

ASIAN ENIGMA

The elusive Negros Fruit Dove *Ptilinopus arcanus* sixty years on

N. J. COLLAR & F. R. LAMBERT

Discovery

On 1 May 1953, camping in forest at just over 1,000 m on Mt Canlaon on the Philippine island of Negros, the indefatigable collector D. S. Rabor shot two birds out of a large fruiting tree. One of the fallen birds was lost. The one that was recovered, a female, proved to be a new species of fruit dove, which Rabor, with his then employer and supervisor, S. Dillon Ripley, named *Ptilinopus arcanus* (Ripley & Rabor 1955). Taxonomists enjoy sometimes giving names to species that reflect the circumstances of the discovery and their reaction to it—*inexpectatus* (and associated spellings) happily figures 27 times in the index to Dickinson (2003)—and in this case the word *arcanus*, meaning ‘secret, hidden’ (Jobling 2010), clearly expressed the two ornithologists’ sense of surprise that such a distinctive bird should have remained undetected for so long in the mountain forests of Negros, an island which had been explored relatively well in the preceding sixty years or so (Dickinson *et al.* 1991). What they could not have known then was just how apt that name was to prove to be, for in the subsequent sixty years the species has continued to keep itself entirely hidden from view.

As a consequence of this two questions have arisen. First, could the species be extinct? And second, could the specimen to which the name attaches be some sort of aberration? Clearly there is a strong possibility that the answer to the first question is yes. Brooks *et al.* (1992) suggested that ‘the species may have been chiefly lowland in distribution, in which case it may well be extinct since no forest survives below 750 m in northern Negros’, and this notion has been repeated, with seemingly greatest conviction by Gibbs *et al.* (2001), who wrote ‘it is probable that its preferred habitat is forest at lower altitude and that the bird collected was a refugee from the deforested lowlands living in suboptimal habitat where breeding could not be successful’, leading to Dickinson (2003) marking it ‘+?’, meaning ‘there is some doubt about its extinction’. Given the failure of anyone to find the species it is certainly justified to regard it as Critically Endangered, the highest of the IUCN threat status categories (BirdLife International 2013)—unless, of course, it is indeed an aberration, an option that recent

authors (Brooks *et al.* 1992, Baptista *et al.* 1997, Collar *et al.* 1999, Kennedy *et al.* 2000) have repeatedly allowed.

The difficulty with this idea is knowing what it could be an aberration of. It is a very distinctive creature, not least because of its size—at 16.5 cm, with the sole exception of Dwarf Fruit Dove *P. nainus* of New Guinea, it is the smallest of the 51 known species of *Ptilinopus* (average size 25 cm) treated in the *Handbook of the birds of the world* (Baptista *et al.* 1997). The female is almost all grass-green, but has a grey forehead to mid-crown, blurry-edged white chin and upper throat (with a few irregular white feathers on the belly with lower belly feathers white with green tips or subterminal tips), yellow vent and undertail-coverts, long yellow line along the folded wing parallel with the edge of the primaries and, most distinctive, a very broad bare yellow orbital ring, which Ripley & Rabor (1955) found to be ‘roughly 3 mm wide in the dried specimen’. The grey feathers of the forehead abut this orbital ring, and there is a grey fringe to the lower and rear edge of the ring as well. Rabor wrote nothing on the label at the time he collected the specimen concerning eye, bill or leg colour, or even the colour of the orbital skin. For these parts the original description (Ripley & Rabor 1955) reads: ‘Bill (in the dried skin) black, feet evidently dully purplish red, orbital skin yellowish (in the dried skin)’.

Ripley & Rabor (1955) noted that their new bird was quite unlike any fruit dove in the Philippines, and thought that in general size and pattern it most resembled Claret-breasted Fruit Dove *P. viridis* of the southern Moluccas and New Guinea, although the differences remain as striking as the similarities. They also mentioned (female) Blue-capped Fruit Dove *P. monacha* of the northern Moluccas, which is certainly a closer fit, being only a fraction larger, but also with a blue-stained breast, much paler undertail-coverts, and neither wing-stripe nor orbital ring. Mayr (1957) took this cue, drily observing ‘Final determination of the systematic status of this bird will have to be postponed until the male is known. Perhaps related to *P. monachus*’. He then listed *arcanus* in the category ‘Provisionally recorded as species, but information insufficient’. The account of the form in Brooks *et al.* (1992), raising the possibility of its invalidity,

appeared to attribute to Mayr (1957) the notion that it ‘may have been a runt specimen of Yellow-breasted Fruit-dove *P. occipitalis* or of a green-pigeon *Treron* sp.’, but these were evidently their own highly speculative thoughts. In reality, all species of *Treron* differ quite radically from *arcanus* in structure and plumage characters, while the bill colour, wing-stripe, vent colour and orbital ring of *arcanus* are entirely irreconcilable with Yellow-breasted Fruit Dove—and in any case, where is there any evidence that aberrations so strong have ever been found in one wild species of pigeon (or indeed in a bird of any family)?

