

## Neotypification of *Aira setacea* Hudson (Poaceae)

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### ABSTRACT

*Deschampsia setacea* (Hudson) Hackel is a slender grass described originally as *Aira setacea* Hudson on a plant collected in Stratton Strawless (Norfolk) in the first edition of the *Flora Anglica*. It has never been typified, and since the herbarium of Hudson has been lost to fire, a neotype is chosen in order to preserve the current application of the name.

**KEYWORDS** *Deschampsia setacea*, Hudson, Neotypification, *Flora Anglica*

### INTRODUCTION

The preparation of a revision of *Deschampsia* (Poaceae: Aveneae) in South America has made evident the lack of an extant type specimen for *Deschampsia setacea* (Hudson) Hackel. The ‘Bog Hair-grass’ is a slender grass occasionally found in bogs, pools and ditches in Great Britain (Perring & Walters 1962; Stace 1997). Outside Britain *D. setacea* is found in Ireland, Central Europe (Conert 1987; Jansen 1951) and Scandinavia (Hylander 1953). Some scattered populations also exist in central Chile (Parodi 1949), thus giving this taxon a disjunct distribution between Europe and South America. *Deschampsia setacea* (Hudson) Hackel is based on *Aira setacea* Hudson, which was described in the *Flora Anglica* (Hudson 1762) on the basis of a plant collected in East Anglia.

### CHARACTERS USEFUL IN DISTINGUISHING *DESCHAMPSIA SETACEA* FROM OTHER *DESCHAMPSIA* SPECIES

*Deschampsia setacea* is a perennial cespitose grass with densely packed erect bristle-like blades 2.5–10 cm long, 1–1.5 mm wide, inrolled, sharply pointed, scabrous on mid and lateral nerves of both abaxial and adaxial sides. The ligules are narrowly lanceolate, 4.5–11 mm long, hyaline, acuminate, and the panicles

loose, lanceolate, 8–18 cm long, 1.5–5 cm wide, with spikelets 2-flowered, purplish, often clustered at the end of branches, the lower glume is narrowly lanceolate, (3)–4–5 mm long, 1-nerved, the upper glume lanceolate (3.5)–4.5–6 mm long, the lower lemma is 3–4 mm long, 4–(5) toothed, teeth irregular, the lateral longer; the awn bent and twisted, 4.5–6 mm long, inserted in the inferior third or at the base, brownish in the lower half, purple in the upper half, scabrous. It can be readily distinguished from the widespread *D. cespitosa* by the leaves, which are almost filiform in *D. setacea* and up to 5 mm wide in *D. cespitosa*, and the narrower and shorter inflorescences than that of *D. cespitosa*. The awn differs too in the two species, being generally more bent and exerted in *D. setacea* and nearly straight and barely exceeding the glumes in almost all specimens of *D. cespitosa*. Another related taxon, *Avenella flexuosa* (L.) Drejer (formerly treated as *Deschampsia flexuosa* (L.) Trin.) differs by the obtuse ligules, the larger panicles and by forming rhizomes. All the mentioned taxa are remarkably variable and show often clinal variation along environmental gradients.

### PROTOLOGUE OF HUDSON'S *AIRA SETACEA*

The protologue of *Aira setacea* Hudson (Fig. 1) does not mention a particular specimen or illustration to be selected as type material (ICBN Art. 9.2, McNeill *et al.* 2006), only indicating the locality of the type collection: ‘Habitat in ericeto Strattoniensi in comitatu Norfolk, D. Stillingfleet reperit’, roughly translated as [Habitat in peat heath in Stratton, County Norfolk, collected by Stillingfleet].

### SELECTION OF A NEOTYPE

While the specimens adjoined to Hudson located at other herbaria (CGE, E, K, LINN) are not those on which he made his original

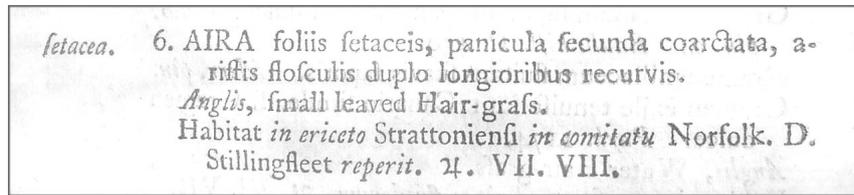


FIGURE 1. Protologue of *Aira setacea* Hudson (*Fl. Anglica* 1: 30. 1762), photograph taken from an original copy held at the Library of the Institute of Botany, University of Vienna, Austria.

