

The second use has always been of great value. It is desirable to know what the authority (not always the author) is behind the name. Certainly a species of fern vouched for by Maxon, or a *Eucalyptus* by Maiden, or a *Mesembryanthemum* by Brown, deserves our careful consideration before it is rejected as a mere synonym. But this desire is not always answered by a citation, because the cited author may be responsible only for the name and scarcely or not at all for any taxonomic opinion about the plant. In other words, we can not distinguish a citation of taxonomic value from one of merely nomenclatural interest.

Nor does a citation always serve the "purposes of precision" demanded by the International Code. *Acer saccharinum*, *Quercus rubra*, and *Quercus Prinus* are all common trees of the eastern states and all were originally named by Linnaeus. Neither with nor without the appended citation L. does the reader have any idea to what kind of tree these three names refer, unless he knows the approximate date when the name was used and the disposition of the man who used it.

How much more sensible it is for persons who merely use scientific names of plants to follow the plan often seen in ecological papers and to state, in effect, that the names which they use are those used in Gray's Manual, or Britton & Brown, or Small's Manual, or what you will. What they mean by such a statement is, if expanded, that they have identified their plants to the best of their ability with the taxa described in the cited work of reference and assume no responsibility for the nomenclatural or taxonomic accuracy of the names. What more can any of us do?—GREENWICH, CONNECTICUT.

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#### ILLEGITIMACY OF PERSOON'S SPECIES OF *KOELERIA* (GRAMINEAE)

LLOYD H. SHINNERS

IN his *Synopsis Plantarum*, vol. 1, p. 97, 1805, Persoon described the genus *Koeleria*, with five species. Four of the five names are unequivocally illegitimate, since an earlier, legitimate epithet in the same rank is cited as synonym, but not taken up. The fifth (no. 3, *tuberosa*) is for all practical purposes illegitimate also, since the synonym quoted by Persoon with question mark does in fact apply to the same plant. The nomenclature has



been only partially clarified in Karl Domin's *Monographie der Gattung Koeleria* (Bibl. Bot. 65, 1907), with an elaborate array of infraspecific taxa which creates more problems than are solved. The five original species may be discussed in the order named by Persoon.

1. *K. GRACILIS* Pers. "Poa nitida. Lam. ill. 1. p. 182. Poa cristata. Krock. sil. ic. An Aira subspicata. L.?" The oldest legitimate epithet is that of Lamarck, 1791. It cannot now be transferred to *Koeleria* because of *K. nitida* Nutt., 1818. If considered distinct from the next species, as is done by Domin and other European writers, it must be called *K. macrantha* (Ledeb.) Spreng., Mant. 2: 345-346, 1824. This is apparently the correct designation for the plant currently known in America as *Koeleria cristata*, and in Europe as *K. gracilis*. It is not mentioned in Domin's *Monographie*, but appears as synonym of *K. gracilis* in Hegi's *Illustrierte Flora von Mittel-Europa* 1: 286, 1908 (text for this genus supplied by Domin), in its original form, *Aira macrantha* Ledeb.

2. *K. CRISTATA* Pers. This must be considered a new name as published by Persoon, since he does not indicate a particular synonym, but says merely "Poa cristata auctorum." De Candolle (Cat. Pl. Hort. Bot. Monsp., p. 116, 1813) and many subsequent authors (recently Hitchcock, Man. Grasses U. S., ed. 1, p. 873, 1935; ed. 2, p. 887, 1950) have supplied *Poa cristata* (L.) L., or *Aira cristata* L., as basonym. This is not correct, because Persoon himself cited *Poa cristata* L. as synonym, not of *K. cristata*, but of species no. 4, *K. phleoides*. Three varieties are listed under *K. cristata*, of which the second and third are based respectively on *Poa pectinata* Lam. and *P. pyramidata* Lam. The former, according to Domin and recent European authors, belongs to *K. vallesiana* (for nomenclature of that species, see under no. 3). Lamarck's other species provides the earliest available epithet, and the legitimate name for *Koeleria cristata* Pers. (not of most later authors) is therefore *K. pyramidata* (Lam.) Beauv., Agrost., pp. 84, 166, and 175, 1812. It is worth quoting Lamarck's description, from Ill. 1: 183, 1791: "P. panicula pyramidali, glumis laevibus nitidis muticis trifloris, vaginis villosopubescentibus. . . . Cult. in H. R. a p. cristata distinctiss. spec." Domin restricts this species to central and western Europe.