Plates 1–3 show the type specimen, housed at the Peabody Museum in Yale University. These days it should be possible to remove a tiny fragment of tissue and prove its validity through molecular analysis. However, the absence of another species even remotely resembling *P. arcanus* makes the aberration hypothesis infinitely less plausible than the view that it is a good species.

What then do we know about this bird? What might guide us back to it? Ripley & Rabor (1955) reported that the specimen was taken ‘at Pula (Pulopantao), Mount Canlaon’ as ‘one of a pair shot out of a large fruiting tree on the edge of a camp clearing, at an altitude of 3600 feet’, and that

‘the presumed mate was unfortunately lost in the undergrowth’. Baptista *et al.* (1997) garbled this into ‘although two individuals probably of this species were seen at the same time’. The reverse of Rabor’s label in Yale has ‘In tall feeding tree in camp’ [*sic*] and ‘3,600 ft’ written in ink. However, when describing the collecting sites in a separate publication, Ripley & Rabor (1956) distinguished between Barrio Pula (2600 feet [792 m]) and Sitio Pulopantao (3600 feet [1,097 m]), but presumably, as sitios are subdivisions of barrios (barangays), Pulopantao is the more precise locality and no contradiction exists. Even so, eleven years after the event Rabor (1964) changed the story very slightly, saying that the specimen was ‘taken from a tall tree growing on a ridge with a very deep ravine on one side... at about 3700 feet elevation [1128 m]’. Thus we have one locality but two elevations (1,097 m and 1,128 m) not, incidentally, 1,250 m as in Brooks *et al.* (1992) or 1,200 m as in Dickinson *et al.* (1991) and Baptista *et al.* (1997), although the distinction between these two heights is unlikely to hold any significance.

How many attempts have been made at a rediscovery are unknown to us, but many observers must in the past two decades have been in forest on Canlaon at these altitudes. Brooks *et al.* (1992)

Plates 1–3. Ventral, lateral and dorsal views of the type of *Ptilinopus arcanus* (catalogue number YPM 23535) in the Peabody Museum, Yale University.



failed to find it in July–August 1991 ‘despite nine days being spent at the type-locality and a further 11 days at other sites in the same range of mountains’. P. Alviola failed to find it there in a survey of Canlaon in March 1994 (Collar *et al.* 1999). Since then we know of only one concerted effort to find the species.

Notes on a search in 2010

In 2010 FRL visited the forested area above Mambukal in Barangay Minoyan on Mt Canlaon to evaluate the state of the forest. Along the main summit trail reasonable mid-elevation dipterocarp forest started at about 800 m, with many tall (> 30 m) trees and a good understorey. Subsequently he established a base camp (10.493°N 123.110°E) at about 840 m near this trail, and searched for Negros Fruit Dove from 30 April to 8 May. He visited forested sites at elevations between about 750 m and 1,950 m, although on all but one day he stayed below 1,100 m. The forest above Mambukal was in surprisingly good condition, with *Ficus*-rich dipterocarp forest extending down below 750 m in some of the more inaccessible deep valleys (perhaps locally as low as 700 m). Strangling figs were at high density on the slopes below 850 m and indeed one of the most dominant and characteristic trees in the canopy. They were also relatively common in areas above camp, up to about 1,050 m, but thereafter appeared to become much rarer. All the forest above 900 m was in very good condition, even around the geothermal power plant at about 1,100 m.

From 13 to 16 May FRL visited the North Negros Forest Natural Park (NNFNP) near the town of Patag, working from a base camp (10.689°N 123.182°E) in a fairly deep river valley at 800 m and surveying ridge-tops and a fairly broad plateau area at about 830 to 840 m. The area supported tall near-primary dipterocarp forest where figs were relatively common. Some of the trees were probably in excess of 45 m tall, making it very hard (even with a telescope) to find, see well or identify fruit doves in the canopy.

