

The original authorship of *Chalcides ocellatus tiligugu* (Squamata: Scincidae)

WOLFGANG DENZER

Society for Southeast Asian Herpetology, Calle Rio Segura 26, 30600 Archena / Murcia, Spain
E-mail: lobo@herpetologica.org

Submitted on: 2023, 17th July; revised on: 2023, 18th October; accepted on: 2023, 25th October
Editor: Andrea Costa

Abstract. The current herpetological literature considers Gmelin (1789) as the authority for making the name *Chalcides ocellatus tiligugu* available. However, the subspecies had already been introduced by Hermann (1783) who referred in his short description to a publication by Cetti (1777). This short note shows that in accordance with the rules of nomenclature the correct notation for this Sardinian scincid lizard should be *Chalcides ocellatus tiligugu* (Hermann, 1783).

Keywords. *Chalcides ocellatus*, nomenclature, authorship, Tiligugu, Sardinia.

The taxon *Chalcides ocellatus* (Forskål, 1775: 13) currently comprises six subspecies including the nominotypical *C. o. ocellatus* that had been described based on a specimen originating from Egypt (Uetz et al. 2023). Only two years later Cetti (1777: 21) described a new lizard from Sardinia in detail and provided the names “Tiligugu” or “Tilingoni”. The latter name means “earthworm” in old Sardo and Algherese Catalan. Cetti was apparently unaware of Forskål’s earlier publication but he compared his lizard to the diagnoses provided by Linnaeus (1758) for the 43 species included in the genus *Lacerta*. Cetti (1777) initially excluded all lizards with a compressed tail (“cauda compressa”) followed by those species those with a ringed tail (“cauda verticillata”). The last two “classes” according to Linnaeus (1758) contained lizards (“laceratae”) with a round, smoothly scaled tail, namely species with a tail longer than the body and those with a tail shorter than the body. Cetti’s specimen had a short tail in comparison to the body length and was similar in general appearance to *Lacerta scincus* Linnaeus, 1758 (now *Scincus scincus*). Cetti (1777) concluded that his species was related to the apothecary / medicinal skink (“medicinale

scinco”) but not identical with it. Cetti went on to make further comparisons between his specimen and *Lacerta scincus* to prove that his species was new. In a way he followed the current rules of nomenclature prescribed in Article 13.1.1 of the International Code of Zoological Nomenclature (ICZN 1999. “the Code”) that requires that new names need to include “a description or definition that states in words characters that are purported to differentiate the taxon”. However, Cetti’s (1777) work did not apply the Linnean (1758) binominal nomenclature consistently and therefore the name was not made available according to Art. 11.4 of the Code.

In the 13th edition of Linnaeus’ *Systema Naturae* edited by Gmelin several new species in the class Amphibia were introduced, one of which was *Lacerta tiligugu*. Gmelin (1789: 1073) provided a short diagnosis that referred to Cetti (1777): “L.[acerta] cauda tereti mediocri conica, digitis pedum 5 marginatis, totidemque unguiculis. Cetti. anfib. di sard. p. 21. Habitat in Sardinia, 8 pollices longa. Corpus crassum, supra fuscum punctis nigris dense aggregatis varium, subdus albidum; pedes brevissimi, posteriores longiores, cauda 3 1/2 pollices lon-

ga.” [L. [acerta] with a smooth conical tail, 5 toes, and as many claws. Cetti. anfib. di sard. p. 21. Inhabits Sardinia, 8 inches long. Body thick, above brown with densely aggregated black dots variegated, underneath whitish; extremities very short, hind legs longer, tail three and a half inches long.]

Gmelin (1789) did not have a specimen at hand and only repeated a set of characters he had extracted from Cetti’s (1777) work. As Gmelin’s work consistently employed binominal nomenclature, Gmelin (1789) is considered as the original author of the taxon *Lacerta tiligugu* in the herpetological literature. However, an earlier, widely overlooked publication by Hermann (1783) had already mentioned “Lac.[erta] tiligugu” briefly. Hermann (1783: 263) provided a very short comparison between *Lacerta scincus* Linnaeus, 1758 and *L. tiligugu*: “Namque in Lac. Scinco jam pedes sunt perbreves, breviores in Lac. Tiligugu (o), qui in octopollicaris animali quinque aut sex lineis non sint longiores. [Already in Lac. scincus the legs are very short, [but even] shorter in Lac. Tiligugu (o), where they are not longer than five or six lines in an eight-inch animal]”.

The (o) refers to a footnote on the same page where Hermann referenced Cetti’s (1777) publication: “Nova scinco accedente specie, descripta a Cetti. Anfibi de Sardegna p.21. tab. 1. [A new species of skink, described by Cetti. Anfibi de Sardegna p.21 tab. 1.]”. Hermann (1783), in contrast to the later work by Gmelin (1789), additionally refers to an illustration in Cetti (1777). This illustration (Fig. 1) clearly shows a specimen with a short, round tail and the general appearance of a scincid lizard. While the body proportions are reasonably accurate, the length of extremities are clearly exaggerated if it comes to scincid lizards inhabiting Sardinia. In a footnote Cetti (1777: 27) heavily complained about the illustrator and assumed that he altered the illustration intentionally, even employing the word “vizioso [vicious]”: “allungamento tanto piu vizioso, che altera l’animale apunto in uno de suoi principali caratteri, che è la grandissima brevità delle sue gambe [the enlargement (of the extremities) is all the more vicious, as it alters the animal precisely in one of its main characteristics, which is the very shortness of its legs]”.

