

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/392525890>

A preliminary herpetofaunal survey of Mount Po Ma Lung, north-west Vietnam

Article · June 2025

CITATIONS

0

READS

75

5 authors, including:



Luan Thanh Nguyen

Asian Turtle Program - Indo-Myanmar Conservation

92 PUBLICATIONS 484 CITATIONS

SEE PROFILE



Benjamin Tapley

ZSL

179 PUBLICATIONS 1,492 CITATIONS

SEE PROFILE



Daniel Kane

Zoological Society of London

32 PUBLICATIONS 82 CITATIONS

SEE PROFILE



Tran Dung

Indo-Myanmar Conservation

8 PUBLICATIONS 4 CITATIONS

SEE PROFILE

ISSN 2633-996X

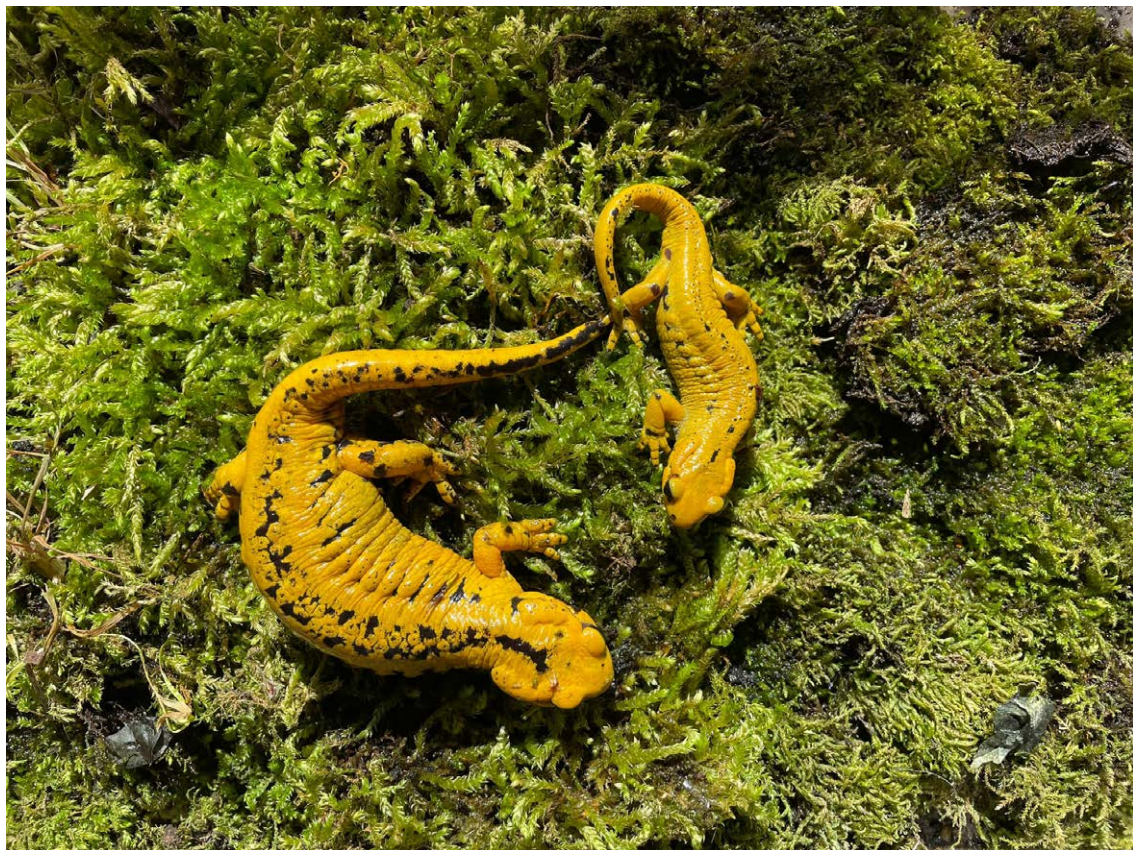


BRITISH HERPETOLOGICAL SOCIETY REPORTS

No. 5, June 2025

AMERSHAM MEETING REPORT 2024 CONSERVATION, CAPTIVE BREEDING AND FIELDWORK

Edited by Simon Townson



A preliminary herpetofaunal survey of Mount Po Ma Lung, north-west Vietnam

Luan Thanh Nguyen¹, Benjamin Tapley^{2*}, Daniel Kane², Tuyet-Dzung Thi Tran¹ & Jodi J.L. Rowley^{3,4}

