

Recent observations of the Endangered Timor Green Pigeon *Treron psittaceus* on Roti island, Lesser Sundas

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Ringkasan. Punai Timor *Treron psittaceus* adalah spesies burung terancam punah dengan status Gending dari Timor, Roti dan Semau di Nusa Tenggara. Pada tahun 2009 dan 2014 kami menghabiskan total 25 hari di pulau Roti dan melakukan dua pengamatan di kawasan hutan tropis kering di bagian utara pulau tersebut. Keberadaan Punai Timor dibagian utara pulau nampaknya dalam kepadatan sangat rendah. Survei dibutuhkan untuk menilai status spesies ini di pulau Roti. Langkah-langkah untuk mengontrol perburuan dan penangkapan burung di pulau tersebut juga diperlukan untuk menjamin keberlanjutan hidup jangka panjang spesies ini.

Introduction

The Timor Green Pigeon *Treron psittaceus* is endemic to the island of Timor and its satellites, Roti and Semau (Fig. 1) (BirdLife International 2014; Johnstone *et al.* 2014). Based on information from local villagers, it may also occur on Atauro Island (Trainor & Soares 2004). The species inhabits primary and tall secondary, dry and monsoon forest in lowlands up to 160 m a.s.l, but occasionally up to 1,000 m (Coates & Bishop 1997; BirdLife International 2014). The species is patchily distributed, and absent from areas of apparently suitable habitat. Being an obligate frugivore, with a predilection for figs, it probably undertakes seasonal movements in search of fruiting trees (Baptista *et al.* 1997; Gibbs 2001).

The stronghold of the Timor Green Pigeon is in remaining intact lowland forest areas of Timor-Leste where it is reported as localized but still common in certain areas (Trainor *et al.* 2008) with several reports of large flocks of 50-140 birds. The species is now much rarer in Indonesian West Timor where lowland monsoon forest habitat has been greatly reduced and fragmented. It may have been extirpated at a number of sites where it occurred (Baptista *et al.* 1997). For example, in June 1986, K.D. Bishop observed a flock of 60 in the lowland forest patch at Bipolo, a popular birding site near Kupang (Coates & Bishop 1997). However, observations at this site gradually became less frequent, with the last reported observation in August 1999 (BirdLife International 2001). This record also appears to be the last reported observation from Indonesian Timor.

Timor Green Pigeon is listed by BirdLife as “Endangered”, with a rapidly declining population, which is estimated to consist of 1,000-3,000 individuals. The main reasons for its decline are ongoing clearing of lowland forest and the intense hunting that is prevalent in at least part of its range (BirdLife International 2014). The species appears to be particularly vulnerable to hunting as it tends to concentrate in fruiting trees and is generally naïve about humans, potentially allowing hunters to shoot whole flocks (Trainor *et al.* 2008).



Figure 1. Potential distribution of Timor Green Pigeon (in green shaded zone, © HBW Alive), based on map in del Hoyo *et al.* (2014), with oval indicating possible range on Roti.

Observations of Timor Green Pigeon on Roti

Judging from the literature, recent surveys and short visits by naturalists, the Timor Green Pigeon is extremely rare on Roti. The first record of this species on Roti was by Verheijen who collected a male near Ba'a in 1969 (Mees 1975). It was not observed by Johnstone & Jepson (1996) who spent 12 days and four days surveying birds in northern Roti in 1990 and 1993, respectively. Moreover it was not recorded by J. Olsen who spent five days birding in southern Roti from 12 to 16 July 2002 (J. Olsen *in litt.* 2014). The only other previously published record concerns one individual in a fruiting fig tree, 2 km north-west of Sipu, in December 2004 during an 8-day survey of the forested part of northern Roti (Trainor 2005). Trainor reported that the species is known to local hunters who selectively target the species since local people consider its meat, locally known as "rekus", as delicious.

On 7 August 2009, PV flushed two Timor Green Pigeons from a large fig tree at the edge of a coastal patch of dry tropical forest some 2 km east of Bolatena village ($10^{\circ}34'36''\text{S}$, $123^{\circ}17'12''$). The birds were seen well in flight and identified by their relatively large size in comparison to the other two green-colored pigeons occurring on Roti (Emerald Dove *Chalcophaps indica* and Rose-crowned Fruit-dove *Ptilinopus regina*), and by the overall greenish appearance with clearly visible broad yellow edges on the wing coverts that are typical for *Treron* species. As with the Trainor record, local hunters appeared to be familiar with the species and appreciate its meat. The hunters were capable of imitating the birds' typical growling calls and described it as being much larger than the Rose-crowned Fruit-dove which is common on Roti.

