

A NEW SPECIES OF TOAD, *ANSONIA SIAMENSIS* (BUFONIDAE),  
FROM THE ISTHMUS OF KRA, THAILAND

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ABSTRACT

A new species of toad, *Ansonia siamensis* (Bufonidae), is described from Khao Chong, Trang Province, Isthmus of Kra, Thailand.

INTRODUCTION

A total of sixteen species of *Ansonia* Stoliczka have been described from the oriental region east of India (BERRY, 1975; DRING, 1979, in press; GRANDISON, 1972; HENDRICKSON, 1966; INGER, 1954, 1960, 1966; PILLAI & PATTABIRAMAN, 1981; TAYLOR, 1962). *A. ornata* Gunther was described from the southwestern region of India (INGER, 1960). *A. rubigina* PILLAI & PATTABIRAMAN (1981) was described from Silent Valley in southern India. *A. malayana* Inger (INGER, 1960) and *A. penangensis* Stoliczka (TAYLOR, 1962) were described from the Isthmus of Kra in southern Thailand. From Peninsular Malaysia four species have been recorded: *A. malayana*, *A. penangensis*, *A. leptopus* (Gunther), and *A. tiomanica* Hendrickson (BERRY, 1975; DRING, 1979; GRANDISON, 1972; HENDRICKSON, 1966; INGER, 1960, 1966). The largest number of species (10) is found in Borneo: *A. albomaculata* Inger, *A. minuta* Inger, *A. platysoma* Inger, *A. fuliginea* (Mocquard), *A. guibei* Inger, *A. hanitschi* Inger, *A. latidisca* Inger, *A. leptopus* (Gunther), *A. longidigita longidigita* Inger, *A. longidigita gryllivoca* Inger, *A. torrentis* Dring (INGER, 1960, 1966; DRING, in press). *A. muelleri* Boulenger was described from Mindanao, Philippines (INGER, 1954).

While studying the specimens catalogued as *A. malayana* in the British Museum of Natural History, London, in 1983, the author noted that the two specimens collected by J. Dring and Doyle Damman from Khao Chong, Trang Province, Thailand, were larger and distinct from the type series and the other specimens of the species in several features. They are here considered as a new species and named after the country of origin using the former name of Siam.

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*Ansonia siamensis* n. sp.**Diagnosis**

A small toad with snout-vent length approximately 28 mm in males and 35 mm in females; tympanum not visible externally; finger tips rounded, slightly expanded into a small disc broader than width of the penultimate phalanx of fingers; first finger not reaching disc of second finger; length of third finger 1.5 times diameter of eye; no interorbital ridge; third and fifth toes webbed to discs in both sexes; tarsal ridge absent; black or dark brown with irregular greenish-yellow lines on dorsum and upper surfaces of limbs; angle of jaws without yellow prominent tubercles; jaws with yellow cross-bars.

*Holotype* BM1979.443, an adult female, and *paratype* BM1979.442, an adult male collected together from Khao Chong, Trang Province, Thailand.

**Description**

Small toads with snout-vent length measuring 27.9 mm in male and 34.6 mm in female; habitus moderately built; head as long as broad; snout as long as eye diameter, truncated, projecting, with a sloping profile; nostrils on the sides of truncated end of the snout; canthus rostralis distinct; lore straight, vertical; interorbital distance as broad as width of upper eyelid; tympanum not visible externally.

Finger lengths  $3 > 4 > 2 > 1$ ; first finger not reaching disc of second when adpressed, equal in length to diameter of eye; third finger 1.5 times diameter of eye; fingers slender; Finger tips rounded, wider than penultimate phalanx; fleshy rudimentary web of palm reaching beyond subarticular tubercles of first two fingers; subarticular tubercles feeble; a low round outer palmar tubercle present; spicules on palm.

Tips of toes slightly swollen into small discs; toe lengths  $4 > 5 > 3 > 2 > 1$ ; fifth toe slightly longer than third; broad web reaching discs of first, second, third and fifth toes and the middle of last but one phalanx of fourth toe; subarticular tubercles weak; metatarsal tubercles weak; tarsal ridge absent; spicules on sole.

Skin on dorsum with fine spicules, without distinctive warts; cranial ridges and tubercles absent from top of head; spicules on limbs; abdomen finely granular as on throat; angle of jaw without prominent yellow tubercle.

Male specimen with a longitudinal opening into the median subgular vocal sac on right side of mouth; tongue narrow, ovate at tip, covers less than half the floor of the mouth; mandible without tubercle.

Colour (in alcohol) dark brown on dorsal surface of body, marked with greenish-yellow irregular lines; without a light interscapular spot; jaws and limbs with yellowish cross-bars; ventral surface yellowish with fine brownish patches. Eggs in female yellow, not pigmented.



