

SOME RECORDS OF BIRDS FEEDING ON FLOWERS AND FRUITS IN MONTANE FOREST, NEAR MYOLA, ORO PROVINCE, AND TARI GAP, SOUTHERN HIGHLANDS PROVINCE, PAPUA NEW GUINEA.

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The following incidental observations of birds feeding on fruits or nectar were made while bird-watching and plant-collecting near Myola, in the Owen Stanley Mountains, Oro Province and near Tari Gap, in Southern Highlands, while staying at Ambua Lodge. The general avifauna of both these localities has been described elsewhere (Myola: Hicks 1988a,b,c; Ambua Lodge: Hicks 1988e, Finch *et al.* 1987). Although the forest at these two places is not identical, for instance there is no *Nothofagus* forest at Myola while there is above Tari, both are in the montane forest zone and have many species or genera of plants in common. Voucher specimens are deposited in the herbarium at UPNG.

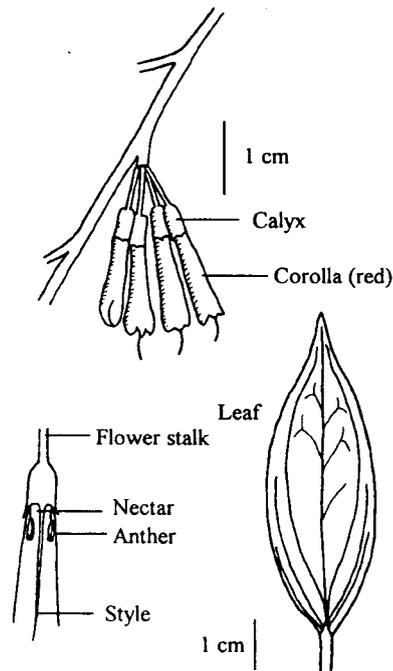
1) *Dimorphanthera c.f. cornuta* J.J. Smith (Ericaceae) (Fig. 1.)

2800 m, Tari Gap road, 18-19 Nov 1989. Voucher HCFH 1027.

This is a common shrub about 3 m high by the roadside and forest edge, with pendant flowers in groups of c.5 in the leaf axils. Each flower is about 3 cm long, with a tubular, waxy, coral-red corolla. Red-collared Myzomela *Myzomela rosenburgii* and Grey-streaked Honeyeater *Ptiloprora perstriata* were frequent visitors, poking their bills into the flowers from below.

On one occasion, two Plum-faced Lorikeets *Oreopsittacus arfaki* were observed from about 2 m, biting and pulling at the side of the corollas, and either detaching the corolla tube completely, or tearing away about half. They then fed on the nectar (and perhaps also pollen) which was exposed between the ring of anthers and the long central style (Fig. 1). This behaviour, unlike that of the two honeyeaters, would be unlikely to bring about pollination, as the lorikeets would not contact the stigmas of the flowers, even if their heads became dusted with pollen.

Fig. 1. *Dimorphanthera c.f. cornuta*



This species of *Dimorphanthera*, or a similar one also with red flowers, grows as an epiphyte at Tari Gap, and Belford's Melidictes *Melidictes belfordi* was seen feeding at its flowers in the forest canopy. Belford's Melidictes also visited the flowers of an epiphytic, red-flowered *Rhododendron*, a bright crimson orchid (probably a species of *Dendrobium*), and a *Saurauria* sp. with nodding clusters of white flowers, surrounded by bracts and slime.

Another species of *Dimorphanthera*, with larger, pale-pink flowers and larger leaves, was also in flower at Tari Gap, but no visitors were observed.

2) *Polygonum nepalense* Meissn. (Polygonaceae)

2800 m, Tari Gap road, 18-19 Nov 1989. Voucher HCFH 1028.

I observed a Mountain Firetail *Oreostruthus fuliginosus* feeding on the seeds of this herb which was growing on open ground by the roadside. The plant was only 20 cm tall, with reddish stems and leaves, and its dry, hard, black fruits, 1 - 2 mm in diameter, are arranged in clusters surrounded by numerous small white bracts.

3) *Sericolea pullei* (Laut.) Schltr. (Elaeocarpaceae)

2200 m, grounds of Ambua Lodge, 18-19 Nov 1989. Voucher HCFH 1025.

Two neighbouring *Sericolea* trees, growing by the path to the bridge, attracted a considerable number of birds. Common Smoky Honeyeaters *Melipotes fumigatus* were the most numerous, accompanied by Mid-mountain Berrypeckers *Melanocharis longicauda*, Orange-billed Lorikeets *Neopsittacus pullicauda*, and 3 female (-plumaged?) Loria's Bird of Paradise *Cnemophilus loriae*. All of these fed on the small spherical fleshy berries, about 3 mm in diameter, which are borne on short stalks among the leaves. There are fruits at different stages of ripeness in each group and varying in colour from green, to red, to black.