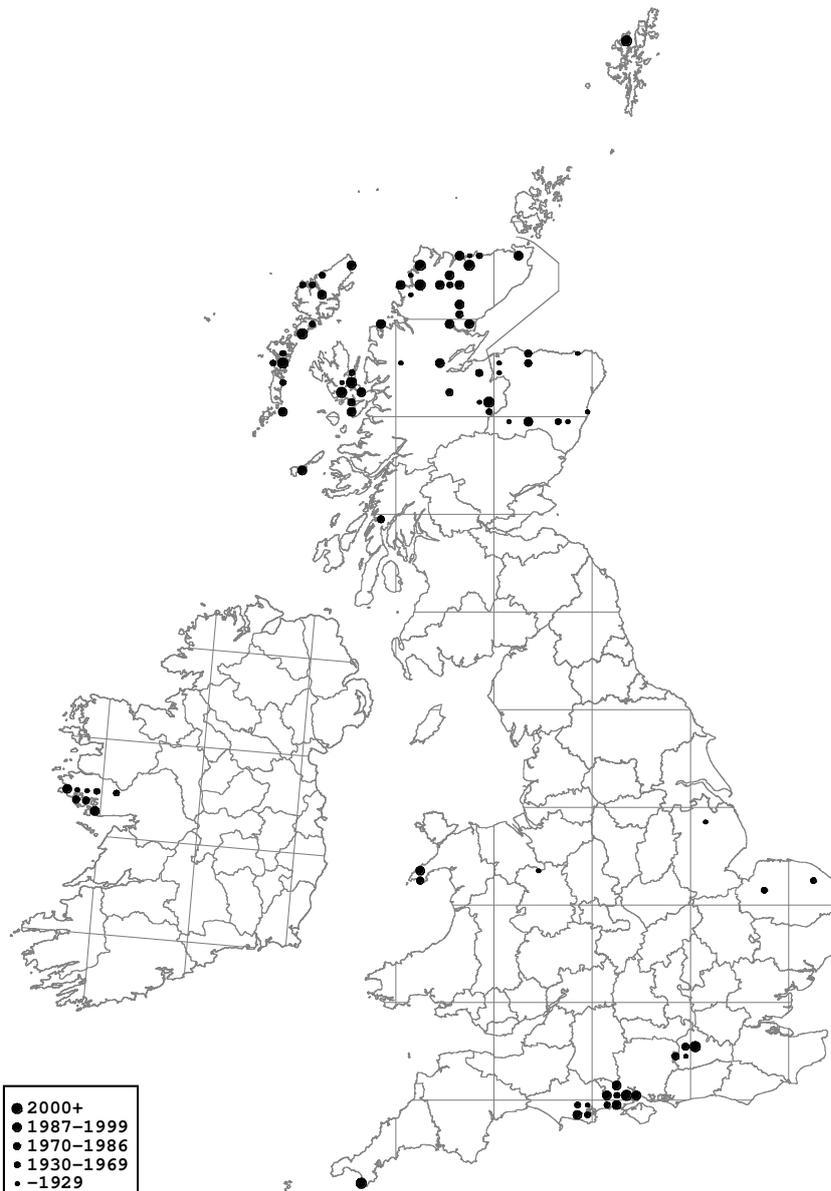


FIGURE 2. Distribution of *D. setacea* (Huds.) Hackel in Britain & Ireland 10 km squares using size scaled dots to show different date classes, with progressively larger dots for more recent records. Where a plant has been recorded more than once in a grid square, only the most recent record is mapped.



FIGURE 3. Type specimen of *Aira setacea* Huds. [= *Deschampsia setacea* (Huds.) Hack].

descriptions (Stafleu & Cowan 1979), most of Hudson's herbarium is considered lost to the fire that destroyed his house in 1783 (Dixon 1959), and the remaining specimens (excluding algae) are located at the Buddle Herbarium in **BM** (M. Spencer, pers. comm.). Inquiries with curators of the herbaria above mentioned resulted in no single sheet of *Aira setacea*, thus allowing for the selection of a specimen not belonging to Hudson's collection. The recommendations ICBN 9A and 9B on designation of lecto and neotypes state that all aspects of the protologue should be considered for the selection of the new type material; in the present case the only clue is the place of the original collection, a locality in Norfolk close to Norwich, Stratton Strawless. A search in **BM** yielded a specimen collected in Norfolk, Litcham Common, 'Ex Herb. F. J. Hanbury, 18th July 1883' (Fig. 3), which is a good

example of the species and therefore designated here as Neotype, in agreement with ICBN Art. 9.14. *Deschampsia setacea* was last recorded in Norfolk in 1974 (Fig. 2), and probably represents a case of local extinction due to either urban or agrarian development common in nearby regions of Cambridgeshire (Preston 2000).

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