Chapter 5

Endemic Species of the Family Poaceae in Chile: Taxonomy, Distribution, and Conservation

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Abstract

Due to its geographic isolation, Chile is a biogeographic island which harbors a high percentage of endemism. More than 50% of the native vascular flora is endemic and more than 60% lives in Central Chile, included in the Chilean Biodiversity Hotspot. Endemic are species with a geographic distribution restricted to a single area and could be especially vulnerable. For these reasons, updated lists of endemic species are necessary. Based on a databases, the study of specimens from two Chilean herbaria and the available literature, we present an updated list of grasses endemic to Chile indicating for each taxon the scientific accepted name, common names, type, life cycle, flowering period, distribution, conservation status, bibliographic references and representative specimen. Seventy-one species (19.9% of the native grass species) were classified as endemic. Most species occur along the Chilean hotspot of biodiversity, mainly in the Mediterranean region of the hotspot. One species (*Podophorus bromoides*) is extinct, three species are critically endangered, two species are endangered, one species is vulnerable, and one species is near threatened. The conservation status of most species (89%) needs to be evaluated. Most of the threatened species are endemic to the Juan Fernández Archipelago.

Keywords: checklist, conservation status, endemism, gramineae, herbarium

1. Introduction

Endemics are species with a geographic distribution limited to a single area (local, regional, national, or continental), regardless of the size of the area. Species that live in a narrow geographical area are commonly called *rare* species. If a species lives in a single and narrow geographic area, it is a

rare endemic species and could be especially vulnerable. Rare endemic species that live in insular territories are especially prone to extinction. In this chapter, we consider endemics as those grass species restricted to Chile, comprising both continental and insular territories [1]. In Chile, a high percentage of the fauna and flora is endemic; on average, nearly 25% of the species are endemic. Some groups harbor a high percentage of endemic taxa: amphibians (65%), reptiles (63%), fishes (55%), and vascular plants (nearly 50%) [2]. Endemic species are of great biological importance because they provide unique genetic diversity [3]. In this chapter, we provide an updated list of the species of the family Poaceae endemic to Chile, based on the study of herbarium specimens and all available taxonomic literature.

2. Materials and methods

A database of the species of the endemic grasses of continental and insular Chile was constructed based on the databases of two Chilean herbaria: CONC (Herbarium of the University of Concepcion) and SGO (Herbarium of the National Museum of Natural History, Santiago). Specimens deposited in these herbaria and those collected for this project were studied. Data were supplemented with specimens cited in previous publications [4–8]. For each species, we include taxonomic data (scientific accepted names, synonyms, common names, and types of accepted names), life cycle, flowering period, distribution, conservation status, bibliographic references, and representative specimens.

3. Results

3.1. Taxonomic distribution

Of the 356 native species identified for the Chilean flora, 19.9% (71 species) were classified as endemic. The endemic Chilean grasses belong to five subfamilies and 27 genera. Most of the species belong to Pooideae (55 spp., 77.5%) from 20 genera, Bambusoideae comprises six endemic species (8.5%) of the genus *Chusquea*, Danthonioideae includes five spp. (7.0%) in two genera (*Danthonia* and *Rytidosperma*), Chloridoideae includes three spp. (4.2%) from two genera (*Cynodon* and *Eragrostis*), and Panicoideae two spp. (2.8%) from two genera (*Imperata* and *Paspalum*). Two species are endemic to Easter Island (*Rytidosperma paschale* and *Paspalum forsterianum*), one species (*Eragrostis kuschelii*) is endemic to San Ambrosio Island (Desventuradas Islands), and four species are endemic to the Juan Fernández Archipelago (*Agrostis masafuerana*, *Chusquea fernandeziana*, *Megalachne berteroana*, *Megalachne masafuerana*). *Podophorus bromoides* was described for Juan Fernández but it seems to be currently extinct [9]. The most diverse genera are *Nassella* (11 spp.), *Poa* (eight spp.), *Melica* (seven spp.), and *Chusquea* (six spp.).

3.2. Geographic distribution

In continental Chile, the number of species per Administrative Region varies from three in the regions of Tarapacá (20°S), Atacama (27°S), and Magallanes (53°S) to 26 in Coquimbo (29°S) and

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Biobío (36°S). It is interesting to note that most of the species occur along the Chilean hotspot of biodiversity, mainly in the Mediterranean region of the hotspot (23–38°S). Moreover, this interesting area is the most populated zone of the country with a high degree of urbanization, agriculture, industrial activities, and forestry [7]. The number of endemic species in the northernmost regions (Arica and Parinacota, Tarapacá, Atacama) is fairly low as well as in the southernmost regions (Aysen, Magallanes). The same occurs in insular Chile. The Juan Fernández Archipelago contains seven species endemic to Chile, Easter Island two species, and Desventuradas Island only one species (**Figure 1**). The species more widely distributed are *Phalaris amethystina* (nine regions including Juan Fernández Island), *Melica violacea* (eight regions), and *Danthonia malacantha* (eight regions including Juan Fernández Island). Local endemic species are *Agrostis insularis* (Chiloé Island, Los Lagos), *A. masafuerana* (Masafuera, Juan Fernández Island), *Alopecurus lechleri* (Los Ríos Region), *Bromus burkartii* (Araucanía Region), *Chusquea fernandeziana* (Juan Fernández Island), *Eragrostis kuschelii* (Desventuradas Islands), *E. pycnantha* (Atacama Region), *Imperata parodii* (Araucanía Region), *Megalachne berteroana* and *M. masafuerana* (Juan Fernández Island), *Melica poecilantha* (Coquimbo Region), *Nassella coquimbensis* (Coquimbo Region),

