



Taxonomic clarity of Indian lizards as a basis for inclusion in checklists: Response to Mirza

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Mirza (2010) while providing his comments on my original publication on Indian lizards (Venugopal 2010a) put forth some valid suggestions. The primary objectives of my original publication were to verify the validity of Indian lizard species listings based on existence of taxonomic clarity and distributional records within India, while simultaneously providing a comprehensive review of the earlier checklists of Indian reptiles. Additionally, the focus of the manuscript was aimed at highlighting the various modes through which mistakes were perpetuated in species lists and to suggest corrective measures. Therefore, enlisting the Indian lizard species was essentially a product of this exercise. As Mirza (2010) correctly notes, in order to rectify the inadvertent mistake of omitting valid lizard species in this original article, I submitted an addendum (Venugopal 2010b). Despite this, as Mirza (2010) rightfully points, there still have been other valid species erroneously omitted. *Cnemaspis kolhapurensis* Giri, Bauer & Gaikwad 2009 and *Tropicolotes persicus euphorbiicola* Minton, Anderson & Anderson 1970 are indeed currently valid listings for Indian lizards and I thank Mirza (2010) for these additions.

Mirza (2010) proposes that *Hemidactylus mahendrai* be retained in the original list, since it is yet to be formally synonymized with *H. brookii* (as suggested by Zug et al. 2007), as the type specimens are lost or have not been deposited in a recognized museum. However,

Mirza (2010) did not provide any sources or references pertaining to the information on type specimen loss or failure for deposition in a recognized museum. The author cites the paraphyly of *H. brookii* as additional support of his proposition. However, I fail to agree with Mirza's suggestion due to (a) Zug et al. (2007) clearly denote that Shukla's (1983) description of *H. mahendrai* matches that of *H. brookii*, (b) Zug et al. (2010) also mention that the original species description does not differentiate these two species, (c) the type specimen being lost or not deposited in a recognized museum renders the information practically unverifiable. Other species for which type specimen have been lost, and distributional and taxonomic status cannot be verified, have not been included in my original list and, (d) paraphyly of *H. brookii* does not help establish or prove the taxonomic validity of *H. mahendrai*.

Mirza (2010) adds that *Hemidactylus subtriedrus* should be retained in the list of Indian reptiles, until it is formally synonymized. On the other hand, the author also comments that it actually belongs to *H. maculatus* complex, thereby rendering the systematic status of *H. subtriedrus* unresolved. This accentuates the lack of certainty in the current taxonomic status of this species, thereby warranting the omission of this species from the checklist. I believe to err on the side of caution and be conservative in the inclusion of species in checklists, enlisting only those with clear taxonomic clarity and distributional records. While it may be useful to provide a checklist also including taxonomically befuddled species, this was not the goal of my original article. As Zug et al. (2007) commented this needs further research; therefore, once the taxonomic status of these and other species are known, they then can be added to the list of Indian lizard species. To reiterate Chapman (2005), the taxonomic and nomenclatural information and the spatial information are important considerations for determining data quality and validating species occurrence data. Thus, including *Cnemaspis kolhapurensis* and *Tropicolotes persicus*, the total number of lizard species with valid distributional records and validated taxonomy within Indian limits is 203, comprising of 75 species belonging to Gekkonidae.

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