The birds of Sumbawa, Moyo and Sangeang Islands, Nusa Tenggara, Indonesia

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Abstract – This paper is based mainly on data gathered during a vertebrate survey of Sumbawa, Moyo and Sangeang Islands by a joint Western Australian Museum–Museum Zoologicum Bogoriense expedition in May and October–November 1988, a Cambridge student expedition to Sumbawa Island in July–August 1993; and a visit by P. Jepson and S. Schmitt to Sumbawa in September 1993.

A total of 172 species of bird were recorded and 362 specimens were collected which include the first major collections from Moyo and Sangeang Islands and represent important new collections for Sumbawa Island. The local distribution, abundance and habitat preferences found for each species are described. Many specimens and observations represent new island and/or archipelago records.

INTRODUCTION

The islands of Sumbawa, Moyo and Sangeang lie in the inner Banda arc of the Indonesian archipelago between longitude 116°45' and 119°15' east and latitude 8°0' and 9°15' south. They are situated between Lombok in the west and Komodo and Flores in the east in the Indonesian province of Nusa Tenggara Barat (Figure 1). The Flores Sea is to the north and the Indian Ocean to the south. The major aim of this work was to document the distribution and status of the avifauna of Sumbawa, Moyo and Sangeang Islands and to collect series of certain species for taxonomic, morphological and genetic studies. The islands were visited by the joint Western Australian Museum–Museum Zoologicum Bogoriense group between 26 May and 18 October to 15 November 1988. Additional information was collated from the Cambridge Flores–Sumbawa expedition carried out between 28 July and 19 August 1993 by Butchart et al. (1993), from P. Jepson and S. Schmitt’s visit to Sumbawa from 10–23 September 1993 from B.R. Lees’ visits to Moyo from 1992 to 1995; and from the Museum Zoologicum Bogoriense collection.

Pulau Sumbawa is an irregular shaped volcanic island 270 km long on its east-west axis and 90 km wide and covering about 14,750 km². Large bays (Teluk) in the central and eastern part of the island namely Teluk Saleh, Teluk Dompu, Teluk Bima and Teluk Waworada give the island its irregular shape. Teluk Saleh is the largest and divides the island almost in half. Sumbawa contains several extinct volcanoes, the largest Gunung Tambora rising to 2821 m. The massive eruption of Tambora in 1815 produced 80 cubic kilometres of airborne ash which cooled the world enough to produce the year without a summer in 1816 (FAO 1981).

Collections and observations were made at fourteen main sites on Sumbawa namely: Desa Belo 8°52’00”S, 116°50’00”E, Desa Meraran 8°41’30”S, 116°51’00”E, Batu Hija 9°00’5, 116°55’5, R.F2 (a meteorological station) 8°55’5, 117°00’E, Desa Merante 8°33”10”S, 117°01”15”E, Gunung Olet Sengenges 8°35’S, 117°07’E, Babar 8°55’S, 117°05’E, Batu Dulang 8°35’00”S, 117°17’20”E, Batu Tering 8°48’00”S, 117°22’00”E, around Sumbawa Besar 8°30’00”S 117°26’00”E, Teluk Santong 8°43’40”S, 117°53’30”E, Desa Daha (near Huu) 8°45’00”S, 118°26’00”E, Desa Waworada 8°42’30”S, 118°47’30”E, Desa Sangeang 8°18’00”S, 118°56’00”E and Sape 8°34’00”S, 119°00’00”E (Figure 2).

In the annotated list we summarise for each species its relative abundance (whether it is very common, common, moderately common, uncommon, scarce or rare), whether it feeds alone or in groups, status (whether it is a vagrant, visitor or resident), habitat preferences and breeding season.

Eight major habitat types were recognised on Sumbawa.
1. Marine. Includes coastal seas, straits between islands and gulfs.
2. **Mangal.** Small stands of mangal occur in many of the embayments. They consist mainly of *Rhizophora, Sonneratia* and *Bruguiera* in the seaward zone and *Avicennia, Lumnitzera* and *Excoecaria* to landward (Figure 3).

3. **Cultivated areas.** These include rice fields, coconut, cashew and banana plantations, village gardens with kapok, maize and other vegetables and in the highlands coffee plantations (Figure 4).

4. **Semi-evergreen rainforest, moist deciduous monsoon forest and gallery forest.** This forest is usually tall (canopy >30 m), is complex in structure and no doubt originally extended over much of the volcanic-alluvial plain. Trees include, *Ficus, Terminalia, Alstonia, Celtis, Serianthes, Diospyros, Eugenia, Grewia, Schefflera, Myristica, Albizia, Minusops, Garuga, Nauclea, Erythrina* and *Tamarindus*. Vines, rattans and palms are abundant and the understorey consists mostly of small trees, shrubs, bamboo, herbs, ferns and in some places *Lantana* (Figure 5).

Most of the lowland rainforest has been disturbed and cleared by shifting cultivation then allowed to regenerate. Historically it has also been locally devastated by volcanic eruptions and lava flows.
5. **Grassland.** Areas of rank grassland “alang alang”, *Imperata cylindrica*, often with scattered trees and shrubs occur throughout the island (Figure 6).

6. **Woodland.** Open woodlands occur in drier parts of the island especially coastal flats on the eastern end. Trees include *Zizyphus*, *Acacia* and *Tamarindus* (Figure 7).

7. **Meraran wetland.** This is a large freshwater lake of about 860 ha with associated small swamps. The lake was largely carpeted with water hyacinth and water lilies and the swamps edged with stands of bulrush *Typha* and reeds *Praignites* (Figure 8).

8. **Montane forest.** At about 700 m in altitude the lowland forest grades into montane rainforest. This change is well marked structurally and floristically and takes place through a broad ecotone of about 200-300 m in altitude. Structurally, the forest becomes lower (averaging about 20 m), the leaves smaller, and the tree trunks thinner stemmed and more heavily mossed. Many trees and shrubs occur that are not found at lower altitudes and epiphytes and ferns are abundant. At Batu Dulang this forest extended upwards to about 1200 m. On the higher peaks of Gunung Tambora above 1400 m the forest is largely dominated by *Casuarina junghuniana* with an understorey of herbaceous plants and ferns. Lower slopes of Tambora were once also clothed with pure stands of *Duabanga moluccana* highly prized for its timber, but most of this appears to have been cleared (Figure 9).

Pulau Moyo is an uplifted limestone island about 27 km long, 8-20 km wide, about 335 km² and with a maximum height of 200 m. It is situated 1.5 km off the northwest coast of Sumbawa near Sumbawa Besar at the mouth of Teluk Saleh. Three sites were visited on Moyo by the WAM-MZB expedition namely: Desa Sebotok 8°09'30"S, 117°37'15"E on...
Figure 5  Semi-evergreen rainforest at Daha.

Figure 6  Grassland on eastern Sumbawa with Pulau Sangeang in background, photographed by R. How.
Figure 7  Open woodland near Sumbawa Besar.

Figure 8  Meraran wetland.
Figure 9  Montane forest at Merente.

Figure 10  Grassland at Tanjung Pasir.
northern end (between 6–9 November); Brang Kua 8°09'30"S, 117°36'45"E on eastern side (between 9–
11 November); and Tanjung Pasir 8°23'15"S, 117°31'30"E on southern end (between 11–14 November). B.R. Lees visited areas on the west
side of the island including the vicinity of Amanawana Bay 8°16'S, 117°30'E and Labuan Aji (Labuhanhaji) 8°13'5, 117°30'E.

Most of the southern half of the island consists of
a rather extensive plateau undulating between 85
and 160 m. The northern half descends more gently
to the sea, is more forested than the south, contains
a more extensive drainage system, and has more
land suitable for agriculture.

The major habitat types on Moyo Island are as
follows:

1. **Mangal.** Many bays around the island contain
small stands of mangroves. They consist mostly
of a pioneer or seaward zone of *Sonneratia* and
a landward zone of *Rhizophora* and *Bruguiera*.

2. **Semi-evergreen rainforest and moist
deciduous monsoon forest.** This forest occurs
over most of the northern half of the island on
the central and southern slopes of the plateau
and along southern creeks. The canopy has an
average height of 20–25 m. Dominant trees
include *Calophyllum*, *Cripteronis*, *Eugenia*,
*Schoutenia*, *Grewia*, *Schleicheria*, and *Protium*.
Scattered trees of *Podocarpus* and *Dipterocarpus*
occur mainly in the north.

3. **Grasslands.** Most of the central and southern
part of the island consists of grassy plains with
emergent prickly trees and shrubs. (Figure 10).

4. **Cultivated areas and secondary regrowth.** This
includes areas cleared for agriculture and
depauperate scrubs with *Alstonia*, *Tamarindus*
and *Lantana*.

