# ミミズの手帳

この欄は，土壌動物に少しでも関連のことでしたら，会員のだれでも投稿できる気楽な頁です．短い観察記録，意見，書籍紹介，ニュース，会員の動静，資料や標本の提供・交換依頼などいつでも気楽に利用して下さい．ただし，原稿は 1 件につき 1,200 字程度にまとめて下さい．

## The Amami terrestrial macrophagous leech *Orobdella dolichopharynx* (Hirudinida: Orobdellidae) was taken from the nostril of the Otton frog *Babina subaspera* (Anura: Ranidae)

We report the case of a terrestrial leech that was found emerging from a nostril of a ranid frog. At around 20:30 JST on 1 May 2019, the first author observed a ranid frog at the Wase-toge Pass, Amami-oshima island, Ryukyu Islands, Japan (28.31464°N, 129.48900°E) with a leech emerging from its nose. The frog was identified in the field as *Babina subaspera* (Barbour, 1908) by the first author. The leech was removed from the frog's nasal cavity, and then fixed and preserved in 70% ethanol. The *Orobdella* specimen has been deposited in the Zoological Collection of Kyoto University (KUZ). The leech (KUZ Z2582; body length, 78.2 mm—its anterior part, from the oral tip to somite IV a2, was lost in the process of extraction from the frog's nostril) was identified as *O. dolichopharynx* Nakano, 2011 by the last author.

During the observation in the field, the head region of *O. dolichopharynx* emerged at the nostril of *B. subaspera* (Fig. 1; a short movie has been uploaded on KyU Tube Bio at https://kyutubebio.sci.kyoto-u.ac.jp/en/archive/zzs122). While several parasitic leech taxa, e.g., the glossiphoniid *Theromyzon* and hirudiniform Praobdellidae, contain mucous-membrane specific species (Sawyer 1986), all *Orobdella* species are non-parasitic macrophagous leeches (Nakano, 2017). Therefore, the present *Orobdella* individual seemed unlikely to have infested the nasal cavity of *B. subaspera*. Instead, we concluded that the *Orobdella* leech accidentally emerged through the nasal cavity of *B. subaspera* after being swallowed by the frog. Although predation of *Orobdella* leeches by a *Achalinus* snake, *Mogera* and *Euroscaptor* moles, and a *Scolopendra* centipede has been reported (Shibata, 1968; Yokohata, 1998; Fukuyama and Nakano, 2018), no predatory-prey relationship between ranids and *Orobdella* has never been recorded to our knowledge. On the Malay Peninsula, however, a ranoidean frog *Limnonectes kuhlii* (Tschudi, 1838) (Dicroglossidae) was once reported as a predator of a Southeast Asian terrestrial macrophagous *Gastrostomobdella* leech (Leong and Lim, 2003); both the East Asian *Orobdella* and the Southeast Asian *Gastrostomobdella* inhabit moist forest floors, and share ecological traits (Sawyer, 1986). The present finding leads us to the possibility that *Orobdella* leeches may constitute part of the ranoidean frogs'diet.

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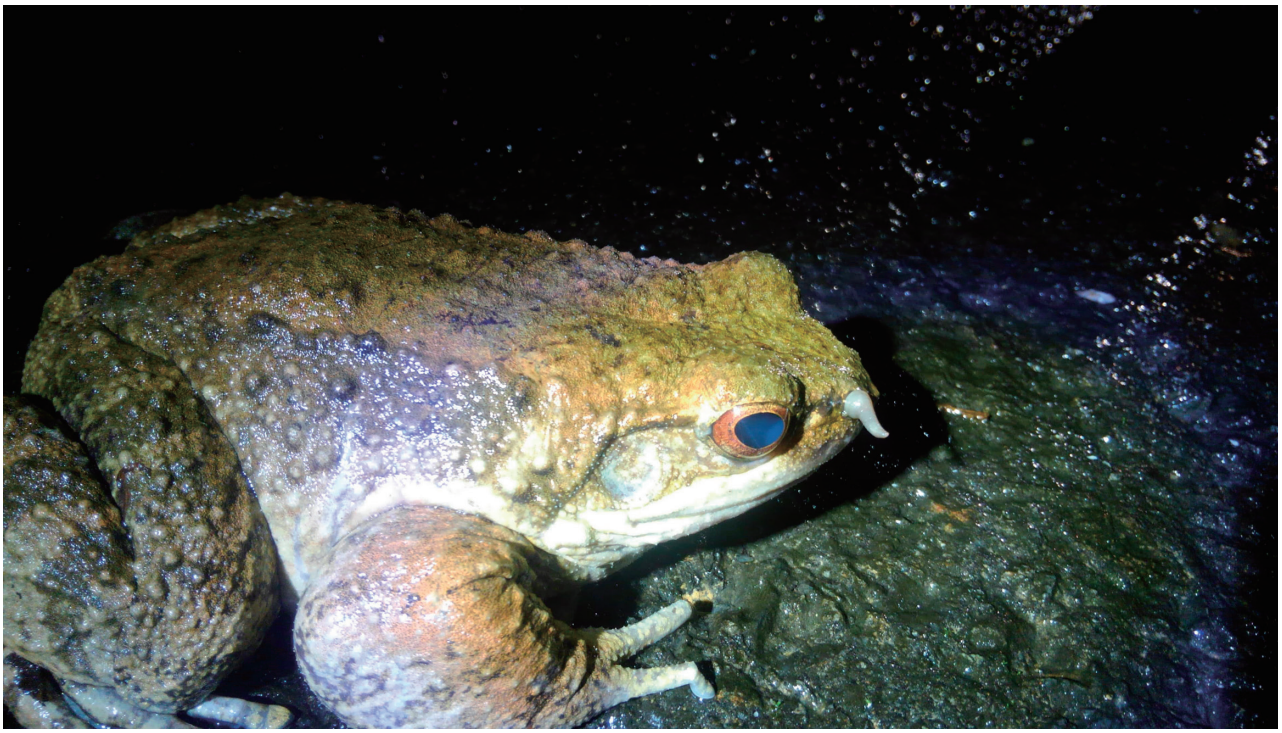

**Fig. 1.** *Orobdella dolichopharynx* emerging from a nostril of *Babina subaspera.*