recognised as such. The ifrita was seen sitting in the nest and tending to it for not much more than 30 seconds, although it could have been there longer as it was not seen arriving. It did not reappear during this first period of observation nor during a subsequent visit.

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Address: 16 Hobhouse Close, Henleaze, Bristol, Avon, BS9 4L2, U.K.

EASTERN ALPINE MANNIKINS *LONCHURA MONTICOLA* NESTING

RICHARD GREGORY-SMITH AND JUDYTH GREGORY-SMITH

While at Myola (Northern Province), 16 - 19 September 1988, we observed two Eastern Alpine Mannikins *Lonchura monticola* nest building near the village (2100 m). The birds were carrying material from a patch of rushes on the village side of the stream and building *c.* 3 m above the ground in a small tree on the far bank.

The domed nest appeared to be entirely constructed of rushes and grasses. It had an entrance hole in one side which was neatly woven, unlike the nests of some other species of mannikin. Another nest was in a similar tree and situated further down the creek.

Myola is lower than the normal altitude range for this species (Beehler *et al.* 1986) but Eastern Alpine Mannikins have regularly been recorded there over the past two years (Hicks 1987).

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Address: 13 Astelia Place, Rivett, Canberra, ACT 2611, Australia.

OBSERVATIONS OF THE FEEDING HABITS OF SOME NEW GUINEA BIRDS IN MADANG PROVINCE

LUIS F. BAPTISTA

Incidental to my studies of vocalizations of various New Guinea birds conducted between 17 December 1988 and 26 January 1989 I made observations on their feeding habits at various localities near Madang (Baitabag, Nitul, Alexishaven, Jais Aben, Rivo) and on Bagabag Island, Madang Province. Here, I report on data for eight species belonging to three families as a contribution to the growing literature on food habits of birds from this fascinating biogeographical region.

Buff-faced Pygmy Parrot *Micropsitta pusio.*

Little is known about the food habits of this or any other species of pygmy parrot. Stomach contents of *M. pusio* taken on Bagabag Island, Madang Province, consisted of (unidentified) insects and a white paste (Diamond & LeCroy 1979). Forshaw (1977) observed two individuals eating lichen, and indicated that they also fed on fruits, seeds, insects and larvae. One most often sees these diminutive birds moving up or down the trunks and branches of trees and picking up small objects from the bark surface or flaking off pieces of bark and consuming the items thus exposed.

Beehler *et al.* (1986) state that they feed on "lichens, bark fungus (and termites?)" suggesting that termites have not been determined with certainty as a part of this parrot's diet. The following observations indicate that these insects may indeed be an important food item for *Micropsitta*.

On 24 January 1989, I heard pygmy parrots calling from high in coconut trees at the road junction between Jais Aben and Rivo village. I soon located two individuals perched against the trunk just below the crown. A termitarium of *Microceratermes biroi* (Termitidae) protruded from the tree trunk close to the birds.

Arboreal termitaria are usually melon-shaped structures consisting of woody material pasted against a tree trunk or branches. Tunnels made of the same woody material emanate in various directions from the main termitarium. If the tunnel material is scraped away, the passageways are exposed and legions of termites pour forth.

When first located, one of the parrots was busy tearing apart one of the termite passageways. The two then flew to a second coconut tree about 5 m away, which supported a small termite nest *c.* 0.5 m in length. One parrot immediately started removing pieces from the upper part of the termitarium facing the tree crown. The other was flaking off pieces of bark from the coconut tree and tearing off pieces from

the tunnelways leading to the termitarium. After a few minutes the two parrots exchanged roles, so that the first bird ripped apart the passageways while the second bird continued to dismantle the termitarium itself.

Thirteen minutes later a third pygmy parrot landed on the tree. The first bird rushed at the other two who flew away and then it returned to flaking off tree bark and tearing at the termite passageways. The parrot was still engaged in these activities when I left the area.

Termites are negatively phototropic, and when exposed to light would immediately seek dark places in which to hide. This may explain why the parrots tore off bark after damaging the tunnels. They were perhaps retrieving termites that had sought shelter beneath the bark flakes.

I could not actually see the parrots ingest termites. However, the fact that they spent at least half an hour dismantling a termitarium and its network of tunnels suggests strongly that these insects do indeed compose part of their diet.

Dusky Lory *Pseudeos fuscata*.

On 17 December 1989, raucous calls of a flock of Dusky Lories attracted me to a tall *Elaeocarpus sphaericus* tree on the grounds of Jais Aben resort. The tree abounded in round purple fruit and clusters of creamy-white campanulate flowers. The lories were actively feeding on the flowers. Because the bell-shaped corollas were pendant, the lories had to bow low with the body held below the horizontal to position their heads below a flower cluster, then turn the head so that the beak faced upwards, in order to ingest the nectar (and pollen?) in the flowers. Each parrot worked on several flowers in a cluster before proceeding to a different cluster. At no time did I see them eat the fruit.

Orange-bellied Fruit-Dove *Ptilinopus iozonus*

On 30 December 1988 I watched two Orange-bellied Fruit-Doves foraging on a *Ficus microcarpa* tree growing by the water's edge at Jais Aben resort. Both birds were fluttering about within the crown of the tree, a behaviour typical of feeding fruit-doves. I observed one individual plucking and swallowing figs.

Feeding activity was observed between 17:50 and 18:09. In between feeding bouts, both birds would call and sit quietly *c.* 30 cm apart or side by side touching each other.