Presumably the vegetation on Moyo would
have been devastated by the eruption of Tambora in 1815.

Pulau Sangeang is a roughly circular volcanic
island 15 km wide, 150 km² and with a central
active volcano Gunung Api rising to 1949 m. It is
situated 8 km off the northeast coast of Sumbawa
and was visited between 21–23 October 1988 on
the southwestern side at 8°13'30"S, 119°00'20"E.
Gunung Api last erupted in 1986.

The narrow coastal fringe is vegetated mostly
with low open woodland with a ground cover of
rank grasses. Small thickets dominated mainly by
*Ficus* spp. occur in some gullies but much of the
vegetation has been disturbed by recent lava flows.
Many derelict village gardens were overrun with
castor oil plant. Large areas of 'alang alang' occur
on the lower slopes of Gunung Api and patches of
vine forest occur higher up and in deeper gullies.
(Figure 11).

**CLIMATE**

Sumbawa, Moyo and Sangeang Islands have a
tropical monsoon type climate, characterised by
moderate stable temperatures and high relative
humidity. The wet season (northwest monsoon)
begins in November, peaks in December-January and may continue until March. From May to September the winds are predominantly from the southeast (east monsoon) and are relatively dry. April and October are transitional. Mean daily temperatures range from 22–32° C, and average humidity is 85%. Mean annual rainfall ranges from 1000 mm in lowlands to 3000 mm in highlands. The eastern part of Sumbawa is considerably drier than the west.

ORNITHOLOGICAL HISTORY

Previous collections and additional data are available from:

1. J. Wivan van Lansberge 1880–1883, Governor General: Flores, Sumbawa, Alor and Timor (Junge 1954);
2. F. Guillemaud, 1885, report on the collections of birds made during the voyage of the yacht ‘Marchesa’ (Bruce 1987);
5. B. Rensch’s observations and collections from Lombok, Sumbawa and Flores (Rensch 1930, 1931);
6. G.A. Lincoln and others 1973, surveys of Lombok, Sumbawa and Komodo (Lincoln 1974, 1975);
7. FAO/UNDP Bogor 1981, survey Pulau Moyo and the Sanggar Peninsula (Gunung Tambora), a plan for conservation in northern Sumbawa;
8. The Birds of Wallacea (White and Bruce 1986);
13. S.H.M. Butchart et al. 1993, Preliminary report of the Cambridge Flores/Sumbawa conservation project (unpublished report);

ANNOTATED SPECIES LIST

Classification and nomenclature follows Andrew (1992) and White and Bruce (1986).

Hydrobatidae

*Oceanites oceanicus* Wilson’s Storm-petrel


Fregatidae

*Fregata ariel* Lesser Frigatebird


Moyo I. – Two just offshore between Sebotok and Brang Kua on 9 November 1988. These are the first records for the Sumbawa region.

Phalacrocoracidae

*Phalacrocorax melanoleucos* Little Pied Cormorant

Sumbawa I. – Flocks of 10 and 4 at a freshwater lake, Meraran on 13 May 1988, also one 5 km east of Alas on 9 August and another on 19 August 1993. The first records for Sumbawa.

*Sula leucogaster* Brown Booby


Pelecanidae

*Pelecanus conspicillatus* Australian Pelican


Ardeidae

*Ardea cinerea jouyi* Grey Heron

Sumbawa I. – Two huge herons with white underparts, a black line through the eye and black flight feathers, were observed at a freshwater lake at Meraran on 13 May 1988. Rensch (1931) lists an immature female collected on Sumbawa in May.

*Ardea sumatrana* Great-billed Heron

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**Ardea purpurea** Purple Heron
Sumbawa I. – Two at a freshwater lake at Meraran on 13 May 1988 and two at Lake Taliwang, east of Maluk on 9 August 1993.

**Ardea novaehollandiae** White-faced Heron
Sumbawa I. – Moderately common, in ones, twos and small groups (up to 8) occasionally larger aggregations (up to 50). Recorded at Meraran, Lake Taliwang, Babar, Selah Legium, Belo, Dompu and Dahu. Rice fields, freshwater lakes and creeks.
Moyo I. – One on coast at Brang Kua on 10 November 1988.

**Egretta alba** Great Egret
Sumbawa I. – One at a swamp near Empang on 20 May and three on a mudflat near Bima on 19 October 1988. The first records for Sumbawa.

**Egretta garzetta** Little Egret
Sumbawa I. – Seven on mudflats at Sape on 21 August 1993. The first record for Sumbawa.

**Egretta sacra** Reef Egret
Sumbawa I. – Three near Maluk on 9 August and one at Sape on 21 August 1993. All grey phase.
Moyo 1. – Common to moderately common. Recorded at Sebotok, Brang Kua and Tanjung Pasir. Mangal, tidal flats and beaches. Nest with 2 eggs (one chipping) 9 m up in a *Sonneratia alba* on seaward edge of mangal at Sebotok on 7 November 1988.

**Bubulcus ibis** Cattle Egret
Sumbawa I. – Locally common but generally uncommon. One in rice field at Batu Tering on 8 May 1988 and at least 1000 at Lake Taliwang on 9 August 1993.

**Ardeola speciosa** Javan Pond Heron
Sumbawa I. – Common in lowland wetlands. Small groups and loose flocks (up to 300). Recorded at Meraran, Lake Taliwang, Belo, Dompu, Waworada, Dahu, Sape and Sumbawa Besar. Rice fields, swamps, lakes, along rivers and mudflats.

**Ixobrychus sinensis** Yellow Bittern
Sumbawa I. – Moderately common at a large freshwater lake at Meraran in May 1988. Mainly in Typha, lilies and water hyacinth. Nest with one nestling found in Typha on 13 May. This is the first record for Sumbawa and the first breeding record for Nusa Tenggara. Previously thought to be only a migrant to Wallacea, however, small breeding populations have been found in areas with a large influx of migrants e.g. Sri Lanka, the Philippines and Java (Hancock and Elliott 1978).

**Ciconiidae**

**Ciconia e. episcopus** Woolly-necked Stork
Sumbawa I. – Moderately common in ones, twos and groups (up to 30). Recorded at Belo, Sekongkang (8°59'S, 116°45'E), Selah Legium and near Sumbawa Besar. Mainly ricefields. Two specimens from Dompu in MZB collection.

**Leptoptilos javanicus** Lesser Adjutant
Moyo 1. – Two at Brang Kua on 10 November 1988. The first record east of Bali.

**Accipitridae**

**Pandion haliaetus** Osprey
Moyo I. – Scarce. Only recorded at Amanwana Bay and Tanjung Pasir.

**Pernis ptilorhyncus** Oriental Honey-buzzard
Sumbawa I. – Scarce. One at Babar, Selah Legium on 8 August and a pair at Gunung Olet Sangenges on 16 August 1993. These are the first records for Sumbawa and the birds probably belong to one of the Sundaic races *P. p. torquatus* or *P. p. ptilorhyncus*.

**Elanus caeruleus** Black-winged Kite

**Milvus migrans affinis** Black Kite
Sumbawa I. – Three edge of lake at Meraran on 22 May and one over roads and fires on 13 May 1988. The first records for Sumbawa.

**Haliastur indust intermedius** Brahminy Kite
Sumbawa I. – Common. Ones, twos and groups (up to 24). Recorded at Alas, Meraran, Selah Legium, Maluk, Taliwang, Sumbawa Besar, Belo, Dahu, Mangal, tidal flats and beaches. Nest with 2 eggs (one chipping) 9 m up in a *Sonneratia alba* on seaward edge of mangal at Sebotok on 7 November 1988.

**Ixobrychus sinensis** Yellow Bittern
Sumbawa I. – Moderately common at a large freshwater lake at Meraran in May 1988. Mainly in Typha, lilies and water hyacinth. Nest with one nestling found in Typha on 13 May. This is the first record for Sumbawa and the first breeding record for Nusa Tenggara. Previously thought to be only a migrant to Wallacea, however, small breeding populations have been found in areas with a large influx of migrants e.g. Sri Lanka, the Philippines and Java (Hancock and Elliott 1978).
and one inland at 1250 m at Gunung Olet Sangenges on 18 August 1993. Also one on islet between Sumbawa and Lombok on 29 May 1988.


**Circaetus gallicus** Short-toed Eagle

Sumbawa I. – One record of two birds at Babar, Selah Legium on 5 August 1993.

**Accipiter fasciatus wallacii** Brown Goshawk

Sumbawa I. – Common to moderately common. Ones and twos recorded at Babar (Selah Legium), Gunung Olet Sangenges, Dahu and Sumbawa Besar. Rainforest and riverine forest. A female from Sumbawa Besar in MZB collection.

