

A rarely found beauty: a new record of *Liophidium pattoni*, the most colourful snake in Madagascar, from Marojejy National Park

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Although *Liophidium pattoni* Vieites et al., 2010 (Lamprophiidae) is certainly the most spectacularly coloured snake of Madagascar, it was only described in 2010 (Vieites et al., 2010). Over a decade later only seven individuals of this species have been documented photographically, including the only known collected specimen (the holotype, ZSM 186/2009). According to the available locality records, the species occurs at the type locality in the Makira Forest (Vieites et al., 2010), in and around the Masoala National Park (five different observations; see Bradt et al., 1996; Vieites et al., 2010; Schreckling, 2012; Dupont, 2020), and in the Anjanaharibe-Sud Special Reserve (Miinala, 2011), all in northeastern Madagascar (Fig. 1). Within this range, the localities span a wide elevational range from sea level to ca. 1100 m in the Makira Plateau and show that these snakes occur in very different environments, from warm lowlands to relatively cool mountain rainforests (Vieites et al., 2010; Miinala, 2011). *Liophidium pattoni* can be easily distinguished from all other *Liophidium* species and any other species of Malagasy snakes by its unique colour pattern. It presents an overall black dorsal ground colour with four regularly discontinuous pink-red stripes that fade into blue-grey at mid-body, and a bright conspicuous yellow venter with a pink-red colouration on the ventral side of the tail (Fig. 2).

We here report a new sighting of *L. pattoni* in the Marojejy National Park (14.4353°S 49.7639°E, elevation ca. 680 m; elevational data obtained from Google Earth), which is located north of the Makira Plateau, the Masoala National Park, and the Special Reserve Anjanaharibe-Sud

(Fig. 1). The snake (Fig. 2) was photographed by the first author on 15 September 2012, at around 14:00 h on a path leading to the summit close to the campsite “Marojejya”. The weather was sunny, and the temperature was 27°C. The surrounding habitat consists of primary mid-elevation rainforest and some open areas and secondary vegetation next to the path. After photographing the snake, it was released at the same locality.

This new record extends the known range of *L. pattoni* by ca. 40 km to the northeast and adds another species to the 23 known snake species from Marojejy National Park so far (Raselimanana et al., 2000; Rakotomala and

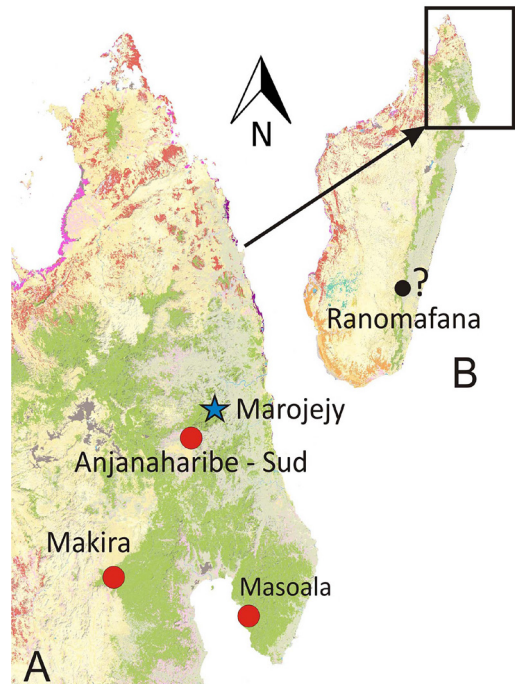


Figure 1. (A) Detailed map of northeastern Madagascar with known and confirmed records (red dots) of *Liophidium pattoni* and the new locality in Marojejy National Park (blue star). (B) Map of Madagascar showing the questionable locality for the species in Ranomafana in the southeast.

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Raselimanana, 2003). The occurrence of *L. pattoni* in Marojejy National Park is generally known to the local guides and at the time of this writing (January 2023) the snake is presented in the visitor centre at the official park entrance as one of the highlight animals of the reserve by way of a separate photo and in a painting (with the photo of the holotype from the original description). None of the hired guides from Marojejy could show us a photo of *L. pattoni* in April 2022 and the snake is considered very rare there.