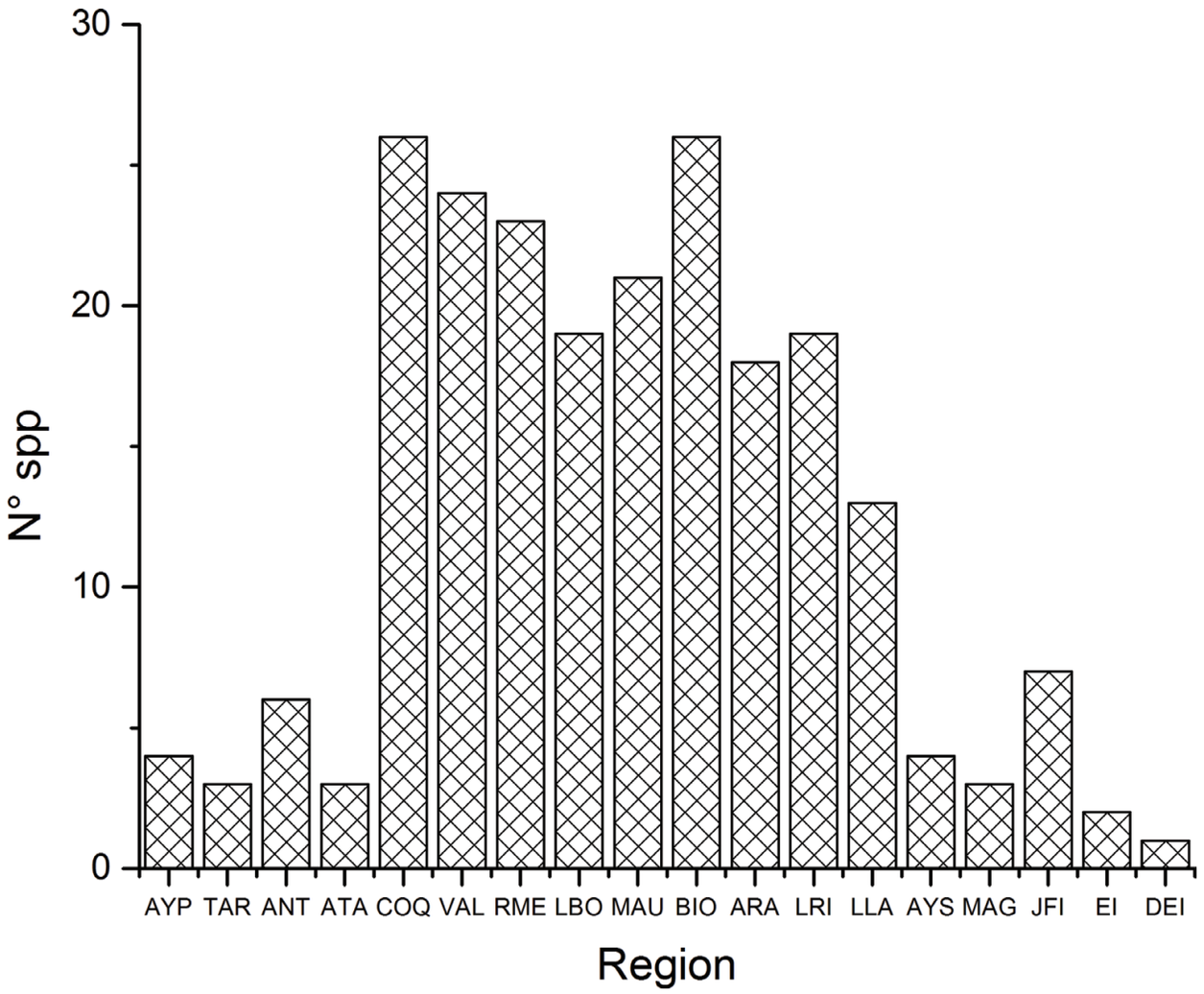

Figure 1. Number of endemic species in the 15 political regions of Chile.

Paspalum forsterianum (Easter Island), *Poa pfisteri* (Biobío Region), *Poa schoenoides* (Los Lagos Region), *R. paschale* (Easter Island), and the subspecies *Trisetum johnstonii* subsp. *mattheii* (Arica and Parinacota Region).

3.3. Conservation

One species (*P. bromoides*) is extinct, three species are classified as critically endangered (*A. masafuerana*, *C. fernandeziana,* and *M. masafuerana*), two as endangered (*E. pycnantha* and *Paspalum chilense*), one as vulnerable (*Megalachne berteroniana*), and one species as near threatened (*M. poecilantha*). The conservation status of most species (89%) needs to be evaluated. Moreover, several species are known only by their type collections. Most threatened species are endemic to the Juan Fernández Archipelago.

3.4. Updated list of the endemic Chilean grasses

1. ***Agrostis arvensis*** Phil., Linnaea 29(1): 87. 1858. **Typus**: CHILE "In arvis prope Concepción legit Cl. Gay et in herb. Chil. sub nomine *Poa* no 226 reliquit" (Holotype: SGO).

Life cycle: Short-lived perennial or probably annual [10]. **Flowering period**: January. **Distribution**: A rare endemic species distributed between 36°50′S, 73°03′W (Concepción) and 40°42′S, 71°57′W (Osorno), in the Regions of Biobío and Los Lagos, southern Chile, from 10 to 420 m; it was collected only near Concepción (Biobío), National Park Futangue (Los Ríos Region), and National Park Puyehue (Osorno, Los Lagos Region). **Conservation status**: Not evaluated. **References:** [10]. **Comments**: According to Muñoz-Schick [11], this taxon is a synonym of *Agrostis vidalii* Phil. growing in Chile and Argentina, and consequently, losing its endemic status. Other authors accept *A. arvensis* as a valid species, with its distribution restricted to the Biobío Region, whereas *A. vidalii* grows in the regions of Los Lagos and Aysen [12–14]. **Representative specimen**: Biobío Region, Concepción, Gay 217 (SGO).

2. ***Agrostis insularis*** Rúgolo & A.M. Molina, Gayana Bot. 54(2): 111, Fig. 10, 11. 1997. **Typus**: CHILE, X Región, Prov. Chiloé, Isla Alao, lado norte, barrancos, 30 m.s.m. (42°35′S–73°16′W), 15-I-1985, *C. Villagrán e I. Mesa 5890* (Holotype: CONC).

Life cycle: Perennial. **Flowering period**: January. **Distribution**: Restricted to the Chiloé Archipelago, between 42°35, 73°16′W, and 42°38′S, 73°16-W, from 25 to 30 m. It has been collected in Alao Island and Chaulinec Island. **Conservation status**: Not evaluated. **References:** [10, 12]. **Representative specimen**: Chile, Los Lagos Region, Chiloé, Isla Alao, 30 m, Villagrán & Mesa 5890 (CONC, type).