¹Asian Turtle Program of Indo-Myanmar Conservation, R.1301, CT1 Bac Ha C14 Building, To Huu Str., Nam Tu Liem Dist., Hanoi, Vietnam

²Zoological Society of London, Regent's Park, London, NW1 4RY, UK

³Australian Museum Research Institute, Australian Museum, 1 William St, Sydney, NSW, 2010, Australia

⁴Centre for Ecosystem Science, School of Biological, Earth and Environmental Sciences, University of New South Wales, Sydney NSW 2052, Australia

*Corresponding author e-mail: ben.tapley@zsl.org

The Hoang Lien Range in north-west Vietnam is home to more than 80 amphibian species (Tapley et al., 2017a) and the reptile fauna is comprised of at least 19 families (Uetz et al., 2024). The amphibians and reptiles of the Hoang Lien Range have been subject to formal scientific study for nearly 100 years (e.g. Bourret, 1937; Ohler et al., 2000) and reptiles and amphibians that are new to science continue to be described,

many within the last decade (e.g. Hoang et al., 2016; Matsui et al., 2017; Tapley et al., 2017b; 2018; 2020a; Kropachev et al., 2019; Nguyen et al., 2021, Kane et al., 2023; Nguyen et al., 2024b; Okabe, 2024) and it is likely that there will be further descriptions of species that are new to science, particularly in parts of the Hoang Lien Range that are yet to be surveyed for their herpetofauna.

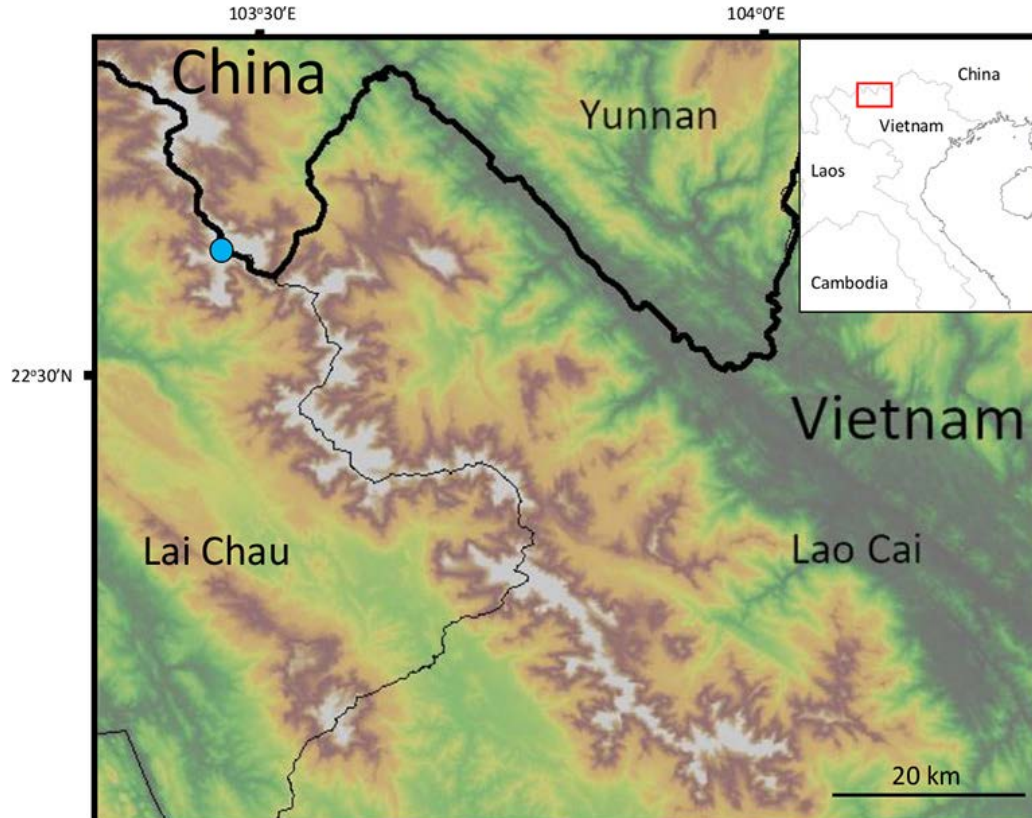


Figure 1. The Hoang Lien Range in north-west Vietnam. Blue circle shows the location of the survey sites on Moun Po Ma Lung. Pale grey areas indicative of higher elevation, dark green indicative of lowest elevation.

Table 1. Amphibians encountered during the nine day survey of Mount Po Lung.

