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# AN UNDESCRIBED MICROHYLA

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By a curious coincidence twice within a very short time problems have arisen with respect to Microhyla, a genus which, in general, seldom calls for comment in an American museum. Dr. Malcolm Smith of Bangkok sent me some examples of *M. pulchra* from Siam which enabled me to compare the types of *M. hainanensis* with this species. I found the two related but easily distinguishable. Just then Dr. A. G. Ruthven sent for study a small suite of amphibians from Nanking, China, and again Microhyla appeared. These specimens from China had been considered the same as the Indian *M. ornata* by Boulenger in 1882 (Cat. Batr. Sal. Brit. Mus., p. 165). So far as I am aware this allocation has not been reconsidered. That this little frog should have such a wide range seemed at once most improbable and my receipt since of an example of *ornata* taken in Pegu, from Dr. Boulenger, has enabled me to separate the forms. To be sure Duméril and Bibron (Erp. Gèn., 8, 1841, p. 745) expressly state that the types of *ornata* came from Malabar, India, collected by Dussumier, a long way from

Pegu, hence should the Burmese example prove not to be typical *ornata* it can only indicate the existence of yet another form, which is highly probable.

Butler and Flower have contributed notes often quoted by Boulenger, but in general little is known regarding the habits of Microhyla. In life they remind one of our southern Gastrophryne (Engystoma) but they fare abroad more freely and are vastly more active. I have taken two species, *achatina* and *annectens*. I imagine they were not uncommon on the floor of the high rain-forest about Tjibodas, Java. One large adult *achatina* I found squatting like a Hyla in the center of a large peltate leaf several feet above ground.

Many species of this genus have been described recently, the validity of which cannot now be determined. Vogt, in 1913, (Ges. Naturf. Freunde, Berlin, p. 223 *et seq.*), essayed a key to the genus and listed the species. The paper is marred by egregious errors in spelling, the list is incomplete and the key not entirely convincing.

The following species appear probably worthy of recognition:

*Microhyla achatina* (Boie), Isis, 1827, p. 294. Southeastern Asia, Sumatra and Java. Recorded from the Moluccas, which is beyond doubt erroneous.

*Microhyla ornata* (Duméril and Bibron), Erp. Gèn., 8, 1841, p. 745. India, Burma, Malay Peninsula.

*Microhyla rubra* (Jerdon), Jour. As. Soc. Bengal, 22, 1853, p. 534. India and Ceylon.

*Microhyla pulchra* (Hallowell), Proc. Acad. Nat. Sci. Phila., 1860, p. 506. Southern China and Siam.

*Microhyla berdmorei* (Blyth), Journ. As. Soc. Bengal, 24, 1855, p. 720. Burma, Siam, Malay Peninsula and Sumatra.

*Microhyla fissipes* Boulenger, Ann. Mag. N. H. (5), 13, 1884, p. 397. Formosa.

*Microhyla inornata* Boulenger, P. Z. S., 1890, p. 37. Burma, Siam, Malay Peninsula, Sumatra and Borneo.

*Microhyla bungarana* (Günther), Nov. Zool., 2, 1895, p. 501. Natuna Island.

*Microhyla palmipes* Boulenger, Ann. Mag. N. H., (6), 14, 1897, p. 108. Java.

*Microhyla leucostigma* Boulenger, Ann. Mag. N. H., (7), 3, 1899, p. 275, pl. 12, fig. 1. Malay Peninsula, Borneo.

*Microhyla butleri* Boulenger, Ann. Mag. N. H., (7), 6, 1900, p. 188. Perak and Tonkin.

*Microhyla annectens* Boulenger, Ann. Mag. N. H., (7), 6, 1900, p. 188. Malay Peninsula, Borneo and Java.

*Microhyla okinavensis* Stejneger, Proc. Biol. Soc. Wash., 14, 1901, p. 189. Riu Kiu Islands.

*Microhyla picta* Schenkel, Verh. Ges. Basle., 12, 1901, p. 151. ?Cochin-China (*pulchra?*).

*Microhyla hainanensis* Barbour, Bull. M. C. Z., 51, 1908, p. 322. Hainan.

*Microhyla stejnegeri* Boulenger, Ann. Mag. N. H., (8), 4, 1909, p. 494. Formosa.

*Microhyla heymonsi* Vogt, Sitzber., Ges. Naturf. Freunde, Berlin, 1911, p. 181. Formosa.

*Microhyla boulengeri* Vogt, Sitzber. Ges. Naturf. Freunde, Berlin, 1913, p. 222. Hainan.

To these there is to be added a new species here described.

**Microhyla eremita,** new species

*Type Specimen*: Museum Comparative Zoology, No. 5114, from Nanking, China, collected during the summer of 1918 by Cora D. Reeves. Paratype in Museum of Zoology, University of Michigan, No. 53103, Cora D. Reeves, collector.

*Description*: Similar to *M. ornata* from which it differs in having a larger eye, shorter snout, the distance from anterior

border of eye to tip of snout in all specimens being a little less than the diameter of the eye, while in *ornata* the snout is longer than the orbital diameter (or fide Blgr.* sometimes equal to it). Coloration widely different, habit more robust.

Habit robust. Snout obtuse, less than orbital diameter; fingers slender, first much shorter than second; toes slender, first toe reaching to lower articular tubercle of second toe (not so in *ornata*); tips of fingers and toes not swollen (same in Pegu example); sub-articular tubercle prominent; two small subequal metatarsal tubercles. The hind limb being carried forward along the body the tarso-metatarsal articulation reaches the anterior border of the eye. Skin smooth. Back with a faint inverted Y-shaped marking, a dark band along each side very faintly indicated. Legs with faintly indicated cross bars. No markings conspicuously prominent.

*Remarks*: In coloration the small suite of Chinese examples is singularly uniform and all differ very conspicuously from the Pegu specimen in which the dark lateral zone is sharply defined along its entire upper margin and furthermore is accentuated by a row of distinct elongate black dots which appear to be associated with tiny dermal folds or excrescences which may be due in part to the preservation. The line nevertheless commences upon the snout, is continued across the upper eyelid, then along the whole side of the groin. This feature with the longer snout and the different habit and differently proportioned feet separate *ornata* from *eremita,* which moreover is undoubtedly entirely confined to a temperate instead of a tropical habitat.

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* Here, as is so often the case, it is extremely unfortunate that a single specimen is not described and accurately specified. The description is drawn in general terms probably or possibly from both Indian and Chinese examples and must perforce include the peculiarities of specimens from these scattered regions. Boulenger among others (Cat. Batr. Sal., 1882, p. 165) had specimens from Ningpo, China, Cambodia and Madras before him.