3. ***Agrostis masafuerana*** Pilg., Repert. Sp. Nov. Regni Veg. 16: 388. 1920. **Typus**: CHILE, "Juan Fernández, Masafuera, hochland bei Las Torres, ca. 1300 m, 14 Feb 1917", *C. & I. Skottsberg 424* (Holotype: B; isotypes: BAA, K, P, US).

Life cycle: Perennial. **Flowering period**: January to February. **Distribution**: Endemic of the Más Afuera Island (33°45′S, 80°47′W) (=Masafuera Island, Alejandro Selkirk Island), Juan Fernández Archipelago, at 800–1350 m.a.s.l. **Conservation status**: Critically endangered (CR).

References: [10, 12, 15–17]. **Representative specimen**: Valparaíso Region, Juan Fernández Archipelago, Masafuera Island, Cuchillo del Imán, Landero & Gaete 9155 (CONC).

4. ***Agrostis umbellata*** Colla, Herb. Pedem. 6: 18. 1836. **Typus**: CHILE "habitat Chili, Rancagua, 1828, *D. Bertero 31 & 556*".

Life cycle: Short-lived perennial or annual. **Flowering period**: October to January. **Distribution**: From Petorca, Region of Valparaíso to the Region of Aysen (Regions of Valparaíso, Metropolitan, O'Higgins, Biobío, and Aysen), from 900 to 2000 m. It grows in damp, sandy places. **Conservation status**: Not evaluated. **References:** [10, 12, 18]. **Comments**: This species was considered endemic to Chile by Rúgolo & Molina [10]. However, McCloskie cited it previously for Argentina in 1915 [19]: "*I have found it in a good many places in the western parts of the Sta. Cruz Territory, for instance at Lago Argentino, Lago Viedma and Lago San Martín*…" and by Spegazzini in 1921 [20]: "*In pratis montanis secus Carren-leofú, aest. 1899–900*." However, as Rúgolo & Molina [10] stated, no reference specimens collected in Argentina can be found in herbaria. On the other hand, *Agrostis umbellata* is very close morphologically to *A. inconspicua* Kunze ex E. Desv., growing in Chile and Argentina. **Representative specimen**: Valparaíso Region, Quillota, cerro La Vizcacha, 33°05'S, 71°02'W, 2000 m, Zoellner 3325 (CONC).

5. ***Alopecurus heleochloides*** Hack., Repert. Spec. Nov. Reg. Veg. 10(243–247): 166. 1911. **Typus**: Chile, inter Colina et Batuco, Nov 1899, *C. Reiche s.n.*

Life cycle: Annual. **Flowering period**: September to December. **Distribution**. A rare endemic, known only from the Coquimbo Region, Choapa (31°35'S) and the Metropolitan Region, Santiago (33°12'S) from 25 to 3300 m.a.s.l. It has been also collected on saline soils in herbaceous steppe and in Andean Patagonia at the Region of Magallanes. **Conservation status**: No evaluated. **References:** [21–25]. **Representative specimen**: Coquimbo Region, Choapa, Mincha Sur, 5 Km E of Huentelaquen, 180 m, Bliss et al. 2139 (CONC).

6. ***Alopecurus lechleri*** Steud., Syn. Pl. Glumac. 1: 148. 1854. **Type**: CHILE, "hbr. *Lechler 440*, Valdivia."

Life cycle: Perennial. **Flowering period**: Unknown. **Distribution**: Known only from the Region of Los Ríos, Valdivia (39°50'S). **Conservation status**: Not evaluated. **References:** [22, 25]. **Representative specimen**: Region of Los Ríos, Valdivia, Lechler 440 (Type).

7. ***Anatherostipa venusta*** (Phil.) Peñailillo, Gayana Bot. 53(2): 279. 1996. **Basionym**: *Stipa venusta* Phil. **Typus**: Chile, Tarapacá, de Socaire allata, Feb 1885, F. Philippi. **Synonym**: *Nicoraella venusta* (Phil.) Torres. **Common name**: Vizcachera.

Life cycle: Perennial. **Flowering period**: September to May. **Distribution**: It grows in northern Chile, Regions of Arica and Parinacota, Tarapacá and Antofagasta, from 3400 to 5000 m.a.s.l. It forms dense cushions in arid sandy soils. **Conservation status**: Not evaluated. **References:** [26–29]. **Comments**: This species is closely related to *Anatherostipa boomani* (Hauman) Peñailillo from Chile and Argentina from which it differs by its glabrous floret (floret pubescent in *A. boomani*) [29]. **Representative specimen**: Arica and Parinacota Region, Tacora-Humapalca-río Azufre, 4300 m, Teillier 7759 (CONC).

8. ***Bromidium trisetoides*** (Steud.) Rúgolo, Darwiniana 24(1–4): 187–216. **Basionym**: *Agrostis trisetoides* Steud., Syn. Pl. Glumac. 1: 172. 1854. **Type**: "Hrbr. Lechler 724, Arigue [Arique, Valdivia], Chile."

Life cycle: Annual. **Flowering period**: October to January. **Distribution**: Regions of Biobío, Araucanía and Los Ríos, 75–300 (−1000) m.a.s.l. on sandy and humid soils [30]. Sometimes in temporary wetlands. **Conservation status**: Not evaluated. **Reference**: [30]. **Representative specimen**: Araucanía Region, 10 km S of Cholchol, 30 m, Bliss 2426 (CONC).

9. ***Bromus gunckelii*** Matthei, Gayana Bot. 43(1–4): 62. 1986. **Typus**: "Chile, I Región, Provincia Parinacota, frente a Socoroma, en quebrada surcada por riachuelo, 3300 m.s.m., Ricardi, Weldt & Quezada 192, 5-V-1972" (Holotype: CONC).

Life cycle: Annual. **Flowering period**: March to May. **Distribution**: Restricted to the Region of Arica and Parinacota and Region of Tarapacá, from 3100 to 3740 m.a.s.l. **Conservation status**: Not evaluated. **Reference**: [31]. **Comments**: *Bromus gunckelii* is closely related to *B. berteroanus* Colla. Both species are annuals with lax panicles and with a twisted awn borne near the apex of the lemma. These species differ mainly on the length of the glumes relative to the length of the adjacent lemmas. In *B. berteroanus*, the glumes are longer than half the length of the adjacent lemma, whereas in *B. gunckelii* both glumes are shorter than half of the adjacent lemmas. **Representative specimen**: Region of Arica and Parinacota, camino Arica a Portezuelo de Chapiquiña, Ricardi et al. 138 (CONC).