On 14 December 2013, SC observed two Timor Green Pigeons in a degraded forest patch (10°34'10"S, 123°18'48"E) bordering an open area in woodland about 1 km south of Daurendale-Sotimori. At a landscape level, this woodland merged into denser tropical dry forest over less than one kilometre. The birds were seen at close range perching in the top of a broadleaf tree, giving typical "see-saw" notes and bubbling and gargling sounds. SC obtained some sound recordings of the call (Cooleman 2013: XC177361). On at least one individual the plumage was greenish, except for the black secondaries, and broad yellowish edges to the wing coverts were clearly visible, as well as the brownish-orange iris, and pale blue-grey eye-ring and bill colour (cf. Plates 1 and 2, from Timor-Leste). This was SC's only observation of this species during four days spent in the northern forested part of Roti.



JAMES EATON

Plate 1. Lateral view of a Timor Green Pigeon perched in a fruiting fig tree in Timor-Leste.

On the other hand, other observers visiting northern Roti did not record the species. Peter and Erwin Collaerts (pers. comm.) spent two days in northern Roti in July 2012. During August 2012, September 2013 and September 2015, James Eaton (pers. comm.) spent three afternoons and three mornings birding in northern Roti. Rob Hutchinson (pers. comm.) and Mike Nelson (pers. comm.) each spent an afternoon and a morning birding in northern Roti during June and July 2015, respectively. No Timor Green Pigeons were observed during any of those visits. Finally, the species could not be located by PV during a 5-day visit to the Sotimori-Daurendale area in April 2014. Local hunters reported that the species is now very rare but confirmed that they still observe and hunt the species occasionally.



Plate 2. Frontal view of a Timor Green Pigeon (same bird as Plate 1)..

Discussion

Our observations in 2009 and 2013 indicate that Timor Green Pigeon persists as a highly localized resident in very low densities on Roti. It seems unlikely that the paucity of records from the island can be wholly explained by the tendency of the species to be inconspicuous and wary (BirdLife International 2014). We presume it must be genuinely rare and its population must be close to extermination due to heavy hunting pressure that is prevalent on the island. Based on just two observations, a seasonal pattern in months of records cannot be drawn, particularly in absence of data on tree fruiting phenology on Roti island. However we would expect that the best chance of observing this species is when fig trees are fruiting. To properly assess the status of this pigeon on Roti, systematic surveys will be required. Recent ornithological work highlighted the conservation significance of Roti, especially the wetlands and the forests in the northern part of the island (Trainor 2005). While the southern and central parts of Roti are largely dominated by agricultural land use, forest coverage in the northern part of Roti appears relatively stable during the last decade (Potapov *et al.* 2011; Global Forest Watch 2014). Thus hunting and trapping seem to be the main threats to birds on Roti.

During our visits to northern Roti we also observed the Critically Endangered Yellow-crested Cockatoo *Cacatua sulphurea* and five restricted-range species that are listed as “Near-Threatened”, including the Olive-shouldered Parrot *Aprosmictus jonquillaceus*, Timor Black Pigeon *Turacoena modesta* and Pink-headed Imperial Pigeon *Ducula rosacea*. In addition, we observed the recently discovered endemic owl known as the “Roti Boobook” *Ninox novaeseelandiae rotiensis*, which may be upgraded to species level, and is also likely to be listed as a threatened taxon pending targeted surveys (Verbelen 2010).

Acknowledgments

We thank Colin Trainor and Richard Noske for commenting on previous drafts of this manuscript. Reviewers James Eaton and Ron Johnstone made useful comments and suggestions which improved the paper, and James Eaton also kindly allowed the use of his photographs of Timor Green Pigeon. Thanks also go to Peter and Erwin Collaerts, Rob Hutchinson and Mike Nelson for providing information on their Roti visits. Adam Supriatna kindly provided the Indonesian summary. Finally we thank the Yohannis family of Sotimori village for their great hospitality and encouragement.

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