



***Oloughlinia*, a replacement name for *Clarkiella* Heding in Heding & Panning, 1954 (Echinodermata: Holothuroidea: Sclerodactylidae)**

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The holothuroid genus *Clarkiella* was first used by Heding in Heding & Panning (1954, p. 119) in their monograph on phylloporid Dendrochirotida, published after Svend G. Heding (1902–1949) had died. Alfred Panning explicitly mentioned that the descriptions of *Clarkiella* and the single included species, *Clarkiella discoveryi* Heding in Heding & Panning, 1954, were taken from the notes of Heding. No information on the distribution nor information on the type material was given in the original publication, but O’Loughlin (2009, p. 6), was able to locate the holotype in the collections of the University of Copenhagen Zoological Museum (ZMUC HOL-000064). The specimen came from Discovery Stat. D474, 1 mile W of Shag Rocks, South Georgia, 199 m depth, coll. 19 Nov 1930 (O’Loughlin *et al.* 2016, table 2; Martins & Tavares 2022, p. 570). According to O’Loughlin *et al.* (2016, table 2) and Martins & Tavares (2022, p. 570), an additional (paratype) specimen from the same locality as the holotype exists in the collections of the University of Copenhagen Zoological Museum (ZMUC HOL-247) and holotype slides are located in the collections of the Muséum national d’Histoire naturelle, Paris (MNHN IE-2005-6324, IE-2005-6325, IE-2005-6326). A second species of *Clarkiella*, *Clarkiella deichmannae* O’Loughlin, 2009, was described by O’Loughlin (2009) from the Kerguelen Islands (O’Loughlin *et al.* 2015, p. 72).

The name *Clarkiella* is already preoccupied by a fossil faujasiid echinoid: *Clarkiella* Lambert, 1916 (type-species: *Cassidulus conoideus* Clark in Clark & Twitchell, 1915, by subsequent designation of Lambert & Thiéry, 1921, p. 369 [under the unnecessary replacement name *Cossmannaster* Lambert, 1920]). While the name *Clarkiella* is currently not in use, being treated as a synonym of *Hardouinia* (Kier 1962) or *Lefortia* (Smith & Kroh 2011) (but see Smith & Jeffery 2000, p. 203, where it is treated as subgenus of *Hardouinia*) it is an available name and not a *nomen oblitum* since it has been used as a valid name since 1899 and thus fails to meet one of the two criteria for reversal of precedence (ICZN 1999, Art. 23.9.1.). Therefore, in accordance with Articles 52.2 and 60 of the International Code of Zoological Nomenclature (ICZN 1999), a replacement name is needed for the junior homonym *Clarkiella* Heding in Heding & Panning, 1954, as no available and potentially valid synonyms exist for the junior homonym. To resolve this homonymy, a substitute name and two new combinations are proposed below.

Systematics

Class Holothuroidea de Blainville, 1834

Subclass Actinopoda Ludwig, 1891

Order Dendrochirotida Grube, 1840

Family Sclerodactylidae Panning, 1949

Subfamily Cladolabinae Heding & Panning, 1954

Remarks: The assignment of the genus *Oloughlinia* (nom. nov. pro *Clarkiella* Heding in Heding & Panning, 1954) to the family Sclerodactylidae (vs. Cucumariidae vs. Cladolabidae) is under discussion (cf. O’Loughlin 2009, pp. 4–6;

O'Loughlin *et al.* 2011, p. 267; Smirnov 2012, p. 820), especially since the Sclerodactylidae and Cucumariidae are evidently polyphyletic (e.g. Miller *et al.* 2017, fig. 4). Martins & Tavares (2022, p. 569), based on a re-examination of the type-material at ZMUC and holotype slides at the MNHN listed *Clarkiella* as member of the Subfamily Cladolabinae, which is followed here.

Genus *Oloughlinia* Kroh, Gaudin & Reich, 2022 nom. nov.

= homonym *Clarkiella* Heding in Heding & Panning, 1954 non Lambert, 1916 (pro *Clarkiella* Heding in Heding & Panning, 1954, p. 119, non Lambert, 1916, p. 169 [Echinoidea: Faujasidae])

Synonymy:

non 1916 *Clarkiella*—Lambert, p. 169.

non 1953 Genus *Clarkiella* Lambert—Cooke, p. 18.

1954 Gattung *Clarkiella* Heding—Heding & Panning, p. 119.

1956 *Clarkiella* gen. nov. ... Heding & Panning—Clark, p. 13.

1966 *Clarkiella* Heding & Panning 1954—Edwards & Hopwood, p. 58.

2017 *Clarkiella*—Martins, p. 18.

2022 Genus *Clarkiella* Heding, in Heding & Panning, 1954—Martins & Tavares, p. 569.

Type species: *Clarkiella discoveryi* Heding in Heding & Panning, 1954, pp. 119–120 is designated as type species of *Oloughlinia* Kroh, Gaudin & Reich, 2022 nom. nov. here, following recommendation 60A of *the Code*.

Gender: feminine

Etymology: named after Peter Mark O'Loughlin (Museum Victoria), in acknowledgement of his extensive research on dendrochirote sea cucumbers.

Species *Oloughlinia deichmannae* (O'Loughlin, 2009) nov. comb.—southern Indian Ocean.

Species *Oloughlinia discoveryi* (Heding in Heding & Panning, 1954) nov. comb.—South Atlantic Ocean.

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