Lachnagrostis batesii in Europe as Agrostis distans, 160 years before being described for South Australia (Poaceae)

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Introduction

The South Australian endemic grass Lachnagrostis batesii A.J.Br. was described by Brown (2008). The earliest known collection at the time of publication was that of Ferdinand von Mueller in 1848 from the Gawler River. It took another 80 years until further, though still few, collections were made: J.B. Cleland in 1931 and 1940 from Hindmarsh Waterfalls and Dismal Creek, Victor Harbour; D.N. Kraehenbuehl in 1967 from the banks of the River Torrens, St Peters; L.A. Williams in 1972 from Hindmarsh Valley Falls; A.G. Spooner in 1980 from Torrens Gorge; R.J. Bates in 1984, 1988 and 1996 from Finniss River, Yundi, Gumeracha and Deep Creek, Cherryville, respectively (AVH 2020). In most cases, these collections were thought to be examples of small forms of L. filiformis (G.Forst.) Trin. (syn. Agrostis avenacea J.F.Gmel.). From 2000, through the survey efforts of R.J. (Bob) Bates, a further 40 or so collections of L. batesii have been made throughout the southern Mount Lofty Ranges (AVH 2020). During visits to W and P in 2018 and 2019 respectively, the author found a few mid-19th Century, non-databased sheets, labelled as Agrostis distans Kunze, which were instantly recognised to be specimens of L. batesii.

Materials and Methods

The origin of the W and P specimens of Lachnagrostis batesii and the name of Agrostis distans assigned by Kunze was investigated through...
consultation of relevant historical documents and searches for further specimens at other European herbaria. Herbarium codes per Thiers (2022).

**Results and Discussion**

Examination and interpretation of the labels of the *Agrostis distans* sheets reveal that they derived from cultivation of Australian seed in various European botanical gardens from 1847 to 1869 (Table 1).

Annual *index seminum* (i.e. published index or catalogue to seed collections) have been produced by botanic gardens since the mid-16th Century, and continue to be a common output (Aplin et al. 2007). During the 19th Century, new plants and seed collected from the New World were highly sought after in Europe, and propagation of such was a major activity for many institutions. The *index seminum* served as an opportunity for horticulturists to exchange plant material and increase the range of species on display for their visitors. Previously unknown taxa were commonly described in these indexes and serve as