Many reptiles of Madagascar have relatively small ranges, often restricted to one or only a few biogeographic regions (Brown et al., 2014). One of these biogeographic regions includes the mountain massifs in northeastern Madagascar from Antongil Bay in the south to approximately Vohemár in the north, which most likely corresponds to the presumed range of *L. pattoni*. However, Vieites et al. (2010) also reported a possible sighting of *L. pattoni* from Ranomafana National Park in southeastern Madagascar (Fig. 1B), but this anecdotal

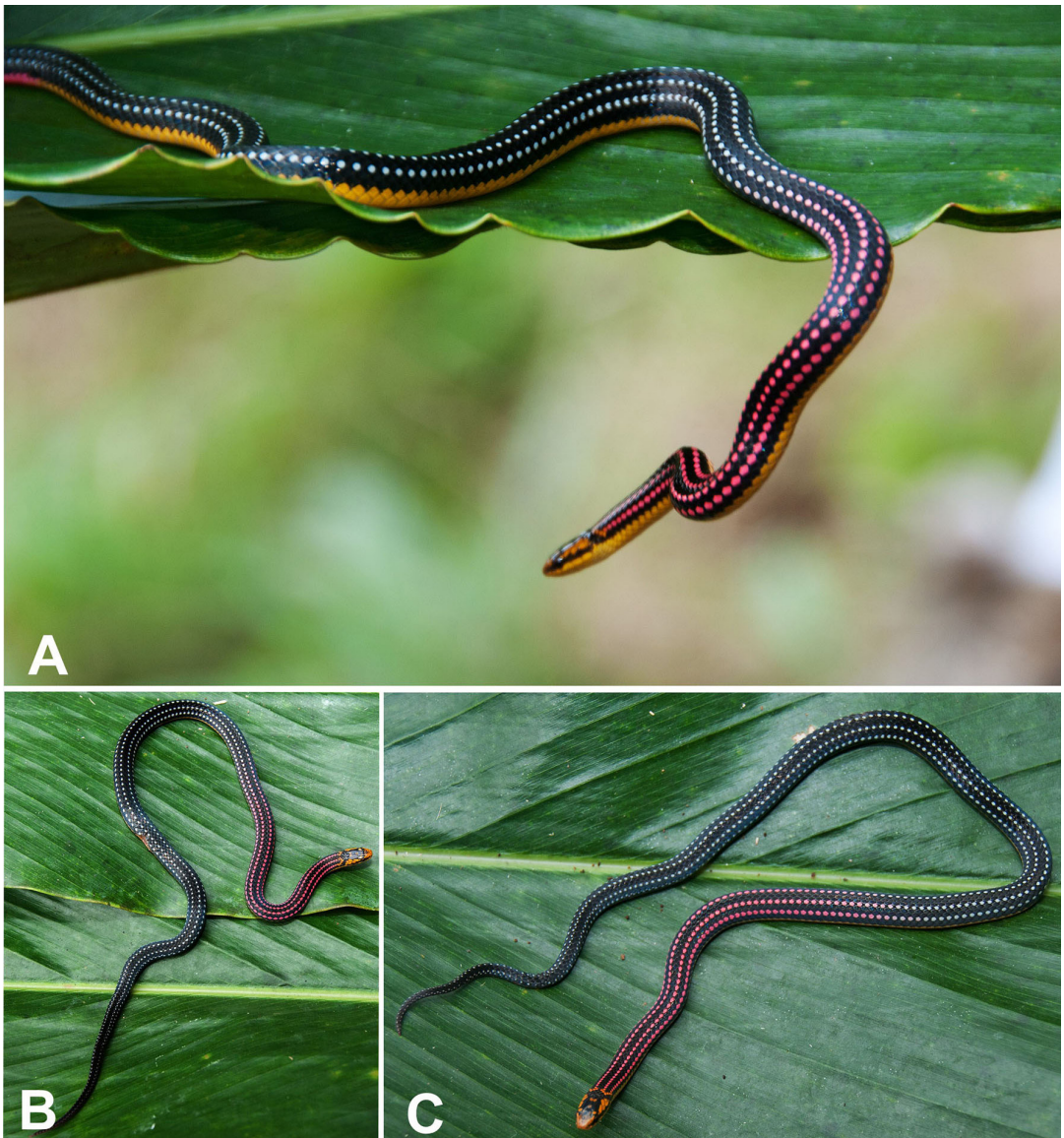


Figure 2. *Liophidium pattoni* from Marojejy National Park, illustrating its unique and characteristic colour pattern in lateral and ventral views (A), as well as in dorsal views (B, C). Photos by Markus Fleute.

record has not been confirmed so far. Given the high herpetological research activities in Ranomafana National Park within the last two decades, and the fact that all other sightings of *L. pattoni* are restricted to northeastern Madagascar, it is unlikely that the species' distribution range extends that far south. However, we cannot confidently exclude that the rarely encountered *L. pattoni* or a still undiscovered, morphologically similar snake species occurs in the forests of Ranomafana.

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