |     |     |     |     |     |
| <i>Dicaeum trigonostigma</i>            | Orange-bellied Flowerpecker |                      | r    | c   | c   | c   | c   | c   |     |     |     |
| <i>Dicaeum cruentatum</i>               | Scarlet-backed Flowerpecker |                      | r    | o   | r   |     |     |     |     |     |     |
| <i>Anthreptes malacensis</i>            | Brown-throated Sunbird      | Ridit                | r    | f   | o   | c   | c   |     |     |     |     |
| <i>Nectarinia sperata</i>               | Purple-throated Sunbird     | Ridit                | r    | o   | o   |     |     |     |     |     |     |
| <i>Nectarinia callosirha</i>            | Copper-throated Sunbird     | Ridit                | r    |     |     |     | o   | o   |     |     |     |
| <i>Nectarinia jugularis</i> *           | Olive-backed Sunbird        | Ridit                | r    |     |     | o   |     |     |     |     |     |
| <i>Aethopyga siparaja</i>               | Crimson Sunbird             | Ridit                | r    | f   | f   | c   | o   | f   |     |     |     |
| <i>Arachnothera longirostra</i>         | Little Spiderhunter         | Satsat               | r    | c   | c   | c   | c   | c   |     |     |     |
| <i>Arachnothera chrysogenys</i>         | Yellow-eared Spiderhunter   | Satsat               | r    | o   | r   |     |     |     |     |     |     |
| <i>Arachnothera affinis</i>             | Grey-breasted Spiderhunter  | La'la'               | r    | r   |     |     |     |     |     |     |     |
| <i>Lonchura maja</i>                    | White-headed Munia          | Pipit                | r    |     |     | f   |     |     |     |     |     |
| <i>Passer montanus</i> *                | Tree Sparrow                |                      | r    |     |     | o   |     |     |     |     |     |
| <i>Aplonis panayensis</i>               | Asian Glossy Starling       |                      | e(b) | o   |     |     | f   | o   |     |     |     |
| <i>Acridotheres tristis</i> **          | Common Myna                 |                      | ?    |     |     |     |     |     |     |     |     |
| <i>Gracula religiosa</i>                | Hill Myna                   | Mainung              | e(b) | c   | f   | f   | o   |     |     | r   |     |
| <i>Oriolus xanthomus mentawi</i>        | Dark-throated Oriole        | Laitomumen/Katomuan  | e    | c   | f   |     |     |     |     |     |     |
| <i>Oriolus chinensis richmondi</i>      | Black-naped Oriole          | Tapporao             | e    | o   | c   |     |     | c   |     |     |     |
| <i>Dicaeum leucophaea sibera</i>        | Ashy Drongo                 | Laibu                | e    | f   | f   | o   | o   |     |     |     |     |
| <i>Dicrurus sumatranus viridimitens</i> | Sumatran Drongo             | Pisaksak/Siagaipatok | e    | c   | c   | c   | c   | f   |     |     |     |
| <i>Corvus enca enca</i>                 | Slender-billed Crow         | Kailea'              | r    | r   | o   | o   | f   | f   |     |     |     |

## Appendix II Birds not recorded 1997 1999 with authors (from M&V)

1. Red footed Bobby *Sula sula* (AJW)
2. Lesser Frigatebird *Fregata ariel* (AJW)
3. Black Bittern *Dupetor flavicollis* (S&S2)
4. Woolly necked Stork *Ciconia episcopus* (AJW). Doubtful record, in view of positive resident status of *C. stonni*.
5. Oriental Honey buzzard *Pernis ptilorhynchus* (C&K; Riley; AJW)
6. Changeable Hawk eagle *Spizaetus cirrhatus* (S&S2)
7. Lesser Whistling duck *Dendrocygna javanica* (AJW)
8. Red legged Crake *Rallina fasciata* (AJW)
9. Little Ringed Plover *Charadrius dubius* (BK)
10. Black tailed Godwit *Limosa limosa* (AJW). Recorded as *Limosa* sp. and presumed to be *L. limosa* by M&V.
11. Black naped Tern *Sterna sumatrana* (S&S 1)
12. Bridled Tern *Sterna anaethetus* (KVT, BK)
13. Beach Thick knee *Esacus magnirostris* (AJW).
14. Cinnamon headed Pigeon *Treron fulvicollis* (AJW). Near threatened.
15. Silvery Wood pigeon *Columba argentina* (Sipora record, Sal; Pagai, Ripley). Vulnerable.
16. Chestnut winged Cuckoo *Clamator coromandus* (AJW)
17. Brown Wood owl *Strix leptogrammica* (Call record, S&S1)
18. Gould's Frogmouth *Batrachostomus stellatus*. (AHM)
19. Black nest Swiftlet *Aerodramus maximus* (KVT; AJW)
20. Fork tailed Swift *Apus pacificus* (AJW, AHM)
21. Black capped Kingfisher *Halcyon pileata* (Ripley)
22. Pied Triller *Lalage nigra* (AHM)
23. Yellow bellied Bulbul *Criniger phaeocephalus* (KVT; AJW)

AJW Whitten, A. (WWF, 1980).

AHM Arthur H. Mitchell, 1980

BK Ben King, 1983.

C&K Chasen, F. N., & Moss, C. Boden, 1926

KVT K. V. Thompson, 1974 and 1979.

Riley J. H. Riley, 1929.

Ripley Ripley, S. Dillon, 1944.

Sal Salvadori, Torninaso, 1894.

S&S I N. de Sadeleer & R. De Schaetzen, 1982.

S&S2 N. de Sadeleer & R. De Schaetzen, 1985.