

## NOMENCLATURAL NOTES ON NORTH AMERICAN GRASSES

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### ABSTRACT

The source and nomenclatural type of the name *Arctophila trichopoda* Holm are discussed; a re-lectotypification for *Danthonia spicata* var. *pinetorum* Piper is proposed; the name *Festuca trachyphylla* Hack. ex Druce is a *nomen nudum*; lectotypes are provided for five *Festuca* names; five new combinations in *Festuca* are proposed.

KEY WORDS: *Arctophila*, *Danthonia spicata* var. *pinetorum*, *Festuca*, lectotype, Poaceae

In the course of preparing floristic treatments of various North American grasses a number of taxonomic, nomenclatural, and typification issues were noted. These are discussed in alphabetical order of taxa. Herbarium acronyms cited are from Holmgren, *et al.* (1990).

*Arctophila trichopoda* Holm, Ottawa Naturalist 16:82. 1902.

This taxon is generally considered as a synonym of *Arctophila fulva* (Trin.) Andersson. Its source of publication has been given in *Index Kewensis* (Prain 1913) and *Index to Grass Species* (Chase & Niles 1962) as "Repert. nov. spec. regni veg. 3:337., 1907". In 1902, however, Holm published *A. trichopoda* along with a diagnosis and clear holotype citation (Holm 1902). He stated that it was a new species and that he intended to publish "a full description and illustration . . . at an early date".



Although a more complete description was published in the 1907 paper, no illustration was provided.

The holotype is CAN 36690, which was mounted on the same sheet as the holotype of *Colpodium fulvum* (Trin.) Griseb. var. *aristatum* Polunin (CAN 36691), and bears the annotation "*Arctophila trichopoda* sp. nov., Mscr. Flora of the Hudson Bay Region" in Holm's script. The holotype and an isotype (US 947554) are referred to  $\times$  *Arctodupontia scleroclada* (Rupr.) Tzvelev. HOLOTYPE: Mansfield [Mansel] Island, Hudson Bay; CAN 36690(!). Isotype: Mansfield [Mansel] Island, Hudson Bay, crevices of rocks, Dr. R. Bell 61, Sept. 1884; US 947554(!).

*Danthonia spicata* (L.) Beauv. var. *pinetorum* Piper, Erythea 7:103. 1899.

Findlay & Baum (1974) selected a lectotype, WS 3075, and isolectotype, WS 3079, for this taxon based on the annotations by C.V. Piper "type" and "dupl. type", respectively. They noted that the label data are inconsistent with the protologue, *i.e.*, the specimens were collected on 22 July 1890 rather than 13 July 1890.

A specimen at US, 1913582, bears the annotation, "*Danthonia spicata pinetorum* n. var., - Type specimen -" in Piper's script. The collection number, location and date on the label are all consistent with the protologue and the indicated habitat differs only slightly; "In open coniferous woods, common" on the specimen, rather than "dry open coniferous woods, in gravel soil" in the protologue. As indicated in Art. 9.13 of the ICBN (Greuter, *et al.* 1994), a lectotype may be superseded if it is in "serious conflict" with the protologue and another element is available which is not in conflict. Also Recommendation 9A.3 advises that the intentions of the author of the name (*e.g.*, annotations) are to be used for lectotypification only when not in "serious conflict" with the protologue. There are at least three specimens available which are more consistent with the protologue than the lectotype selected by Findlay & Baum, although the label data are not always as complete as those on US 1913582: two at US (Findlay & Baum 1974) and one at WS (148246) acquired from the Saksdorf Herbarium. The specimen US 1913582 is selected here as the lectotype of *Danthonia spicata* var. *pinetorum* Piper. Not only does it bear annotation by Piper as "type" but it is more clearly consistent with the protologue than the specimen WS 3075 selected by Findlay & Baum (1974).

*Festuca trachyphylla* Hack. ex Druce, Report Bot. Exch. Club Brit. Isles, 1914, vol. 4(1):29. 1915.

