

OBSERVATIONS OF SOME BIRDS OF GUADALCANAL AND TULAGI

By WALTER R. DONAGHHO

While I was in the armed forces, I spent the period from December 17, 1942, until September, 1943, on the island of Guadalcanal in the Solomons. While there, I took every opportunity to observe the island's teeming bird life. Two visits were made to the island of Tulagi, off Florida Island.

Sixty-eight species were observed and positively identified. The majority of these I was able to identify from the Ludwig Collection of birds of the Solomon Islands, which Dr. Josselyn Van Tyne of the University of Michigan Museum kindly let me examine. Others were identified with the aid of Ernst Mayr's "Birds of the Southwest Pacific" (New York, MacMillan, 1945). Nomenclature of that work is used in this paper. Dr. Mayr, Dr. Harvey Fisher, now of the University of Illinois, and Dr. G. E. Hudson and Dr. Irwin O. Buss of the State College of Washington kindly offered me advice in the preparation of this paper.

The terrain over which I worked was the western end of the northern plain of Guadalcanal, my field of operations extending east to the Berendi River. I also made trips up over Mount Austin and out toward the west end of the island, going as far as the Mamara River. Several ravines were followed up into the foothills. My campsites were as follows: two in the coconut plantations between the Lunga and Tenaru rivers, one on the top of one of the kunai grass-covered ridges running between jungle-choked ravines on the side of Mount Austin, and one in the dense jungle on the bank of the Malimbiu River, about three miles inland from Kole Point.

The west end of the plain is covered with coconut plantations, extending inland for about a mile. These begin west of the Tenaru River and extend almost to the Metanikau. There is a plantation at Kokumbona; others extend westward from the Kokumbona swamps along the coast to the end of the island. Inward from the coconut plantations on the plains are large fields of kunai grass. Dense jungle follows the streams and rivers down through these fields, thinning out a mile from the coast. The foothills to the west of the Lunga River are grass-covered, with thick jungle, known locally as "selva," choking the valleys. To the east, beyond the Berendi River, the plains are covered with jungle. Up to two miles inland, along the rivers, are groves of a woody, creeping bushy plant of the Malvaceae, and a large-leaved tree which the natives call venua. Just inland from the beach between the Ilu and Lunga rivers are open meadows with scattered venua groves, beneath which dense brush grows. The meadows between the groves are mostly covered with sensitive plants. Swamps are located at the mouths of the rivers.

In general, the birds may be divided into three groups according to their habitats. These are: the birds frequenting the dense jungle, rarely, if ever, appearing outside it; the birds frequenting the open country; and those found in all localities. In the jungle, birds such as the Golden Whistler (*Pachycephala pectoralis*), Fan-tailed Cuckoo, Ultramarine Kingfisher, Chestnut-bellied Monarch (*Monarcha castaneiventris*), Pied Monarch Flycatcher (*Monarcha barbata*), and the Broad-billed Flycatcher are lovers of shade, frequenting the lower portions of the jungle and rarely getting into the tree tops (scientific names not supplied here are given in the notes which follow). The Brown-winged Starling, Shining Cuckoo, Buff-headed Coucal, Papuan Myna, and Yellow-eyed Greybird are found higher up, amidst the canopy foliage. The Buff-headed Coucal often comes down to the ground to feed. The parrots and pigeons forage in the tree tops, while the Midget and honeyeaters are in the outer foliage. The flycatchers and whistler are

fairly uniform in their distribution, while the fruit and nectar feeders congregate where their particular foods are abundant. A banyan will be visited by most of the doves and pigeons, the parrots, Papuan Myna, Papuan Hornbill, Brown-winged Starling, the Yellow-eyed Greybird and the Cicada Bird (*Edolisoma tenuirostre*).



Fig. 24. View west from Mount Austin over the kunai grass areas and jungle-choked ravines on Guadalcanal. A patch of devastated jungle shows in lower left corner.

The Little Starling (*Aplonis cantoroides*), Willie Wagtail (*Rhipidura leucophrys*), Sunbird, White-collared Kingfisher, Rufous-brown Pheasant Dove (*Macropygia mac-kinlayi*), and White-bellied Greybird (*Coracina papuensis*) frequent the open country. The coconut groves are frequented by the above open-country species except the Pheasant Dove and Little Starling. Dead trees that stand in the open apart from the others attract the Whiskered Tree Swift (*Hemiprocne mystacea*). They may also afford perches for the Dollar Bird (*Eurystomus orientalis*), which sits and waits for its insect prey. This bird also frequents the jungle edge, where it can get unobstructed views of the surrounding terrain.