10. ***Bromus burkartii*** Muñoz, Agric. Técn. (Santiago) 8: 83. 1948. **Typus**: Chile: Prov. Cautín, Lonquimay, Cordillera de Las Raíces, habitante de las vertientes, 2 Mar 1939, *Burkart 9504* (HT: SGO).

Life cycle: Perennial. **Flowering period**: December to January. **Distribution**: This species grows only in the Region of the Araucanía where it has been collected in Lonquimay, Lolén, Galletué National Park, and Liucura under *Nothofagus pumilio* (lenga)-*Araucaria araucana* (pehuén) forest and on waysides. **Conservation status**: Not evaluated. **Reference**: [31]. **Comments**: *Bromus burkartii* was considered a good species by Matthei [31] but modern treatments [12, 13] consider it a synonym of *B. mango* E. Desv. from Argentina and Chile, losing its endemic status. *B. burkartii* differs from *B. mango* mainly by the size of the lemma (5.5–7.0 mm in *B. mango*, 8–11 mm in *B. burkartii*). **Representative specimen**: Araucanía Region, Lonquimay, Cordillera de Las Raíces, 1490 m, 7 Jan 1984, Matthei & Bustos 98 (CONC).

11. ***Chascolytrum koelerioides*** (Trin.) L. Essi, Longhi-Wagner & Souza-Chies, Novon 21(3): 328–329. 2011. **Basionym**: *Poa koelerioides* Trin., Mem. Acad. Imp. Sci. Saint-Pétersb., sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 4: 62. 1836. **Typus**: V spp. Chil.

Life cycle: Perennial. **Flowering period**: October to January. **Distribution**: This species is common in central and central-southern Chile, from Valparaíso to Valdivia, from 5 to 1300 m of elevation (Regions of Valparaíso, O'Higgins, Maule, Biobío, Araucanía and Los Ríos). **Conservation status**: Not evaluated. **References**: [22, 32–34]. **Representative specimen**: Valparaíso Region, Quillota, Cerro La Campana, Puerta De Ocoa, Zoellner 13137 (CONC).

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12. ***Chascolytrum rhomboideum*** (Link) Essi, Longhi-Wagner & Souza-Chies, Novon 21(3): 329. 2011. **Basionym**: *Rhombolytrum rhomboideum* Link., Hort. Berol. 2: 296. 1833 (as *Rhomboelytrum*). **Type**: Habitat in Chile e seminibus ideallitis enata, Anonymous.

Life cycle: Perennial. **Distribution**: Central Chile, Regions of Valparaíso, Metropolitan, O'Higgins and Maule. **Conservation status**: Not evaluated. **References**: [12, 33]. **Representative specimen**: Valparaíso Region, Quillota, Limache, Cerro Cruz, Garaventa 2523 (CONC).

13. ***Chusquea ciliata*** Phil., Linnaea 33(3–4): 299. 1864. **Typus**: Chile "Locis maritimis prov. Santiago, prope Algarrobo, etc., Julio florebat, incolis Quila".

Life cycle: Perennial. **Distribution**: Central Chile, Regions of Valparaíso and Metropolitan, associated to *Teline monspessulana*, *Alstroemeria* sp. and *Maytenus boaria*. **Conservation status**: Not evaluated. **References**: [12, 35–39]. **Comments**: A very uncommon species, related to *Ch. uliginosa*. McClure [39] considers *Ch. ciliata* a synonym of *Ch. tenuiflora* Phil. However, other authors [12, 37] treated it as a good species. **Representative specimen**: Region of Valparaíso, Viña del Mar, Rodelillo, 308 m, Novoa 267 (CONC).

14. ***Chusquea cumingii*** Nees, Linnaea 9: 487. 1834. **Typus**: Chile "Prope Valparaiso Regni Chilensis, 1831, H. Cuming et Bridges in Herbario Lindleyano." **Common names**: Colihue, coligüe, quila, quila chica, colihue de la zona central.

Life cycle: Perennial. **Distribution**: Central Chile, in the Regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, Maule and Biobío, from 15 to 1450 m.a.s.l., associated to *Trevoa trinervis, Cryptocarya alba, Centaurea chilensis, Nothofagus macrocarpa,* and *Beilschmiedia miersii*. **Conservation status**: Not evaluated. **References**: [22, 35, 37]. **Representative specimen**: Region of Valparaíso, Parque Ncional La Campana, mina Pronosticada, 1300 m, Looser s.n. (CONC).

15. ***Chusquea fernandeziana*** Phil., Anales Univ. Chile 43: 577. 1873. **Typus**: Chile, Hallé este coligüe en la Isla de Juan Fernández" Philippi s.n. **Common name**: Coligüe.

Life cycle: Perennial. **Distribution**: Endemic to the Juan Fernández Archipelago (Robinson Crusoe or Masatierra Island). **Conservation status**: Critically endangered (CR). **References**: [9, 16, 40]. **Representative specimen:** Region of Valparaíso, Juan Fernández Archipelago, Masatierra, Baeza & Peñailillo 11330 (CONC).

16. ***Chusquea macrostachya*** Phil., Anales Univ. Chile 94: 350. 1896. **Typus**: "Chile, pariter in valle fluminis Palena invenit orn. Fr. Delfin." **Icon**.: Muñoz Schick, 1980: 492. **Common name**: Taihuén.

Life cycle: Perennial. **Distribution**: Regions of Los Ríos and Los Lagos from 70 to 1100 m.a.s.l. where it is an important component of the *Nothofagus betuloides-Chusquea macrostachya* forest. **Conservation status**: Not evaluated. **References**: [22, 39, 41–44]. **Representative specimen**: Los Lagos Region, Chiloé, entre Chonchi y Quellón, Matthei 394 (CONC).

17. ***Chusquea montana*** Phil. fma. ***nigricans*** (Phil.) Matthei, Gayana, Bot. 54 (2): 204–205, f. 11. 1997. **Basionym**: *Chusquea nigricans* Phil., Anales Univ. Chile 27 (2): 323. 1865. **Typus**: Chile: Frequens in montibus litoreis prov. Valdiviae "Cordillera Pelada" dictis. *Philippi 518* (SGO). **Common name**: Quila enana.

