



Figure 1. Fruits and seeds from faeces of Dwarf Cassowary.

A: *Amaracarpus*; B: *Rapanea*; C: *Dacrycarpus compactus*; D: Rutaceae;
E & F: Myrtaceae?; G: *Dimorphanthera*; H: *Prunus costata* (seed only)

i: fruit ii: seed

OBSERVATIONS OF BIRDS FEEDING AT A FLOWERING *SYZYGium*

ROGER K. HICKS

On 5 September 1987 I found a *Syzygium* sp. (Myrtaceae) tree in flower beside the boundary trail in Varirata National Park (Central Province) at c. 750m. The tree was c. 30 m tall and had a large spreading canopy. It stood on the bank of the stream, in the bottom of a steep-sided, relatively narrow valley. The flowers occurred in clusters growing directly from the sides, not at the ends of the branches, and did not grow from smaller twigs. The clusters consisted of many stalks, almost mistletoe-like, with each stalk supporting a flower. These clusters were about 15 cm in diameter. The stalks on which the flowers grew were quite woody and would support a bird the size of a Helmeted Friarbird *Philemon bucceroides*.

Between 5 and 20 September 1987 I visited the tree four times and watched for a total of 520 minutes (5 September 15:00 - 16:45; 12 September 07:45 - 08:10; 13 September 08:45 - 11:30 and 20 September 07:00 - 10:45). The shortest observation period was 25 minutes and the longest 225 minutes. There were many fewer flowers on 20 September, the last visit, than on the first, although I cannot quantify this. I observed the tree from a convenient point on the ground, from where 70% of the canopy was visible. Although the tree was in leaf, the foliage was sparse and it was only the crown of a smaller tree that obscured my view.

Nine species, six honeyeaters (plus one unidentified meliphaga) and two lorries were observed feeding at the flowers of this *Syzygium* tree. Feeding birds were present in the tree for 85% of the observation time, which included all of the first three observation periods. Only during the final observation period, when there were fewer flowers, were there times when there were no birds feeding in the tree.

Between one and four Helmeted Friarbirds were present throughout the first three observation periods. On 20 September two birds made only a brief visit to the tree to feed. Helmeted Friarbirds were present in the tree for 57% of the observation period and during this time at least one bird was feeding at a flower-cluster. While in the tree, the friarbirds moved from flower-cluster to flower-cluster by hopping along the branches or flying from branch to branch. When feeding the friarbirds perched by, or on the flower-cluster, using their long necks and bills to reach the more inaccessible flowers. Although there were many flowers on each cluster, the friarbirds fed from only a few before moving on to the next cluster, so the time spent on each cluster was short, usually less than two minutes. Even when four friarbirds were in the tree together no intraspecific aggression was noticed, although the birds seemed to keep in pairs. When a single bird was alone in the tree it called almost continuously.

Greater Streaked Lories *Chalcopsitta scintillata* were not recorded on the first visit but were seen on the subsequent three visits. Between two to eight birds (one to four pairs) were noted. They were present in the tree for 19% of the observation time. On approaching and leaving the tree the birds were noisy but were mostly quiet while feeding. They moved from flower-cluster to flower-cluster by walking along the branches. On the flower-clusters they moved acrobatically from flower to flower, hanging upside down to reach the more inaccessible ones. They did not appear to damage the flowers, i.e., they were not flower predators. No intraspecific aggression was noted and although competing for the same resource no interspecific aggression with the friarbirds was recorded.

Western Black-capped Lories *Lorius lory* were present in the tree for 35 minutes (7% of the observation time). Two to four were recorded feeding in the tree. They were not seen in the tree at the same time as the Greater Streaked Lories. As with the Greater Streaked Lories they were mainly quiet while feeding, but noisy when flying to and from the tree. They were also more acrobatic than the Helmeted Friarbirds when feeding at the lower clusters.