Moyo I. – Two in rainforest at Brang Kua on 10 November and a pair building a nest 13 m up in Erythrina in vine forest at Tanjung Pasir in November 1988. Also recorded at Amanwana. The stomach of a male collected at Brang Kua contained a lizard Sphenomorphus.

Sangeang I. – One hunting over prickly Acacia-Zizyphus scrub on 21 October 1988.

**Accipiter novaehollandiae sylvestris** Grey Goshawk

Sumbawa I. – Uncommon. Recorded during July–August 1993 at all three sites in Selah Legium complex and at Gunung Olet Sangenges up to 900 m. Mainly in rainforest but also moist deciduous monsoon forest. Two specimens from Sumbawa Besar in MZB collection.

Moyo I. – One in coconut palms at Sebotok on 7 November 1988. Also observed in several locations around the island by B. Lees between 1992 and 1995.

**Accipiter gularis** Japanese Sparrow-hawk

Sumbawa I. – One at Batu Hijau on 27 July and two on 28 July 1993. This is a common Palaearctic winter visitor to South-East Asia but there are few records for the Lesser Sundas and these are the first for Sumbawa.

**Hieraaetus fasciatus** Bonelli’s Eagle

Sumbawa I. – Rare. Two just east of Maluk on 9 August 1993.

**Hieraaetus kinnerii** Rufous-bellied Eagle

Sumbawa I. – Rare. Three records at Batu Hijau and one at Gunung Olet Sangenges in July–August 1993. The first records for Sumbawa and this species is listed by White and Bruce (1986) as scarce and local in Wallacea.

**Spizaetus cirrhatus floris** Changeable Hawk-eagle

Sumbawa I. – Rare. One at Gunung Olet Sangenges on 15 August 1993 and a male from Batu Dulang in MZB collection. This subspecies is restricted to Flores, Sumbawa and Paloe, and is isolated from the nearest breeding birds in South-East Asia.

**Falconidae**

**Falco moluccensis microbulla** Spotted Kestrel

Sumbawa I. – Moderately common. Ones and twos. Recorded at Meraran, Belo, Babar, Selah Legium, Maluk, Batu Tering, the footslopes of Gunung Olet Sangenges, Sumbawa Besar, Dompu, Waworada and Batu Dulang. Forests, woodlands, near large bat caves, lowland open country and around villages. Pair entering a hollow 25 m up in huge tree in rainforest at Batu Dulang (alt. 800 m) on 4 November 1988.

A male from Dompu in MZB collection.

Moyo I. – Scarce. Ones and twos at Amanwana, Labuan Aji, Sebotok, Brang Kua and Tanjung Pasir. Coconut plantations, rice fields and over burnt areas.

**Falco cenchroides** Australian Kestrel

Sumbawa I. – One at Sekongkong, western Sumbawa (8°59'S, 116°45'E) on 1 August 1993. The first record for Sumbawa.

**Falco longipennis** Australian Hobby

Sumbawa I. – Scarce or uncommon. Six sightings, mostly of single birds at Selah Legium, Batu Tering, near Dompu and at Batu Dulang. Over villages and rice fields.

Moyo I. – Two observations of a single bird hunting over low prickly Zizyphus and coastal cliffs at Tanjung Pasir.

**Anatidae**

**Dendrocygna javanica** Lesser Whistling Duck


**Anas gibberifrons** Grey Teal

Moyo I. – Several observations of two birds on brackish coastal pools at Tanjung Pasir.

**Megapodidae**

**Megapodus r. reinwardt** Orange-footed Scrubfowl

Sumbawa I. – Scarce or rare. Only recorded at Belo and at Batu Hijau and RF2, Selah Legium. Ones and twos in lowland rainforest and prickly vine forest.

Moyo I. – Moderately common. Recorded at Brang Kua and Tanjung Pasir. Rainforest, creekside forest and prickly coastal scrub. Birds were active on mounds in November.

Sangeang I. – Scratchings probably made by this species were found along a creek with dense vine forest.

**Phasianidae**

**Gallus varius** Green Junglefowl

Sumbawa I. – Moderately common to very common and widespread. Recorded at Merante, three sites in Selah Legium, Gunung Olet Sangenges, Belo, Batu Tering, Desa Sangeang, Waworada, Dahu, near Dompu, Batu Dulang and near Sumbawa Besar. Sea level to 1500 m. Mossy forest, rainforest, vine forest, bamboo thickets and open woodland. More often heard than seen. A downy chick collected at Waworada on 27 October 1988.

Moyo I. – Locally moderately common but generally scarce. Calling at Brang Kua and Tanjung Pasir in 1988, also recorded in a number of localities by B. Lees between 1992 and 1995.
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Sangeang 1. – Scarce. Thickets and scrubs.

**Turnicidae**

*Turnix maculosa floresiana*  Red-backed Button-quail


Sangeang 1. – A small quail probably this species was flushed from a grassy flat with prickly *Acacia* on 21 October.

*Turnix suscitator powelli*  Barred Button-quail

Sumbawa 1. – A female from Sumbawa Besar in MZB collection.

Moyo 1. – One probably this species flushed from strand zone on beach at Sebotok on 8 November and another from grassland at Brang Kua on 10 November 1988.

Sangeang 1. – An adult and chick trapped in grassland.

**Rallidae**

*Rallina fasciata*  Red-legged Crake

Sumbawa 1. – Two edge of freshwater lake at Meraran on 13 May 1988, one in wet grass on the edge of a flooded rice field at Belo on 17 May 1988 and one mist-netted in lower montane forest at c. 550 m at Gunung Olet Sangenges on 16 August 1993. The first records for Sumbawa.

*Porzana cinerea*  White-browed Crake

Sumbawa 1. – Ones and twos at Meraran in May 1988. Freshwater lake with lilies, bulrushes and water hyacinth.

*Amaurornis phoenicurus leucomelanus*  White-breasted Waterhen


*Porphyrio porphyrio*  Purple Swamphen


*Gallinula tenebrosa*  Dusky Moorhen

Sumbawa 1. – One, probably this species observed on a freshwater lake at Meraran on 13 May 1988.

*Gallinula chloropus*  Common Moorhen

Sumbawa 1. – Two on freshwater lake at Meraran on 12 and 13 May 1988. Both were adults with black upperparts, white flanks and red base to bill. White and Bruce (1986) list a juvenile collected in May.

**Jacanidae**

*Irediparra gallinacea*  Comb-crested Jacana

Sumbawa 1. – Up to six at freshwater lake, Meraran in May 1988. Feeding among lilies and water hyacinth.

**Charadriidae**

*Pluvialis squatarola*  Grey Plover

Sumbawa 1. – One on coastal flats near Bima on 19 October 1988 and one adult on mudflats at Sape on 21 August 1993. First records for Sumbawa.

Moyo 1. – Ones, twos and once a loose group of 8 at Tanjung Pasir in November 1988.

*Pluvialis fulva*  Pacific Golden Plover

Sumbawa 1. – Two on tidal flats at Desa Sebotok on 6 November 1988.

*Charadrius peronii*  Malaysian Plover

Sumbawa 1. – Uncommon along the northern coast. Six on a muddy beach near Maluk on 9 August 1993, three near Sumbawa Besar on 11 August and two on mudflats at Sape on 21 August 1993; also two birds probably *C. peronii* observed twice at edge of mangal, Teluk Santong in May 1988.

*Charadrius leschenaultii*  Greater Sand-plover

Sumbawa 1. – Scarce or uncommon. One 5 km east of Alas on 9 August 1993, four probably this species near same place on 11 August, and at least six on mudflats at Sape on 21 August 1993. Also recorded by Gibbs (1990) at Taliwang in December 1989. The first records for Sumbawa.

Moyo 1. – Two possibly *C. leschenaultii* on mud flats at Desa Sebotok on 6 November 1988.

**Scolopacidae**

*Numenius phaeopus*  Whimbrel

Sumbawa 1. – One on mudflats near Bima on 19 October 1988, and one on a beach 5 km east of Sumbawa Besar on 10 August 1993. A passage migrant and winter visitor to Wallacea.


*Numenius madagascariensis*  Far-Eastern Curlew

Sumbawa 1. – Two 5 km east of Alas on 9 August 1993. The first records for Sumbawa.

*Limosa lapponica*  Bar-tailed Godwit

Sumbawa 1. – Three on mudflats near Alas on 28 May, and one on a beach near Waworada on 27 October 1988. The first records for Sumbawa. A passage migrant and winter visitor to Wallacea.

Moyo 1. – One on a tidal flat at Sebotok on 6 November 1988.

*Tringa totanus*  Common Redshank

Sumbawa Is. – three on mudflats at Sape on 21 August, 1993.

