


# *Jimaodanus*, a replacement name for the algal genus *Heterocladus* LoDuca, Kluessendorf, and Mikulic, 2003

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The fossil genus *Heterocladus* LoDuca, Kluessendorf, and Mikulic, 2003 was established based on specimens from the Silurian (Llandovery) of southeastern Wisconsin, USA (LoDuca et al., 2003). This genus is monotypic and contains only the type species *Heterocladus waukeshaensis* LoDuca, Kluessendorf, and Mikulic, 2003, regarded as a noncalcified dasycladalean alga (LoDuca et al., 2003). *Heterocladus waukeshaensis* shows a narrow, undivided main axis and two types of laterals. Hair-like, branched laterals are arranged in whorls at lower part of the main axis, whereas clavate, undivided laterals appear at the upper part (LoDuca et al., 2003). The generic name is derived from the Greek *hetero* and *klados*, meaning ‘different’ and ‘branches,’ respectively (LoDuca et al., 2003).

However, *Heterocladus* LoDuca, Kluessendorf, and Mikulic, 2003 is a later homonym of *Heterocladus* Turczaninow, 1847, a name that was validly published based on an extant angiosperm (Turczaninow, 1847). *Heterocladus* Turczaninow, 1847 is currently regarded as a taxonomic synonym of *Coriaria* Linnaeus, 1753 (Good, 1930; Skog, 1972).

According to Articles 11.3 and 53.1 of the International Code of Nomenclature for Algae, Fungi, and Plants (Shenzhen Code) (Turland et al., 2018), *Heterocladus* LoDuca, Kluessendorf, and Mikulic, 2003 should not be used because this name is illegitimate. Hence, the replacement name *Jimaodanus* is proposed here to replace *Heterocladus* LoDuca, Kluessendorf, and Mikulic, 2003. The replacement name is derived from *jímáodǎnzi*, the Chinese name of a feather duster, referring to morphological characters of the laterals.

## Systematic paleontology

Genus *Jimaodanus* nom. nov.

2003 *Heterocladus* LoDuca, Kluessendorf, and Mikulic, p. 1152, fig. 1.

*Type species.*—*Jimaodanus waukeshaensis* (LoDuca, Kluessendorf, and Mikulic) comb. nov., from Wisconsin of USA, monotypy; figured by LoDuca et al. (2003, fig. 1).

*Diagnosis.*—See LoDuca et al. (2003, p. 1152).

*Occurrence.*—Brandon Bridge Formation, Silurian (Llandovery); Waukesha Lime and Stone Company quarry, north of Waukesha, Wisconsin, USA.

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*Etymology.*—From *jímáodǎnzi*, the Chinese name of feather duster, referring to morphological characters of the laterals.

*Remarks.*—The genus *Heterocladus* LoDuca, Kluessendorf, and Mikulic, 2003 is a later homonym of *Heterocladus* Turczaninow, 1847. Therefore, the replacement generic name *Jimaodanus* is proposed to replace *Heterocladus* LoDuca, Kluessendorf, and Mikulic, 2003.

*Jimaodanus waukeshaensis* (LoDuca, Kluessendorf, and Mikulic, 2003) comb. nov.

2003 Basionym: *Heterocladus waukeshaensis* LoDuca, Kluessendorf, and Mikulic, p. 1155, fig. 1-1, 1-2.

*Holotype.*—Field Museum of Natural History, FMNH PP 45959a, b, Wisconsin, USA.

*Diagnosis.*—See LoDuca et al. (2003, p. 1155).

*Occurrence.*—Brandon Bridge Formation, Silurian (lower Llandovery); Waukesha Lime and Stone Company quarry, north of Waukesha, Wisconsin, USA.

*Description.*—See LoDuca et al. (2003, p. 1155).

*Remarks.*—The species *Heterocladus waukeshaensis* LoDuca, Kluessendorf, and Mikulic, 2003 was illegitimate due to the generic name used previously for the extant angiosperm. Hence, a new combination is here proposed.

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## Declaration of competing interests

The author declares none.

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