| Herbarium Sheet | Stamp and Label Details | Translation |
|-----------------|-------------------------|-------------|
| P 02326274      | Label 1: *agrostis distans* Kze Cult. de grainer le Dijon Grenier 1849 | *Agrostis distans* Kunze Cultivated from seed from Dijon, France Jean Grenier collected 1849 |
| HERB. MUS. PARIS.| Label 2: *Deyeuxia scabra* Herbier donné par M. le Dr GRENIER, en 1875. | *Deyeuxia scabra* Kunth syn. *Lachnagrostis rudis* (Roem. & Schult.) Trin. Herbarium donation ex Mr. le Dr Grenier in 1875 |
| LE 01072060     | *Agrostis distans* Kze 5527 hBerol culta 19 March 1852 | *Agrostis distans* Kunze No. 5527 from the horticultural garden Berlin cultivated 19 March 1852 |
| HERBARIUM LE    | No. 3808 *Agrostis distans* Kunze misit [sent] by Reichenbach and Alexander Braun |
| LE 01072059     | *Agrostis distans* Knze m. Rchbch a Al.Br. 28 November 1857 vel vivas [collected live] Ferdinand von Herder |
| HERBARIUM LE    | *Agrostis distans* Kunze |
| LE 01072061     | *Agrostis distans* Knze 28/11, 57 v. Herder | *Agrostis distans* Kunze in ‘Selected Seeds’ Leipzig, Germany 1847 |
| Ex horto bot.   | Cultivated in the horticultural gardens Vienna in July 1859 ex seed sent from the horticultural garden Berlin in 1858 |
| Petropolitano   | Country: Australia |
| W not databased | *Agrofis diftans* Kze. del. şem. Lipš 847 C.h.V. 859 Jul. e şem. h. Berol. 858. Patria: Auftralia |
| HRB. MUSEI. PALAT. VINDOB. | |
| LE 01072062     | Label 1: *Agrostis distans* Kunze 4798 Rchb 19 March 1852 !! etian Al. Braun fr misit 1852 | *Agrostis distans* Kunze No. 4798 Reichenbach, 19 March 1852 !! also Alexander Braun sent in 1852 |
| Ex horto bot.   | *Agrostis distans* Kunze |
| Petropolitano   | (No. 4282 from the horticultural gardens Karlsruhe, Germany, where named as *Agrostis diffusa* Banks & Sol. ex Hook.f.) plot/bed? 18, 2 August 1865 vel vivas [collected live] Ferdinand von Herder |
| LE 1889-227546  | collectio Reichenbach fil. Acqu. 1889 No. 227546 *Agrostis distans* Kze. Krakau 17 Aug 69 | collection of Reichenbach’s son |
| HERB. MUS. PALAT. VINDOB. | Acquired in 1889, No. 227546 *Agrostis distans* Kunze |
| W 1889-227546   | Kraków, Poland, 17 August 1869 |
accepted publication of new names according to the International Code of Nomenclature for algae, fungi and plants (ICN 2018). This was the case for *Agrostis distans*, which was described in the 1847 *index seminum* (publ. 1848) by Gustave Kunze (1793–1851), Director of the University of Leipzig Botanical Gardens in Saxony of the German Confederation from 1837 until his death. Kunze noted that the specimen he described was grown from seed supplied by Eduard Richter (1795–1863). Head Gardener at the Luisium Castle Gardens near Dessau, Saxony (Richter 1847) but apart from having its origin in Australia, there is no indication as to who, when or how the seed passed to Richter. Although the species was listed in the *index seminum* for Leipzig (*Hortus Universitatis liter. Lipsiensis, seminum anno.... perceptorum offert delectum*) in 1847, 1848 and 1850, any specimens that may have been collected for the herbarium would have been unfortunately destroyed by bombing raids during WWII (Otto 2018).

With eastern Germany the focus of initial efforts to propagate garden specimens of *Agrostis distans*, it is likely that a German botanist was responsible for sending the seed to Europe. The most obvious candidate is Ferdinand von Mueller (1825–1896) who initially arrived and worked in South Australia before moving to Melbourne as Victoria’s Government Botanist (Orchard 1999). However, Mueller didn’t arrive in Adelaide until 18th December 1847, when the Leipzig Gardens was already propagating the species. As noted above, Mueller did collect specimens of *Lachnagrostis batesii* on 15 April 1848. While still in Adelaide, Mueller (1849) compiled some notes for a planned (but never published) *Second supplement to Brown’s florae Novae Hollandiae et insulae Van Diemen*. Among these notes is a line that reads “*Agrostis distans* Kunze N.H. [New Holland] W.A. [Walpers (1848–1849)] 1, 928 [Vol.1, p.928]”. Despite having collected the species himself in the previous season, and being aware of Kunze’s description, Mueller appears unaware of the original source of Kunze’s material and determined his own collection as *A. aemula* R.Br. 1981, Bretag 2016). On Behr’s return to Germany, he entrusted much of his collection to his friend Dietrich Franz Leonard von Schlechtendal (1794–1866), Professor of Botany at the Martin Luther University of Halle-Wittenberg, Saxony and Director of the Botanical Gardens, who determined and described 225 of his collections, including “11. *Neurachne alopecuroides* R.Br. (syn. *N. alopecuroides* R.Br.), “12. *Deyeuxia billardieri* Kth.” (syn. *L. billardierei* (R.Br.) Trin.), “13. *Deyeuxia aemula* Kth.” (syn. *L. aemula* (R.Br.) Trin.) and “14. *Stipa elegantissima* Labill.” (syn. *Austrostipa elegantissima* (Labill.) S.W.L.Jacobs & J.Everett) (Schlechtendal 1847). However, the description Schlechtendal provides for *D. aemula* differs from the description provided by Kunth (1833) and more closely conforms to *L. batesii* than to either *L. aemula* or *L. filiformis*. In comparison with *D. billardierr*, Schlechtendal describes *D. aemula* with “arista multo brevior (valvulum suam longitudine fere aequat), magis recta, supra medium dorsi exeunte” [i.e. the awn is much shorter (almost equal to the length of the lemma), straighter, inserted dorsally above the middle]. Kunth (1833) used Brown’s (1810) description of *A. aemula* for his *D. aemula*, including: “arista dorsali, glumis duplo longiore” [i.e. awn dorsal, twice as long as the glumes]. Unlike Kunth (1833), Schlechtendal (1847) listed *Agrostis retrofracta* Willd., *D. retrofracta* Kunth. and *L. wildenowii* Trin. (all syn. *L. filiformis*) as well as *Agrostis aemula* R.Br. (syn. *L. aemula* (R.Br.) Trin.) ≡ “Sieb. Agrostoth. n. 81” (*L. filiformis*), as synonymous with *D. aemula* Kunth. This may explain his inclusion of Behr’s collection into his broader concept of *D. aemula*. Brown (2006) described *L. batesii* with ”awn reduced to a bristle inserted from about ¼ of the lemma length, 1.2–2.0 mm long, filamentous, straight or slightly curved” whereas Jacobs and Brown (2009) described *L. aemula* with “awn arising 25–60% lemma length from base, 5–10 mm long, with column twisted” and *L. filiformis* with “awn arising from near midpoint of lemma, 3.5–5.5 mm long, geniculate ...”.