Moyo 1. – Two on beach at Tanjung Pasir on 12 November 1988. The first records for the Sumbawa region.

*Xenus cinereus*  Terek Sandpiper

Sumbawa 1. – Two on mudflats at Sape on 21 August 1993. The first record for Sumbawa.
Heteroscelus brevipes Grey-tailed Tattler
Moyo I. – Moderately common. Tidal flats and beaches.

Tringa hypoleucos Common Sandpiper
Sumbawa I. – Moderately common. Regularly observed on beaches, mudflats and rocky shores along the northern coast.
Sangeang I. – One on coastal rocks and one on a beach.

Recurvirostridae
Himantopus leucocephalus White-headed Stilt

Phalaropodidae
Phalaropus lobatus Red-necked Phalarope
Moyo I. – Four feeding on calm sea in strait between Tanjung Pasir (Moyo I.) and Sumbawa I. on 14 November 1988.

Burhinidae
Esacus magnirostris Beach Stone Curlew
Moyo I. – One on reef at Tanjung Pasir on 14 November 1988, also recorded in ones and twos at Amanwana Bay and along the east coast by B. Lees between 1992 and 1995.

Laridae
Sterna anaethetus Bridled Tern
Sumbawa I. – A total of 149 birds offshore east of Sape on 21 August 1993.
Sterna albifrons sinensis Little Tern
Sumbawa I. – Flocks of 100, 50, 20, 10, 30 and 100 were recorded flying north between Lombok and Sumbawa on 18 October 1988. This region is part of the migration flyway between South East Asia and its winter quarters in northern Australia. Small numbers also breed in the eastern Lesser Sundas.
Sterna bergii Great Crested Tern

Sterna bengalensis Lesser Crested Tern

Cygis alba White Tern
Sumbawa I. Two offshore east of Sape on 21 August 1993. The first record for Sumbawa and for Wallacea (White and Bruce 1986).

Columbidae
Treron floris Flores Green Pigeon
Sumbawa I. – One in lowland semi-evergreen forest at 550 m at Batu Hijau, Selah Legium on 30 July 1993.

Treron vernans Pink-necked Green Pigeon
Sumbawa I. – Two in low prickly scrub on a dry hill at Desa Sangeang on 20 October 1988; moderately common in rainforest at Waworoda, small flocks flying high and fast over forest. Breeding March–May (White and Bruce 1986).
Moyo I. – Two feeding on fruits of Eugenia cummini and another two in Ficus and Terminalia at Sebotok in November 1988.
Sangeang I. Moderately common. Ones, twos and small flocks (up to 50). Prickly Zizyphus and Acacia also creekside vegetation with fruiting trees especially Ficus.
Previously recorded only from Lombok I. and Sumbawa I.

Dueula aenea polia Green Imperial Pigeon
Sumbawa I. – Uncommon to very common, in pairs and small groups. Recorded at Sumbawa Besar.

Dueula melanospila Black-naped Fruit Dove
Sumbawa I. – Locally moderately common to common but generally scarce. Recorded in montane forest at 1150 m at Batu Dulang in November 1988, at two sites in lowland semi-evergreen rainforest at Selah Legium in August 1993 and at Gunung Olet Sangenges in August 1993. At the latter common in lower montane forest from 800 m to 1000 m and abundant in montane forest from 1000 to 1500 m. Mainly pairs and small groups. Call a loud ‘how-wow’ or ‘coowoop’.

Dueula melanospila Black-naped Fruit Dove
Sumbawa I. – Uncommon. Two in canopy of rainforest at Waworada in October 1988, also recorded at Gunung Olet Sangenges and at three sites at Selah Legium during July–August 1993. Mainly moist deciduous monsoon forest, semi-evergreen forest, lowland forest and lower montane forest, from 50 m to 700 m.
Moyo I. – Two in a coastal thicket with Tamarindus, Sesbania and Eugenia.

Ducula aenea polia Green Imperial Pigeon
Sumbawa I. – Uncommon to very common, in pairs and small groups. Recorded at Sumbawa Besar,
Merente, Belo, Gunung Olet Sangenges, three sites in Selah Legium and Dahu. Recorded up to 850 m. Most common in lowland semi-evergreen rainforest, less frequent in moist deciduous monsoon forest below 100 m and in lower montane forest above 600 m.

Recorded at Amanwana, Sebotok and Brang Kua. Rainforest especially areas with fruiting trees including Eugenia cummini and Ficus. Also observed flying between Tanjung Pasir and Sumbawa I.

**Ducula lacernulata** Dark-backed Imperial Pigeon

Sumbawa I. – Common above 850 m in montane forest at Gunung Olet Sangenges during August 1993. Recorded up to 1700 m. Mostly in upper montane ridge-top forest. A pair carrying nesting material at 1460 m on 15 August. The first records for Sumbawa.

**Ducula bicolor** Pied Imperial Pigeon

Moyo I – Rare. Several flocks observed by R. Lees at Labuan Aji between 1992 and 1995.

**Columba vitiensis** Metallic Pigeon

Sumbawa I. – Status uncertain. Rare in lowland semi-evergreen forest at Batu Hijau, in moist deciduous monsoon forest at Babar and in upper montane forest at 1250 m at Gunung Olet Sangenges. Presumably rare, but widespread and inhabiting a variety of forest types.

**Macropygia emiliana** Ruddy Cuckoo-dove

Sumbawa I. – Status uncertain. Rare in lowland semi-evergreen forest at the two sites at Selah Legium and in lower montane forest below 1000 m at Gunung Olet Sangenges; but common in upper montane forest (up to 1600 m) at Gunung Olet Sangenges.

Sangeang I. – Four in a Ficus thicket along a gully on 23 October.

**Macropygia ruficeps orientalis** Little Cuckoo Dove

Sumbawa I. – One probably this species in mossy rainforest at 1150 m near Batu Dulang in November 1988. Breeding recorded in May (White and Bruce 1986). A male from Batu Dulang in MZB collection.


**Speroptelia bitorquata** Island Collared Dove


**Speroptelia chinensis tigrina** Spotted Dove

Sumbawa I. – Common and widespread. Recorded at Alas, near Sumbawa Besar, Merente, Belo, Gunung Olet Sangenges, Maluk, Babar, Teluk Santong, Batu Tering, Sangeang and Dahu. Mainly in and around cultivation but also open coastal woodland, open Acacia scrub and riverine vegetation. From sea level to c. 800 m. Listed as breeding from March to May (White and Bruce 1986).

Moyo I. – Moderately common. Recorded at Labuan Aji, Desa Sebotok, Brang Kua and Tanjung Pasir. Creekside vegetation, edges of rainforest, burnt areas and prickly coastal scrub.

Sangeang I. – Common. Groups of up to 100 drinking from seepages on beaches. Also open forest and woodland.

**Geopelia striata maugei** Timor Zebra Dove

Sumbawa I. – Common. Recorded at Belo, Babar, Teluk Santong, Waworada, Maluk, Sura I, and Dahu. Edges of forest and mangal, along creeks also rice fields, gardens, scrub and road verges below 100 m. Breeding April-July (White and Bruce 1986).

Moyo I. – Moderately common. Recorded at Labuan Aji, Sebotok and Brang Kua. Edges of mangal, gardens and open woodland.

Sangeang I. – Common. Ones, twos and flocks of up to 50 drinking at fresh water seepages on beach. Also coastal scrubs and woodlands.

**Chalcophaps indica indica** Green-winged Pigeon

Sumbawa I. – Scarce or uncommon. Recorded at Batu Tering at three sites at Selah Legium and at Gunung Olet Sangenges. Creekside forest, bamboo thickets, lowland semi-evergreen and moist deciduous monsoon forest, and lower montane forest (up to 850 m). Rare in upper montane forest.

Moyo I. – Scarce. Only recorded at Sebotok. Coastal vine thickets and mangal.

Sangeang I. – One in creekside forest.

**Caloenas nicobarica** Nicobar Pigeon

Sumbawa I. – Scarce. One flushed from edge of open forest at Belo on 17 May 1988 and three records of possibly the same individual in semi-evergreen lower montane forest at 450 m at Batu Hijau, Sele Legium in August 1993. Also a female from Taliwang in MZB collection.


**Psittacidae**

**Trichoglossus haematodus forsteni** Rainbow Lorikeet

Sumbawa I. – Uncommon to moderately common in small flocks (up to 8). Recorded at Alas, Sumbawa Besar, Merente, Belo, RF2, Babar, Waworada and Batu Dulang. Coastal lowlands, moist deciduous monsoon forest and rainforest to 1150 m. Nomad attracted to flowering trees.