A large green pigeon, probably White-breasted Fruit-Dove *Ptilinopus rivoli* and white eyes (probably New Guinea White-Eye *Zosterops novaeguineae*) were also seen in the trees. The pigeon was resting. The white-eyes may have been taking fruit or looking for insects since Beehler *et al.* (1986) record fruit, insects, and nectar in their diet. Hicks and Hicks (1988) recorded Short-tailed Paradigalla feeding on the fruits of the same species of tree at Ambua Lodge.

4) *Homolanthus* sp. (Euphorbiaceae)

1900 m, Benari road, below Ambua Lodge, 18-19 Nov 1989. Voucher HCFH 1026.

A female (-plumaged?) Blue Bird of Paradise *Paradisaea rudolphi* was seen apparently feeding on the green fruits of a small *Homolanthus* tree in a patch of forest by the road side. The fruits were more or less spherical, c. 1.5 cm in diameter, hanging down on stalks about 5 cm long, and somewhat inconspicuous amongst the leaves.

I also observed a Brehm's Tiger-Parrot *Psittacella brehmii* feeding in a *Homolanthus* tree on the Tari Gap road. I could not see any fruits in the crown, and the bird appeared to be eating the buds.

- 5) Sapotaceae sp. (Fig.2)
2100 m, Myola, 13 Jan 1988.

A Stephanie's Astrapia *Astrapia stephaniae* perched at the edge of the crown of this tree was seen feeding on its fruits. The bird had female plumage, but its tail was rather long (c.f. Beehler *et al.* (1986)), and so it may have been a sub-adult male. The tree was 25-30 m high and growing at the forest edge behind the gardens near Myola village. The fruits, borne singly amongst the leaves, were c. 3 mm long, and elliptical in shape (Fig.1b). Each contained a single seed with a scar down one side, identifying it as a species in the family Sapotaceae.

- 6) *Dimorphanthera c.f. amplifolia* (F. Muell.) Stevens (Ericaceae)
3200 m, path to Mt Kenavi, behind Myola, 31 Jul 1988. Voucher HCFH 947.

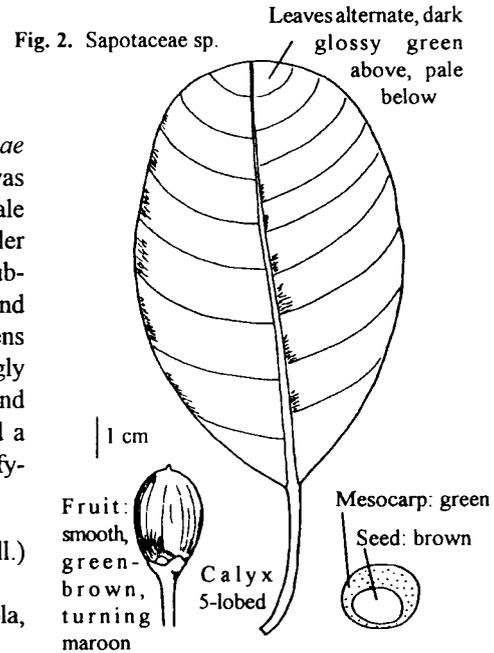
A Sooty Melidectes *Melidectes fuscus* was seen feeding on the flowers of this shrub at the boundary between a patch of grassland and the forest. The flowers are borne in clusters towards the ends of the twigs and amongst the leaves. They are c. 1 cm long, pendant, with rather thick green petals. Although the voucher keys out to *D. amplifolia* using van Royen (1982), the flowers of this variable species are more often pink.

- 7) *Papuacedrus papuanus* (F. Muell.) Li, syn. *Libocedrus papuanus* (Cupressaceae)
3100m, path to Mt Kenavi, behind Myola, 31 Jul 1988.

Orange-billed Lorikeets were seen feeding on the seed cones of this tall gymnosperm tree which is frequent in upper montane forest.

- 8) *Dacrycarpus* sp. (Podocarpaceae)
3100 m, path to Mt Kenavi, behind Myola, 31 Jul 1988.

I observed Crested Berrypeckers *Paramythia montium* taking the immature seed "cones" of *Dacrycarpus*. When ripe, the "cones" are larger and fleshy, but these were rather hard. They are produced at the tips of the twigs and are concealed from below by short, needle-like leaves.



- 9) *Rubus ferdinandi-muelleri* Focke (Rosaceae)
2080 m, Myola, 24 Dec 1990.

A female MacGregor's Bowerbird *Amblyornis macgregoriae* caught in a mist net in the forest by R. Hicks, produced a reddish faecal sample while being handled. This sample contained numerous seeds of *Rubus ferdinandi-muelleri*. Three species of *Rubus*, or wild raspberry, grow in the secondary vegetation at the edge of the forest beside the village, c. 100 m from where the bowerbird was caught. Two are scramblers and were not in fruit. *Rubus ferdinandi-muelleri* is a small, erect, much branched shrub with many thorns on the stems and leaves, white flowers with 5 petals and numerous stamens, and red, succulent fruits, c. 1 cm diameter, each composed of many tiny fleshy one-seeded drupelets which adhere to one another on a conical core.

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