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THE BIRDS OF PULAU TINJIL

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The authors had the pleasure to be invited as guests of the manager of the Pulau Tinjil Primate Research Centre to study the birds of the island on the week-ends of 24 April, 29 May and 20 November 1988. This island is otherwise uninhabited, except for a Perhutani guard post and the temporary camps of fishermen. Landing on the island, situated about 14 km offshore from Muara Binuangeun in South Banten, is possible only at a few sites on the north coast. About 600-ha in area, the whole island is formed on coral detritus, except for one tiny hillock of about 5 meters elevation, which is presumably the core around which the island grew. It is completely covered by littoral forest, which was logged for a period about twenty years ago but soon abandoned as uneconomic. The forest has a closed canopy, but there is easy access through a rather open under-storey, except that several of the trails had been blocked by tree-falls during the big storm of the previous March. It would be difficult to get lost on the islands, as the sound of the surf on the coral reef can always be heard on one or other shore, although it is almost impossible to follow the shoreline at high spring tides.

Typically for small islands, the number of bird species is quite small, and at the end of our third visit, we were quite confident that we would not be able to add to our list of 23 resident bird species (three of which might not actually breed on the island). The interesting birds are those that specialize in small islands, being perhaps poorly adapted to cope with the predators to be found on large islands. The only obvious predators are a family of White-bellied Sea Eagles (*Haliaeetus leucogaster*, elang laut perut putih), Monitor Lizards *Varanus salvator*, Pythons *Python reticularis* and small rats, probably *Rattus tiomannicus*. The small island specialists are the Beach Thick-knee (*Esacus magnirostris*, wili-wili besar), Nicobar Pigeon (*Caloenas nicobarica*, burung mas), Pied Imperial Pigeon (*Ducula bicolor*, pergam bodas) and Chestnut-capped Thrush (*Zoothera interpres*, burung anis cacing).

The Thick-knee is a specialist of remote sandy beaches, often found on islands. In continental areas, an almost identical cousin inhabits the sand banks of wide rivers such as the Indus in Pakistan. The one pair on Tinjil was found to have nest on the south coast in April, with one egg in a hollow scraped out at the top of the beach. Probably the nest was unsuccessful because in May it was found that the entire beach had been washed by tides, and the birds had moved to a wider beach near the research station. We were unable to find a nest there, but in any case the high tides at the end of May were washing right up to the forest edge. With their large yellow eyes in a rather small head, and the habit of merely walking away from an intruder, they give an impression of stupidity. They only break into a run and finally into flight if the intruder makes a

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Lampiran 1. Daftar jenis burung-burung air yang dijumpai di hutan bakau Teluknaga, Tangerang, Jawa Barat pada bulan Oktober 1987, Februari dan September 1988

No.	Jenis burung	Habitat	Kepadatan nisbi **)
1.	<i>Actitis hypoleucos</i>	Tb	C
2.	<i>Alcedo atthis</i>	Hb, Tb, Su	D
3.	<i>Anas gibberifrons</i>	Tb	D
4.	<i>Anhinga melanogaster</i> *)	Hb, Tb	A
5.	<i>Ardea cinerea</i> *)	Hb, Tb	C
6.	<i>A. purpurea</i> *)	Hb, Tb	C
7.	<i>Ardeola speciosa</i> *)	Rw, Sw	D
8.	<i>Bubulcus ibis</i> *)	Rw, Sw	D
9.	<i>Chlidonias hybrida</i>	Tb, P	A
10.	<i>Dupetor flavicollis</i>	Hb, Tb	C
11.	<i>Egretta alba</i> *)	Hb, Tb, Sw	A
12.	<i>E. garzetta</i> *)	Hb, Tb, Sw	B
13.	<i>E. intermedia</i> *)	Hb, Tb, Sw	A
14.	<i>E. sacra</i> *)	Hb, Tb, Sw	B
15.	<i>Fregatta ariel</i>	P	D
16.	<i>Halcyon chloris</i> *)	Hb, Tb, Su	D
17.	<i>Ibis cinereus</i> *)	Tb	D
18.	<i>Numenius phaeopus</i>	Rw	C
19.	<i>Nycticorax nycticorax</i> *)	Hn	A
20.	<i>Phalacrocorax niger</i> *)	Hb, Tb	D
21.	<i>P. sulcirostris</i> *)	Hb, Tb	A
22.	<i>Plegadis falcinellus</i> *)	P	A
23.	<i>Threskiornis melanocephalus</i> *)	Rw	D

Keterangan :

Habitat : Hb = hutan bakau; Hn = hutan nipah; P = pantai; Rw = rawa; Su = sungai
Sw = sawah dan Tb = tambak.