Wilkinson & Stace (1988) have interpreted the name *Festuca trachyphylla* Hack. ex Druce as validly published and an earlier homonym of *Festuca trachyphylla* (Hack.) Krajina (Acta Bot. Bohem. 9:191. 1930.), the former referring to a South American taxon and the latter to a Eurasian taxon which has been widely distributed through the commercial seed trade under the name "Hard Fescue". Wilkinson & Stace (1988) state "Krajina (1930) was the first author to recognise subvar. *trachyphylla* Hack. at the



species level. However, Hackel (*ex* Druce 1915) had previously used the name to describe a totally different taxon from South America. The one character (prickles on the glumes) used to distinguish it from *F. dumetorum* Philippi [*sic*] non L. is sufficient to validate the name."

The use of *Festuca trachyphylla* Hack. by Druce in 1915 would seem to have been a lapsus or "orthographic" error. The account discussing a South American species as newly adventive to Britain begins on page 29 with the title "*FESTUCA TRACHYPHYLLA* Hackel", but continues on the next page with the following, quoted (but possibly translated) by Druce from Hackel's letter:

This "is surely one of the numerous Chilian species imperfectly described by Philippi [*sic*], and comes very near *F. dumetorum* Phil., not Linn. (which I propose to name *F. trachylepis*, but it has not the minute prickles on the fertile glume of that species)." E. HACKEL, (*in lit.*).

Druce did not apply the name *Festuca trachyphylla* Hack. to the adventive South American taxon in subsequent publications, but used the name *F. trachylepis* (Hayward & Druce 1919; Druce 1928). This is confirmed in Hayward & Druce (1919) when the citation of the name *F. trachylepis* is given as "Rep. B.E.C. 29, 1914." The name "*F. trachyphylla* Hackel" appears on page 29, while "... *F. dumetorum* Phil. non Linn. (which I propose to name *F. trachylepis* . . ." appears on page 30. Whatever Druce's intentions in later years, his non acceptance of *F. trachyphylla* Hack. *ex* Druce did not appear in the same publication so that ICBN Art. 34.1 cannot apply.

There is, however, ambiguity in the interpretation of the pronouns in the two phrases within parentheses in Druce's account. The things (specimen, species or name) to which the three pronouns ("which", "it", and "that") refer can be interpreted in different ways. Wilkinson & Stace (1988) have interpreted the pronoun "which" in the first phrase as applying to *Festuca dumetorum* Phil. (*i.e.*, provision of a new name for an illegitimate homonym), but it may also be considered to refer to the subject of the sentence (*i.e.*, the specimen examined by Hackel). In the second phrase "it" may be interpreted as applying to either the object of the previous phrase (*i.e.*, "*F. trachylepis*") or to the subject of the sentence (*i.e.*, the specimen). The pronoun "that" may be interpreted, depending on one's interpretation of "it", as applying either to the species represented by the specimen or to the species represented by the name *F. dumetorum* Phil. If one considers "which" as applying to *F. dumetorum* Phil., the descriptive phrase "but it has not the minute prickles on the fertile glume of that species" is not sufficiently clear enough to determine whether *F. trachylepis* or the specimen is the entity with the minute prickles. Philippi's description of *F. dumetorum* (Linnaea 36:297. 1865.) states that the spikelets are "glabrae vel omnino hirtae", but does not specifically mention "minute prickles" or the lemma vestiture.

Although *Festuca trachylepis* Hack. *ex* Druce is found in both *Index Kewensis* (Prain 1921) and *Index to Grass Species* (Chase & Niles 1962) as a new name for *F. dumetorum* Phil., no mention is made of *F. trachyphylla* Hack. *ex* Druce. Both Parodi (1953) and Matthei (1982) considered *F. trachylepis* Hack. *ex* Druce to be based on *F. dumetorum* Phil., but the name *F. trachyphylla* Hack. *ex* Druce is not included in their synonymy listings. Saint-Yves (1927) did not mention either name in his monograph on South American fescues.



The name *Festuca trachyphylla* Hack. ex Druce is here considered to be a *nomen nudum* because of ambiguity in the application of the pronouns in the descriptive phrase. This interpretation allows *F. trachyphylla* (Hack.) Krajina to stand as the earliest available name at species rank for the Eurasian taxon.