Frith *et al.* (1976) list some 10 species of *Ficus* as food of *Ptilinopus iozonus* in the Port Moresby area. *Ficus microcarpa* does not appear to be previously recorded as a food item of this fruit-dove.

Superb Fruit-Dove *Ptilinopus superbus*

On Bagabag Island, on 25 December 1988, I observed a Superb Fruit-Dove pluck and swallow a fruit from a *Pipturus argentus* tree. This tree is a member of the nettle family (Urticaceae). Unfortunately, the dove would not tolerate my presence and flew away, precluding further observations.

Mannikins (*Lonchura* spp.)

On 7 January 1989, I visited a grassy field, about half a hectare in area, in front of the Baitabag community school. I heard the call of mannikins and located a flock consisting mostly of Grand Mannikins *L. grandis*, smaller numbers of Chestnut-breasted Mannikins *L. castaneothorax*, and a few Streak-headed Mannikins *L. tristissima*. On 17 January and again on 26 January I observed a single individual of a fourth species, the Hooded Mannikin *L. spectabilis*. On the evening of 14 January I tried to estimate the number of mannikins in the field by counting them as they broke up into small flocks and flew to their night roosts, and I estimated 328.

All four species were observed plucking seeds from the introduced grass *Rottboellia exaltata*. This grass may grow as high as 2 m, and produces seeds as large as rice grains. Although the leaves and stems were brown in most of the plants, the seeds were green and "milky". The bills of some of the mannikins were stained green, apparently from eating the half-ripe seedheads.

Henty (1969) reported *Rottboellia* as rare in New Guinea. However, I found this grass growing abundantly at Baitabag and Nitul where it is evidently an important food source for these mannikins. I visited Baitabag 12 times, and on all these occasions observed the mannikins feeding on this grass.

The Grand and Chestnut-breasted Mannikins were also observed plucking seeds from wild sugar cane *Saccharum robustum*. Grand Mannikins were observed feeding on *Saccharum* at Baitabag, Nitul and near Alexishaven.

Immelmann *et al.* (1977) report on Streak-headed Mannikins feeding on bamboo seeds. Stomachs of this mannikin taken on Karkar Island, Madang Province, contained mostly insects (Diamond & LeCroy 1979). On the mainland of New Guinea mannikins often coexist with *Cisticola* warblers. The authors suggest that mainland mannikins are granivorous as a result of competitive pressure from the insectivorous *Cisticola*. On Karkar, where *Cisticola* warblers are fewer, Streak-headed Mannikins might have been released from competition and have turned to an insect diet.

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Emmet Easton kindly collected and identified the termites. Jared Diamond and Matthew Jebb read an earlier draft of the manuscript and offered helpful comments. This is CRI publication number 33.

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Address: Dept. of Ornithology and Mammalogy, California Academy of Sciences, Golden Gate Park, San Francisco, CA 94118, U.S.A.

NOCTURNAL FEEDING BEHAVIOUR OF THREE DIURNAL RAPTOR SPECIES

JERRY WARNE

On 17 July 1988, whilst staying at Kiunga, Western Province, I noticed unusual nocturnal feeding behaviour of an adult Brahminy Kite *Haliastur indus* and two Australian Kestrels *Falco cenchroides*, although it is probably normal at this site.

Between 21:00 and 22:00 the birds preyed on a plentiful supply of moths that were attracted to powerful security lights illuminating the dock area, adjacent to the Fly River. Brief sorties from nearby perches were almost invariably successful. This active feeding behaviour was still taking place when I left the area. Mr D. Simpson (pers. comm.) has also seen Peregrines *Falco peregrinus* feeding in the same manner at this locality.

OBSERVATIONS ON THE FEEDING HABITS OF THE HUON ASTRAPIA *ASTRAPIA ROTHSCHILDI*

PETER LAMBLEY

While staying in the village of Ogeranang, Morobe Province, 28 June - 2 July 1988, I was able to watch a Huon Astrapia come down into the village every morning at sunrise to feed on the berries of the introduced shrub Canadian Elder *Sambucus canadensis*. The berries are apparently very attractive to the birds and according to the villagers they will sometimes come down to feed even in the middle of the day if it is quiet. The shrub is common in the vicinity of villages in the area.

Address: The Cottage, Elsing Road, Lyng, Norwich, NR9 5RR, UK

ROOSTING HABITS OF WHITE-BREASTED WOOD-SWALLOW *ARTAMUS LEUCORHYNCHUS*

LEN TOLHURST

While observing birds for the PNGBS Town Bird Survey, I have noticed that a number of White-breasted Wood-Swallows have been gathering at dusk on the campus of the Pacific Adventist College. Over several nights during the later months of 1989, these birds have been seen to gather on a large power pole, which supports a break-down transformer. The numbers that gather vary, but on 6 December 1989 I counted *c.* 80 birds gathered together and getting into position for the night. They were perched mostly side by side, actually shoulder to shoulder, touching each other and all facing the same way. More than one location was needed to accommodate this number of birds. Mostly they sat on the timber cross-beams, out in the open with no cover over their heads at all. Some birds as they arrived forced their way between others. During the day only small numbers of these birds are seen around the PAC but in the evening they can be seen flying in and circling before taking up their roosting positions.

Address: Pacific Adventist College, Private Mail Bag, Boroko, NCD.