3. *K. TUBEROSA* Pers. “*Aira valesiaca* Allioni? *Aira cristata*. Smith. brit. l. p. 83.” Under this species is named var. ? *setacea*. The description and reference to Smith constitute valid publication, if the doubtful reference to Allioni is disregarded. But *Aira valesiana* All., Fl. Pedem. Auctarium, p. 40, 1789 (with reference to Haller and Scheuchzer), redescribed several times by other authors with various spellings of the same epithet, is evidently the same as *K. tuberosa*. The oldest synonym reported by Domin is *Festuca splendens* Pourret, 1788, basonym for *Koeleria splendens* (Pourr.) Druce, 1905. The latter is however a later homonym of *K. splendens* Presl, 1820. The next oldest synonym is *Poa pectinata* Lam., Ill. 1: 182, 1791, with an epithet not previously employed in *Koeleria*. The name of this species must therefore become ***Koeleria pectinata*** (Lam.) Shinners, comb. nov., based on *Poa pectinata* Lam., l. c. The plant appears in recent European works as *K. vallesiana* (Honckeny) Bertol. ex R. & S., Mant. 2: 346, 1824. This is incorrect for several reasons. Roemer & Schultes introduce Bertoloni’s binomial with the words “adde synonymon,” so that it was not validly published in 1824. The binomial derives from Allioni’s *Aira valesiana*, 1789 (the same spelling is used, and Allioni is mentioned), not from Honckeny’s *Poa vallesiana*, 1782. The spellings *vallesiana*, *valesiana*, *vallesiaca*, *valesiaca* must be regarded as merely orthographic variants of the same name. *Koeleria valesiaca* (Suter) Gaudin, 1808, prevents the adoption of any later combinations based on such epithets. Consequently neither *Aira valesiana* All. nor *Poa vallesiana* Honck. can serve as basonym for a legitimate combination under *Koeleria*.

4. *K. PHLEOIDES* Pers. “*Festuca*. Villars. Dauph. 2. p. 95. *Avena pumila*. Lam.? videtur. *Poa cristata*. Linnaei.” The earliest epithet, that of Linnaeus, should have been kept. Failure to adopt it makes the combination *K. phleoides* illegitimate. Though Persoon’s citation typifies the Linnaean species by the element known as *K. phleoides*, his publication of *K. cristata* as a different and newly designated species prevents the adoption of the proper Linnaean epithet for *K. phleoides*. Since the name *K. phleoides* (Vill.) Pers. is illegitimate, the plant must be called ***Koeleria Gerardi*** (Vill.) Shinners, comb. nov., based on *Festuca Gerardi* Villars, Hist. Pl. Dauph. 1: 249, 1786 (in footnote),



a species not listed in Index Kewensis. *Koeleria Gerrardi* Benth. & Hook., Gen. Pl. 3: 1184 and 1194, 1883 (spelled *Gerardi* on p. 1184, *Gerrardi* on p. 1194 and in Index Kewensis) is a *nomen subnudum*. I have followed Stapf, in Thiselton-Dyer, Fl. Cap. 7: 697, 1900, in treating it as a *nomen nudum* (listed by Stapf as synonym of *Stiburus alopecuroides* (Hack.) Stapf, spelled *Gerrardi*, with the remark "name only"). It can also be held that *Gerardi* and *Gerrardi* are entirely different epithets for nomenclatural purposes because taken from names of different persons with different spellings, even though the difference is of one letter only. An older name, *Alopecurus ciliatus* All., 1785, is unavailable for transfer because of *Koeleria ciliata* Kerner in Baenitz, 1879 (or ex Domin, 1903), and *K. ciliata* Aschers. & Graebn., 1900. If treated in the segregate genus *Lophochloa*, the correct name of this species is *L. cristata* (L.) Hylander, Bot. Notiser **1953**: 355, based on *Festuca cristata* L., 1753, not on *Aira cristata* L., 1753, which happens to be the same plant. I personally do not favor the degree of splintering of genera found in publications by Nevsky and other recent European authors; *Lophochloa* can quite satisfactorily be considered a good subgenus under *Koeleria*.

5. *K. VILLOSA* Pers. "Phalaris pubescens. Poiret. *Aira pubescens*. Vahl, symb. 3. p. 9. Desf. Atl. 2. p. 446." *Koeleria pubescens* Beauv., Agrost. pp. 85 and 166, 1812, was a *nomen nudum* (according to Niles, Contrib. U. S. Nat. Herb. **24**: 188, 1925), but it was later validated by Cosson & Durieu, and subsequently by other authors with confused author citations. The basynym is *Phalaris pubescens* Lam., Encycl. Méth. Bot. **1**: 92, 1783. Vahl lists *Phalaris pubescens* "Poir." as synonym of his *Aira pubescens*, but neither in the introduction to volume 1 of the Encyclopédie nor under the special article Alpiste (*Phalaris*) is Poiret mentioned. The full citation of the correct name then must be *Koeleria pubescens* (Lam.) Beauv. ex Cosson & Durieu, Fl. Alg. II. p. 122, 1854–1867 (this reference not seen). The combination appears in Boissier, Fl. Or. 5 pt. **2**: 573–574, 1884, with erroneous author citations, but with the same ultimate basynym.—SOUTHERN METHODIST UNIVERSITY.