The collecting location of Behr’s ‘*Deyeuxia aemula*’ was the same as for his *D. billardieri*, being near water in a ravine in the Angas Park district of South Australia (Schlechtendal 1847). Angas Park is a region situated on the upper reaches of the North Para River and its tributaries, encompassing the towns of Nuriootpa, Angaston, Tanunda and Bethany. Recent collections of both *Lachnagrostis billardieri* and *L. batesii* have been
made from the same general region: *L. billardieri*: Upper Saunders Creek gorge – in wet places, 29.xii.1993, *R.Bates 35600*; *L. batesii*: Pewsey Vale Creek west of Kaiser Stuhl Conservation Park – in few damp spots, dry stony creek-bed, 29.i.2014, *R.Bates 90690*.

Many of Behr’s 1844–1845 South Australian collection were inherited by HAL from Schlechtendal (Kraehenbuehl 1981) and now include 66 type sheets (JACQ 2021). However, a search of Halle’s collections has failed to find Behr’s ‘Deyeuxia’ collections (Uwe Braun, pers. comm., 26 Feb. 2021), but sheets of both have been found at MEL. They are labelled “12. *Deyeuxia billardieri* Kth.” (MEL 2124188A) and “13. *Deyeuxia aemula* Kth.” (MEL 2124119A) in Schlechtendal’s hand and both with “leg. D’ Behr, mis. v. Schlechtendal” written by Otto Wilhelm Sonder (1812–1881) of Hamburg (Rita Macheda, pers. comm., 24 Mar. 2021). The first is confirmed as *Lachnagrostis billardieri* and the second as *L. batesii* (Fig. 1). Whether these sheets are duplicates of the specimens Schlechtendal described or the original collections, is unknown. Although they lack any inscription as to how they came to MEL, they appear to have been gifted to Sonder (1812–1881) and became part of the Victorian Government’s purchase (on Mueller’s recommendation) of the major portion of Sonder’s herbarium in 1883. While some other MEL sheets from Behr’s 1844–45 collections also lack an indication of having come from Sonder’s herbarium (e.g. “11. *Neurachne alopecuroides* RBr.” (MEL 1008969A), “90. *Opecularia scabrida* Schltdl.” (MEL 2267546A)), some sheets do note that they are ex Sonder’s herbarium (e.g. “15. *Juncus pallidus* RBr.” (MEL 2189171A), “51. *Pimelea dichotoma* Schltdl.” (MEL 0051337A), “82. *Goodenia albiflora* Schltdl.” (MEL 0022291A)). Sonder’s herbarium was and still is being incorporated into MEL but unfortunately, not all of the older integrated sheets were marked as ex Sonder (Pina Milne, pers. comm. 3 Mar. 2021).