The Spotted Button-Quail inhabits only the kunai grass meadows and ridges. The White-rumped Swiftlet and Glossy Swiftlet (*Collocalia esculenta*) cruise back and forth over these areas and along the edges of the jungle in search of insect prey.

The Coconut and Cardinal lorries, White Cockatoo (*Cacatua ducorpsi*), Midget, Yellow-bellied Sunbird (*Nectarinia jugularis*), Solomons Honeyeater, and Red-knobbed Pigeon (*Ducula rubricera*) frequent both the jungle and the coconut groves.

The destruction of the jungle by the fighting drove out the forest-loving species, and those frequenting the open country made their appearance. Table 1 shows the successional recovery of the jungle from a completely devastated condition and the successive changes in bird life. Of the various stages, only the fourth, or complete recovery

stage is uncertain. I did not see any jungle that had reached this stage, but judging from the growth of new trees in several of the shot-up areas, I assume that the jungle would make enough recovery to attract the shade tolerant species.

The bird life of the coconut groves is limited to the Coconut and Cardinal lories, the White Cockatoo, the Willie Wagtail, White-collared Kingfisher, Sunbird, Midget, Solomons Honeyeater, Red-knobbed Pigeon, White-bellied Greybird, Crested Hawk (*Aviceda subcristata*), Pied Hawk, and Red and White Eagle-Kite (*Haliastur indicus*).

Although we know most of the birds of Guadalcanal, I believe there may be several that remain to be discovered. I saw a small flock of birds flying through the underbrush in the jungle in a valley just east of Kokumbona. I was unable to observe them closely, but I did notice that their upperparts were a glossy red, or reddish-brown. They were the size of a grosbeak or wood thrush, and sang loud and beautiful warbling songs. I also saw a strange green honey sucker with a half-inch curved bill at an orange blossom on Mount Austin. This last was plainly seen and all its details noted.

The upper forest zone, from 6000 to 8000 feet elevation, has been explored little, if any, by ornithologists. It should be a habitat for species not found at the lower elevations. A fine native trail, which starts from Kole Point and crosses the mountains at an elevation over 6000 feet, should make the exploration of this region fairly easy.

Unless otherwise stated, all the localities mentioned in the following list are on Guadalcanal. The species mentioned are only those about which new information on habitat, behavior and distribution has been obtained.

Table 1

Ornithological Succession in War-torn Jungle on Guadalcanal

Stage 1	Stage 2	Stage 3	Stage 4
Forest open, completely devastated.	Dense underbrush growing in; new foliage appearing on trees.	Open forest; trees crowning out in foliage.	Complete recovery. ¹
Bird life absent. <i>Aplonis cantoroides</i> first to enter, followed by <i>Acridotheres tristis</i> and <i>Hemiprocne mystacea</i> . Dead trees serve as nesting places for <i>Aplonis</i> and <i>Hemiprocne</i> and as foraging lookout perches for <i>Eurystomus orientalis</i> .	This stage is marked by entry of underbrush inhabitants, such as <i>Monarcha castaneiventris</i> and <i>Myiagra ferrocyanea</i> . Other entries: <i>Rhipidura leucophrys</i> , <i>Aplonis metallicus</i> , <i>Myzomela melanocephala</i> , <i>Nectarinia jugularis</i> , <i>Dicaeum aeneum</i> , <i>Coracina papuensis</i> , <i>Halcyon chloris</i> , <i>Trichoglossus haematus</i> , <i>Eos cardinalis</i> .	Development of foliage leads to entry of forest dwellers: ² <i>Megapodius freycinet</i> , <i>Ptilinopus viridis</i> , <i>Ducula rubricera</i> , <i>Vini margarethae</i> , <i>Cacatua ducorpsi</i> , <i>Larius rostratus</i> , <i>Geoffroyus heteroclitus</i> , <i>Coracina lineata</i> , <i>Pachycephala pectoralis</i> , <i>Mino dumontii</i> .	Entry of deep shade tolerant species: <i>Aplonis grandis</i> , <i>Halcyon leucopygia</i> , <i>Rhyticeros plicatus</i> , <i>Rhipidura cockerelli</i> , <i>Cacomantis pyrrhophanus</i> .