*) = Burung-burung yang diketahui berkembang di Pulau Rambut (Suwelo dan Tobrani, 1972 - 1973; PPA DKI, 1976 dan Wiriosepartho dkk., 1986).

**) = Keterangan A. B. C dan D dicantumkan pada bab Bahan dan Cara Kerja.

determined chase. The nest was found by accident, but would have been easy to locate merely by following footprints. While left unguarded the egg would readily fall victim to lizards or snakes, although we did see one parent bird make a fierce attack on some invisible enemy in the beach scrub.

The Nicobar Pigeon is very much an island specialist. It inhabits small islands throughout South East Asia, and any seen on the adjacent mainlands are likely to be merely visiting. It is an attractive pigeon, slaty blue with a glossy sheen and elongated neck plumes, and a prominent white tail seen as it takes flight, the usual view. It feeds on the forest floor in small wary groups that quickly take off at the first sign of an intruder, with a characteristic loud clapping of wings. But for their noisy wings, typical of most pigeons, they are otherwise quite silent and might easily be overlooked. It seems difficult to visualize them as island wanderers (*tramp* species in jargon), for one never sees them flying to or from the mainland, in the manner of the Pied Imperial Pigeon or the Fruit Bats *Pteropus vampyrus*, so perhaps most movements are by night. They are said to breed colonially; breeding on Tinjil was not confirmed, though in May we did see a group of three immatures, which lack the adult's white tail. Some concern has been expressed about the future of Nicobar Pigeons as their islands become increasingly accessible. Mitchell (1989) described a massacre on Pulau Kumbur in Cendrawasih Bay (Irian Jaya), with 86 pigeon skulls found, mostly of their species. It will be interesting to monitor the impact of the growing monkey population on Tinjil (see Van Balen, 1989), as the pigeon might be the first casualty of the introduced predator.

The Pied Imperial Pigeon is a common island species throughout the region. It is a clean white pigeon with black tail and flight feathers, and parties of up to 50 flew off the mainland at dawn, returning at dusk.

The Chestnut-capped Thrush occurs in lowland forests from Malaysia through to Flores. It appears to favour small islands and is certainly common on Tinjil. However it is a quiet and secretive bird which might easily be overlooked in mainland forests where there is a much wider variety of birds to attract one's attention. It lives in the lower storey, often perching on logs or the ground, and European birdwatchers will quickly recognize the typical soft thrush alarm notes. They appeared to have almost finished breeding in April, with juveniles present, and this may be why we only rarely heard the song, again typically thrush-like in quality.

The four island specialists are perhaps not the most obvious birds on the island, except for the frequent *clapping of Nicobar wings* indicating that we had yet again just missed seeing them on the ground! The common songbirds are Mangrove Whistler (*Pachycephala cinerea*, kepala tebal bakau), Fly-eater (*Gerygone sulphurea*, burung remetuk) and Black-naped Oriole (*Oriolus chinensis*, kepodang). The Mangrove Whistler is badly named as it is by no means confined to mangroves occurring widely in primary and secondary forest and even rubber plantations in coastal areas. It does seem to favour the poorer forest and its abundance on Tinjil might indicate that it competes unfavourably in the richer mainland habitats. It is a very prominent songster with a wide of song phrases.

The other main vocalists are the pigeons in the canopy, including the Brown Cuckoo-Dove (*Macropygia phasianella*, derkuku sopa) and the Black-naped Fruit Dove (*Ptilinopus melanospila*, walik kembang). There are two species of green pigeons which took considerable efforts to confirm, but were finally established as the Pink-necked Green Pigeon (*Treron vernans*, punai leher merah) and Thick-billed (*Treron curvirostra*, punai paruh tebal). The latter is rather anomalous as it is a bird from Sumatra, Kalimantan and Malaya, and is not known anywhere else on Java, where it is replaced by another very similar form (another anomaly on Tinjil is the occurrence of two lizard species of the Scincidae family (kadal) reported by Mertens (1957), previously known only from the eastern part of the Indonesia archipelago).

