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A population of Greater Ground Robin *Amalocichla sclateriana* (Petroicidae) from central New Guinea

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Greater Ground Robin *Amalocichla sclateriana* is a large, terrestrial petroicid endemic to the high mountain forests of New Guinea (Beehler & Pratt 2016). It is known from three isolated populations (Fig. 1)—*A. s. occidentalis* in the vicinity of Lake Habbema in the eastern Sudirman Range (Snow Mountains); *A. s. sclateriana* on the Papuan Peninsula; and a population in the Saruwaged Range on the Huon Peninsula (Freeman *et al.* 2013). There is a gap of more than 900 km between previously confirmed localities along New Guinea's central cordillera. However, the species is elusive (e.g. Mayr & Rand 1937) and scarce in some known localities, and there are unconfirmed aural records from central New Guinea at Tari Gap and in the Kaijende Highlands (Beehler 1993, Beehler & Sine 2007).

In 2017 a population of *A. sclateriana* was discovered by camera trapping on Hides Ridge (05°55.1'S, 142°41.7'E; Fig. 2), a broad limestone ridge extending some 20 km south-east from the Muller Range and rising to c.2,800 m above sea level west of the Tagari River valley in Hela Province, Papua New Guinea. The site is midway between previously confirmed localities at Lake Habbema and Mount Kumbak at the base of the Papuan Peninsula, and less than 65 km from unconfirmed sites at Tari Gap and Kaijende (Fig. 1).

As part of an ongoing monitoring programme, in May–August 2017 we deployed 20 white-flash digital camera traps (Reconyx PC850) within a c.150 ha sampling area on the

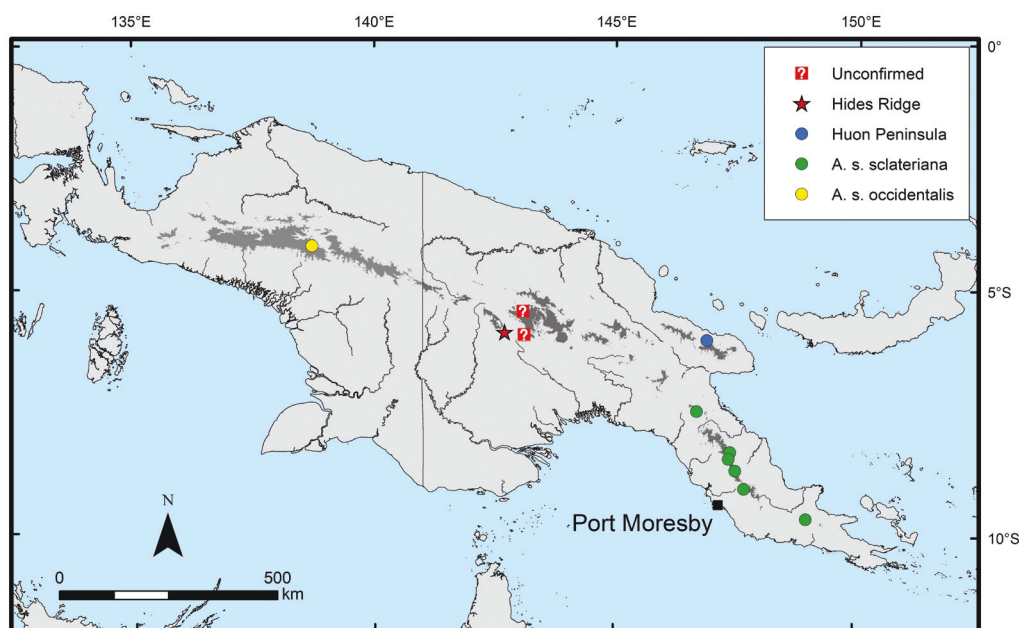


Figure 1. Confirmed localities of Greater Ground Robin *Amalocichla sclateriana* (Coates 1990, Beehler & Pratt 2016; www.vertnet.org). Land above 2,600 m is shaded darker grey.

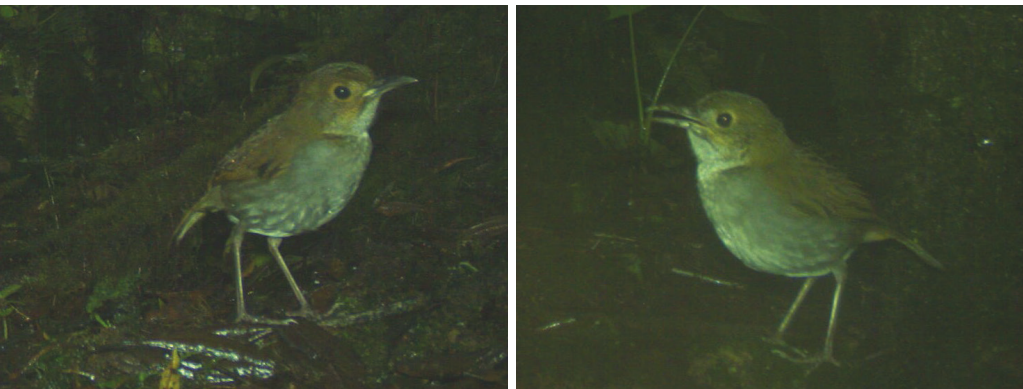


Figure 2. Camera trap images of Greater Ground Robin *Amalocichla sclateriana*, Hides Ridge, Hela Province, Papua New Guinea.