¹ Exact details unknown to writer; observations of untouched jungle and of the new growth lead to the assumption that, at least for a while, the new growth will be more dense.

² Species dropping out are *Acridotheres tristis*, *Aplonis cantoroides*, *Hemiprocne mystacea*, *Halcyon chloris*, *Eurystomus orientalis*, and *Rhipidura leucophrys*. *Eurystomus* frequents the forest edge.

Phalacrocorax melanoleucus. Little Pied Cormorant. Single birds seen several times on sand bars in the Lunga and Malimbiu rivers.

Butorides striatus. Little Mangrove Heron. Single birds seen in marshes and swamps and along the rivers.

Accipiter albogularis. Pied Hawk. Observed one at the edge of the coconut grove on the east side of the Tenaru River. Saw one gray and white phase individual and one of the gray phase in a banyan in the selva along a stream flowing into the Tenaru. A nest in the same tree was presumably of this

species. A hawk of the gray phase flew into a tree filled with sunbirds and chased them; then it flew into a tree with thick foliage nearby and hid in it, now and then darting out after the sunbirds.

On June 6, 1943, I observed a pair constructing its nest in a venua tree standing apart from a grove of venua in the meadow east of Lunga Roads. The nest was built of sticks and was placed in the crotch of a limb, 20 feet from the ground. Although the hawks started building a few days before June 6, they were still building on July 10. I visited the nest on July 15 and believe it was then about ready for eggs. The nest was the size of a bushel basket; inside, it measured about six inches in depth and ten inches across. Both hawks took part in the nest building, making an average of less than two visits per hour. Each time they came in, they emitted loud cries (a series of "krees") upon landing. Similar cries were given when the birds departed. A new stick was poked in, and then the hawk rearranged the other sticks to make the nest more sturdy.

Records of visitations follow:

	Hours at nest	Visits by hawk
June 8	3	4
June 15	5	8
June 16	4	5
June 17	4	7
June 19	2	0
June 27	3	4
July 3	4	6
July 5	3	4

Each bird over a period of three hours made two visits apiece. However, on June 15 and 17, their visits were more frequent, the birds each making four visits to the nest over a five-hour period on June 15. The female was apparently shot, as I never found eggs in the nest.

Haliaeetus sanfordi. Sanford Eagle. Seen flying over the jungle on two occasions. A pair lived in the region about the Wright Road on Mount Austin, and I frequently saw them circling high in the sky. I saw one sitting on a high perch on a tree on top of a grassy peak on Mount Austin. It subsequently flew off down over the valley of the Metanikau River. Two eagle-kites were noted attacking a Sanford Eagle over the jungle near the Malimbiu River. The kites were successful in driving the eagle from their territory.

Megapodius freycinet. Megapode. Common on the floor of the jungle. This species has a loud mourning cry resembling, "I'll buy—tobacco!" This is preceded by several turkeylike "kows," after which there is a pause. The birds call on moonlit nights, in the early morning until ten o'clock, and then in the evening from four o'clock until dark.

Turnix maculosa. Spotted Button-Quail. Several seen singly in the fields of kunai grass about the Malimbiu, Berendi, Metapona, Tenaru, and Lunga rivers.

Poliolimnas cinereus. White-browed Rail. A pair was seen feeding in a grassy slough near the mouth of the Tenaru River. On January 31, 1943, I saw two one-inch long, black chicks with them. They followed the mother and she fed them now and then, the chicks taking the food directly from her bill.

Ptilinopus solomonensis. Yellow-bibbed Fruit Dove. Observed one in jungle on Tulagi.

Gallicolumba jobiensis. White-throated Ground Dove. A pair was recorded feeding on the ground near the mouth of the Malimbiu River by Dr. Wm. J. Marsteller. His detailed description, which included mention of a buff breast, enabled me to place it as this species.

Trichoglossus haematodus. Coconut Lory. Very common in the jungle and in the coconut groves, although not as numerous as the Cardinal Lory. Feeds on the nectar of the coconut blossoms. I observed a large flock of about a hundred birds feeding on blossoms of the scarlet bottle brush (*Myrtaceae*) at the edge of the jungle near the Berendi River.

Micropsitta finschii. Pigmy Parrot. Saw several working up trunks of large, smooth-barked trees in the Metanikau Valley. Clinging to the sides, they worked up the trunk in the manner of a creeper, pausing now and then to tear off bits of bark.