Hermann (1783) not only antedates Gmelin (1789), the publication also consistently applied Linnean binominal nomenclature and is therefore an available work in accordance with Art. 11.4 of the Code. Despite the very short and ambiguous description of *Lacerta tiligugu*, Hermann’s reference to Cetti’s (1777) description and illustration qualifies as an indication in the sense of Art. 12.2.1: “a bibliographic reference to a previously published description or definition even if the descrip-

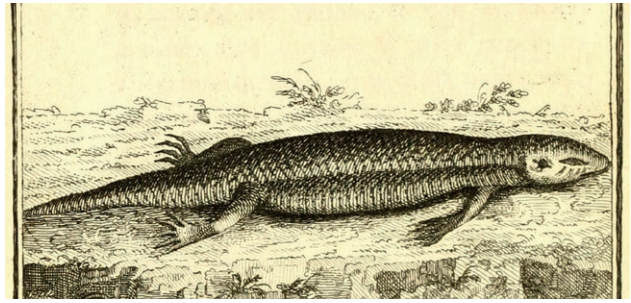


Fig. 1. The original illustration of the “Tiligugu” from Cetti (1777).

tion or definition is contained in a work ... that is not consistently binominal”, and Art. 12.2.7: “the proposal ... of a new species-group name in association with an illustration of the taxon being named, or with a bibliographic reference to such an illustration”. Consequently, the specimen depicted in Cetti (1777) on pl. 1 preceding p. 21 constitutes the holotype by monotypy of *Lacerta tiligugu*. In agreement with the mentioned articles of the Code Hermann (1783) made the name *Lacerta tiligugu* nomenclaturally available. Intuitively, Hermann should not be seen as the original author of the taxon. He did not have a specimen at hand and relied completely on Cetti’s earlier description just repeating some of the characters provided by Cetti (1777) and translating those in a shortened form into Latin: “Otto pollici incirca ha questo animale di lunghezza dalla estremità del muso a quella della coda” (Cetti 1777); “octopollicaris animali” (Hermann 1783). “Il tiligugu ha cortissime gambe ..., le anteriori sono appena lunghe cinque linee, le posteriori sono appena lunghe linee sei” (Cetti 1777); “quinque aut sex lineis” (Hermann 1783).

Hermann (1783) even used the name “tiligugu” provided by Cetti (1777) as the species epithet. However, in such cases Art. 50.1.1 of the Code (ICZN 1999) prescribes that “if it is clear from the contents that some person other than an author of the work is alone responsible **both** [emphasis by the author] for the name or act and for satisfying the criteria of availability other than actual publication, then that other person is the author of the name or act.” Consequently, Cetti cannot be seen as the author because he did not use a Linnean binomen such as “*Lacerta tiligugu*” although this could be implied through his comparison with the taxa included in *Lacerta* by Linnaeus (1758). In line with currently accepted taxonomy (Kornilios et al. 2010) the correct nomenclatural notation for this Sardinian and North African scincid lizard subspecies therefore needs to be *Chalcides ocellatus tiligugu* (Hermann, 1783).

REFERENCES

- Cetti, F. (1777): Anfibi e pesci di Sardegna. Piattoli, Sassari.
- Forskål, P. (1775): Descriptiones animalium, avium, amphibiorum, piscium, insectorum, vermium; quae in itinere Orientali observavit Petrus Forskål. Mölleri, Hauniae, XXXIV.
- Gmelin, J. F. (1789): Caroli a Linné, Systema Naturae per Regna Tria Naturae, Secundum Classes, Ordines, Genera, Species, cum characteribus, differentiis, synonymis, locis. Tomo 1: Regnum Animale: Parte 3: Amphibia und Pisces. pp. 1033–1516. Editio Decima Tertia, Aucta, Reformata” Georg. Emanuel. Beer, Lipsiae (1788-1793); in seconda edizione. J.B. Delamollière, Lugduni.
- Hermann J. (1783): Tabulae affinitatum animalium, olim academico specimine edita, nunc uberiore commentario illustrata cum annotationibus ad historiam naturalem animalium augendam facientibus. Treuttel, Strasbourg.
- ICZN [International Commission on Zoological Nomenclature] (1999): International Code of Zoological Nomenclature. 4th Edition. London, The International Trust for Zoological Nomenclature.
- Kornilios, P., Kyriazi, P., Poulakakis, N., Kumlutas, Y., Ilgaz, Ç., Mylonas, M., Lymberakis, P. (2010): Phylogeography of the ocellated skink *Chalcides ocellatus* (Squamata, Scincidae), with the use of mtDNA sequences: A hitch-hiker guide to the Mediterranean. *Mol. Phyl. Evol.* **54**: 445-456.
- Linnaeus, C. (1758): Systema naturæ per regna tria naturæ, secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio decima, reformata. Laurentii Salvii, Holmiæ. 10th Edition.
- Uetz, P., Freed, P., Aguilar, R., Reyes, F. & Hošek, J. (eds.) (2023): The Reptile Database, <http://www.reptile-database.org>. [Accessed on September 2023]