#### Lectotypification of *Festuca* names.

In his book on North American grasses, Beal (1896) cited holotypes for two *Festuca* species names as being in F. Lamson-Scribner's herbarium. All of Scribner's herbarium, except specimens of *Panicum*, was destroyed by a fire in August 1894 in Washington (Bot. Gaz. 19:388.). Here, we select lectotypes for these names from isotype material. These are now present at US and would almost certainly have been seen by Beal (Beal 1896, page iv). The specimens cited have been annotated by Piper as being type material.

*Festuca dasyclada* Hack. ex Beal, *Grass. N. Amer.*, ed. 2, 2:602. 1896.  
LECTOTYPE: US 556197(!); U.S.A. central Utah: 1875, C.C. Parry 93.

*Festuca jonesii* Vasey var. *conferta* Hack. ex Beal, *Grass. N. Amer.*, ed. 2, 2:593. 1896. LECTOTYPE: US 556199(!); U.S.A. California: San José Normal School.

In his monograph on *Festuca* in North America, Piper (1906) effectively lectotypified many names in this genus. Some of these were also from the previously destroyed herbarium of Scribner. Here, we designate new lectotypes for these names based on the material which Piper indicated as "duplicate" to the material in Scribner's herbarium.

*Festuca scabrella* Torrey var. *vaseyana* Hack. ex Beal, *Grass. N. Amer.*, ed. 2, 2:605. 1896. LECTOTYPE: US 556147(!); U.S.A. Colorado: Veta Pass, [alt. 9300 feet], 1886, G. Vasey.

*Festuca subuliflora* Scribn. in Macoun, *Cat. Canad. Pl.* 2<sup>5</sup>:396. 1890. LECTOTYPE: CAN 37761(!); CANADA. British Columbia: Vancouver Island, Goldstream, gravel, 29 June 1887, J. Macoun.

*Festuca vaseyana* Hack. ex Beal, *Grass. N. Amer.*, ed. 2, 2:601. 1896. LECTOTYPE: US 556146(!); U.S.A. Colorado: Veta Pass, 1884, G. Vasey.



Proposed new combinations in *Festuca*

*Festuca* subgenus *Subulatae* section *Subuliflorae* (E.B. Alexeev) Darbysh., *stat. et comb. nov.* BASIONYM: *Festuca* subgenus *Subuliflorae* E.B. Alexeev, Novost. Sist. Vyssh. Rast. (Leningrad) 17:47. 1980.

Alexeev (1980) considered the elongate and pubescent callus of *Festuca subuliflora* so distinctive in the genus that he created the monospecific subgenus for it. With the exception of this character, other "diagnostic" morphological and anatomical features are similar to one or more species assigned to subgenus *Subulatae*. In addition, no difference in cpDNA restriction site variation was detected between *F. subulata* Trin. and *F. subuliflora* by Darbyshire & Warwick (1992) indicating a close relationship between the type species of the two subgenera *Subulatae* and *Subuliflorae*.

*Festuca ammobia* Pavlick, *nom. nov.* BASIONYM: *Festuca rubra* L. subsp. *arenicola* E.B. Alexeev, Byull. Mosk. Obva. Ispyt. Prir. Otd. Biol. 87:115, figs. 3. 1982. non *Festuca arenicola* (Prodín) Soo. 1973.

*Festuca pseudovivipara* (Pavlick) Pavlick, *comb. et stat. nov.* BASIONYM: *Festuca rubra* L. subsp. *aucta* forma *pseudovivipara* Pavlick, Phytologia 57:5. 1985.

*Festuca rubra* L. subsp. *mediana* (Pavlick) Pavlick, *comb. et stat. nov.* BASIONYM: *Festuca rubra* L. subsp. *secunda* Presl var. *mediana* Pavlick, Phytologia 57:8. 1985.

*Festuca subverticillata* (Pers.) E.B. Alexeev forma *pilosifolia* (Dore) Darbysh., *comb. nov.* BASIONYM: *Festuca obtusa* Biehler forma *pilosifolia* Dore, in McNeill & Dore, Naturaliste Canadien 103:560. 1977.

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