**Cacatua sulphurea parvula** Yellow-crested Cockatoo

Sumbawa I. – Rare. One in semi-evergreen rainforest at Merente on 11 May 1988; a pair in tall riverine forest dominated by the tree Diuabanga malucensis at RF2, Selah Legium on 5 August 1993 and one at same place the following day. This parrot appears to be close to extinction on Sumbawa.

Moyo I. – Moderately common. Small groups (up to 5) recorded at Brang Kua and Tanjung Pasir. Rainforest and gardens.
Geoffroyus geoffroyi floresianus Red-cheeked Parrot

Sumbawa I. – Locally common, e.g. at Gunung Olet Sangenges, at three sites at Selah Legium and at Waworada and Dahu, elsewhere scarce. Lowland semi-evergreen and moist deciduous monsoon forest below 550 m (uncommon above 550 m to 700 m), also woodland and sometimes village gardens.

Cuculidae

Cuculus saturatus Oriental Cuckoo

Sumbawa I. – Rare. One in bamboo thicket near Dompu on 1 November 1988; listed as rare in moist deciduous monsoon and lowland semi-evergreen forest at RF2 and Babar, Selah Legium in August 1993; and rare in lowland semi-evergreen and montane forest (up to 1400 m) at Gunung Olet Sangenges in August 1993. Both migrant C. s. saturatus and resident C. s. lepidus are recorded for this island.


Cuculus sepulchralis Rusty-breasted Cuckoo

Sumbawa I. – Recorded as rare in lowland semi-evergreen forest below 550 m, but common in montane forest up to 1500 m at Gunung Olet Sangenges in August 1993.

Sangeang I. – One in creekside forest on 23 October 1988.

Chrysococcyx lucidus Shining Bronze-cuckoo

Sumbawa I. – Rare. Only recorded at three sites at Selah Legium and at Gunung Olet Sangenges in August 1993. Moist deciduous monsoon forest and lowland semi-evergreen forest below 550 m.

Eudynamys scolopacea Asian Koel


Moyo I. – Moderately common. Ones and twos. Recorded at Sebotok, Brang Kua and Tanjung Pasir. Mangal, forest with fruiting trees and open prickly Zizyphus.

Centropus bengalensis javanensis Lesser Coucal

Sumbawa I. – Locally moderately common. Recorded at Batu Tering, Meraran, Belo, two sites at Selah Legium, Batu Hijau, Babar, Sangeang, Waworada, Dahu, Batu Dulang and Dompu. Tall grass, gardens, Lantana thickets, lowland semi-evergreen forest, scrub and edges of rainforest. From coasts to 1150 m.


Tytonidae

Tyto alba Barn Owl


One specimen (spirit), length 33 cm, weight 294 g.


Strigidae

Otus magicus albiventris Moluccan Scops Owl

Sumbawa I. – One collected from open forest at Waworada and two netted in gardens with coconut palms, bamboo and kapok at Dahu in October 1988.

Otus silvicola Wallace’s Scops Owl

Sumbawa I. – Status uncertain. A total of seven birds heard calling in lowland semi-evergreen rainforest at 500-550 m at Batu Hijau, Selah Legium and at 450 m at Gunung Olet Sangenges, and one in upper montane forest at 1350 m at the latter site. Also a male from Dompu in MZB collection.

Caprimulgidae

Caprimulgus macrurus Large-tailed Nightjar

Sumbawa I. – Four edge of forest at Batu Tering in May 1988, one calling from a clearing in rainforest at Batu Dulang (1150 m) in November 1988 and two sightings of single birds in a forest clearing at Batu Hijau, Selah Legium in July and August 1993.

Caprimulgus affinis Savanna Nightjar


Sangeang I. – One on open grassy flat on 22 October 1988. Call ‘sketch’ or ‘tweetch’.

Apodidae

Aerodramus fuciphagus Edible-nest Swiftlet

Sumbawa I. – Locally common but generally uncommon. Five collected from an old Japanese tunnel at 800 m near Batu Dulang in November 1988. Common at three sites at Selah Legium and at Gunung Olet Sangenges (mainly below 1000 m). About 50,000 at Lake Taliwang on 9 August 1993.

Collocalia esculenta Glossy Swiftlet

Sumbawa I. – Common to very common. From sea level to 1250 m. Recorded at Alas, Merente, Belo, Selah Legium, Maluk, Gunung Olet Sangenges, Sumbawa Besar, Batu Tering, Dahu and Batu Dulang. Breeding at Belo in May 1988.

Sangeang I. – Common. Seven collected from a small cave.

Hirundapus caudacutus White-throated Needletail

Moyo I. – Two dashing low over the coast during a thunderstorm at Tanjung Pasir on 13 November 1988. The first record for the Sumbawa region.

Cypsiurus balasiensis Asian Palm Swift

Sumbawa I. – Four, probably this species, were flushed from the dead skirt of a coconut palm at
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Sumbawa Besar on 5 November 1988. White and Bruce (1986) list unconfirmed reports from Komodo, Rinca and Flores I.

Moyo I. - Two flushed twice from fronds of a coconut palm at Sebotok on 8 November 1988.

Alcedinidae

Alcedo atthis floresiana Common Kingfisher

Sumbawa I. - Uncommon. Recorded in riverine forest at RF2 and Babar, Selah Legium in August 1993. Also a male from Sumbawa Besar in MZB collection.

Alcedo meninting Blue-eared Kingfisher


Alcedo coerulescens Small Blue Kingfisher

Sumbawa 1. - Locally moderately common e.g. in mangal at Teluk Santong, elsewhere scarce. Also recorded at Meraran at edge of swamp and at Empang.

Ceyx erithacus Oriental Dwarf Kingfisher

Sumbawa 1. - Uncommon in riverine forest at three sites at Selah Legium (up to 550 m), and a single record at 650 m at Gunung Olet Sangenges in August 1993.

Halycon capensis floresiana Stork-billed Kingfisher

Sumbawa I. - Scarce or rare. One in mangal at Teluk Santong on 23 May 1988, also recorded in riverine forest at three sites at Selah Legium and at Gunung Olet Sangenges in August 1993. Most records below 550 m one at 870 m.

Halycon sancta Sacred Kingfisher

Sumbawa 1. - Common. Ones and twos. Recorded at Teluk Santong, Bima, Sangeang and Waworada in May 1988 and along the coast from Maluk to Sape. Probably mostly winter visitors from Australia, records in May, July-August and October-November. A flock of 100 flying northerly over Merente on 15 May 1988 and a flock of 300 roosting in mangal at Teluk Santong on 21 May 1988. Some breeding may also occur in the region. A freshly dug but empty nest burrow was found on an open grassy flat at Sangeang on 20 October 1988. Breeding occurs in north Western Australia in October-February.

Moyo 1. - Common along edge of mangal at Sebotok, also recorded at Tanjung Pasir.

Sangeang 1. - Scarce. Two on 22 October and 4 on 23 October 1988.

Merops philippinus Blue-tailed Bee-eater

Sumbawa 1. - Scarce. Recorded at Alas and Meraran in 1988, and two 5 km east of Sumbawa Besar on 10 August 1993.

Moyo 1. - Scarce. Migratory flocks observed by R. Lees at Labuan Aji, mainly August-October.

Coraciidae

Eurystomus orientalis Common Dollarbird

Sumbawa I. - Status uncertain. Two in riverine forest at Dahu on 31 October 1988, one near Dompu in November 1988 and at three sites at Selah Legium and at Gunung Olet Sangenges in August 1993. Mangal, village gardens, open woodland and edges of forest. Mainly a winter visitor from Australia.

Moyo I. - Scarce. One in mangal at Sebotok on 7 November 1988, also recorded at Tanjung Pasir and Amanawan between 1992 and 1995.


Pittidae

Pitta elegans concinna Elegant Pitta

Sumbawa I. - Locally moderately common to 1460 m at Gunung Olet Sangenges and at three sites at Selah Legium in August 1993. Most frequent in primary semi-evergreen forest (particularly in lower montane forest at Gunung Olet Sangenges), but also recorded in moist deciduous monsoon forest and forest edges. A female from Bau Dulang in MZB collection.

Meropidae

Merops ornatus Rainbow Bee-eater

Sumbawa I. - Common in pairs and flocks (up to 300). Recorded at Alas Batu Tering, Merente, near Taliwang, Belo, Batu Hijau, Maluk, Gunung Olet Sangenges, near Sumbawa Besar, Batu Dulang, Teluk Santong, Sangeang, Waworada and near Sape. Probably mostly winter visitors from Australia, records in May, July-August and October-November. A flock of 100 flying north over Merente on 11 May 1988 and a flock of 300 roosting in mangal at Teluk Santong on 21 May 1988. Some breeding may also occur in the region. A freshly dug but empty nest burrow was found on an open grassy flat at Sangeang on 20 October 1988. Breeding occurs in north Western Australia in October-February.

