



Systematic and taxonomic reevaluation of four little known Asian agamid species, *Calotes kingdonwardi* Smith, 1935, *Japalura kaulbacki* Smith, 1937, *Salea kakhienensis* Anderson, 1879 and the monotypic genus *Mictopholis* Smith, 1935 (Reptilia: Agamidae)

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Abstract

The systematic status of many Asian Draconine agamids has long been in dispute. Herein, four such species, *Mictopholis austeniana*, *Japalura kaulbacki*, *Calotes kingdonwardi* and *Salea kakhienensis* are examined on the basis of external morphological characters. The monotypic genus *Mictopholis* was compared to other Asian Draconine genera and found to be indistinguishable from *Pseudocalotes*, with which it is here considered a synonym. *Japalura kaulbacki* is compared to other members of the genus *Japalura* as well as other similar species. Based on external morphology it is found to be separable from *Japalura* and conspecific with *Calotes kingdonwardi*, under which it is considered a junior subjective synonym. *Salea kakhienensis* is redefined morphologically based on nontype material and shown to represent a close member of this group. *C. kingdonwardi* is most similar to *Salea kakhienensis* both of which share a complement of characters with *M. austeniana*. The generic placement of *S. kakhienensis* relative to *Salea*, both with strongly overlapping synapomorphic characters is briefly discussed with respect to biogeographical implications that strongly support the exclusion of this species from the genus. *Mictopholis austeniana*, *Calotes kingdonwardi* and *Salea kakhienensis* are redescribed in detail and transferred to *Pseudocalotes*. The inclusion of these three species provides a generic range extension of approximately 800 km north-west of the previously considered range. The nomen *Oriocalotes discolor* is considered a primary objective synonym of *Pseudocalotes kakhienensis* new comb. and the systematic status of *Calotes kingdonwardi bapoensis* is briefly discussed.

Key words: reptile, lizard, Sauria, Draconinae, redescription, taxonomy, biogeography, Arunachal Pradesh, India, Kachin, Myanmar, Yunnan, China

Introduction

Nelson Annandale (1908) described an unusual, large Agamid from near Harmatti in the Dafla Hills of what was then Assam, in northeastern India. Annandale considered his species a member of the genus *Salea* Gray, naming it *Salea austeniana*. Later Smith (1935a) created the monotypic genus *Mictopholis* defining the genus as follows “Body compressed; dorsal scales very unequal, irregular; ventral scales unequal; a nuchal crest and ? a dorsal crest; a strong fold in front of the shoulder; a gular sac; tympanum exposed. No preanal or femoral pores.” Although a common practice at that time, the definition for his genus was insufficient at diagnosing *Mictopholis* from members of some other agamid genera. The validity of the genus has remained unquestioned taxonomically despite the lack of diagnostic characters provided. Since its description, *M. austeniana* has only recently been collected again, providing new information on morphology, geographical range and ecology (Athreya 2006; Das & Das 2007).

Perhaps first noted by Schmidt (1927), the genus *Japalura* Gray has been recognised for some time to be paraphyletic. Recent evidence further supports paraphyly of the genus in relation to the Chinese species *J. splendida*, *J. flaviceps* and *J. polygonata*, based on numerous phylogenetic studies (Honda *et al.* 2000; Macey *et al.* 2000a & 2000b; Schulte *et al.* 2004; Zug *et al.* 2006). Without a comprehensive molecular phylogeny on this genus it is difficult to hypothesize the eastern range limits of *Japalura sensu stricto* (s.s.) due to overall