Life cycle: Perennial. **Flowering period**: November. **Distribution**: Southern Chile, Regions of Los Ríos, Los Lagos and Aysen, from 300 to 1300 m.a.s.l. in peatlands or wetlands (mallines). **Conservation status**: Not evaluated. **References**: [12, 35, 39, 42, 45]. **Comments**: Philippi [46] characterized this species as having very short glumes; he notes that only *C. breviglumis* (=*C. culeou* E. Desv.) shares this character. He also highlights some characteristics of the leaf blade. Parodi [35] trated *C. nigricans* as synonym of *C. montana.* In his opinion, the types of both species differ by characteristics of the leaf blade and the inflorescence (*C. nigricans* has narrower and shorter leaf blades with more prominent veins and shorter inflorescences than *C. montana*). Because he found specimens with intermediate characteristics, he suggests that *C. nigricans* should be treated as synonym of *C. montana*. Later, Matthei [41] separates it from *C. montana* at the level of forma. This concept prevails in modern treatments [12]. **Representative specimen**: Region of Los Ríos, Valdivia, Cordillera Pelada, Ricardi & Matthei 5249 (CONC).

18. ***Chusquea uliginosa*** Phil., Linnaea 30 (2): 207. 1859. **Typus**: Chile "in pratis illis pluvias inundatis, uliginosis, quae incolis Nadi, provinciae Valdiviae; a colonis Germanis Kleine Quila vocatur".

Life cycle: Perennial. **Distribution**: This species grows in Southern Chile, in wet places from the Regions of Los Ríos, Los Lagos, and Aysen. It grows up to 1500 m.a.d.l. associated to *Nothofagus alpina*, *N. antarctica*, *N. obliqua*, and *Berberis valdiviana*, sometimes in peatlands. **Conservation status**: Not evaluated. **References**: [22, 35, 39, 42]. **Representative specimen**: Los Lagos Region, Osorno, Antillanca, Schlegel 7016 (CONC).

19. ***Cynodon nitidus*** Caro & E.A. Sánchez, Darwiniana 17: 510, f. 1. 1972. **Typus**: "Chile, Dpto. Arica, Azapa, Aug 1925, Werdermann 704".

Life cycle: Perennial. **Flowering period**: July to January. **Distribution**: Northern Chile, Region of Arica and Parinacota and Region of Tarapacá, up to 1340 m. **Conservation status**: Not evaluated. **References**: [22, 46, 47]. **Representative specimen**: Arica and Parinacota Region: Azapa, 50 m, Oehrens 34 (CONC).

20. ***Danthonia araucana*** Phil., Anales Univ. Chile 94: 31. 1896. **Typus**: Chile: In sylva Araucariarum montium Nahuelbuta, januario 1877 legimus, F. Philippi s.n. (HT: SGO).

Life cycle: Perennial. **Flowering period**: October to January. **Distribution**: This species grows in the regions of Valparaíso, Maule, Biobío, Arauco, Los Ríos and Los Lagos, from 10 to 930 m.a.s.l., in natural meadows, clay soils. It has been collected in *Eucalyptus* plantations. **Conservation status**: Not evaluated. **References**: [48]. **Representative specimen**: Biobío Region, Concepción, Chivilingo Norte, 180 m, Baeza & Rodríguez 2391 (CONC).

21. ***Danthonia chilensis*** E. Desv. var. ***aureofulva*** (E. Desv.) C.M. Baeza, Sendtnera 3: 32, f. 4i, 1996. **Basionym**: *Danthonia aureofulva* E. Desv., Hist. Fis. Pol. Chile, Bot. 6: 362. 1854. **Typus**: Chile, L'examplare unique a été remis à M. Gay pour servir de modèle au coloriste, Em. Desvaux, avril 1854 (HT: P).

Life cycle: Perennial. **Flowering period**: October to January. **Distribution**: This species grows in the regions of Valparaíso, O'Higgins, Biobío, Arauco, Los Ríos, and Los Lagos, from 5 to

630 m.a.s.l., in clay soils. It has been collected in the "espinal" of *Acacia caven*. **Conservation status**: Not evaluated. **References**: [12, 13, 48]. **Representative specimen**: Valparaíso Region: Viña del Mar, Fundo las Siete Hermanas, 280 m, Garaventa 3289 (CONC).

22. ***Danthonia malacantha*** (Steud.) Pilg., Notizbl. Bot. Gard. Berlin-Dahlem 10: 759. 1929. **Basionym**: *Trisetum malacanthum* Steud., Syn. Pl. Glumac. 1: 424. 1854. **Typus**: Chile: Huiti in pascuis, Jan 1852, Lechler 749 (P).

Life cycle: Perennial. **Flowering period**: October to March. **Distribution**: This species grows in north, central, and southern continental Chile as well as in the Juan Fernández Islands (Masatierra), in natural meadows and clay soils, usually below 1000 m.a.s.l. Regions of Coquimbo, Valparaíso, O'Higgins, Maule, Biobío, Arauco, Los Ríos, and Juan Fernández Archipelago (Masatierra). **Conservation status**: Not evaluated. **References**: [12, 13, 17, 22, 48]. **Representative specimen**: Region of Valparaíso, Juan Fernández, Masatierra, Stuessy et al. 11216 (CONC).

23. ***Deschampsia looseriana*** Parodi, Darwiniana 8: 460. 1949. **Typus**: Chile: Santiago, Batuco, 500 m, 17 Sep 1936, G. Looser 3439 (HT: BAA). **Synonym**: *Deschampsia looseriana* Parodi var. *triandra* Parodi, Darwiniana 8: 464. 1949.

Life cycle: Annual. **Flowering period**: September to December. **Distribution**: North-central Chile, in the regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, Maule and Biobío, from 10 to 2475 m. It has been collected in prairies and vernal pools. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 49, 50]. **Comments**: Some authors [12] consider *D. looseriana* var. *triandra* as a valid species. This taxon differs from the typical variety by the presence of three stamens (one or two stamens in the typical form). However, flowers with one stamen were found also in the type of var. *triandra*, a character associated to cleistogamy [50]. **Representative specimen**: Coquimbo Region: Combarbalá, Cuesta de Punitaqui, 300 m, Marticorena & Matthei 387 (CONC).