Periodically noisy birds in the forest are the Sea Eagles, Koel (*Eudynamis scolopacea*, tuwuwew) and Collared Kingfisher (*Halcyon chloris*, cekakak). The Koel presents another mystery as normally this cuckoo is a brood-parasite only of crows, which are absent from the island. We believe that they are laying their eggs in the nests of the orioles, and we did once hear an altercation between koel and orioles which would support this view.

A feature of the island was the difficulty we had in seeing many of the birds, most of which are confined to the forest, and there was strong evidence of another characteristic of small islands, niche expansion. For example, the only bulbul present is the Yellow-vented *Pycnonotus goiavier*, usually regarded as an open-country bulbul. In the absence of other bulbuls, this bird has adapted to a purely forest environment. To a less marked degree the same could be said for the Pink-necked Green Pigeon, the Koel, the Collared Kingfisher, the Black-naped Oriole and the two sunbirds, normally birds of more open woodlands.

During our first two visits we missed the northern migrants, except for some terns, Whimbrel (*Numenius phaeopus*, gajahan) and one sighting of a Malayan Night Heron (*Gorsachius melanolophus*, kowak melayu), an unexpected bird to meet deep in the forest, although this is its normal habitat. At the end of May the first Sacred Kingfishers (*Halcyon sancta*, cekakak suci) were arriving from Australia.

On 30 May, we had a chance to visit Pulau Deli, a large (900 ha) but more remote island nearly 30 km to the west. The island is regarded as being haunted, and certainly our own experience tended to convey that impression right from the start. In order to reach Pulau Deli at dawn, we set off at 4 AM, but succeeded in choosing the one morning on which the full moon was obscured, and daylight delayed, by thick gathering storm clouds. With an increasing swell and heavy rain, we headed blindly westwards into total darkness, eventually to find we were far off course. Even when Deli became visible, some spirit seemed to be guiding our pilot back towards Tinjil ! At last we reached Deli, 1½ hours late, and landed at one of the only two landing places on the island, neither of which can be approached in a heavy swell; one is a sand beach, and the other a narrow channel through the roaring surf of the coral reef. Somehow the island doesn't seem to welcome visitors, although the rest of the trip was uneventful.

The reason for the belief may be the presence of a grave, long since eroded into illegibility, but apparently local fishermen still visit it to make offerings. The legend of

ghosts was firmly imprinted on our boat boy, who refused to either follow us into the forest, or to be left alone on the beach, preferring to return to the apparent sanctuary of the boat moored near the reef. The forest, very similar to Tinjil, certainly seemed to be spooky. The centre of the island is very wet, and we were wading knee-deep in brown water, Monitor Lizards (one with a grotesquely bent tail) crashing off away from us, through dark columns of thick roots suspended vertically from the branches of the trees, a wierd and haunting scene. An awesome, wailing noise like an eagle in distress proved to be the koels having their battle with the oriole. It was interesting to find that Pulau Deli appears to have precisely the same resident birds as Pulau Tinjil.

The journey back dismissed all feelings of spookiness, as if the island was pleased to see us go. In a gentle swell, on a clear, deep blue sea, always a treat in Indonesia waters, we encountered several flocks of sea birds, including the Wedge-tailed Shearwaters (*Puffinus pacificus*, pengguntung laut), skimming the waves on their long stiff wings, Brown Boobies (*Sula leucogaster*, gangsa batu coklat) and Bridled Terns (*Sterna anaethetus*, dara laut sayap coklat). Cooled by the breeze created by the boat, though, one can feel sympathy for the fishermen sweating out the days in heat and glare, and sometimes shivering in the storms which off-shore usually come at night (and sympathy too for the foreign tourists to Ujung Kulon who seem to be prone to oceanic drifting).

The belief that island birds do move around at night was supported by the first birds to be seen in the gloom of the stormy dawn, far out to sea mid-way between the two islands: three frail-looking swiftlets, probably the Black-nest Swiftlet (*Aerodramus maximus*, walet sarang hitam). These are quite common on the island, but as they are supposed to roost and breed only in caves, it is a mystery where they go at night. There are certainly no suitable sites on the island. Perhaps they do fly out to the island each day, but one cannot help having the impression that, contrary to all literature, they roost in trees.