Family	Genus	Number of species
Bufonidae	<i>Duttaphrynus</i>	1
Dicroglossidae	<i>Fejervarya</i>	1
	<i>Nanorana</i>	1
Megophryidae	<i>Oreolalax</i>	2
	<i>Leptobrachium</i>	1
	<i>Leptobrachella</i>	3
	<i>Atympanophrys</i>	1
	<i>Boulenophrys</i>	2
	<i>Xenophrys</i>	1
Ranidae	<i>Amolops</i>	1
	<i>Odorrana</i>	3
Rhacophoridae	<i>Theloderma</i>	1

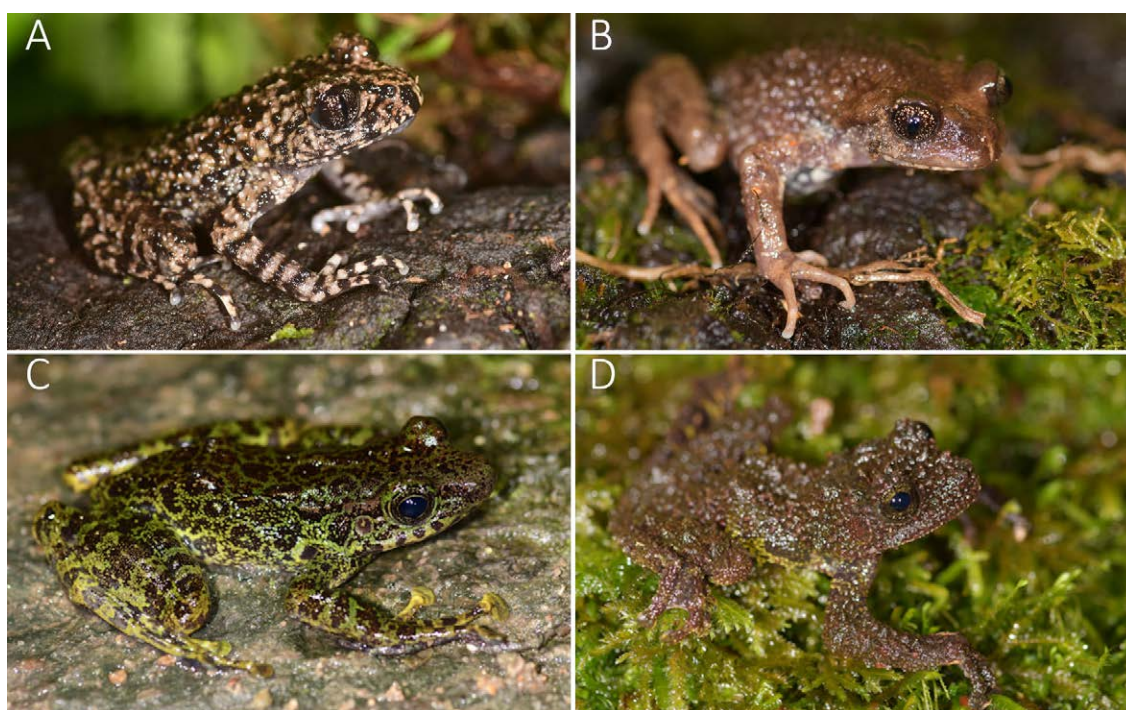
Some of these newly described species from the Hoang Lien Range are highly threatened. Botsford's leaf-litter frog *Leptobrachella botsfordi* and Sterling's toothed toad *Oreolalax sterlingae* were described as from the same high elevation stream site on Mount Fansipan in 2013 (Nguyen et al., 2013; Rowley et al., 2013). Shortly after their description, both species were assessed as Critically Endangered, as the only site that they were known to occur was increasingly threatened by habitat loss and pollution associated infrastructural developments for tourism (IUCN

Table 2. Reptiles encountered during the nine day survey of Mount Po Lung.

Family	Genus	Number of species
Agamidae	<i>Acanthosaura</i>	1
Gekkonidae	<i>Hemidactylus</i>	1
Colubridae	<i>Hebius</i>	1
	<i>Pseudoxenodon</i>	1
Viperidae	<i>Ovophis</i>	1
	<i>Protobothrops</i>	1
	<i>Trimeresurus</i>	1

SSC, 2021a; 2021b). Subsequently, *O. sterlingae* was recorded at another site 20 km to the north on Mount Pu Ta Leng (Tapley et al., 2020b), as a result it was reassessed as Endangered (IUCN SSC, 2021a). Recently, *L. botsfordi* was recorded from Mount Nam Kang Ho Tao 23.4 km south-east of the closest reported location of the species on Mount Fansipan (Nguyen et al., 2023).