24. ***Eragrostis kuschelii*** Skottsb., Ark. Bot. 4(15): 485. 1963. **Type**: Chile, Islas Desventuradas, San Ambrosio, Johow form 3, 5–6 Oct 1896 (UPS).

Life cycle: Perennial. **Distribution**: A local endemic found only in San Ambrosio Island (Valparaiso Region), from the sea level to 100 m of altitude. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 51]. **Representative specimen**: Valparaiso Region, Isla San Ambrosio, Johow 2667 (SGO).

25. ***Eragrostis pycnantha*** (Phil.) Nicora, Gayana Bot. 51: 4. 1994. **Basionym**: *Poa pycnantha* Phil., Anales Univ. Chile 94: 165. 1896.

Life cycle: Perennial. **Distribution**: A very rare endemic with a distribution restricted to the Atacama Region at 140 m of altitude. **Conservation status**: Endangered (EN). **References**: [12, 13, 22, 51]. **Representative specimen**: Atacama Region, Huasco, Freirina, 140 m, Muñoz & Johnson 1982 (SGO).

26. ***Festuca panda*** Sw., J. Wash. Acad. Sci. 26(5): 209. 1936. **Type**: Coquimbo Region, Illapel, Cajón de Los Pelambre, alt. 2900 m, Jan 1932, Looser 2151 (US).

Life cycle: Perennial. **Flowering period**: February. **Distribution**: *Festuca panda* is a local endemic species, found only in the Coquimbo Region from 2900 to 3400 m, in Andean steppes and Atacama Desert. **Conservation status**: Not evaluated**. References**: [12, 13, 22, 52, 53]. **Representative specimen**: Coquimbo Region, Illapel, Hacienda Cuncumén, Cajón de Los Pelambres, 2900 m, Looser 2151 (isotype, CONC).

27. ***Hierochloe altissima*** Steud., Syn. Pl. Glumac. 1: 13. 1854. **Type**: "Lechler legit Valdiviae".

Life cycle: Perennial. **Distribution**: Southern Chile, it has been collected in the Regions of Biobío, Araucanía, Los Ríos, Los Lagos, and Aysen, from 5 to 780 m.a.s.l. **Conservation status**: Not evaluated**. References**: [12, 13, 22, 32, 54–56]. **Comments**: Genus *Hierochloe* was considered a synonym of genus *Anthoxanthum* [57]. However, based on evidence from floral biology, it was suggested that *Anthoxanthum* and *Hierochloe* should be maintained as different genera [58]. **Representative specimen**: Biobío Region, Concepción, Soreng & Soreng 7034 (CONC).

28. ***Hierochloe spicata*** Parodi, Revista Mus. La Plata 3(14): 196. 1941. **Type**: "Chile, Magallanes, Philippi s.n."

Life cycle: Perennial. **Distribution**: Regions of Araucanía, Los Ríos, and Magallanes y Antártica Chilena. **Conservation status**: Not evaluated**. References**: [12, 13, 22, 54–56]. **Representative specimen**: Araucanía Region, Malleco, Lonquimay, Montero 4810 (CONC).

29. ***Hordeum brachyatherum*** Phil., Anales Univ. Chile 94: 346. 1896. **Type**: Chile, habitat in Andibus de Linares dicti, Ortega s.n. (SGO).

Life cycle: Perennial. **Distribution**: Regions of Coquimbo, Valparaíso, Maule, and Magallanes, from 2 to 500 m.a.s.l. **Conservation status**: Not evaluated. **References**: [12, 13, 22]. **Comments**: Although this species was cited for the Patagonia of Argentina (Río Negro and Chubut) [59], probably based on misidentified specimens [60]. **Representative specimen**: Valparaíso Region, Petorca, Pichicuy, Marticorena *et al*. 161 (CONC).

30. ***Imperata parodii*** Acevedo, Bol. Soc. Argent. Bot. 12: 358. 1968. **Type**: Chile, Prov. Cautín, al S de la boca del Toltén. Reiche s.n. (SGO).

Life cycle: Perennial. **Distribution**: A local, rare endemic, known only from the type specimen collected in the Araucanía Region. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 61]. **Representative specimen:** Araucanía Region, Cautín, S de la boca del Toltén, Reiche s.n. (SGO, type).

31. ***Jarava tortuosa*** (E. Desv.) Peñailillo, Gayana, Bot. 59(1): 32. 2002. **Basionym**: *Stipa tortuosa* E. Desv., Hist. Fis. Pol. Chile, Bot. 6: 281. 1854. **Type**: Cordillera de Doña Ana, Gay s.n. (HT: P).

Life cycle: Perennial. **Flowering period**: September to January. **Distribution**: This species is endemic to northern Chile. It grows in the regions of Antofagasta, Atacama, and Coquimbo, from the sea level to 900 m, mainly on the coast. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 62]. **Representative specimen**: Antofagasta Region: Taltal, Quebrada Changos, 250 m, Ricardi 2575 (CONC).

32. ***Megalachne berteroniana*** Steud., Syn. Pl. Glumac. 1: 237. 1854. **Type**: Chile, Juan Fernández Islands, Jan–Jun 1830, Bertero 1440 (P).

Life cycle: Perennial. **Distribution**: Endemic to the Juan Fernández Archipelago (Masatierra Island), 180–670 m. **Conservation status**: Vulnerable (VU). **References**: [12, 13, 22, 63]. **Representative specimen**: Masatierra Island, Valle Villagra, Stuessy *et al*. 6521 (CONC).

33. ***Megalachne masafuerana*** (Skottsb. & Pilg.) Matthei, Bol. Soc. Biol. Concepción 48: 171. 1974. **Basionym**: *Bromus masafueranus* Skottsb. & Pilg., Repert. Spec. Nov. Regni Veg. 16: 385. 1920. **Type**: Chile: Juan Fernández, Masafuera, Hochland bei Las Torres, sterile Felsen, 1370 m, C. & I. Skottsberg 145 (GB).

