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## A new genus in the *Gramineae*

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(Mit 11 Textabbildungen)

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For many years the writer has been puzzled by two distinct species which appear under the same generic and specific names in the Mantissae Plantarum of LINNAEUS. *Dactylis lagopoides* L. appears in Mant. Pl. 1: 33 (1767) and *Dactulis lagopoides* L. is published in Mant. Pl. 2: 557 (1771). The slight difference in spelling, *Dactylis* and *Dactulis*, is of no consequence. The first named has been dealt with in a paper entitled "The strange case of the Genus *Aeluropus* TRIN."\*) The second species, *Dactulis lagopoides* L., is the subject of the present communication.

In WILLD., Sp. Pl. ed. 4, 1: 410 (1798) the latter species is listed, with the specific epithet unaltered, although it is a later homonym, in the exact words used by LINNAEUS in Mant. Pl. 2: 557 (1771). The earlier *Dactylis lagopoides* L., was named *D. brevifolia* KOENIG ex WILLD. in the same work.

KOENIG (1728—1789) from whom WILLDENOW had received both the species, had recognised that they were distinct and that the species to which he had given the manuscript name "*brevifolia*" was identical with the *Dactylis lagopoides* of Mant. Pl. 1: 33 (1767) but was different from the *Dactylis lagopoides* of Mant. Pl. 2: 557 (1771). This opinion he had communicated to WILLDENOW and probably also to his contemporary HEYNE, who made the same remark when sending the same species to ROTH. Both these botanists, although they recorded the remarks of KOENIG and HEYNE, persisted in calling the species *Dactylis brevifolia*.

The species with which we are concerned, that of Mant. Pl. 2: 557 (1771) continued to be called *Dactylis lagopoides*, although the epithet "*lagopoides*" was a later homonym in *Dactylis*, until 1820 when ROXBURGH confused it with the other species and called it *Dactylis brevifolia* KOENIG ex WILLD.

Subsequently there was utter chaos in the nomenclature of these two grasses. Each was confused with the other on more than one occasion and manuscript names were scattered about with gay abandon, sometimes with a reference to a work in which they never appeared. One such manuscript name,

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\*) Webbia 24: 401—409 (1969).

*Eleusine brevifolia* R. BR., which appeared in WALLICH's Catalogue, no. 3815, deserves mention if only to demonstrate the confusion which has persisted over the years regarding these two species.

The number, 3815, in the Wallichian Catalogue reads "*Eleusine brevifolia* BR., *Cyperus coracana*, *Dactylis brevifolia* H. HEYN". In the Wallichian Herbarium at Kew there are three sheets in the folder no. 3815. All of them carry the species under discussion. On sheet A is a label "*Cyperus coracana*, *Dactylis brevifolia*". on sheet B the label in WALLICH's hand reads "*Dactylis cyperoides* Nob." and on C a label "*Dactylis lagopoides* ROXB. vol. 1 — p. 342. Feby. 1826".

All of these names, except the last, on the Wallichian sheets and in the Catalogue, read in conjunction with the author's names or not, are nomina nuda. and all the specimens are one species, namely *Dactylis lagopoides* L., Mant. Pl. 2: 557 (1771). Attention must be particularly drawn to *Eleusine brevifolia* BR. which HOOK. f. validated by a description in Fl. Brit. Ind. 7: 294 (1896).

In the meantime, however, the name *Eleusine brevifolia* had been given to a very different plant, namely SCHIMPER's no. 799, collected near Jeddah in 1837; this was merely a manuscript name. In Linnaea 16: 221 (1842) a new genus, *Coelachyrum*, was proposed, based on this plant, by HOCHSTETTER and NEES and the new name *C. brevifolium* was published. Even this relatively simple operation was not without its complications. Although the genus is recorded as proposed by HOCHSTETTER and NEES in Linnaea loc. cit., the remarks about its affinities are in the first person, obviously by Nees himself.

At any rate the genus is cited in Index Kewensis as *Coelachyrum* NEES without any mention of HOCHSTETTER and the same remark applies to the species, *C. brevifolium*, which is credited to NEES alone.

STEUDEL evidently didn't approve of the new genus, for 12 years later in Syn. Pl. Glum. 1: 211 (1854) he validly published *Eleusine brevifolia* HOCHST. et STEUD. but oddly enough, gave a description of the genus *Coelachyrum* HOCHST. et NEES in small print in the same paragraph.