Moyo I. - Common along edge of mangal at Sebotok, also recorded at Tanjung Pasir.

Sangeang 1. - Scarce. Two on 22 October and 4 on 23 October 1988.

Pittelidae

Pitta elegans concinna Elegant Pitta

Sumbawa I. - Locally moderately common to
common. Recorded at Merente, near Alas, Belo, Batu Dulang, at three sites at Selah Legium and at Gunung Olet Sangenges. Recorded from 30-1350 m. Common in logged forest, frequent in primary semi-evergreen and moist deciduous monsoon forest, uncommon in upper montane forest. Three mist-netted birds had brood patches on 2, 13 and 14 August.

**Alaudidae**

*Mirafra javanica* Singing Bushlark

Sumbawa 1. - Scarce. One on a bare rice field at Belo on 15 and 16 May and one on a grassy flat with prickly Acacia at Sangeang on 20 October 1988.

**Hirundinidae**

*Hirundo rustica gutturalis* Barn Swallow

Sumbawa 1. - A flock of 25 circling Bima on 19 October 1988, common in small flocks in Teluk Sumbawa on 6 November 1988 and one at Babar, Selah Legium on 8 August 1993. These are the first records for Sumbawa.

Moyo 1. - Moderately common in small flocks in and around Sebotok in November.

Sangeang 1. - Two over village on 22 October.

*Hirundo tahitica javanica* Pacific Swallow

Sumbawa 1. - Scarce. Ones and twos noted at Belo, Teluk Santong and Dompu in May and October 1988, and at Batu Hijau, Selah Legium, Maluk and 5 km east of Sumbawa Besar in August 1993.

**Motacillidae**

*Anthus novaeseelandiae* Richard's Pipit

Sumbawa 1. - Locally moderately common in ones, twos and small groups (up to 6). Recorded at Teluk Santong and Sangeang. Coastal grassy flats.

Moyo 1. - Scarce. Recorded at Labuan Aji, Sebotok and Tanjung Pasir. Open woodland and prickly coastal scrub.

Sangeang 1. - Scarce. Open scrub and village gardens.

**Campephagidae**

*Coracina personata* Wallacean Cuckoo Shrike

Sumbawa 1. - Uncommon. Ones and twos. Recorded at Merente, near Alas, Belo, Batu Tering, Batu Hijau, Gunung Olet Sangenges and Batu Dulang. Mainly open woodland also lowland semi-evergreen rainforest.

*Coracina dohertyi* Sumba Cicadabird

Sumbawa 1. - Status uncertain. Two at 250 m at RF2, Selah Legium on 5 August 1993, and frequent at 800-950 m at Gunung Olet Sangenges on 15-18 August 1993. All were in semi-evergreen rainforest. The first records for Sumbawa.

*Lalage sueurii sueurii* White-winged Triller


Moyo 1. - One in mangal at Sebotok on 7 November.

Sangeang 1. - Pair in open woodland on 21 October and one on 22 October 1988.

**Laniidae**

*Lanius cristatus* Brown Shrike

Moyo 1. - A male collected from open woodland at Sebotok on 8 November 1988. Presumably a vagrant from northern Asia. The first record for the Sumbawa region.

*Lanius schach bentet* Long-tailed Shrike

Sumbawa 1. - Moderately common. Recorded at Sumbawa Besar, Empang, Teluk Santong, Waworada and Sangeang. Also along northern coast from Maluk, through Taliwang and Sumbawa Besar to Sape. Open woodland and cultivated areas.

*Saxicola oprastra fruticola* Pied Bushchat

Sumbawa 1. - Locally moderately common in ones and twos. Recorded at Sumbawa Besar, Meraran, Belo, Babar, northern and western coasts from Maluk to Sape, Dompu, Waworada and Wavo. Mainly open coastal habitats, cultivated areas and edges of wetlands.

Moyo 1. - Scarce. Recorded at Labuan Aji, Sebotok and Tanjung Pasir. Open woodland and prickly coastal scrub.

Sangeang 1. - Scarce. Open scrub and village gardens.

**Turdidae**

*Zoothera interpres* Chestnut-capped Thrush

Sumbawa 1. - Scarce or uncommon. Only recorded at Gunung Olet Sangenges and a single record from Batu Hijau, Selah Legium. Mainly lowland semi-evergreen forest and lower montane forest from 450 m to 850 m. Birds were in full song in July-August 1993 and a juvenile seen on 14 August. Apparently replaced by *Z. dohertyi* at higher altitude.

*Zoothera dohertyi* Chestnut-backed Thrush

Sumbawa 1. - Locally moderately common but generally rare. Rare at Batu Hijau, Selah Legium and below 500 m at Gunung Olet Sangenges, but common above this altitude at the latter site. Mainly closed-canopy semi-evergreen forest with fruiting trees between 750 and 950 m. Rarely in degraded forest. Birds were singing in July-August. A female from Batu Dulang in MZB collection.
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Zoothera andromedae Sunda Thrush
Sumbawa 1. – One at 450 m in closed semi-evergreen forest at Batu Hijau, Selah Legium and four (including two mist-netted) at 550–850 m at Gunung Olet Sangenges in August 1993. These are the first records for Sumbawa.

Sylviidae

Tesia everetti sumbawana Russet-capped Tesia
Sumbawa 1. – Locally common. Only recorded at Batu Dulang, Gunung Olet Sangenges and at Batu Hijau and RF2, Selah Legium. Recorded from 200 m to 1700 m though slightly less common at higher altitudes. Favours the dense undergrowth of rainforest, bamboo thickets and dense riverine forest. Individuals were observed carrying nesting material at Batu Hijau on 29 July 1993.

Acrocephalus stentoreus Clamorous Reed Warbler
Sumbawa 1. – Only recorded at Meraran wetlands where it was moderately common in Typha and lilies. An adult male collected on the 14 May had a weight of 21 g, total length 119 mm and wing 77 mm. It has a heavier bill and is paler and more streaked on the throat and breast than Western Australian populations.

Phylloscopus borealis Arctic Warbler
Sumbawa 1. – Two males in MZB collection.

Phylloscopus trivirgatus trivirgatus Mountain Leaf-Warbler
Sumbawa 1. – Three feeding in canopy of rainforest at Batu Dulang 1150 m on 3 November 1988.

Seicercus montis Yellow-breasted Warbler
Sumbawa 1. – One feeding in canopy of rainforest at Batu Dulang 1150 m on 4 November. First record for Sumbawa.

Cisticola juncidis Zitting Cisticola
Sumbawa 1. – Two adults and 3 fledged chicks in tall grass at Teluk Santong on 23 May 1988 and one in grassland at Sumbawa Besar on 10 August 1993. Also a specimen in MZB collection from Wawo.

Moyo 1. – Moderately common. Recorded at Sebotok and Tanjung Pasir. Mangal, vine forest and woodland.

Sangeang 1. – A female collected from a coastal Ficus thicket on 22 October.

Rhipiduridae

Rhipidura diluta sumbawensis Brown-capped Fantail
Sumbawa 1. – Locally moderately common e.g. at Waworada, Batu Dulang, Selah Legium and Gunung Olet Sangenges (up to 1700 m). Recorded in all forest types, including heavily degraded habitat. Most frequent in forest with an extensive understorey, along streams and in small clearings with dead vegetation lying on the ground.

Sangeang 1. – One in a Ficus thicket near coast on 22 October.

Pachycephalidae

Pachycephala pectoralis fulvotincta Common Golden Whistler
Sumbawa 1. – Common to moderately common. Recorded at Merente, Belo, Selah Legium, Gunung Olet Sangenges, Batu Tering, Batu Dulang, Waworada, Dahu and Dompu. All forest habitats from 20–850 m including rainforest, bamboo thickets and cultivated areas.

Sangeang 1. – Scarce. Pair in open scrub along a creek on 22 October.

Pachycephala nudigula ilsa Bare-throated Whistler
Sumbawa 1. – Common in semi-evergreen forest at Batu Hijau and RF2, Selah Legium, and at Gunung Olet Sangenges during July–August 1993. Recorded from 200–1700 m. Mainly montane and riverine forest. Tolerant of habitat degradation only where the forest retained a closed canopy. This subspecies is endemic to Sumbawa.

Paridae

Parus major cinereus Great Tit
Sumbawa 1. – Scarce. Ones and twos. Recorded at
Gunung Olet Sangenges, Batu Tering, Batu Dulang, Waworada and Sangeang. Mainly open woodland, village gardens, also semi-evergreen rainforest, moist deciduous monsoon forest and scrub with scattered trees.

