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THE STATUS OF *UNCINIA MACROLEPIS*, *U. MERIDENSIS*, AND *U. SMITHII* (CYPERACEAE) IN THE NEW WORLD

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ABSTRACT: *The status of* *Uncinia macrolepis*, *U. meridensis*, *and U. smithii* (Cyperaceae) *in the New World.* *Uncinia meridensis* Steyerl. from northern South America and *U. smithii* Philcox from South Georgia are shown to be morphologically indistinct from the austral South American *U. macrolepis* Decne., which belongs in section *Uncinia*.

INTRODUCTION

Steyermark (1951) described *Uncinia meridensis* from plants collected in the state of Mérida in western Venezuela, where it grows in páramo at about 4000 m, particularly along the rocky margins of alpine lakes. He (p. 61) suggested that the new species was "most closely related" to the South American *U. macloviana* Gaudich. [as *U. brevicaulis* (Thouars) Kunth var. *macloviana* (Gaudich.) C. B. Clarke f. *montana* (Philippi) Kük.], which is generally placed in section *Platyandrae* C. B. Clarke (Clarke, 1883; Kükenthal, 1909).

Somewhat later, Philcox (1961) described *Uncinia smithii* from plants collected in the Cumberland Bay area of South Georgia, where it grows in well-drained soils in *Festuca* moorland, from about 3-330 m s.m. It is notably the only *Uncinia* reported from this subantarctic island (approximately 54° 00' S lat., 37° 00' W long.), which lies about 1700 Km east of the southeastern tip (Península Mitre) of Tierra del Fuego. Philcox (p. 229) suggested that the new species was "more closely allied" to *U. brevicaulis* (sect. *Platyandrae*) "than to any other species," and he noted briefly the major morphological differences between the two taxa. Contrarily, Moore and Edgar (1970, p. 219) indicated

(in a brief discussion under the description of *U. elegans* (Kük.) Hamlin) a close relationship (i. e., morphological similarity) between *U. smithii* and *U. macrolepis* Decne., the latter of which is generally placed in section *Uncinia* ("sect. *Stenandrae*" sensu Kükenthal, 1909; Hamlin 1958, 1959). At this point it should be noted that *U. macrolepis* is a Patagonian-Fuegian species, which was originally described in 1853.

Still more recently, Hooper (1968), who worked on the *Cyperaceae* of Tristan da Cunha (and adjacent islands), placed the name *Uncinia smithii* under the synonymy of *U. meridensis*. She reported *U. meridensis* as occurring in Venezuela, Tristan da Cunha, and South Georgia, and wrote (p. 7), "Unsatisfactory as is the resulting distribution, it seems impossible to distinguish at the specific level the three small stoloniferous *Uncinias*..." Although Hooper (p. 8) did not discuss the sectional placement of *U. meridensis* per se, she did point out that it "appears closely related" to *U. sinclairii* Boott, a species from New Zealand which is generally placed in section *Uncinia* (Clarke, 1883; Kükenthal, 1909; Hamlin, 1959, Moore and Edgar, 1970). Notably, Hooper made no mention of *U. macrolepis* in her paper.

Because obviously there is disagreement among previous workers as to the affinities and sectional placement of these plants, a study was undertaken to clarify the situation.

MORPHOLOGY AND DISCUSSION

As mentioned above, Philcox (1961) believed the plants from South Georgia to have affinities with *U. brevicaulis*, but the disparate morphologies of the two taxa do not support such a view. For example, the South Georgia plants have staminal filaments (ca. 0.1 mm wide) that are appreciably narrower than the attached anthers (ca. 0.2 mm wide), a feature which previous authors (Clarke, 1883; Kükenthal, 1909) have used to separate members of section *Uncinia* from those of section *Platyandrae*. By contrast, in *U. brevicaulis* s. l. the staminal filaments (ca. 0.2-0.4 mm wide) are as wide as or wider than the anthers (ca. 0.2 mm wide). Also, the perigynia of the South Georgia plants are sparsely to moderately hispid distally and glabrous (nearly so) proximally, a feature also characteristic of section *Uncinia* (Kükenthal, 1909). By contrast, the perigynia of members of section *Platyandrae*, such as those of *U. brevicaulis* s. l., are more or less densely appressed-hispid with margins that are ciliate from the apex to near the base.

Contrary to Steyermark's (1951) belief, as mentioned earlier, that *Uncinia meridensis* has affinities with *U. macloviana*, an examination of the holotype of *U. meridensis*, along with other similar-appearing plants from northern South America (i.e., Colombia, Ecuador, Perú, Venezuela), reveals that the plants belong in section *Uncinia*. Indeed, these plants have staminal filaments (ca. 0.1 mm wide) narrower than the anthers (ca. 0.2-0.3 mm wide) and perigynia that are sparingly hispid distally and glabrous (or nearly so) proximally. Based on the evidence presented above, it is very clear that *U. meridensis* from northern South America and *U. smithii* from South Georgia belong in section *Uncinia*. But are these two species conspecific, as suggested by Hooper (1968)? And if so, how are the plants taxonomically related to *U. macrolepis*?

Using Kükenthal's (1909, pp. 51 and 57) keys for *Uncinia*, all of the plants from northern South America and South Georgia go readily to *U. macrolepis*: i. e., they have staminal filaments narrower than the anthers, perigynia sparsely hispid distally and glabrous (or nearly so) proximally, pistillate scales persistent, and spikes more or less

names *U. meridensis* and *U. smithii* should hereafter be placed in synonymy under the name *U. macrolepis*, as indicated below.

***Uncinia macrolepis* Decne.**

Decaisne, in D'Urville, *Voy. Pole Sud* 2: 13. 1853. TYPE: CHILE. Magallanes, 1837-1840, Hombron et Jacquinot s. n. (Holotype P !).- *Uncinia meridensis* Steyermark, *Fieldiana, Bot.* 28: 61. 1951. TYPE: VENEZUELA. State of Mérida, at El Aguila above Páramo de Mucuhies, alt. 4025 m, margin of alpine lake, 6 Jul 1944, Steyermark 57039 (Holotype F !).- *Uncinia smithii* Philcox, *Kew Bull.* 15: 229. 1961. TYPE: SOUTH GEORGIA. Moraine Fjord, between Harker and Hamberg Glaciers, on 15' slope, alt. 12 m, 10 Feb 1957, Smith M. 1019 (Holotype K !).

As treated here, *Uncinia macrolepis* (Figs. 1-4) occurs in northern South America, in southern Patagonia and Tierra del Fuego, and on the south-Atlantic islands of South Georgia and Tristan da Cunha. It is a diminutive species, with culms mostly under 15 cm tall, and has slender, long-creeping rhizomes that frequently form small colonies. While in the south this species grows in moist to wet depressions in grasslands and moors, in the north it occurs primarily on wet rocks and with cushion plants in páramo. As regards the wide, and rather remarkable, distribution of *U. macrolepis*, it is probably best explained by transport of its desmochores (i. e., hooked fruits) by ground-nesting birds, with long-range dispersal most likely taking place by exogenous rather than endogenous means.

A more detailed description is in Weeler, 1993-94.

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