Behr returned to South Australia in 1848–1849 and made further plant collections, of which some are thought to have been made with Mueller. The repository for the collections from this trip is uncertain, as Behr didn’t return to Germany but travelled onto the Philippines and then settled in California (Kraehenbuehl 1981, Bretag 2016). It is probable that he left his collections with Mueller, destined for Joseph Hooker at Kew Gardens, but which may instead have been sent to Sonder. Of the 19 Behr collections imaged in the Kew Herbarium Catalogue (2020), all but two (ex Mueller) are from Sonder’s herbarium.

The evidence therefore indicates that Behr collected *Lachnagrostis batesii* instead of *L. aemula* or *L. filiformis* in his 1844–1845 trip to South Australia and that either field harvested seed or disarticulated seed (i.e. florets and caryopsis) from the plant collection was passed from Behr or Schlechtendal to Richter in a batch of Australian material for the Luisium Gardens. However, it was Kunze who recognised that the plants raised from seed at Leipzig ex Richter did not conform to *Deyeuxia aemula* Kunth. It may be coincidence, but the only year between 1838 and 1849 that Kunze offered *D. aemula* seed in the Leipzig *index seminum* was in the same year in which he described *A. distans*, suggesting that he obtained seed of *D. aemula* with the express purpose of comparing its resulting plants with *A. distans*. If the *A. distans* seed Kunze received from Richter was harvested in the northern summer of 1846 (i.e. Jun–Aug), then Richter must have received and sown the seed very soon after Behr returned to Germany in May 1846.

The origin of *Lachnagrostis filiformis* and/or *L. aemula* seed in Europe is unknown. Bentham (1878) noted that Australian seed (of unknown source) was used to raise plants in Continental Gardens, which Willdenow (1809) described as *Agrostis retrofracta*, Poir (1810) as *Agrostis debilis* Poir and Kunth (1829) as *Deyeuxia retrofracta*. Koch (1831) notes that he had been growing *A. aemula* in the greenhouse at Erlangen. A review of online surviving *index seminum* (Lut 2017) shows that seed of *A. retrofracta* or *D. retrofracta* was sporadically offered for sale or exchange from as early as 1818 through to 1868, from gardens including, Breslau, Halle, Dorpat, Hamburg, Schwetzingen, Gottingen, Turin, Pisa, Berlin, Madrid, St. Petersburg, Vienna and Uppsala, and *A. aemula* or *D. aemula* seed was offered from 1824 to 1871 from Vienna, Budapest, Erlangen, Breslau, Hamburg, Gottingen, St Petersburg, Dresden, Heidelberg, Pisa, Basel, Angers, and as noted above, from Leipzig. While the seed of *A. retrofracta* and *D. retrofracta* was likely to be of *L. filiformis*, seed of *A. aemula* and *D. aemula* could have been either *L. filiformis* or *L. aemula* or not even consistent among botanical gardens. This is not surprising given the confusion concerning the morphological distinctions between these taxa and
Figure 1. MEL 2124119A: Collection of Lachnagrostis distans (Kunze) A.J.Br., by Hans Hermann Behr in 1844–1845 from Angus Park, South Australia, erroneously identified as Deyeuxia aemula (R.Br.) Kunth by Dietrich von Schlechtendal in 1847. Image kindly provided by Angharad Johnson, Royal Botanic Gardens Victoria, Herbarium (MEL).
their varying treatment by European botanists at the time. For example, Dumont d'Urville (1832) described the Australian endemic *A. aemula* for New Zealand, collected during the voyage of the *Astrolabe* from 1826–1829, and the *index seminum* from Vienna in 1853 corrected its entry of *D. retrofracta* of the previous year to *A. aemula*. Botanic gardens of the period (as does the nursery industry today), probably accepted seed from other gardens at face value until, and if, they had the capacity to check the veracity of the given names. Some plant lines may well have been grown under false names for many years until corrected, if at all.