There is still a knowledge deficit regarding the true range of *L. botsfordi* and *O. sterlingae* and there are several unsurveyed sites where habitats may be suitable. In August 2023 we undertook the first ever herpetological survey of Mount Po Ma Lung, in Lai Chau Province, north-west Vietnam on the China-Vietnam border (Fig. 1). Mount Po Ma Lung is the 7th highest

**Figure 2.** A. *Oreolalax adelphos*, B. *Oreolalax sterlingae*, C. *Odorrana chapaensis*, D. *Theloderma bicolor*.

mountain in Vietnam. This site is not under any formal protection and is managed by the local commune. A nine day survey across an elevation gradient from 818 m a.s.l. to 2,967 m a.s.l. was undertaken. The primary aim of this survey was to detect the presence of *L. botsfordi* and *O. sterlingae*. Visual encounter surveys were undertaken by a team of experienced researchers during the day and at night, focusing on riparian habitats. Voucher specimens and tissue samples were collected to verify the presence of species.

A total of 18 amphibian and seven reptile species were encountered during the survey (Tables 1 & 2; Fig. 2). There was a particularly diverse assemblage of frogs of the family Megophryidae. The most notable finding was a population of *Oreolalax* which was described as new to science as *Oreolalax adelphos* (Nguyen et al., 2024a; Fig. 2A). *Oreolalax sterlingae* was also encountered at elevations above 2,550 m a.s.l. (Fig. 2B). This represents a 25.5 km range extension to the north-west for this range restricted threatened species (Nguyen et al., 2024). Work to identify the remaining species encountered during the survey is ongoing and the full findings shall be published at a later date.

This survey was short in duration, and it is likely that we did not detect many species that are present on Mount Po Ma Lung. Future surveys should be undertaken at other times of the year to coincide with the activity periods of other species that could be present and much greater survey effort of Mount Po Ma Lung is warranted.

Acknowledgements

We extend our thanks to the Forest Protection Department of Phong Tho District and the Phong Tho Border Office and Ban Lang Police Office for supporting this work. Luan Thanh Nguyen extends special thanks to Chao Van Dat, Ly Manh Ha and Hoang Van Hung (Vietnam National University of Forestry) and local porters from Ban Lang Commune (Lai Chau) for assistance in the field. Ethical approval was granted by the Zoological Society of London's ethics committee (project ZFP1). The field work was generously supported by the British Herpetological Society. Field equipment was partly supported by IDEA WILD for Luan Nguyen.

References

Bourret, R. (1937). Notes herpétologiques sur L'Indochine Française. XIV. Les batraciens de la collection du Laboratoire des Sciences Naturelles de l'Université. Descriptions de quinze espèces ou