Lorius voratus. King Parrot. Common in the jungle, where it forages in the tree tops. This species goes about in flocks of up to twelve individuals. It has a wide variety of parrotlike calls, but the

most unusual call notes are two loud, ringing whistles; a grace note, followed by a loud blast, "ke-ahh, ke-ahh." Individuals communicate with each other using this call. I observed nests on two different occasions (April 3 and August 10, 1943). Each one was high above the ground, and was placed deep down beyond reach in a cavity in a limb of a banyan.

Geoffroyus heteroclitus. Song Parrot. Seen in small flocks on Tulagi and observed in the selva (dense forest growth) about the Malimbiu River on Guadalcanal. This bird perches on the topmost branch of a tall tree to sing and will sing for long periods, usually on bright sunny days, although one sang when it was cloudy. It has an unusually large repertoire of notes for a parrot and many of the notes are very melodious.

Cacomantis pyrrhophanus. Fan-tailed Cuckoo. Observed a pair in low jungle on the bank of the Malimbiu River. The birds frequented the lower level of the forest, keeping to the dense shade.

Chalcites lucidus. Shining Cuckoo. Frequently heard during June and July in the depths of the selva. Notes are very ventriloquistic and are a rapid series of whistles resembling a boy calling his dog. A pair was observed feeding in low trees on the banks of the Malimbiu River.

Centropus milo. Buff-headed Coucal. Common in the selva, where the birds forage in the foliage and vines for food. They frequently come down to the ground to feed. I observed one tearing off the bark and bits of wood from a dead limb, most likely searching for beetle grubs. The cries are raucous, and the calls of several at a distance resemble the sawing of wood. At dawn every morning, near my quarters on the Malimbiu, a female coucal flew up on a perch in a breadfruit tree and gave a series of loud "ows." The bird flew to the same perch each time. The call was followed by several low booming hoots that resembled the notes of the crowned pigeon.

Ninox jacquimoti. Boobook Owl. Heard calling from the selva on moonlit nights. One owl hooted from a tall banyan tree just outside my quarters on the Malimbiu every night during the moonlit periods. It had a favorite perch well up in the tree. The first hoots, a series of mournful "oh" notes, were low-pitched. These became higher and higher and gradually louder, developing a two-toned note that began to resemble the whine of a puppy. Then they developed into a louder and harsher "ka," which was repeated and kept up for an hour or so. At times the bird gave a long loud blast resembling the noise made by a cardboard horn at a New Year's party. A second bird joined in soon after the first began, calling at a lower pitch, and the result was a weird duet.

Collocalia spodiopygia. White-rumped Swiftlet. Common hawking over grass-covered foothill ridges of Mount Austin and in areas to the westward.

Alcedo atthis. River Kingfisher. Pair seen on the Malimbiu River. The birds sat on the limbs of a dead tree washed up on a bar and dove into the river for fish. They built a nest in the sandy river bank, 6 feet above the water. Both birds took part in building on August 22, 1943. Notes are a high "teet teet."

Halcyon chloris. White-collared Kingfisher. Common in the coconut groves and the open country. It was seen feeding on lizards, which it hacks to pieces. I watched two nests situated about fifteen feet above ground in the sides of coconut palm trunks. One contained two week-old chicks on December 24, 1942. A common call is a series of high-pitched, loud notes resembling the squeak of a hollow rubber rat; this usually is uttered three or four times. The birds also give a loud, grating cry resembling "racko, racko" and loud, sharp "krees."

Halcyon leucopygia. Ultramarine Kingfisher. Frequents the dense selva, where Mayr (*op. cit.*) states that, "it is a bird of the true forest, usually perched on rather high trees." I saw it commonly about jungle sloughs, where it kept well within the understory, in the dense, shade of the jungle canopy. It utters a flycatcher-like "chew cho tew," which descends the scale, the last note dropping sharply. The birds were seen singly or in pairs. In one pair, a bird flew up to a perch and was followed by its mate. Facing the front, they started bowing, first one bowing, then the other.

Rhyticeros plicatus. Papuan Hornbill. Not rare in the selva, where it was seen feeding on the fruit of banyans. The hornbill flies in formation. The female (?) usually flies on the left side of the male, and, in a flight of four, one leads, two fly abreast, and one brings up the rear.