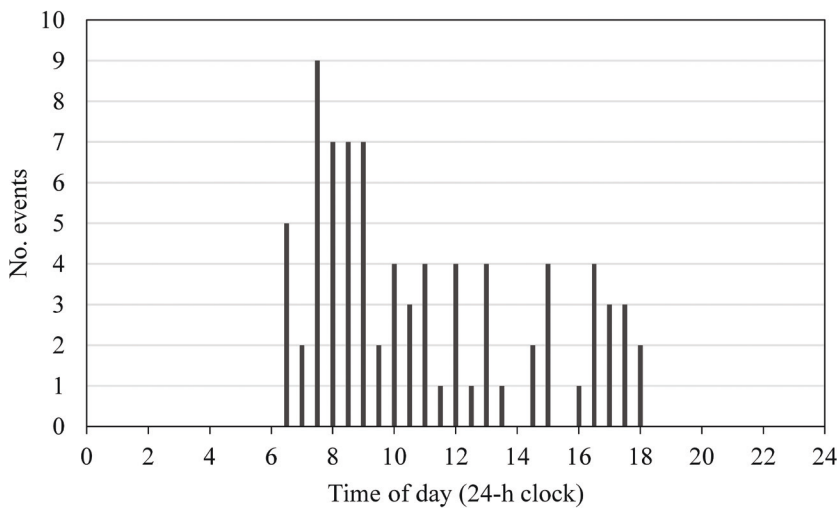


Figure 3. Activity pattern of Greater Ground Robin *Amalocichla sclateriana* on Hides Ridge. X-axis shows the start time for each 30-minute sampling period.

upper section of Hides Ridge, at 2,645–2,730 m, for a total of 1,848 camera days. Terrain is characterised by polygonal karst with networking and sub-parallel ridgelines interspersed by dolines and valleys. Vegetation is small-crowned evergreen montane forest with *Nothofagus* a canopy dominant. There are heavy epiphyte loads and, in many areas, a dense layer of moss covers the ground, rocks and most woody subcanopy surfaces.

Of 18 bird species camera trapped at the site, *A. sclateriana* was among the most frequently photographed, with 80 independent events (≥ 60 minutes apart; Burton *et al.* 2015) recorded across 14 camera positions (70%). This event rate was marginally higher than that recorded for Wattled Brushturkey *Aepypodius arfakianus* (77 events) and lower only than that of New Guinea Woodcock *Scolopax rosenbergii* (123 events) and Lesser Melampitta *Melampitta lugubris* (116 events). Individuals were photographed throughout the diurnal period with the major peak in activity between 07.30 h and 09.30 h (Fig. 3).

A. sclateriana was recorded at both the highest and lowest camera positions at this site. Its occurrence at 2,645 m is slightly below the previously reported lower limit of 2,700 m (Beehler & Pratt 2016). While the unconfirmed Tari Gap record is from c.2,400 m (Beehler

1993), cameras deployed at a second site on Hides Ridge failed to detect the species at 2,190–2,390 m, where it was replaced by Lesser Ground Robin *A. incerta*.

Assuming *A. sclateriana* occurs locally as low as 2,600 m, Hides Ridge currently provides less than 900 ha of suitable habitat. Just 4 km to the north-west, more than 60,000 ha are available on the Muller Range. Hides Ridge and the Muller Range are connected by land above 2,300 m, and it is probable that suitable habitat was continuously present across these areas during the last glacial cycle, when montane *Nothofagus* forests were at about two-thirds of their present elevation (Johns *et al.* 2007). The current lack of records from the Muller Range may well reflect a lack of sampling—a seven-day survey at 2,875 m in the north-west of the range ('Apalu Reke' camp: Igag 2011) provides the only relevant published inventory—and we predict that *A. sclateriana* is present there.

To the east, the Kaijende–Tari area lies at the western edge of a much larger expanse of suitable habitat that extends across parts of five provinces to Mount Hagen and Mount Giluwe. It is separated from the Hides Ridge–Muller Range feature by nearly 24 km (between 2,600 m contours) with the highest link at 1,700 m across the Pori River valley. This region includes some of the most birdwatched sites in Papua New Guinea. At Tari Gap, the site of an unconfirmed encounter more than 25 years ago, the popular Ambua Lodge is less than 7 km by road west of the 2,600 m contour. However, the failure to confirm past records should not be taken as conclusive evidence that *A. sclateriana* is absent from this extensive area. The utility of camera traps in detecting this elusive species is here demonstrated, and we recommend their use in future searches.

Further work is required to determine whether the Hides Ridge population belongs to a known subspecies or represents a new, undescribed taxon.

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