**Dicaeidae**

*Dicaeum annae* Golden-rumped Flowerpecker

Sumbawa I. - Locally moderately common but generally scarce or uncommon. Recorded at three sites at Selah Legium, also at Gunung Olet Sangenges, Merente, near Alas and at Batu Dulang. Mainly closed canopy semi-evergreen rainforest also cultivated areas with patches of rainforest. Recorded from 40 m to 1530 m, most frequent below 1000 m. Three birds with brood patches were mist-netted in early August, indicating breeding.

*Dicaeum agile* Thick-billed Flowerpecker

Sumbawa I. - Uncommon. Recorded at Batu Hijau, Selah Legium, at Gunung Olet Sangenges and at Babar in July–August 1993. Noted from 50–700 m and most records were from moist deciduous monsoon forest and scrub with scattered trees. The first records for Sumbawa.

*Dicaeum igniferum* Black-fronted Flowerpecker

Sumbawa I. - Common to moderately common. Recorded at Merente, three sites at Selah Legium, Gunung Olet Sangenges, near Alas, Batu Tering, Batu Dulang and Teluk Santong. Noted from 50–1730 m but rare in upper montane forest. Rainforest, degraded forest, monsoon forest, cultivated areas and woodland. Breeding noted in July–August 1993.

Moyo I. - Uncommon. Ones and twos recorded at Sebotok and Tanjung Pasir. Mangal, rainforest and open coastal scrub.

**Nectariniidae**

*Anthreptes malacensis convergens* Brown-throated Sunbird

Sumbawa I. - Moderately common. Recorded at Merente, Batu Hijau, Babar, Gunung Olet Sangenges, near Alas, Meraran, Teluk Santong, Batu Tering, Dahu and Dompu. Mainly riverine forest, cultivated areas and scrub, less frequent in semi-evergreen forest. Noted from 20–1000 m.

Moyo I. - Uncommon. Two at Sebotok on 7 November.

*Nectarinia jugularis ornata* Olive-backed Sunbird

Sumbawa I. - Common. Recorded at Sumbawa Besar, Merente, Batu Hijau, Babar, footslopes of Gunung Olet Sangenges, near Alas, Belo, Batu Dulang, Batu Tering, Teluk Santong, Sangeang, Waworada and Dahu. Mainly cultivated areas, edges of rainforest, logged forest, riverine forest and open woodland.

Moyo I. - Scarce. Ones and twos at Amanwana, Sebotok and Tanjung Pasir. Cultivated areas and creekside forest. Also attracted to flowering *Erythrina*.

Sangeang I. - Scarce. Open woodland.

*Nectarinia solaris* Flame-breasted Sunbird

Sumbawa I. - Scarce. Recorded near Sumbawa Besar, Merente, three sites at Selah Legium, Gunung Olet Sangenges, near Alas and at Dahu. Mainly cultivated areas, riverine forest and degraded forest. Attracted to flowering *Kurrajong* and *Erythrina*. Juveniles observed in July–August.

**Zosteropidae**

*Zosterops palpebrosus unicus* Oriental White-eye

Sumbawa I. - Very common to moderately common in small flocks (up to 20) at Batu Dulang and Gunung Olet Sangenges. Lower and upper montane semi-evergreen forest from 850–1730 m.

*Zosterops montanus* Mountain White-eye

Sumbawa I. - Six recorded at 1500–1700 m in semi-evergreen montane forest at Gunung Olet Sangenges on 16 August 1993.

*Zosterops wallacei* Yellow-spectacled White-eye

Sumbawa I. - Locally moderately common. Recorded at Merente, three sites at Selah Legium, Gunung Olet Sangenges, Batu Tering, Batu Dulang, Dompu and Wawo. From 20–800 m in cultivated areas, bamboo thickets, scrub, forest-edge and heavily degraded forest. Tolerant of very dry habitat.


*Zosterops chloris intermedius* Lemon-bellied White-eye

Sumbawa I. - Common in small flocks (up to 5). Recorded at Batu Tering, Batu Dulang, Teluk Santong, Sangeang, Waworada and Bima. Cultivated areas, mangal and open woodland.

Moyo I. - Common at Sebotok and Tanjung Pasir. Cultivated areas, coastal thickets and vine forest.

Sangeang I. - Common. Mainly small flocks. Open coastal woodland especially thickets of *Ficus*.

*Lophozosterops superciliaris hartertianus* Yellow-browed Darkeye

Sumbawa I. - Common in upper montane semi-evergreen forest between 1400 and 1700 m at Gunung Olet Sangenges in August 1993. Also a female from Batu Dulang in MZB collection. Presumably common in remaining montane forests on Sumbawa.

*Lophozosterops dohertyi dohertyi* Crested Darkeye

Sumbawa I. - Locally common but generally scarce. Recorded at Batu Dulang, Batu Hijau, Gunung Olet Sangenges and RF2 (Selah Legium), Common at sites with closed-canopy semi-evergreen rainforest between 300 and 1400 m. Only found in degraded forest where a closed canopy and extensive understorey remained. Appears to be replaced by the congeneric Yellow-browed Darkeye above 1200 m. Breeding recorded in July–August 1993.

*Heleia crassirostris* Thick-billed Darkeye

Sumbawa I. - Locally moderately common. Recorded at three sites at Selah Legium and at Gunung Olet
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Sangenges in July–August 1993. Noted from 100–1200 m. Most frequent in primary semi-evergreen rainforest and moist deciduous monsoon forest. Also in degraded forest-edge habitat and dry forest. Five mist-netted birds had brood patches and one bird was observed carrying nesting material in early August.

Estrildidae

Taeniopygia guttata guttata Zebra Finch
Sumbawa I. - Moderately common in small flocks (up to 10). Recorded at Sumbawa Besar, Belo, Batu Tering, Teluk Santong and Sangenges. Cultivated areas, open woodland and thickets of prickly Acacia.

Erythura hyperythra intermedia Tawny-breasted Parrot-Finch
Sumbawa I. - Status uncertain. Three males from Sumbawa in MZB collection.

Lonchura malacca Black-faced Munia
Sumbawa I. - Common. Mainly in small flocks (up to 20) occasionally larger flocks up to 200. Recorded at Sumbawa Besar, Merente, Meraran, Belo, Maluk, Alas, footslope of Gunung Olet Sangenges, Batu Tering, Batu Dulang, Teluk Santong, Waworada and Dahu. Cultivated areas especially rice fields, edges of wetlands, edges of forest and lowland scrub. Breeding recorded in May.
Moyo I. - Uncommon to moderately common in small flocks (up to 8). Recorded at Sebotok and Brang Kua. Coastal thickets and edges of forest.

Lonchura punctulata nisoria Scaly-breasted Munia

Lonchura pallida Pale-headed Munia
Sumbawa I. - Uncommon. Mainly small flocks (up to 20). Recorded near Sumbawa Besar, Meraran, Maluk and Teluk Santong. Cultivated areas except at Meraran they were mostly in Typha, Pragmites and lilies.

Padda oryzivora Java Sparrow
Sumbawa I. - Uncommon. Flock of six on road near Sumbawa Besar on 8 May; four bathing in creek at Batu Tering on 26 May; and several in gardens at Batu Tering on 27 May 1988.

Meliphagidae

Philemon buceroides neglectus Helmeted Friarbird
Sumbawa I. - Common. Recorded at Merene, three sites at Selah Legium, Gunung Olet Sangenges, near Alas, Belo, Batu Tering, Batu Dulang, Dahu and Waworada. Rare above 1000 m. Rainforest, vine forest and cultivated areas.
Sangeang I. - Common. Open woodland and creekside vegetation. Attracted to fruiting Ficus.

Lichmera lombokia Scaly-crowned Honeyeater
Sumbawa I. - Only recorded at Gunung Olet Sangenges in August 1993. Common in upper montane semi-evergreen forest from 1000–1700 m and uncommon in lower montane forest (800–1000 m).

Lichmera indistincta limbata Brown Honeyeater
Sumbawa I. - Common. Recorded at Sumbawa Besar, Alas, Meraran, Batu Tering, Batu Dulang and Teluk Santong. Mangal and cultivated areas.
Sangeang I. - Common. Open woodland, vine scrub along creeks and cultivated areas.

Passeridae

Passer montanus Eurasian Tree Sparrow
Sumbawa I. - Moderately common to common. Recorded at Sumbawa Besar, Meraran, Belo, Maluk, Batu Tering, Bima and Sangenges. Town gardens cultivated areas and edges of swamps. Not listed by White and Bruce (1986) for Sumbawa and thought to be a recent introduction.

Sangeang I. - Uncommon. Recorded in open woodland near villages.

Sturnidae

Aplonis minor Short-tailed Starling
Sumbawa I. - Rare. Recorded between 200 m and 1600 m at Batu Hijau and at Gunung Olet Sangenges in July–August 1993.