On 9 May he visited a very steep forested ridge (9.261°N 123.197°E) that can be accessed from near the town of Valencia. The forest on the ridge itself, although in good condition above about 1,100 m, was very different in character to those in the areas visited in northern Negros, being considerably more stunted and windswept and probably more disturbed. The slopes were forested above perhaps about 900 m.

BirdLife International (2013) note that ‘a combination of hunting, which affects all pigeons and fruit-doves on Negros, and habitat destruction are presumably the major threats’ to the

Negros Fruit Dove. There is no doubt that hunting levels in the forests of Negros have been very high and probably remain so in many areas. Even so, many species of pigeon are still relatively common on Mt Canlaon. The calls of fruit doves, White-eared Brown Dove *Phapitreron leucotis*, Philippine Cuckoo Dove *Macropygia tenuirostris* and Emerald Dove *Chalcophaps indica* were heard very regularly there, whilst all of these species plus Pink-bellied Imperial Pigeon *Ducula poliocephala* were frequently heard in the NNFNP. Clearly populations of these pigeons can survive the levels of hunting pressure that they have encountered over the last few hundred years, for three possible reasons. (1) Some species are very secretive and hard to spot even when calling (*Ptilinopus* and *Ducula* in particular). (2) They favour taller trees where they are difficult to shoot or trap. (3) Many birds may breed at higher, safer elevations at a sufficient rate to sustain losses from hunting in the more disturbed and accessible forests at lower elevations.

Fruit doves were heard calling in small numbers almost daily. All of the birds heard appeared to be Yellow-breasted Fruit Doves, the commonest *Ptilinopus* in the Philippines (Kennedy *et al.* 2000). A number of distinctly different vocalisations were attributed to this species, but there was at least one call (heard once only, at about 950 m on Mt Canlaon) that was almost certainly a *Ptilinopus* but not necessarily *occipitalis*. Fruit doves were, however, near-impossible to locate and observe: they invariably called from high in the canopy and if approached often flew off before being spotted or just stopped calling. The only reliable way to see fruit doves was to stake out fruiting fig trees. Yellow-breasted Fruit Doves visited such trees infrequently, usually as a group (of up to 8–10), and usually for a relatively short time-span (up to five minutes).

According to Batoy, a local guide on Mt Canlaon, about February 2008 a hunter shot a small green dove with a yellow eye-ring—Batoy saw the bird himself amongst the hunter’s booty. He took FRL to the spot (10.493°N 123.116°E) where the hunter had been caught, which was on fairly level ground (784 m) below a steeper slope. The site still supports tall forest with a high density of strangling fig trees and is in very good condition despite a lot of cutting of smaller pole-sized saplings. Batoy claimed that he had never seen this dove before, even though he has lived in this area since childhood.

René Vendiola, an ex-hunter from Valencia who accompanied FRL into the forest in the south, also claimed to know the Negros Fruit Dove and said he last encountered the bird in about 1985 when

he shot two in good forest in an area known as Mantiquil (9.17°N 123.05°E). Dave Sargeant (pers. comm.) visited this area in early 2010 and confirmed that good forest occurs there, with Rufous-headed Hornbill *Aceros waldeni* heard calling.

It is difficult to judge how dependable these local reports might be. However, the facts that the Negros Fruit Dove was collected well above 1,000 m, that there are still very good patches of forest at that elevation with many fig trees, and that other, larger species of pigeon have been able to survive the onslaught of Philippine hunters down the years give reasonable hope that dedicated searches will one day result in the rediscovery of the species—possibly of course on Panay, a poorly explored, slightly better forested island which has proved to hold almost exactly the same complement of species as Negros (Kennedy *et al.* 2000, Gibbs *et al.* 2001). Only eight years ago Arndt (2005) mentioned how it took very careful searching to reveal that the Guaiabero *Bolbopsittacus lunulatus*, a cryptic green parrot endemic to the Philippines, was actually a common bird. Indeed, this species proves to have one of the highest densities of any frugivore in Luzon (Española *et al.* 2013), yet its nest has only just been found (Mills 2006, Rosell *et al.* 2007). Why then might not a species of highly cryptic pigeon, living at low density in the canopy of a seldom visited forest, still be awaiting a second encounter with an ornithologist sixty years after its first?