Surprisingly, *L. billardierei*, despite being a robust perennial, does not appear in any online 19th century European *index seminum* (Lut 2017). Perhaps Richter did receive seed of *D. billardieri* from Behr’s collection, but it failed to establish or survive the cold central European winter. Although all these *Lachnagrostis* taxa are temperate species, *L. billardierei*, being predominately a coastal grass, may be less tolerant of cold altitudes.

There are no specimens of *A. distans* lodged at Naturkundemuseum Leipzig (Karl Heyde 2019, pers. comm., 17th Jan.) or at MNVD in Dessau-Roßlau, nor any documents relating to correspondence between Richter and Kunze in the archives of the former principality and state of Anhalt (Timm Karisch, pers. comm., 17 Apr. 2019).

The earliest collection of *Agrostis distans* that has been found, is at P (Table 1). The collection was made in 1849 by Jean Charles Marie Grenier (1808–1875), a Professor at the Faculty of Sciences at Besançon University and Director of the Jardin botanique de Besançon (Botanical Garden of Besançon) and received from Grenier’s herbarium in the year of his death. It consists of two small specimens to about 15 cm tall with just emerging inflorescences and cultivated from seed received from nearby Dijon, probably from the Jardin botanique de l’Arquebuse (Arquebuse Botanical Garden). Although the sheet provides no further information, presumably Dijon received seed from Leipzig to grow plants during the 1848 season. If this is the case, the Grenier collection represents second generation offspring of the parent plants described by Kunze and fourth generation offspring from Behr’s original collection.

The *index seminum* for Hortus Botanicus Imperialis Petropolitanaus first offered seed of *Agrostis distans* in 1853 and then in 1856–1858, 1860–1861 and 1864–65. Specimen sheets at LE (Table 1) indicate that Saint Petersburg Botanical Garden (Russian Academy of Sciences Vladimir Komarov Botanical Institute’s Botanical Garden of Peter the Great) received seed collections of *A. distans* from Alexander Carl Heinrich Braun (1805–1877), Director of the University of Berlin Horticultural Gardens, from Heinrich Gustave Reichenbach (1823–1889) at Leipzig University (who appears to have taken up some of Kunze’s botanical duties after Kunze’s death) and from the University of Karlsruhe Botanical Garden.

Although it is not certain, the sheets at LE probably represent collections made of cultivated plants at Saint Petersburg, rather than collections made elsewhere and sent from donating gardens. If so, those from Berlin and Leipzig were collected in March 1852, while those from Karlsruhe were collected in 1865. A further collection (Fig. 2), probably derived from F6 or F7 generation plants of the pre-1852 seed, was made in 1857 by the Bavarian, Ferdinand von Herder (1828–1896), who worked at the Saint Petersburg Botanical Gardens from 1856–1891. All these collections coincide with seed offerings through the *index seminum*. While LE 01072060 and LE 01072061 have single labels relating to one seed lot, the other sheet labels present a confused picture (Table 1). The label for LE 0107259 refers to both Reichenbach’s and Braun’s seed, despite the single sheaf of relatively large and robust specimens which were obviously made from a single gathering. The collection is undated, and the seed sources may have been mixed prior sowing. While LE 01072060 depicts relatively small and stunted plants derived from Braun’s seed lot, LE 01072062 consists of 16 similar stunted specimens of uniform size, primarily labelled in pencil as Reichenbach’s seed lot, but with Braun added in a separate but later and different hand in ink. In addition, LE 01072062 has a separate label referring to Herder’s collection of 1865 based on the Karlsruhe seed lot. The implication from this mixed labelling is that the specimens were not mounted until a later era and matching all the labels to their correct respective collections was not possible.

