



## ***Kali colubrina* Melo, 2008: a senior synonym of *Kali caribbaea* Prokofiev, 2008 (Acanthomorpha: Chiasmodontidae)**

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The genus *Kali* is a member of the deep-sea fish family Chiasmodontidae with seven valid species. A taxonomic revision of *Kali* was recently conducted by Melo (2008), which included the description of two new species: *K. colubrina* and *K. falx*. I was unaware that parallel to that revision, Prokofiev (2008) was describing *K. caribbaea*. Both publications were published during a very short time interval. Upon having access to Prokofiev (2008), it became clear that *K. colubrina* and *K. caribbaea* are actually synonyms. After further investigation about the date of publication of both works, *K. colubrina* Melo, 2008 is herein placed as the senior synonym of *K. caribbaea* Prokofiev, 2008.

**Synonymy of *Kali caribbaea* Prokofiev, 2008 and *K. colubrina* Melo, 2008.** The genus *Kali* is remarkable among the chiasmodontids for its specialized dentition with a unique kind of tooth attachment (Melo, 2008). The species of *Kali* can be promptly distinguished from each other by their great variety of tooth shape, size and number, varying from small, numerous, and recurved teeth to few, enlarged fangs which do not allow the mouth to completely close. The genus was first revised by Johnson (1969), who recognized four species. Later, Johnson and Cohen (1974) added a new species to the genus. The species later named *Kali colubrina* was recognized as distinct for the first time by Uyeno *et al.* (1983), as *Kali* sp.

Melo (2008) conducted another revision of the genus, describing *K. colubrina* and *K. falx*, revalidating *K. kerberti* (Weber, 1913), and placing *K. normani* (Parr, 1931) in synonymy with *K. kerberti*. The revision was based on extensive material, including type specimens and specimens recently collected, in addition to those used in the previous revisions. *Kali colubrina* was diagnosed from its congeners by its unique dentition pattern: lateral premaxillary teeth 13–22, type 4, caniniform but not developed as fangs, recurved; mesial premaxillary teeth five to nine, with ventral attachment to bone, not developed as fangs; lateral dentary teeth eight to 18, type 4, caniniform but not very elongated, recurved; mesial dentary teeth six to ten, with ventral attachment to bone, not developed as fangs.

Prokofiev (2008) described *Chiasmodon lavenbergi* [a junior synonym of *C. pluriradiatus*, see Melo (2009)] and *Kali caribbaea*. The description of *K. caribbaea* was based on the findings of Uyeno *et al.* (1983) and the comparisons were made exclusively on the literature available; no further comparative material was listed. *Kali caribbaea* was diagnosed by a combination of characteristics such as the number and shape of teeth, morphology of gill rakers, number of pectoral-fin rays, and vertebrae (Prokofiev 2008, p. 214): “(...) 12–17/6–9 and 14–18/9–10 teeth in outer/inner row on premaxillare [sic] and dentale [sic], respectively, with 7–9 teeth on palatinum [sic], with moderately large, bent ahead, hooked and curved sideways teeth of the inner rows on the jaws; with mx-p [sic, probably referring to mx-o, distance from posterior edge of orbit to end of upper jaw (p. 209)] exceeding ao [length of snout]; with the first branchial arch having pineletlike rakers, partially attached to the inner side of operculum; with 10–11 rays of P [pectoral fin] and 39–40 vertebrae.”

Several characters used by Prokofiev (2008), however, are not useful to diagnose any species of *Kali*. The description of tooth shape is poor and would fit any species of *Kali* and even other chiasmodontids; the number of palatine teeth fits *K. colubrina*, *K. indica*, *K. macrodon*, *K. macrura* and *K. parri*; the presence of gill rakers on first branchial arch is characteristic of *K. colubrina*, *K. macrodon*, *K. macrura* and *K. parri*; the number of pectoral-fin rays fits *K. colubrina* and *K. parri*; and the number of vertebrae fits *K. colubrina*, *K. indica* and *K. macrodon*. I was unable to evaluate the character described as the distance from posterior edge of orbit to end of upper jaw larger than snout length, since it is not a character used by any previous author and no further data is presented for the other species of *Kali*; however, Prokofiev (2008: 214) states that *K. macrodon* also shares this characteristic, although it is variable.

The only character presented by the author useful to diagnose *Kali caribbaea* is the dental formula, which fits *K. colubrina* perfectly. In addition, the morphometric and meristic data, illustrations, and species range presented largely agree with *K. colubrina*. Therefore, there is no doubt about the identity of *Kali caribbaea* Prokofiev, 2008 as synonymous with *K. colubrina* Melo, 2008.