

<http://dx.doi.org/10.11646/zootaxa.3760.4.3>
<http://zoobank.org/urn:lsid:zoobank.org:pub:8D814469-2D01-4180-B9DC-C010384B4B9C>

A new species of *Hemiphyllodactylus* Bleeker, 1860 (Squamata: Gekkonidae) from Ba Na–Nui Chua Nature Reserve, Central Vietnam

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Abstract

A new species of the gekkonid *Hemiphyllodactylus banaensis* sp. nov. is described from Ba Na–Nui Chua Nature Reserve in central Vietnam. Previously included within *H. yunnanensis*, the new species is distinguished from all other congeners by having the unique combination of a maximum SVL of 48.2 mm in males and 51.0 mm in females; seven chin scales extending transversely from the union of the first and second infralabials and posterior margin of mental; enlarged postmental scales; 9–12 supralabials; 9–11 infralabials; 18–20 longitudinally arranged dorsal scales at midbody contained within one eye diameter; 20–21 precloacal and femoral pore-bearing scales contiguous in males and 0–20 contiguous pore-bearing precloacal scales in females; dorsal pattern on body composed of transverse blotches and two whitish stripes across shoulder extending to sacrum; postsacral mark whitish brown and bearing anteriorly projecting arms; and caecum and oviducts unpigmented.

Key words: Ba Na–Nui Chua Nature Reserve, Gekkonidae, *Hemiphyllodactylus*, *Hemiphyllodactylus banaensis* sp. nov., new species, Vietnam

Introduction

The Ba Na–Nui Chua Nature Reserve is a large protected area of 8,838 ha and reaching 1,487 m in elevation at Ba Na Peak. The reserve encompasses a diverse array of habitats in central Vietnam northwest of Da Nang City and protects the watershed areas that drain the eastern slopes of the Truong Son Mountain Range (Fig. 1). The first specimens of *Hemiphyllodactylus* Bleeker reported from Vietnam came from Bourret (1937) who described *H. typus chapaensis* from Sa Pa, Lao Cai Province, in the northwest. Zug (2010), based on the examination of the holotype, considered it to be referable to *H. yunnanensis* (Boulenger). Only one additional specimen of *Hemiphyllodactylus* was collected from central Vietnam and was tentatively identified as *H. yunnanensis* (Zug 2010). Grismer *et al.* (2013) demonstrated with an integrative taxonomic approach that *Hemiphyllodactylus* was far more diverse than the most recent morphological taxonomic revision (Zug 2010) indicated. They reported that the Lao Cai Province specimen (Bourret 1937) represented a range extension of *H. dushanensis* Zhou & Liu from China. They also indicated that the southern representative of *H. yunnanensis* group (*sensu* Zug 2010) was the sister taxon of *H. dushanensis* and considered it an unidentified new species, *Hemiphyllodactylus* sp. nov. 10 (see Grismer *et al.* 2013; Fig. 2). During a series herpetological surveys in Ba Na–Nui Chua Nature Reserve during 2012–2013, we collected ten specimens of *Hemiphyllodactylus* sp. nov. 10 and confirmed that this population cannot be ascribed to any known species of *Hemiphyllodactylus* based on morphology and therefore we describe it herein as new.

References

- Boulenger, G.A. (1912) *A Vertebrate Fauna of the Malay Peninsula from the Isthmus of Kra to Singapore Including Adjacent Islands*. Taylor and Francis, London, 294 pp.
- Grismer, L.L. (2011a) *Lizard of Peninsular Malaysia, Singapore, and their Adjacent Archipelagos*. Edition Chimira, Frankfur am Main, 728 pp.
- Grismer, L.L. (2011b) *Amphibians and reptiles of the Seribuat Archipelago (Peninsular Malaysia)*. Edition Chimira, Frankfur am Main, 239 pp.
- Grismer, L.L., Wood Jr., P.L. & Cota, M. (2013) A new species of *Hemiphyllodactylus* Bleeker, 1860 (Squamata: Gekkonidae) from northwestern Thailand. *Zootaxa*. [in press]
- Grismer, L.L., Wood Jr., P.L., Anuar, S., Muin, M.A., Quah, E.S.H., McGuire, J.A. Brown, R.M., Ngo, V.T. & Pham, H.T. (2013) Integrative taxonomy recovers high levels of cryptic species diversity in *Hemiphyllodactylus* Bleeker, 1860 (Squamata: Gekkonidae) and the description of a new species from Peninsular Malaysia. *Zoological Journal of Linnean Society*, 169, 849–880.
<http://dx.doi.org/10.1111/zoj.12064>
- Grismer, L.L., Youmans, T.M., Wood Jr., P.L. & Grismer, J.L. (2006) Checklist of the herpetofauna of the Seribuat Archipelago, West Malaysia with comments on biogeography, natural history and adaptive types. *Raffles Bulletin of Zoology*, 54, 157–180.
- Kluge, A.G. (1991) Checklist of gekkonoid lizards. *Smithsonian Herpetological Information Service*, 85, 1–35.
- Kluge, A.G. (2001) Gekkotan lizard taxonomy. *Hamadryad*, 26, 1–209.
- Smith, M.A. (1935) *Fauna of British India, including Ceylon and Burma. Reptilia And Amphibia*. Vol. II Sauria. Taylor & Francis Ltd., London 440 pp.
- Werner, F. (1900) Beschreibung einiger noch unbekannter neotropischer und Indischer Reptilien. *Zoologischer Anzeiger*, 23, 196–198.
- Woodruff, D.S. (2010) Biogeography and conservation in Southeast Asia: how 2.7 million years of repeated environmental fluctuations affect today's patterns and the future of the remaining refugial phase biodiversity. *Biodiversity Conservation*, 19, 919–941.
<http://dx.doi.org/10.1007/s10531-010-9783-3>
- Zhou, K.Y., Lui, Y. & Yang, G. (1981) Three new subspecies of *Hemiphyllodactylus yunnanensis* (Boulenger) from China (Lacertiformes: Gekkonidae). *Acta Zootaxonomica Sinica*, 6, 202–209. [original in Chinese; see Smithsonian Herpetological Information Services no. 110 (1996) for English translation by H. Ota.]
- Zug, G.R. (2010) Speciation and dispersal in a low diversity taxon: the Slender Geckos *Hemiphyllodactylus* (Reptilia, Gekkonidae). *Smithsonian Contributions to Zoology*, 631, 1–70.
<http://dx.doi.org/10.5479/si.00810282.631>