- variétés nouvelles. Annexe au Bulletin Général de l'Instruction Publique 1937, 5–56. [in French]
- IUCN SSC Amphibian Specialist Group (2021a). *Oreolalax sterlingae*. The IUCN Red List of Threatened Species 2021: e.T76491633A87995169. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T76491633A87995169.en>. Accessed on 21 November 2024.
- IUCN SSC Amphibian Specialist Group (2021b). *Leptobrachella botsfordi*. The IUCN Red List of Threatened Species 2021: e.T73727195A87994974. <https://dx.doi.org/10.2305/IUCN.UK.2021-3.RLTS.T73727195A87994974.en>. Accessed on 21 November 2024.
- Kane, D., Tapley, B., La, T.V. & Nguyen, L.T. (2023). A new species of the genus *Rhabdophis* Fitzinger, 1843 (Squamata: Colubridae) from the Hoang Lien range, northwest Vietnam. *Zootaxa* 5343, 101–125.
- Kropachev, I.I., Orlov, N.L., Ninh, H.T. & Nguyen, T.T. (2019). A new species of *Rhacophorus* genus (Amphibia: Anura: Rhacophoridae: Rhacophorinae) from Van Ban District, Lao Cai Province, northern Vietnam. *Russian Journal of Herpetology* 26, 325–334.
- Matsui, M., Ohler, A., Eto, K. & Nguyen, T.T. (2017). Distinction of *Gracixalus carinensis* from Vietnam and Myanmar, with description of a new species. *Alytes* 33, 25–37.
- Nguyen, L.T., Tapley, B., Nguyen, C.T., Van Luong, H. & Rowley, J.J. (2021). A new species of *Leptobrachella* (Anura, Megophryidae) from Mount Pu Ta Leng, northwest Vietnam. *Zootaxa* 5016, 301–332.
- Nguyen, L.T., Rowley, J.J.L., La, T.V. & Tapley, B. (2023). Notes on the oviposition sites of Botsford's leaf-litter frog (*Leptobrachella botsfordi*) and a significant range extension for the species. *Herpetology Notes* 16, 103–109.
- Nguyen, L.T., Tapley, B., Kane, D., yet-Dzung, T.T., Cui, J. & Rowley, J.J.L. (2024a). A new *Oreolalax* (Anura: Megophryidae) from the Hoang Lien Range, northwest Vietnam. *Zootaxa* 5514, 501–524.
- Nguyen, T.T., Nguyen, H.H., Ninh, H.T., Le, L.T.H., Bui, H.T., Orlov, N., Hoang, C.V. & Ziegler, T. (2024b). *Zhangixalus thaoae* sp. nov., a new green treefrog species from Vietnam (Anura, Rhacophoridae). *ZooKeys* 1197, 93–113.
- Nguyen, Q.T., Phung, T.M., Le, M.D., Ziegler, T. & Böhme, W. (2013). First record of the Genus *Oreolalax* (Anura: Megophryidae) from Vietnam with description of a new species. *Copeia* 2013, 213–222.
- Ohler, A., Marquis, O., Swan, S. & Grosjean, S.T. (2000). Amphibian biodiversity of Hoang Lien Nature Reserve (Lao Cai Province, northern Vietnam) with description of two new species. *Herpetozoa* 13(1/2), 71–87.

- Okabe, S., Motokawa, M., Koizumi, Y., Nguyen, T.Q., Nguyen, T.T. & Bui, H.T. (2024). A new species of the genus *Scincella* (Squamata: Scincidae) from Mount Fansipan, Hoang Lien Son Range, northwestern Vietnam. *Zootaxa* 5537, 407–423.
- Rowley, J.J., Dau, V.Q. & Nguyen T.T. (2013). A new species of *Leptolalax* (Anura: Megophryidae) from the highest mountain in Indochina. *Zootaxa* 3737, 415–428.
- Tapley, B., Cutajar, T., Mahony, S., Nguyen, C.T., Dau, V.Q., Nguyen, T.T., Luong V.H. & Rowley, J.J.L.L. (2017b). The Vietnamese population of *Megophrys kuatunensis* (Amphibia: Megophryidae) represents a new species of Asian horned frog from Vietnam and southern China. *Zootaxa* 4344, 465–492.
- Tapley, B., Rowley, J.J.L., Nguyen, C.T. & Luong, H.V. (2017a). A conservation action plan for the amphibians of the Hoang Lien Mountain range. <http://www.amphibians.org/wp-content/uploads/2017/03/An-action-plan-for-the-amphibians-of-the-Hoang-Lien-Mountain-Range-2017-2021.pdf>. Accessed on 9 January 2023.
- Tapley, B., Cutajar, T., Mahony, S., Nguyen, C.T., Dau, V.Q., Luong, A.M., Le, D.T., Nguyen, T.T., Nguyen, T.Q., Portway, C., Luong, H.V. & Rowley, J.J.L. (2018). Two new and potentially highly threatened *Megophrys* Horned frogs (Amphibia: Megophryidae) from Indochina's highest mountains. *Zootaxa* 4508, 301–333.
- Tapley, B., Cutajar, T., Nguyen, L.T., Portway, C., Mahony, S., Nguyen, C.T., Harding, L., Luong, H.V. & Rowley, J.J. (2020a). A new potentially Endangered species of *Megophrys* (Amphibia: Megophryidae) from Mount Ky Quan San, north-west Vietnam. *Journal of Natural History* 54, 2543–2575.
- Tapley, B., Nguyen, L.T., Portway, C., Cutajar, T., Nguyen, C.T., Luong, H.V., Kane, D., Harding, L. & Rowley, J.J.L. (2020b). A point endemic no more; a range extension for *Oreolalax sterlingae* (Nguyen et al., 2013) in Bat Xat District, Lao Cai Province, northern Vietnam. *Herpetology Notes* 13, 497–500.
- Uetz, P., Freed, P., Aguilar, R. & Hošek, J. (2024). The Reptile Database. Available from: <http://www.reptile-database.org>. Accessed on 24 May 2024.