Those who may be interested in the personal relations of HOCHSTETTER, NEES and STEUDEL with one another, will find revealing disclosures in Flora 38: 430—432 (1855), among them an explanation of how the genus *Coelochloa* HOCHST. came to be stillborn, and its place taken by *Coelachyrum* NEES.

Another botanist who disapproved of *Coelachyrum* was BENTHAM. He considered *C. brevifolium* should be better placed in *Eragrostis*, and, since he considered *Eleusine brevifolia* HOCHST. et STEUD. in SCHIMPER exsicc. to be a later homonym of *Eleusine brevifolia* R. BR. (both of these nomina nuda) he gave a new specific name to the species, namely *Eragrostis coelachyrum*.

Despite the opinion of these botanists, *Coelachyrum* is considered to be a good and valid genus by present day agrostologists.

BENTHAM \*) goes on to make the following remarks about the specimens on the Wallichian sheets, comparing them with *Eragrostis coelachyrum* BENTH.

\*) HOOK., Ic. Pl. 14: 51 (1881).

“Allied to this species is an East Indian Peninsular plant, *Dactylis brevifolia* ROEM., confounded by STEUDEL and others with *Aeluropus repens* and placed by KUNTH in *Poa* (but not the *Aeluropus laevis* TRIN.), by SPRENGEL in *Koeleria* and by R. BR. in WALLICH’s Catalogue in *Eleusine*. It has all the characters of *Eragrostis* and may take the name of *E. brevifolia*.” Incidentally it may be mentioned in passing that ROEMER never described a *Dactylis brevifolia*. At any rate the remarks of BENTHAM apply partly to *Dactylis lagopoides* of Mant. Pl. 1 and partly to *Dactylis lagopoides* of Mant. Pl. 2.

It seems, therefore, that the name *Eleusine brevifolia* R. BR. ex HOOK. f., Fl. Brit. Ind. 7: 294 (1896) cannot stand since it is a later homonym of *E. brevifolia* (NEES) HOCHST. et STEUD. loc. cit.

Subsequently MERRILL in Philipp. Journ. Sci. 19: 339 (1921) wrote a paper on the new species published in BURMAN’s Fl. Indica (1768). One of these species was *Cynosurus lagopoides* BURM. f. MERRILL took this to be the same species as *Dactylis lagopoides* L., Mant. Pl. 2: 557 (1771). It is not clear from MERRILL’s paper if he saw the type or not and the writer has not been able to locate it in DELESSERT’s Herbarium.

Relying on the identity of the two, Merrill made the new combination *Eleusine lagopoides* (BURM. f.) MERRILL in Philipp. Journ. Sci. 19: 339 (1921). Besides *Cynosurus lagopoides* BURM. f. he cites as synonym *Eleusine brevifolia* R. BR. in WALL. Cat. (1831) no. 3815.

The species was transferred to the genus *Coelachyrum* by SENARATNA in “Grasses of Ceylon” 79 (1956) based on *Cynosurus lagopoides* BURM. f. This concept was followed by the writer of this paper in “Grasses of Burma, Ceylon, India and Pakistan”, since it was clear that this species did not fit into the genera *Eragrostis*, *Dactylis* or *Eleusine*. From these genera it deviates in the shape and nature of the grain which is concavo-convex and ovate-acute in shape. In all of these genera the grains are globular or ellipsoid, sometimes grooved on the adaxial surface. The species agrees with other members of the genus *Coelachyrum* in that the grain is concave on the adaxial surface and is rugose. It differs from that genus however in the globular inflorescence, the firmly compressed, keeled, indurate lemmas and glumes which are more or less awned. In fact the impression one gets from a study of this group of genera is that this species fits neither into *Eleusine* nor into *Coelachyrum* but occupies a position midway between the two. The only logical solution to this problem seems to the writer to be the establishment of a new genus which he proposes to call *Coelachyropsis*, the derivation of which is obvious.

### *Coelachyropsis* BOR, gen. nov.

Genus novum graminum cum *Coelachyro* et *Eleusine* comparandum sed ab illo panícula globosa lemmatibus glumisque valide compressis, chartaceis demum coriaceis, ab hoc caryopside concavo-convexa inter alia satis distinctum.