Figure 1. External morphology and colour pattern of holotype (female, BM1979.443) and an only paratype (male, BM1979.442) of *Ansonia siamensis* n.sp., from Khao Chong, Trang Province, Thailand.

Measurements (in mm) are as follows:

	Holotype BM1979.443	Paratype BM1979.442
Snout-vent length	34.6	27.9
Head length	9.9	8.4
Head width	9.4	8.6
Inter-nasal space	2.15	2.3
Inter-orbital space	3.65	3.05
Orbito-nasal distance	2.3	2.1
Eye diameter	3.75	3.1
Lower arm length	10.5	7.95
Tibia length	16.15	13.05

#### Ecology

The specimens were collected on a rock along a large torrential stream in evergreen forest at 300 m elevation (J. Dring's field notes deposited at the British Museum of Natural History, London).

#### DISCUSSION

Two species have been described from the Isthmus of Kra, Thailand: *A. malayana* by INGER (1960) and *A. penangensis* by TAYLOR (1962). The *A. malayana* described by INGER from Chumphon and Tasan were treated as paratypes to the holotype from Larut Hills in Perak, Peninsular Malaysia. INGER noted that the Thai specimens of *A. malayana* were larger and had larger yellow spots on the abdomen and had more extensive webbing in the females. From the description of *A. penangensis* (TAYLOR, 1962) from the Isthmus of Kra it is most probably the same as *A. malayana* (the specimens that TAYLOR described have not been examined).

*A. siamensis* can be distinguished from *A. malayana* by its larger size, longer arms, greenish-yellow irregular markings on the back, by the absence of a prominent yellow tubercle at the angle of the jaws, the tympanum not being visible externally, the webbing of the feet reaching the discs of the first, second, third and fifth toes, by the absence of large yellow spots on the abdomen, and the absence of a light interscapular patch.

*A. siamensis* differs from *A. ornata* described by INGER (1960) in not having large yellow spots on the abdomen, having yellow cross-bars on upper lip, the top of the head without a large light blotch, having different colouration on dorsum, and the tympanum not being visible externally.

*A. siamensis* differs from *A. rubigina* described by PILLAI & PATTABIRAMAN (1981) from Silent Valley in having dark brown dorsum with an irregular greenish pattern of lines and a yellowish venter with fine brownish patches in contrast to a brick-red dorsum and a dark brown venter with bright orange vermiform pattern. *A. rubigina* has also a more distinct tuberculation on the dorsum. The tympanum of *A. siamensis* is not visible externally while that of *A. rubigina* is distinct. *A. siamensis* has less webbing on its feet. There is a small lump above the vent of *A. rubigina* which is absent in *A. siamensis*. The head of *A. siamensis* is relatively longer than that of *A. rubigina*.

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#### REFERENCES

- BERRY, P.Y. 1975. *The Amphibian Fauna of Peninsular Malaysia*. Tropical Press, Kuala Lumpur, 130 pp.
- DRING, J.C.M. 1979. Amphibians and reptiles from northern Trengganu, Malaysia, with descriptions of two new geckos: *Cnemaspis* and *Cryptodactylus*. *Bull. British Mus. Nat. Hist. (Zool.)* 34 (5): 181-241.
- DRING, J.C.M. 1984. Some new frogs from Sarawak. *Amphibia Reptilia* (in press).
- GRANDISON, A.G.C. 1972. The Gunong Benom Expedition 1967: 5. Reptiles and amphibians of Gunong Benom with a description of a new species of *Macrocalamus*. *Bull. British Mus. Nat. Hist. (Zool.)* 23: 45-101.
- HENDRICKSON, J.R. 1966. Observations on the fauna of Pulau Tioman and Pulau Tulai. *Bull. Nat. Mus. Singapore* 34: 72-84.
- INGER, R.F. 1954. Systematics and zoogeography of Philippine amphibia. *Fieldiana: Zool.* 33: 183-531.
- INGER, R.F. 1960. A review of the Oriental toads of the genus *Ansonia* Stoliczka. *Fieldiana: Zool.* 39 (43): 473-503.
- INGER R.F. 1966. The systematics and zoogeography of the amphibia of Borneo. *Fieldiana: Zool.* 52: 1-402.
- PILLAI R.S. and R. PATTABIRAMAN. 1981. A new species of torrent toad (Genus: *Ansonia*) from Silent Valley, S. India. *Proc. India Acad. Sci. (Anim. Sci.)* 90 (2): 203-208.
- TAYLOR, E.H. 1962. The amphibian fauna of Thailand. *Univ. Kansas. Sci. Bull.* 43 (8): 265-599.