Returning to the research station beside placid Turtle Beach on Tinjil was like returning home. If only the turtles were still three! Apparently they were all exterminated by the loggers twenty years ago, such is the greed and callousness of Man! Assuming that turtles and macaques are compatible, this might be an ideal opportunity to re-establish a turtle colony under fully protected research conditions. Indeed 36 Green Turtle eggs were buried on the beach this year, but apparently this attempt has failed as they did not hatch.

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APPENDIX. List of birds of Pulau Tinjil

April 22 - 24, May 28 - 31, November 19 - 21, 1988

1. ISLAND RESIDENTS

*Pacific Reef Egret	<i>Egretta sacra</i>	kuntul karang
White-bellied Sea Eagle	<i>Haliaeetus leucogaster</i>	elang laut perut putih
*White-breasted Waterhen	<i>Amaurornis phoenicurus</i>	kareo
Beach Thick-knee	<i>Esacus magnirostris</i>	wili-wili besar
Pink-necked Green Pigeon	<i>Treron vernans</i>	punai leher merah
Thick-billed Green Pigeon	<i>Treron curvirostra</i>	punai paruh tebal
Pied Imperial Pigeon	<i>Ducula bicolor</i>	pergam bodas
Brown Cuckoo Dove	<i>Macropygia phasianella</i>	derkuku sopa
Black-naped Fruit Dove	<i>Ptilinopus melanospila</i>	walik kembang
Nicobar Pigeon	<i>Caloenas nicobarica</i>	burung mas
Koel	<i>Eudynamys scolopacea</i>	tuweuw
*Black-nest Swiftlet	<i>Aerodramus maximus</i>	walet sarang hitam
Collared Kingfisher	<i>Halcyon chloris</i>	cekakak
Brown-capped Woodpecker	<i>Picoides moluccensis</i>	caladi tilik
Pied Triller	<i>Lalage nigra</i>	kapasan
Yellow-vented Bulbul	<i>Pycnonotus goiavier</i>	cerukcuk
Black-naped Oriole	<i>Oriolus chinensis</i>	kepodang
Chestnut Thrush	<i>Zoothera interpres</i>	burung anis cacing
Fly-eater	<i>Gerygone sulphurea</i>	burung remetuk
Mangrove Whistler	<i>Pachycephala cinerea</i>	kepala tebal bakau
White-breasted Wood Swallow	<i>Artamus leucorhynchus</i>	kekep
Brown-throated Sunbird	<i>Anthreptes malacensis</i>	burung madu kelapa
Olive-backed Sunbird	<i>Nectarinia jugularis</i>	burung madu kuning

2. PULAU DELI

On May 30, precisely the same species were found on Pulau Deli except that in the three hours on the island, we did not find the Sea Eagle, Woodpecker and Pied Triller.

3. VISITORS

Wedge-tailed Shearwater	<i>Puffinus pacificus</i>	Penggunting laut
?Abbott's Boody	<i>Sula abbottii</i>	gangsa batu
Brown Boody	<i>Sula leucogaster</i>	gangsa batu coklat
Christmas Frigatebird	<i>Fregata andrewsi</i>	cikalang bintayung
Lesser Frigatebird	<i>Fregata ariel</i>	cikalang kecil
Malayan Night Heron	<i>Gorsachius melanolophus</i>	kowak melayu

APPENDIX. Continued

? Japanese Sparrowhawk	<i>Accipiter gularis</i>	elang nipon
Whimbrel	<i>Numenius phaeopus</i>	gajahan
Ruddy Turnstone	<i>Arenaria interpres</i>	pembalik batu
? Pomarine Skua	<i>Stercorarius pomarinus</i>	camar kejar pomarin
Whiskered Tern	<i>Chlidonias hybridus</i>	dara laut berkumis
White-winged Tern	<i>Chlidonias leucopterus</i>	dara laut sayap putih
Little Tern	<i>Sterna albifrons</i>	dara laut kecil
Common Tern	<i>Sterna Hirundo</i>	dara laut biasa
Great Crested Tern	<i>Sterna bergii</i>	dara laut jambul besar
Bridled Tern	<i>Sterna anaethetus</i>	dara laut sayap coklat
? Lesser Crested Tern	<i>Sterna bengalensis</i>	dara laut jambul kecil
Sacred Kingfisher	<i>Halcyon sancta</i>	cekakak suci
Barn Swallow	<i>Hirundo rustica</i>	layang-layang asia