

Case 3143

***Euphryne obesus* Baird, 1858 (Reptilia, Squamata): proposed precedence of the specific name over that of *Sauromalus ater* Duméril, 1856**

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Abstract. The purpose of this application is to conserve the long used and well known specific name of *Sauromalus obesus* (Baird, 1858) for the chuckwalla (family IGUANIDAE) from the southwest of North America by giving it precedence over the little used name *S. ater* Duméril, 1856.

Keywords. Nomenclature; taxonomy; Reptilia; Squamata; IGUANIDAE; *Sauromalus ater*; *Sauromalus obesus*; chuckwallas; southwestern North America.

1. In 1856 Duméril (p. 536, pl. 23, figs. 3 and 3a) described a new genus and single new species of iguanid lizard as *Sauromalus ater* on the basis of a single specimen presented by Lieutenant M. Jaurès to the Muséum National d'Histoire Naturelle, Paris. The holotype (MHNP 813), which lacks locality data, was collected somewhere in western Mexico during a world circumnavigating voyage of the French frigate *La Danaïde*.

2. The absence of a type locality for *Sauromalus ater* has remained an acknowledged problem for systematists working with *Sauromalus* (see Schmidt, 1922; Shaw, 1945; Hollingsworth, 1998). Shaw (1945, p. 273), unable to study the holotype due to political conditions in Europe, drew upon descriptive information in Duméril & Bocourt (1870) and Mocquard (1899), and concluded that the holotype must have originated from one of the islands off the southern coast of the Baja California peninsula. Hence, in referring to the type locality, Shaw (1945, p. 284) stated: 'Not definitely known but undoubtedly one of the several islands in the southern part of the Gulf of California where this species is known to occur'. Subsequently and without justification, Smith & Taylor (1950) further restricted the type locality to Isla Espiritu Santo.

3. Two years after Duméril, Baird (1858, p. 253) described the new genus and single new species *Euphryne obesus* and noted that it was 'abundant in the canons of the Colorado, of California, collected by Maj. Thomas, Mex[ico] Boundary Survey, and Lt. Ives' Expedition'. The type specimen was given as USNM 4172 in the U.S. National Museum, Washington. Subsequently, Baird (1859, p. 6, pl. 27) indicated the locality of USNM 4172 as 'Fort Yuma'. Van Denburgh (1922) and Shaw (1945) correctly noted the location of Fort Yuma in California. Montanucci (2001) discussed the confusion caused by Baird's piecemeal publication of data and clarified

the particulars relating to the collector and type locality. Cope (1864) commented that the name *Euphryne* Baird, 1858 was a synonym of *Sauromalus* Duméril, 1856, but both generic names continued to be used in the literature until Cope (1875) and Coues (1875) placed *Euphryne* as a synonym of *Sauromalus* (see Hollingsworth, 1998, p. 40). *Sauromalus* has been used since that time.

4. Prior to 1922, the name *Sauromalus ater*, and not *S. obesus*, was used in most papers, including checklists and distributional accounts. Most notable among these publications are Cope (1875, 1900), Stejneger's (1891) description of a new species of *Sauromalus*, the checklists of Yarrow (1882) and Stejneger & Barbour (1917), and Van Denburgh's (1922) *The reptiles of western North America*. The recognition of *S. ater* and *S. obesus* as separate species came with publication of Schmidt's (1922, pp. 640–641) study of the amphibians and reptiles of lower California, and was followed by the later checklists of Stejneger & Barbour (1923, 1933, 1939, 1943). The taxonomic treatment of the genus *Sauromalus* by Shaw (1945) reinforced the concept that *S. ater* and *S. obesus* are separate species, a view held by virtually all subsequent workers except Hollingsworth (1998).

5. In his recent monographic revision of *Sauromalus*, Hollingsworth (1998) placed *Sauromalus obesus* in the synonymy of *S. ater*, and restricted the type locality of *S. ater* to southern Sonora. However, Montanucci (2000) argued that Hollingsworth's analysis to determine the provenance of the type specimen was unconvincing due to limitations in his statistical data, leading to ambiguous results and an unsubstantiated conclusion. Accordingly, Montanucci (2000) concluded that, in the absence of any new, compelling information, the type locality of *S. ater* remained open to speculation and conjecture.

6. The literature using the name *Sauromalus obesus* is substantially more abundant and significant than that using the name *S. ater*. Beaman, Hollingsworth, Lawler & Lowe (1997) listed 626 titles of technical and popular articles pertaining to the genus *Sauromalus*. Out of this total, the name *S. ater* is used in about 46 papers; most of these (34) were published before 1950, and nearly all pertain to taxonomy and/or distribution. The literature for *S. obesus* is profoundly more extensive by comparison, being conservatively estimated to be about 90% of the total literature for the genus as a whole, or some 550 papers. The name *S. obesus* is used, almost to the exclusion of *S. ater*, in the literature dealing with physiological ecology and thermoregulation of chuckwalla (about 133 papers), most of the basic ecological works (about 71 papers), as well as morphological studies (about 92 articles). Over 100 papers dealing with distribution use the name *S. obesus*. While the name *S. ater* has been little used and is essentially restricted to publications in technical journals, the name *S. obesus* appears in numerous papers, magazines and books, ranging from technical to popular. Clearly, the name *S. obesus* has had a long history of usage to the present, and is deeply entrenched in both the scientific and popular literature. Hence, any proposed change of this long-recognized name would certainly create extensive confusion and instability.

7. We propose that, if the names *Sauromalus ater* Duméril, 1856 and *S. obesus* (Baird, 1858) are considered to be synonyms, *obesus* should be conserved for the combined taxon by giving it precedence over *ater*. If the two names are considered to refer to different taxa (species or subspecies), then both are available for use. If the application is approved by the Commission both names will be placed on the Official

List. As mentioned in paras. 1 and 3 above, the holotypes of both nominal taxa are in existence.

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

- (1) to use its plenary power to give the name *obesus* Baird, 1858, as published in the binomen *Euphryne obesus*, precedence over the name *ater* Duméril, 1856, as published in the binomen *Sauromalus ater*, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the name *Sauromalus* Duméril, 1856 (gender: masculine), type species by monotypy *Sauromalus ater* Duméril, 1856;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *obesus* Baird, 1858, as published in the binomen *Euphryne obesus*, with the endorsement that it is to be given precedence over the name *ater* Duméril, 1856, as published in the binomen *Sauromalus ater*, whenever the two are considered to be synonyms;
 - (b) *ater* Duméril, 1856, as published in the binomen *Sauromalus ater*, with the endorsement that it is not to be given priority over *obesus* Baird, 1858, as published in the binomen *Euphryne obesus*, whenever the two are considered to be synonyms.

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Montanucci, Richard R. et al. 2001. "Euphryne Obesus Baird, 1858 (Reptilia, Squamata): Proposed Precedence Of The Specific Name Over That Of Sauromalus Ater Dumeril, 1856." *The Bulletin of zoological nomenclature* 58, 37–40.

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