Life cycle: Perennial. **Distribution**: Endemic to the Juan Fernández Archipelago (Masafuera and Masatierra islands), 320–1100 m. **Conservation status**: Critically endangered (CR). **References**: [12, 13, 22, 63]. **Representative specimen**: Juan Fernández Islands, Masafuera, Quebrada Angosta, Meyer 9405. CONC).

34. ***Melica argentata*** E. Desv., Hist. Fís. Pol. Chile, Bot. 6: 374. 1854. **Type**: Chile, Rancagua.

Life cycle: Perennial. **Flowering period**: September to February. **Distribution**: Regions of Antofagasta, Coquimbo, Valparaíso, Metropolitan, O'Higgins, and Maule from 15 to 2200 m in the Cordillera de la Costa, longitudinal valley and Cordillera de Los Andes. **Conservation status**: Not evaluated**. Reference**: [12, 13, 22, 64]. **Representative specimen**: Coquimbo Region: Choapa, Cuncumén, 1400 m, Jiles 4292 (CONC).

35. ***Melica commersonnii*** Nees ex Steud., Syn. Pl. Glumac. 1: 290. 1854. **Type**: Chile?

Life cycle: Perennial. **Flowering period**: August to December. **Conservation status**: Not evaluated**. References**: [12, 13, 22, 64]. **Distribution**: From the sea level to 1900 m of elevation in the Regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, Maule, and Biobío. **Representative specimen**: Biobío Region: Ñuble, camino de Pullay a Quile, 275 m, Baeza & López 2247 (CONC).

36. ***Melica longiflora*** Steud., Syn. Pl. Glumac. 1: 290. 1854. **Type**: Chile, Bertero hb. 1816 "*M. laxiflora* ". **Common name**: Lengua de gato.

Life cycle: Perennial. **Flowering period**: August to December. **Distribution**: Regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, and Maule, from 20 to 1300 m.a.s.l. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 64]. **Representative specimen**: Coquimbo Region: Ovalle, Estancia Talca, 300 m, Jiles 446 (CONC).

37. ***Melica mollis*** Phil., Anales Univ. Chile 94: 161. 1896. Type: Chile: prope Carrizal, G. Geisse s.n. (SGO).

Life cycle: Perennial. **Flowering period**: November to February. **Distribution**: Endemic to northern Chile, it has been collected in the regions of Atacama and Coquimbo, 340 m.a.s.l. **Conservation status**: Not evaluated**. References**: [12, 13, 22, 64]. **Representative specimen**: Atacama Region: Carrizal Bajo, Mina Oriente, Muñoz-Schick 3055 (SGO).

38. ***Melica paulsenii*** Phil., Anales Univ. Chile 94: 159. 1896. **Type**: Chile, in praedio S. Isidro prope Quillota, F. Philippi s.n. (SGO).

Life cycle: Perennial. **Flowering period**: September to December. **Distribution**: Regions of Coquimbo, Metropolitan, Valparaíso, and Maule between 50 and 700 m.a. s.l. **Conservation status**: Not evaluated**. References**: [12, 13, 22, 64]. **Representative specimen**: Maule Region: Curicó, Laguna Vichuquén, 20 m, Zöllner 1954 (CONC)

39. ***Melica poecilantha*** E. Desv., Hist. Fís. Pol. Chile, Bot. 6: 379. 1854. **Type**: [Chile], crece por copitas entre los peñascos cubiertos de arbustos, en La Serena y Arqueros, Prov. Coquimbo, Gay s.n.

Life cycle: Perennial. **Flowering period**: October to November. **Distribution**: Endemic to the Coquimbo Region from 500 to 1200 m. **Conservation status**: Near threatened (NT). **References**: [12, 13, 22, 64]. **Representative specimen**: Coquimbo Region: Illapel, 13 km N de Mantos de Hornillo, Quebrada Pajaritos, 280 m, Marticorena *et al*. 367 (CONC).

40. ***Melica violacea*** Cav., Icon. 5: 472. 1799. **Type**: "Habitat prope Talcahuano in Chile, floretque Februario et Martio." **Common name**: Pasto bandera.

Life cycle: Perennial. **Flowering period:** September to February. **Distribution:** Regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, Maule, Biobío, Araucanía, and Los Ríos, between the sea level and 2000 m.a.s.l., in coastal zones, longitudinal valley, and Cordillera de Los Andes at low elevations. It grows in sandy and rocky soils, and under sub-Andean forest; it has been collectively associated to *Kageneckia* sp., *Peumus boldus*, *Elythraea* sp., *Colletia* sp., *Bomarea* sp. and *Tristerix* sp. and *Muhlenbeckia* sp. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 64]. **Representative specimen:** Biobío Region: Ñuble, General Cruz, Arenales del Itata, 101 m, Montero 1931 (CONC).

41. ***Nassella barbinodis*** (Phil.) M. Muñoz, Ciald. & Morrone, Darwiniana n.s. 1(1): 90. 2013. **Basionym**: *Stipa barbinodis* Phil., Anales Univ. Chile 93: 721. 1896. **Type**: Chile. XIV Región: Valdivia, fundo de San Juan, I-1887, R. A. Philippi s.n.

Life cycle: Perennial. **Flowering period**: November to January. **Distribution**: Southern Chile. This species is found in the regions of Biobío, Araucanía, Los Ríos, and Los Lagos from 60 to 280 m.a.s.l. It has been collected on sandy soil, in bushes with grasses, and *Juncus* sp. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 29, 65]. **Comments**: Matthei [29] treated *Stipa barbinodis* Phil. as a synonym of *S. duriuscula* Phil. Other authors [12, 18] accept this treatment and included *Nassella barbinodis* in the synonym of *Nassella duriuscula* (Phil.) Barkworth. Later, Cialdella et al. [65] based on several differences of the spikelets consider them as two different species. The types in US of both species differ in the characteristics of the floret (floret with crown inconspicuous, 5 mm long in *N. duriuscula*; floret with a conspicuous crown, 8 mm long in *N. barbinodis*). **Representative specimen**: Biobío Region, Concepción, Hualpén, Parque Pedro del Río, 150 m, Gunckel 10068 (CONC).

42. ***Nassella chilensis*** (Trin.) E. Desv. var. ***juncea*** (Phil.) M. Muñoz, Gayana, Bot. 47: 22. 1990. **Basionym**: *Nassella juncea* Phil., Linnaea 33(3–4): 277. 1864. **Type**: Chile, prope Corral detexit ornat. H. Krause s.n.