The first of two collections found at W (Table 1) derived from seed received from the Berlin Horticultural Gardens in 1858 and germinated at the Botanischer Garten (Botanical Garden of the University of Vienna) in 1859. The *index seminum* for Berlin (Index seminum in horto botanico Berolinensi) listed *Agrostis distans* in
Figure 2. LE 01072061: Collection of *Agrostis distans* Kunze (syn. *Lachnagrostis distans* (Kunze) A.J.Br., by Ferdinand von Herder on the 28.ix.1857 from Hortus Botanicus Imperialis Petropolitanus (St. Petersburg Botanical Garden). Image kindly provided by Dr. Larisa Orlova, Herbarium of Higher Plants (LE), Komarov Botanical Institute RAS, St. Petersburg.
1851–1853, 1855–1856, 1861 and 1867. However, again, any herbarium collections that may have existed at B are likely to have suffered a similar fate to those at Leipzig and no longer exist (Robert Vogt, pers. comm., 22 Dec. 2018). The second collection at W (Table 1) is labelled ‘Krakow 17 Aug. 69,’ and came from the herbarium of Reichenbach, who was then Professor of Botany and Director of the Botanischer Garten der Universität Hamburg (Hamburg University Botanical Gardens). The index seminum for Hamburg offered A. distans in 1867 but whether the 1869 plant collection was sent directly from Kraków (probably from the Ogród królewskie na Wawelu – Royal Gardens at Wawelu Castle) to Reichenbach or was derived from seed originating in Kraków is uncertain. There are no specimens of A. distans in the KRAM collections in Kraków (Beata Paskzo, pers. comm., 13 Feb. 2019).

In section IV of the index seminum for Saint Petersburg, 1865 (Nomina emendata plantarum sub nominibus falsis vel ex hortis variis acceptarum vel in horto nostro antea cultarum [amended names of plants under false names or accepted from various gardens or previously cultivated in our garden]), is the entry ‘Agrostis diffusa h. Carlsruh. = Agrostis distans Knze.’ It is unknown as to which taxon Karlsruhe Gardens was referring to and unfortunately, no index seminum from Karlsruhe for the period can be found. Between 1820 and 1824, the index seminum for Krzemieniec, Prague and Hamburg Gardens listed A. diffusa Host (syn. A. gigantea Roth) but by 1865, it is unlikely that this name would still be in use. Another possibility is A. diffusa Banks & Sol. ex Hook.f., nom. inval., nom. nud. (syn. Lachnagrostis billiardieri (R.Br.) Trin., although Hooker (1853) only used this name for his Flora of New Zealand (i.e. not Australia) and no records of this taxon, under either name, appear in any European index seminum. A third possibility is that the name referred to the North American grass, Agrostis diffusa Muhl. (syn. Muhlenbergia sylvatica (Torr.) Torr. ex A. Gray) but again, this name had been replaced by 1834 and doesn’t appear in the index seminum. None of these taxa are morphologically similar to L. batesii/A. distans.

It appears that Agrostis distans was only ever cultivated in botanic gardens and did not become naturalised in Europe. Apart from the gardens mentioned on the specimen labels, the species is listed on the index seminum for Padua in 1851 (Delectus seminum horti Patavini, anno MDCCCLI lectorum quae commutanda), Geneva in 1853 (Index seminum horti botanici R. Archigymnasii Genuensis in 1853 et offertes en échange par le jardin botanique de Genève), Breslau (Wrocław) in 1858 (Delectus seminum in horto botanico Vratislaviensi collectorum) and Madrid from 1859 to 1861 (Delectus Seminum Horto Botanico Matritensi). Madrid also listed A. distans from 1875 to 1913 but this may have been a misidentification. Unfortunately there are no voucher specimens at MA to check the veracity of the entries (Leopoldo Medina, pers. comm., 11 Sep. 2020).