The remaining six species, all honeyeaters, which visited the *Syzygium* tree to feed, did so only briefly. Each feeding visit lasted less than a minute, with the birds only feeding at one or two flower clusters as they passed through the tree. These six species made 13 feeding visits to the tree. Three species made five feeding visits on 5 September and four species, plus an unidentified meliphaga made eight feeding visits on 20 September. On 5 September one Tawny-breasted Honeyeater *Xanthotis flaviventer*, two Puff-backed Meliphagas *Meliphaga aruensis*, and one Dwarf Honeyeater *Oedistoma iliophus* passed through the tree with a mixed-species feeding flock. A single Tawny-breasted Honeyeater had also been recorded earlier in the first observation period. On 20 September an unidentified meliphaga and a Red-throated Myzomela *Myzomela eques* were with a party that also included two Helmeted Friarbirds and also fed on the *Syzygium* flowers. One male Papuan Black Myzomela *Myzomela nigrita*, two Mimic Meliphagas *Meliphaga analoga* and two Tawny-breasted Honeyeaters moved through the tree with another mixed-species feeding flock later in the day. No interspecific aggression was noted among the species that made up these flocks. However, despite this, I think the Helmeted Friarbirds had been defending this tree against smaller honeyeaters as none were recorded on 12 and 13 September. Only when the numbers of flowers were much reduced, on 20 September, and the friarbirds were only noted briefly, were the smaller birds recorded more frequently.

Address: 7 Newtown, Codicote, Herts., U.K.

OBSERVATIONS OF BIRDS FEEDING IN A FRUITING FIG *FICUS* SP. IN VARIRATA NATIONAL PARK

NIKLAS WAHLBERG

On 10 and 11 August 1990 I observed and noted birds that fed on the fruits of a large strangler fig *Ficus* sp. (Moraceae). The tree was an emergent from the forest with a wide canopy, between the Circuit and Boundary trails in Varirata National Park, Central Province. My observations were between 06:30 and 08:30 on both days. I recorded 12 species feeding on the fruit. Most activity was recorded between 06:30 and 07:45. Most species visited the tree for between 2-3 minutes, although some fruit-doves stayed for as long as an hour.

The most frequent visitors to the tree were female-plumaged Raggiana Birds of Paradise *Paradisaea raggiana*. I recorded 18 feeding visits in the four hours and only one bird had male plumage (with no plumes). Only once were there two female-plumaged birds in the tree simultaneously. Several different visits were so close together that I think they were different birds. Their visits ranged from 1-6 minutes duration, with an average of c.2 minutes. It is possible that there were two nesting females using the tree as a food source for their young, while the single male was there opportunistically.

Four species of fruit-doves were recorded feeding: Pink-spotted *Ptilinopus perlatus*, Beautiful *P. pulchellus*, Superb *P. superbis* and Orange-bellied *P. iozonus*. Of these, Pink-spotted Fruit-Doves were almost constantly in the tree, with up to three simultaneously. Beautiful Fruit-Doves came in pairs, spending 10-20 minutes feeding. Only one Superb Fruit-Dove, a male, was recorded. A pair of Orange-bellied Fruit-Doves made only one visit, feeding for about 15 minutes. One other pigeon, a Purple-tailed Imperial Pigeon *Ducula rufigaster* stayed in the tree for c.30 minutes.

Two species of cuckoo-shrike were recorded. Boyer's Cuckoo-Shrikes *Coracina boyeri* were recorded seven times, only once staying longer than 2 minutes. They usually came in pairs and fed by snatching fruit on the wing, then perching to swallow. A Stout-billed Cuckoo-Shrike *C. caeruleogrisea* visited once for a period of one minute. It did not feed.

Of the remaining four species, the Helmeted Friarbird *Philemon buceroides* was recorded five times: twice a pair and three times a single bird. They averaged about 5 minutes for each visit. Magnificent Riflebirds *Ptiloris magnificentus* were recorded three times. Once a lone male, once a lone female and once a male and two females which arrived and left together. The lone female fed for seven minutes and the lone male for one minute. The group of three birds spent four minutes in the tree, but only the females were observed feeding. The male of the group was very vocal. Single Hooded Pitohuis *Pitohui dicrous* were recorded three times and never spent more than two minutes feeding in the tree. Male Black Berrypeckers *Melanocharis nigra* were constantly in the tree and fed several times.

This species of strangler fig would appear to be an important food source for several species of birds, though the fruit do not have a high nutritional value (B.M. Beehler pers. comm.).