Postscript

Delightfully, there *is* one man alive today who has seen the Negros Fruit Dove. Dr Angel Alcalá, whose very distinguished career in biology in the Philippines included a term in the mid-1990s as Secretary of Environment and Natural Resources, was 24 when he joined Rabor's expedition to Canlaon, and was standing near him when Rabor fired his shotgun into the tall tree at the bird that was to become the type. He vividly remembers Rabor's outburst of temper—an expression of 'frustration and dismay'—when his second shot failed to bring down the second bird, which did not fly off 'normally', suggesting to them that it had been hit. Alas, the passage of time has erased any memory of the immediate post-mortem colours of the soft-parts and orbital ring.

Acknowledgements

FRL gratefully acknowledges the British Birdfair/RSPB grant which allowed him to search for the Negros Fruit Dove. We thank Michael Dolittle and Kristof Zyskowski of the Peabody Museum, Yale University, for the photographs of the type

specimen, and Aldrin Mallari for telephoning Angel Alcalá for his memories of 1 May 1953.

References

- Arndt, T. (2005) The Guaiabero. *BirdingASIA* 4: 41–46.
- Baptista, L. F., Trail, P. W. & Horblit, H. M. (1997) Family Columbidae (pigeons and doves). Pp.60–243 in J. del Hoyo, A. Elliott & J. Sargatal, eds. *Handbook of the birds of the world*, 4. Barcelona: Lynx Edicions.
- BirdLife International (2013) Species factsheet: *Ptilinopus arcanus*. Downloaded from <http://www.birdlife.org> on 05/03/2013.
- Brooks, T. M., Evans, T. D., Dutton, G. C. L., Anderson, G. Q. A., Asane, D. C., Timmins, R. J. & Toledo, A. G. (1992) Conservation status of the birds of Negros, Philippines. *Bird Conservation International* 2 (4): 273–302.
- Collar, N. J., Mallari, N. A. D. & Tabaranza, B. R. (1999) *Threatened birds of the Philippines*. Manila: Bookmark, Inc., in conjunction with the Haribon Foundation.
- Dickinson, E. C., ed. (2003) *The Howard & Moore complete checklist of the birds of the world*. Third edition. London: Christopher Helm.
- Dickinson, E. C., Kennedy, R. S. & Parkes, K. C. (1991) *The birds of the Philippines: an annotated check-list*. Tring, UK: British Ornithologists' Union (Check-list 12).
- Española, C. P., Collar, N. J. & Marsden, S. J. (2013) Are populations of large-bodied avian frugivores on Luzon, Philippines, facing imminent collapse? *Anim. Conserv.* (published online on 31 January 2013 doi:10.1111/acv.12018).
- Gibbs, D., Barnes, E. & Cox, J. (2001) *Pigeons and doves: a guide to the pigeons and doves of the world*. Robertsbridge, East Sussex, UK: Pica Press.
- Jobling, J. A. (2010) *The Helm dictionary of scientific bird names*. London: Christopher Helm.
- Kennedy, R. S., Gonzales, P. C., Dickinson, E. C., Miranda, H. C. & Fisher, T. H. (2000) *A guide to the birds of the Philippines*. Oxford: Oxford University Press.
- Mayr, E. (1957) New species of birds described from 1941 to 1955. *J. Orn.* 98: 22–35.
- Mills, M. S. L. (2006) A presumed nest of Guaiabero *Bolbopsittacus lunulatus*, an endemic Philippine parrot. *BirdingASIA* 5: 75.
- Rabor, D. S. (1964) New bird records of various islands in the Philippines. *Silliman J.* 11: 202–216.
- Ripley, S. D. & Rabor, D. S. (1955) A new fruit pigeon from the Philippines. *Postilla* 21.
- Ripley, S. D. & Rabor, D. S. (1956) Birds from Canlaon Volcano in the highlands of Negros Island in the Philippines. *Condor* 58: 283–291.
- Rosell, N. T. B., Ocon, R., Mallari, C. S., Robledo, L. & Mapua, I. (2007) Three nests of the Guaiabero *Bolbopsittacus lunulatus*. *BirdingASIA* 8: 74–76.

N. J. COLLAR

*BirdLife International, Girton Road, Cambridge
CB3 0NA, UK*

Email: nigel.collar@birdlife.org

F. R. LAMBERT

*E1802A Perdana Condo, Jalan PJU 8/1, Damansara
Perdana, Petaling Jaya
47820 Selangor, Malaysia
Email: flambertemail@yahoo.co.uk*