Gramina annua stolonibus late repentibus, foliorum laminis planis. Spiculæ elliptico-acutae, compressae, ad ramos brevissimos subsessiles, omnes

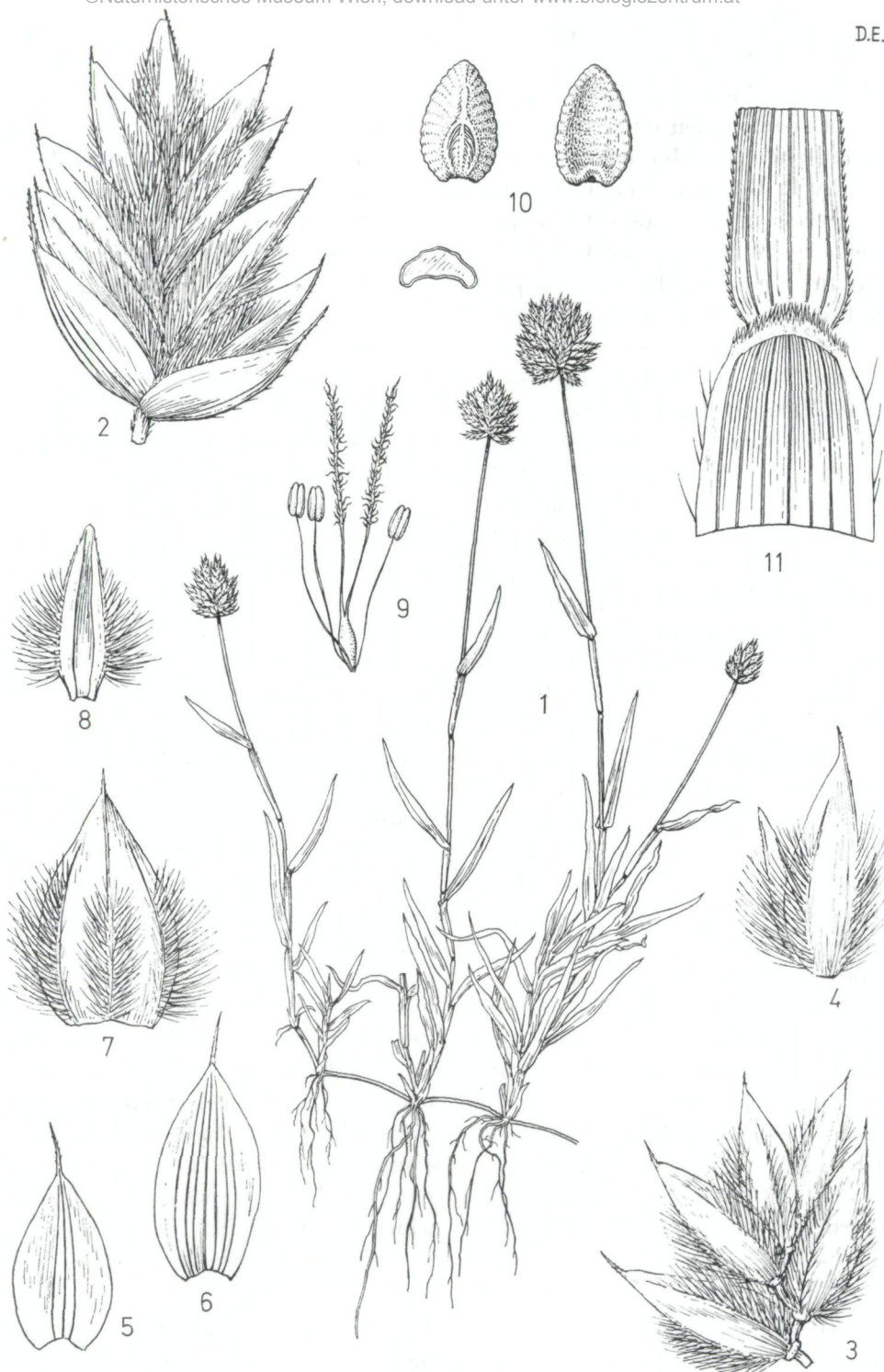


Fig. 1—11. *Coelachyropsis lagopoides* BOR. — 1: habit  $\times \frac{2}{3}$ ; 2: spikelet  $\times 8$ ; 3: florets  $\times 8$ ; 4: single floret  $\times 8$ ; 5: lower glume  $\times 8$ ; 6: upper glume  $\times 8$ ; 7: lemma  $\times 8$ ; 8: palea  $\times 8$ ; 9: flower  $\times 14$ ; 10: grain  $\times 14$ ; 11: ligule  $\times 6$ . TRIMEN: Ceylon, Kirindi.

