

Case 3145***Dactyloa biporcata* Wiegmann, 1834 (currently *Anolis biporcatus*) and *Anolis petersii* Bocourt, 1873 (Reptilia, Sauria): proposed conservation of the specific names and designation of a neotype for *A. biporcatus***

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Abstract. The purpose of this application is to conserve the specific names of *Anolis biporcatus* (Wiegmann, 1834) and *Anolis petersii* Bocourt, 1873 in their accustomed usages. The holotype of the former species is conspecific with the syntypes of the latter; however, for almost 60 years the name *A. petersii* has been applied to the species represented by these types. For the same period of time the name *A. biporcatus* has been consistently applied to another taxonomic species, of which the holotype of *Anolis copei* Bocourt, 1873 is representative. It is proposed that the holotype of *A. biporcatus* be set aside and the holotype of *A. copei* be designated the neotype of *A. biporcatus* in order to stabilize the current and long established usage of the names *Anolis biporcatus* and *A. petersii*.

Keywords. Nomenclature; taxonomy; Reptilia; Sauria; IGUANIDAE; *Anolis biporcatus*; *Anolis petersii*; *Anolis copei*; lizards; anoles; Central America.

1. Species of *Anolis* Daudin, 1802, commonly called anoles, have been regarded model organisms for studying many aspects of lizard biology and are frequently cited in non-taxonomic literature. Throughout their range it is common for numerous species of anoles to occur together.

2. Wiegmann (1834, pp. 47–48) established the name *Dactyloa biporcata* for an anole from ‘Mexico’ based on a female specimen ZMB 524 in the Museum für Naturkunde der Humboldt-Universität zu Berlin, Berlin.

3. Bocourt (1873, pp. 77–80) established two species: *Anolis copei* based on one specimen MNHN 2426 in the Muséum national d’Histoire naturelle, Paris from ‘Santa Rosa de Pansos, (Guatemala)’ and *Anolis petersii* based on two syntypes MNHN 2479 and 2479A, both from Alta Verapaz, Guatemala.

4. Until the early 1940s most authors (e.g. O’Shaughnessy, 1875; Boulenger, 1885; Günther, 1885; Dunn, 1930; Dunn & Emlen, 1932; Oeser, 1933; Barbour, 1934; Ahl, 1940; Slevin, 1942) used the name *Anolis biporcatus* for the northern Caribbean versant populations of the species *A. lemurinus* Cope, 1861 while the green coloured (in life), short-legged giant anole, distributed from southeastern Mexico through

Central America to northwestern South America, currently known as *A. biporcatus*, was referred to as *Anolis copei* (or '*copeii*') Bocourt, 1873.

5. Schmidt (1941, p. 491), on advice from L.C. Stuart (in litt.), proposed that individuals previously considered to be *Anolis biporcatus* should be referred to as *A. bourgeaei* Bocourt, 1873 and that specimens recorded as *A. copei* should be called *A. biporcatus* (Wiegmann, 1834). This usage has been maintained ever since. Stuart apparently based his advice on the type descriptions of the three species, but may not have examined all the types directly.

6. We have studied the holotype of *Dactyloa biporcata* and one of us (G.K.) has examined the holotype of *Anolis copei* as well as both syntypes of *A. petersii*. The holotype of *D. biporcata* has mostly smooth (some weakly keeled) dorsal head scales, ventral scales faintly keeled with rounded posterior margins as well as a head and body pattern typical of *A. petersii* of current usage, including dark brown streaks and spots in the gular region. The comparison of these specimens revealed that the holotype of *D. biporcata* is conspecific with the syntypes of *A. petersii*, and that these represent the taxonomic species *A. petersii* of current usage. The holotype of *A. copei* represents the taxonomic species *A. biporcatus* of current usage.

7. The name *Anolis petersii* has been used consistently for a well known anole lizard from the highlands of Guatemala and southern Mexico for 128 years since its original description by Bocourt (1873) (e.g. Boulenger, 1885, p. 66; Dunn, 1930, p. 19; Barbour, 1934, p. 146; Stuart, 1948, p. 51; Smith & Taylor, 1950, p. 65; Smith & Kerster, 1955, p. 201; Stuart, 1955, p. 21; McCranie & Wilson, 1985, p. 107).

8. The name *Anolis biporcatus* has been applied consistently to a well known and widespread species since the early 1940s (Schmidt, 1941; Stuart, 1948, p. 46; Smith & Taylor, 1950, p. 65; Smith & Kerster, 1955, p. 193; Stuart, 1955, p. 13; Taylor, 1956, p. 133; Gorman & Atkins, 1966, p. 581; Williams, 1966; Fitch, 1975, p. 37; Henderson & Hoevers, 1975, p. 23; McCoy, 1975, p. 65; Fitch & Seigel, 1984, p. 3; Savage & Villa, 1986, p. 15; Lee, 1996, p. 227; Köhler, 1999, p. 50). A further 18 references have been given to the Commission Secretariat.

9. Strict application of the Principle of Priority would require replacement of the name *Anolis petersii* Bocourt, 1873 by *A. biporcatus* (Wiegmann, 1834). The species commonly known as *A. biporcatus* since Schmidt (1941) would likewise be renamed *A. copei* Bocourt, 1873. Such action would not be in the interest of stability and would cause confusion. This is especially so given the widespread use of *Anolis* spp. as model organisms in a variety of biological investigations (Huey, Pianka & Schoener, 1983), and the frequent use of these particular names in recent authoritative guides to the Mexican and Central American herpetofauna (e.g. Flores-Villela, 1993; Lee, 1996; Campbell, 1998).

10. We propose, in accordance with Article 75.6 of the Code, that confusion would be avoided by setting aside the holotype of *Dactyloa biporcata* Wiegmann, 1834 and conserving the specific name in accordance with prevailing usage by designating the holotype of *Anolis copei* Bocourt, 1873 (MNHM 2426) as the neotype of *D. biporcata*. This action would also conserve the name *Anolis petersii* Bocourt, 1873 and render the name *A. copei* a junior objective synonym of *A. biporcatus* (Wiegmann, 1834).

11. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for *Dactyloa biporcata* Wiegmann, 1834 and to designate the holotype of *Anolis copei* Bocourt, 1873 (MNHM 2426) as the neotype;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *biporcata* Wiegmann, 1834, as published in the binomen *Dactyloa biporcata* and as defined by the neotype designated in (1) above;
 - (b) *petersii* Bocourt, 1873, as published in the binomen *Anolis petersii* and as defined by the syntypes described in para. 3 above;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *copei* Bocourt, 1873, as published in the binomen *Anolis copei* (a junior objective synonym of *Dactyloa biporcata* Wiegmann, 1834).

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