Coracina lineata. Yellow-eyed Greybird. Not uncommon in the selva. The species goes in small flocks of from 8 to 12, flying from tree to tree, foraging for fruit. They seem to have a leader and depart from a tree by ones and twos, until the whole flock has left. I watched a flock fly through the upper part of the selva, the average time spent in one tree being ten minutes. Then one bird, pre-

sumably the leader, flew out and across to another tree a few yards distant, and the rest of the flock straggled after him.

Acrocephalus arundinaceus. Reed Warbler. Lives in swamps, in grassy fields, and in the low brush along the rivers below the selva. This bird's ability to hide itself in brush only a foot high is remarkable; its movements through vegetation accordingly are difficult to follow. Reed Warblers have a beautiful, repertoire of loud, short vigorous song passages which resemble the song of the New Caledonian Silver-eared Honeyeater, or of the Cardinal. The music is full and throaty; the melody pouring from it like a rippling brook. It is the most beautiful songster I heard in the Solomons and rivals the best heard in the South Pacific. On December 24, 1942, I observed numerous Reed Warblers in a stand of trees resembling holly and with flowers resembling the Myrtaceae that grew in the waters at the mouth of the Tenaru River. They were singing loudly as they fed on the nectar of the orange-colored blossoms.

Myiagra ferrocyanea. Broad-billed Flycatcher. Not uncommon in the understory of all types of forest habitat. It is quite inquisitive and responds readily to an imitation of its song, which is a series of slow "sweets." One was seen singing while in flight; it braked with wings and tail spread, the latter pointed up. Then it reared up to sing a note, after which it darted down, only to repeat the actions for another note.

Aplonis grandis. Brown-winged Starling. Frequents the selva, singly or in pairs, feeding on fruit. Observed after fruit in banyan trees and in a tree laden with tiny fruits outside my quarters on the Malimbiu River. A pair visited the tree twice daily, in the morning about ten, and again in the early afternoon about two. They were frequently there with Colonial Starlings, but the two species never bothered each other.

Aplonis metallicus. Colonial Starling. Frequents the open country and is found in second growth and along the edge of the selva. It travels in flocks of 15 to 40, feeding on small berries and other fruit. Flocks of starlings from a nesting colony near the Malimbiu River flew across the river to visit a tree laden with small fruit. They came about ten in the morning and again in the early afternoon. Another visit was paid the tree just before sundown at six o'clock, when they returned to their nests in a tall mango, the crown of which was fifty feet above the ground. The nests were pendant, with the entrance at the side, and were placed out at the ends of the limbs. There were several separate flocks in the colony, and the birds were engaged in constructing the nests which were in various stages of completion. Both the male and the female took part in the building. In the morning, flocks dispersed in different directions, returning again at sundown. Birds that were not finished building remained to work on the nests. Although the flocks flew as one, on several instances I observed small flocks passing through the jungle in single file, one or two birds at a time, and they seemed to have a leader. The many notes uttered are a series of squeaks, high-pitched whistles, grunts and twanging notes. The birds are very noisy about the nest tree, and when flying about in the close-knit flocks, they utter notes that resemble the hum of a swarm of low-humming bees.

Mino dumontii. Papuan Myna. Fairly common in the selva; also seen in the second growth, although not as numerous. Mynas frequent the tops of the jungle trees where they utter a wide repertoire of whistles, chirps, and other notes. The most striking notes are a series of whistles, running up the scale and another series descending the scale, resembling the sound of harp strings.

Corvus woodfordi. White-billed Crow. Inhabits the selva where it travels in small companies of from three to six. A group of three roosted in a dense grove of mango trees across the Malimbiu River from our camp, arriving at the grove just before sundown, about 5:30 p.m.

Myzomela melanocephala. Solomons Honeyeater. Not uncommon in the selva and lower forest growths along the rivers and in the meadows. On June 18, 1943, I observed a pair of honeyeaters chasing about a grove of venua trees in the meadow near Lunga Roads. Suddenly one of them (presumably the male) went through what probably were courtship actions. He flew back and forth, just in front of the female, which perched on a limb, then landed in front of her and acted like a young bird begging for food, fluttering his wings, and chirping loudly. Then he repeated the flight again, and again landed to go through the actions of a young bird.

Dicaeum aeneum. Midget. Common on Guadalcanal and Tulagi where it is found in all habitats. Utters twittering notes resembling the snapping of twigs.

Pullman, Washington, February 1, 1949.