Gracula religiosa venerata Hill Myna
Sumbawa I. - Uncommon. Two in a bamboo thicket edge of rainforest at Batu Dulang on 5 November 1988, also recorded at Batu Hijau, Selah Legium in semi-evergreen rainforest (450–650 m) in July–August 1993.
Moyo I. - Moderately common in ones and twos. Recorded at Sebotok, Brang Kua and Tanjung Pasir. Attracted to fruiting trees especially Ficus.

Oriolidae

Oriolus chinensis broderipii Black-naped Oriole
Sumbawa I. - Common to moderately common in ones and twos. Recorded at Meraran, Belo, Batu Hijau, Babar, Gunung Olet Sangenges, Batu Tering, Batu Dulang and Dahu. Mainly lowland semi-evergreen and moist deciduous monsoon forest, riverine forest, woodland and bamboo thickets. Attracted to fruiting trees especially Ficus and Eugenia spp.
Moyo I. - Moderately common in ones and twos. Recorded at Sebotok, Brang Kua and Tanjung Pasir. Rainforest, woodland and mangal. Attracted to fruiting Ficus and Eugenia.
Sangeang I. - Moderately common in ones and twos. Vine forest.

Dicruridae

Dicrurus densus bimaensis Wallacean Drongo
Sumbawa I. - Moderately common throughout the island. Mainly in ones and twos and occasionally in small groups (up to 6). All lowland forests including
rainforest, riverine forest, vine thickets and cultivated areas. Rare in upper montane forest (up to 1430 m). Attracted to fruiting trees especially *Ficus* and *Terminalia*. Breeding; a nest with hatchlings at Dahu on 31 October.

Moyo I. – Moderately common in ones, twos and small groups (up to 8). Recorded at Amanwana, Labuan Aji, Sebotok, Brang Kua and Tanjung Pasir. Rainforest, coconut groves and low open woodland. Breeding; pair building a nest in huge leafless tree at Brang Kua on 10 November.

Sangeang I. – One in open woodland and three in a *Ficus* in October.

**Artamidæ**

*Artamus leucorhynchus albiventer* White-breasted Woodswallow

Sumbawa I. – Moderately common in small groups (up to 20). Recorded at Sumbawa Besar, Belo, Lake Taliwang, Batu Dulong, Teluk Santong, Waworada, Dompul and Dahu. Mangal, edges of wetlands, open woodland and cultivated areas especially coconut groves.

Moyo I. – Moderately common at Sebotok and Brang Kua in small groups (up to 8). Mangal and cultivated areas.

**Corvidæ**

*Corvus macrorhynchos macrorhynchos* Large-billed Crow.

Sumbawa I. – Uncommon or scarce. Ones and twos. Recorded at Teluk Santong, Empang, Sumbawa Besar and Babar. Mainly open woodland, coconut plantations, scrub and riverine forest.

Moyo I. – Scarce. Only recorded in coconut plantations at Sebotok.

**DISCUSSION**


Of these the Greater Painted Snipe is scarce and local in the Lesser Sundas; Common Greenshank and Grey Wagtail are both winter visitors from the Palearctic; Lesser Shortwing and Little Pied Flycatcher are largely confined to montane forest over 1000 m, appear to be very local in distribution and possibly confined to vicinity of Gungung Tambora; and the Island Monarch and Five-coloured Munia also appear to be fairly localised in their distribution.

Combining all records gives a total of 179 species for Sumbawa and its satellite islands. For its size and position Sumbawa has a relatively impoverished fauna when compared with Lombok 4,700 km² with about 150 species and Flores 17,000 km² with about 215 species. Few additional passerine species could be expected for Sumbawa, however more work along the coast would no doubt add many visiting waders to the list. Additional wetland birds could also be expected during visits after good seasons.

The avifauna of Sumbawa, Moyo and Sangeang Islands is typical of the western Lesser Sonda Islands having much in common with Lombok Island to the west and Flores to the east. The depauperate fauna of Sumbawa when compared to the similar sized Flores Island is no doubt partly due to the comparatively arid conditions that prevail over most of the island, especially the eastern half, and the lack of variety of habitats in general. Sumbawa does however support a number of species with high conservation importance including many listed as threatened or near threatened in Collar et al. (1994) namely: Flores Green Pigeon *Nicobar Pigeon*, Yellow-crested Cockatoo, Wallace’s Scops Owl, Sumba Cicadabird, Russet-backed Rhinomyias and
Crested Darkeye. The Flores Green Pigeon and Nicobar Pigeon favour small islands. Both are very localised in distribution and are the target of trappers. The Yellow-crested Cockatoo is now very rare on Sumbawa and moderately common on Moyo Island. On Sumbawa it has declined greatly through habitat destruction and persecution for the cage bird trade. Wallace’s Scops Owl is restricted to Sumbawa and Flores and appears to be rare on both islands. The Sumba Cicadabird was previously only known from Sumba and Flores, and the Sumbawa birds may represent an undescribed subspecies Butchart et al. (1993). The Russet-backed Rhinomyias was also only previously known from Flores and Sumba and records from Sumbawa are an important extension of range. The Crested Darkeye is restricted to Sumbawa and Flores and like the Russet-backed Rhinomyias occurs mainly in mid-level semi-evergreen rainforest. Mid-level forest is being destroyed at an alarming rate on both Flores and Sumbawa and both species do not appear to tolerate degraded forest.

Overall Sumbawa shares eight endemic species with Flores namely: Wallace’s Scops Owl, Little Minnivet, Russet-capped Tesia, Bare-throated Whistler, Golden-rumped Flowerpecker, Yellow-browed Darkeye, Thick-billed Darkeye and Crested Darkeye. Sumbawa also contains six endemic subspecies namely: Trichoglossus haematodus forsteni, Tesia everetti sumbawana, Rhipidura dilata sumbawensis, Pachycephala nudigula ilda, Lopho2osterops superciliaris hartertianus and Lopho2osterops dohertyi dohertyi.

Mayr (1944) and White and Bruce (1986) showed that from Bali east through the Lesser Sunda Islands to Alor there is a progressive decrease in birds of Asian affinities and an increase in species with Australian affinities. Sumbawa lies in this transitional zone between the Oriental and Australasian faunas. Although primarily Oriental the avifauna of Sumbawa contains a small Austro-Papuan element including the Grey Teal, Red-cheeked Parrot, Rainbow Lorikeet, Rainbow Bee-eater, Brown Honeyeater and Zebra Finch.

The migrant species visiting Sumbawa, Moyo and Sangeang can be divided into three main groups:

1. Non-breeding winter visitors from the Palearctic e.g. Grey Plover Pluvialis squatarola, Red-necked Phalarope Phalaropus lobatus, Common Sandpiper Tringa hypoleucos, Spine-tailed Swift Hirundapus caudacutus and Barn Swallow Hirundo rustica;

2. Passage migrants including many waders e.g. Grey-tailed Tattler Tringa brevipes and Bartailed Godwit Limosa lapponica;

3. Winter visitors from Australia including Australian Pelican Pelecanus conspicillatus and Rainbow Bee-eater Merops ornatus;

4. South-east Asian migrants including the Lesser Adjutant Leptoptilos javanicus and Brown Shrike Lanius cristatus.

The faunas of Moyo and Sangeang Islands are of interest because they would have been derived almost wholly from Sumbawa Island, and in both cases would have a history of extinction and acquisition caused by catastrophic volcanic eruptions. The massive eruption of Gunung Tambora in 1815 would almost certainly have devastated all the vegetation on Moyo Island, and the eruption of Gunung Api on Sangeang Island in 1986 appears to have destroyed or burnt most of the vegetation there. A total of 70 species were recorded on Moyo Island, comprising 52 species of non-passerine and 18 species of passerine, and 33 species on Sangeang comprising 19 non-passerine and 14 passerine species. Two additional species the Brahminy Kite Halicercus indus and the Great Tit Parus major are listed for Sangeang by Bruce (1987) from a brief visit of the yacht ‘Marchesa’ (Guilmard 1885).

On Moyo Island as on many other Lesser Sunda Islands non-passerine species outnumber passerines by a ratio of about 2:1. An examination of the species lists for these islands immediately shows which species are successful colonists. Many species of bird are reluctant crossers of even the narrowest stretches of water, whereas others regularly cross water gaps of many kilometres (Diamond 1974). Discounting the migrant species on both islands, the lists comprise entirely of lowland species that have colonised not only these islands but many others in the Lesser Sundas. One interesting omission from Moyo Island is the Golden Whistler. This species is widespread and moderately common on Sumbawa Island and has successfully colonised hundreds of other oceanic islands.

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