conformes, 6—10-florae, in paniculam, densam globosam congestae; axis rami-  
que tenaces, plus minusve puberuli. Glumae plus minusve aequales, elliptico-  
acutae, muticae vel breviter aristatae, chartaceae, demum parum coriaceae,  
inferior 3-nervis, superior 5—7-nervis, glabrae levesque; lemma ovato-ellip-  
tico-acutum, breviter aristatum, 3-nerve, carinatum, nervis carinaque longe  
ciliatum, chartaceum demum parum coriaceum; stamina 3; styli 2; stigmata  
plumosa; lodiculæ ut videtur nullae; caryopsis concavo-convexa, rugosa,  
ovato-acuta, pericarpio hyalino tenue circumdata; embryo ellipticus,  $\frac{1}{3}$  caryop-  
seos aequans; hilum punctiforme, basilare.

Typus generis *Dactylis lagopoides* L., Mant. Pl. 2: 557 (1771) nom. illeg.

*Coelachyropsis lagopoides* BOR, nom. nov.

*Cynosurus lagopoides* Burm. f., Fl. Ind. 29 (1768); sp. ignota.

*Dactylis lagopoides* L., Mant. Pl. 2: 557 (1771) non *D. lagopoides* L. (1767).

*Eleusine brevifolia* R. Br. ex Hook. f., Fl. Brit. Ind. 7: 294 (1896) non

*E. brevifolia* HOCHST. ex STEUD. (1854).

*E. lagopoides* (BURM. f.) MERRILL in Philipp. Journ. Sci. 19: 339 (1921) pp.,  
excl. syn.

*Coelachyrum lagopoides* (BURM. f.) SENARATNA, Grasses of Ceylon 79  
(1956): Bor, Grasses Burm., Ceyl., Ind., Pak., 488 (1960).

Gramen annuum. Culmi prostrati, stoloniformes, late repentes, nodis  
radicantes, leves glabrique, demum erecti, usque 15 cm. alti, panícula globosa  
capitati. Foliorum laminae planae lineari- vel lanceolato-acuminatae, usque  
7 cm. longae, 2—4 mm. latae, supra marginibusque scabrae, subtus leves  
glabraeque; vaginae arcte amplexantes, leves glabraeque; ligulae brevissimae,  
ciliatae. Panícula globosa; rami breves, adscendentes, glabri vel breviter pilosi.  
Spiculæ compressae, 5—9 mm. longae, elliptico- vel lanceolato-acutae, subses-  
siles congestae; glumae aequilongae, 3—4 mm. longae, elliptico-acutae, muti-  
cae, mucronatae vel breviter aristatae, inferior 3-nervia, superior 5—7-nervia,  
chartaceae, demum parum coriaceae; lemmata valide compressa, demum in-  
durata, 3-nervia, nervis carinaque dense longeque ciliata, elliptico-acuta, bre-  
viter aristata, 4 mm. longa; palea bicarinata, carinis longe ciliata; antherae  
0.4—0.5 mm. longae; caryopsis ovato-acuta.

There are a considerable number of specimens of this species in the Kew  
Herbarium collected in the late eighteenth and early nineteenth centuries by  
ROXB., HEYNE, ROTTLE, KOENIG, PERROTET and others. These have all been  
collected in Madras and hardly any of them are localised. The following collec-  
tions are, however, localised and can be cited.

Madras: Cuddapah, Sept. 1889, GAMBLE 21233; Sirumalais, Nov. 1898,  
BOURNE s. n.; Guntur Dist., Oct. 1902, BARBER 4614; Madura, Dec. 1910,  
MEEBOLD 13679; Coimbatore Dist., Sept. 1910, FISCHER 2144; Madura, May  
1917, BLATTER & HALLBERG 702; Chingleput, Sept. 1917, Madras Herb. 14882;  
Pottur-Nellore Dist., Sept. 1917, FISCHER 4169; Chittoor Dist., Dec. 1918,

Madras Herb. 15786; North Arcot Dist., Oct. 1921, FISCHER 4688; Tambaram, Sept. 1934, BARNES 8493.

Ceylon: Kirindi, 1882, TRIMEN.

The type of this species is taken to be *Dactylis lagopoides* L. in the Linnean Herbarium, London (Mant. Pl. 2: 557, 1771).

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Zoologisch-Botanische Datenbank/Zoological-Botanical Database

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