Taxonomy

Kunze (1848), in describing Agrostis distans included “(Apera)” after Agrostis. The European/western Asian genus Apera Adans. was separated from Agrostis L. in 1763, but Dumontier (1823) and Reichenbach (1841, 1842) regarded Apera as a section or subgenus, respectively, of Agrostis, and it may be Reichenbach's classification that Kunze was alluding to. Trinius (1820) replaced Apera with Anemagrostis Trin. and segregated some Australian Agrostis as Lachnagrostis Trin., but later shifted Apera into the largely American Muhlenbergia Schreb., along with the Australasian Dichelachne (Trin. 1924), and subsumed Lachnagrostis back into Agrostis (Trin. 1841). Currently, in Australia, Apera, Lachnagrostis and Dichelachne are treated as separate genera to Agrostis and Muhlenbergia (Wilson 2009).

Kunze described Agrostis (Apera) distans as “panicula stricta, ramis remotis, discurvatis, pauciﬂoris; ﬂore sub apice aristato, arista ﬂexa, palea vix longiore; antheris breviori oblongis” [i.e. panicule tight (straight and rigid), branches remote (separated), widely spread, with few flowers; ﬂower (lemma) with awn near the apex, the awn bended (curved or wavy), the palea scarcely longer (similar length to the lemma); anthers short and oblong]. Walpers (1848–1849) republished Kunze’s description, as did Schlechtendal (1851), but the latter did not equate the taxon with his earlier description of Deyeuxia aemula (Schlechtendal 1847).

Based on Kunze’s (1848) short description (Appendix 1), Bentham (1878) thought it most probable that Agrostis distans was synonymous with Deyeuxia scabra Benth., nom. illeg., nom. superfl. (syn. Agrostis scabra R.Br. nom. illeg., non Willd., Lachnagrostis rudis (Roem. & Schult.) Trin.). However, he also included A. contracta
F. Muell. ex Hook.f. (syn. *D. contracta* (F. Muell. ex Hook.f.) Vickery), *A. decipiens* R. Br. (syn. *D. decipiens* (R. Br.) Vickery) and collections from Condamine, Qld and New England, NSW (*D. mckiei* Vickery), Upper Huon River, Tas. and Upper Hume River, Vic. (*D. scaberula* Vickery) and Buffalo Ranges, Vic., Dandenong Ranges, Vic. and Sealers Cove, Vic. (*D. rodwayi* Vickery) in *D. scabra*. All of these taxa have awnless or very shortly awned lemmas with the awns arising from near the apex. However, apart from *L. rudis*, none of these taxa have widely spread panicle branches.

Mori (1922) published the combination *Agrostis distans* var. *coreensis* Hack. ex Mori, but it is apparent that in the intention to publish a new variety of *Atropis distans* (Jacq.) Griseb. (syn. *Puccinellia distans* (Jacq.) Parl.), he or the publisher (Enum. Pl. Corea) mistakenly printed *Agrostis* L. instead of *Atropis* (Trin.) Griseb. (syn. *Puccinellia* Parl.). Honda (1930) cited “*Agrostis distans* Griseb. var. *coreensis* Hack. in Mori,” when publishing *Puccinellia coreensis* Hack. ex Honda.

**Lachnagrostis distans** (Kunze) A.J.Br. **comb. nov.**

*Agrostis distans* Kunze, *Hortus Universitatis Liter. Lipsiensis seminum anno 1847 perceptorum offert delectum*, [1] (1848); *Agrostis distans* Kunze *Linnaea: ein Journal fur die Botanik in ihrem ganzen Umfange, oder Beitrage zur Pflanzenkunde* 24, 176 (1851), isonym.

**Type:** “N. Holland [Australia]. Ex seminibus educavit Richterus, hortul. aulic. Dessav., et benevole misit.” (neotype, designated here: P 02326274!).

**Note:** The neotype was chosen as the earliest of the collections found in Europe and therefore the closest cultivated generation to the specimen described by Kunze.

**Lachnagrostis batesii** A.J.Br., *Muelleria* 26(2), 31, 33 (2006).

**Type:** Scott Creek Conservation Park [South Australia], 15.1.2000, R.J. Bates 55750 (holotype: AD 149719); isotypes: MEL 2385265A!, MEL 2385726A!, HO 576079!, K 000607837!; NY 4083633).

**Illustration:** Fig. 1a–d, fide A.J.Brown loc. cit.

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