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Life cycle: Perennial. **Flowering period**: November to February. **Distribution**: This variety grows in south-central Chile, in the Metropolitan, Biobío, Araucanía, and Los Ríos regions, from 20 to 925 m of elevation. **Conservation status**: Not evaluated**. References**: [12, 13, 22, 65–67]. **Comments**: As Cialdella et al. pointed out [65], Barkworth accepted this taxon as species [67]. In this paper, we follow the treatment proposed by Cialdella et al. [65]. **Representative specimen**: Metropolitan Region: Chacabuco, Altos de Chicauma, desde tranque hacia Morro Jarillas, 2100 m, García 3762 (CONC).

43. ***Nassella coquimbensis*** (Matthei) Peñail., Gayana, Bot. 55(2): 86. 1998[1999]. **Basionym**: *Stipa coquimbensis* Matthei, Gayana, Bot. 13: 35. 1965. **Type**: Chile: IV Región: Prov. Coquimbo, Carretera Panamericana, 8 km al norte de la Quebrada del Teniente, 13-X-1963, Marticorena & Matthei 163 (CONC).

Life cycle: Perennial. **Flowering period**: October. **Distribution**: Endemic to the Region of Coquimbo, between 60 and 350 m of elevation, in clay-rocky soils. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 29, 65]. **Representative specimen**: Coquimbo Region: Illapel, Huentelauquén, 60 m, Jiles 5754 (CONC).

44. ***Nassella duriuscula*** (Phil.) Barkworth, Taxon 39(4): 610. 1990. **Basionym**: *Stipa duriuscula* Phil., Linnaea 33(3–4): 282. 1864. **Type**: Chile, VI Región de O'Higgins, Prov. Colchagua, XI-1860, L. Landbeck s.n.

Life cycle: Perennial. **Flowering period**: November to December. **Distribution**: Central Chile, in the regions of Coquimbo, Metropolitan, O'Higgins, and Maule, between 15 and 1000 m.a.s.l. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 29, 65, 67]. **Representative specimen**: Coquimbo Region: Illapel, Cavilolén, Jiles 2670 (CONC).

45. ***Nassella gibba*** (Phil.) Muñoz-Schick, Gayana, Bot. 47: 26. 1990. **Basionym:** *Piptochaetium gibbum* Phil., Anales Univ. Chile 93: 731. 1896. **Type**: Chile. VII Región del Maule: Talca, R. Iturriaga s.n.

Life cycle: Perennial. **Flowering period**: October to January. **Distribution**: Coast and longitudinal valley of the regions of Valparaíso, Metropolitan, O'Higgins, Maule, and Biobío, from 15 to 1000 m of elevation. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 65, 66]. **Representative specimen**: Maule Region: Talca, R.N. Empedrado, El Fin, 300 m, Finot & López 1335 (CONC).

46. ***Nassella hirtifolia*** (Hitchc.) Barkworth, Taxon 39(4): 610. 1990. **Basionym**: *Stipa hirtifolia* Hitchc., Contr. U. S. Natl. Herb. 24(7): 285. 1925. **Type**: Chile.

Life cycle: Perennial. **Flowering period**: September to January. **Distribution**: Regions of Coquimbo, Valparaíso, Metropolitan, and O'Higgins, from 20 to 1460 m.a.s.l. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 29, 65]. **Comments:** *Nassella hirtifolia* is close to *N. laevissima*, which differs from *N. hirtifolia* having florets totally glabrous (glabrous or pilose on the lower two-third in *N. hirtifolia*), antopodium 0.2–0.3 mm (0.5–1.0 mm long in *N. hirtifolia*) with hairs shorter than half the length of the lemma (hairs surpassing the lower one-third of the length of the lemma in *N. hirtifolia*). **Representative specimen**: Metropolitan Region: Río Clarillo, 800 m, Araya s.n. (CONC).

47. ***Nassella lachnophylla*** (Trin.) Barkworth, Taxon 39(4): 610. 1990. **Basionym:** *Stipa lachnophylla* Trin., Mem. Acad. Imp. Sci. Saint-Petersbourg, Ser. 6, Sci. Math., Seconde Pt. Sci. Nat. 4,2(1): 39. 1836. **Type**: Chile, 1832, J. D. Prescott & H. Cuming s.n.

Life cycle: Perennial. **Flowering period**: October to December. **Distribution**: Regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, Maule, and Araucanía between 10 and 1000 m of elevation; it has been collected in plowed fields, edge of roads, and ponds. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 29 65]. **Representative specimen**: Metropolitan Region: Santiago, Cerro San Cristóbal, 800 m, Mahu 4084 (CONC).

48. ***Nassella macrathera*** (Phil.) Barkworth, Taxon 39(4): 610. 1990. **Basionym:** *Stipa macrathera* Phil., Anales Univ. Chile 93: 720. 1896. **Type**: Chile, Santiago, in collibus de Renca, R. A. Philippi s.n.

Life cycle: Perennial. **Flowering period**: September to February. **Distribution**: Regions of Coquimbo, Metropolitan, Maule, Biobío, Arauco, and Los Ríos from 2 to 2000 m. It grows also in Juan Fernández Archipelago [65]. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 29, 65]. **Representative specimen**: Araucanía Region: Cautín, Temuco, 110 m, Gunckel 11021 (CONC).

49. ***Nassella parodii*** (Matthei) Barkworth, Taxon 39(4): 611. 1990. **Basionym**: *Stipa parodii* Matthei, Gayana Bot. 13: 89. 1965. **Type**: Chile, VIII Región del Bio Bío, Prov. Ñuble, 3 km pasado de San Nicolás, camino a Quirihue, 5-XI-1961, O. Matthei 245 (Holotype, CONC 52424).

Life cycle: Perennial. **Flowering period**: November to January. **Distribution**: Central Chile, in the regions of O'Higgins and Biobío between 5 and 370 m.a.s.l. It grows in the *Acacia caven* "espinal" of the Secano interior of the Province of Ñuble and also on the shores of the sea on brackish soils. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 29, 65]. **Comments**: This species is morphologically similar to *N. macrathera* from which it differs by the following characteristics: lemma papillose only toward the apex (lemma minutely papillose over the entire surface in *N. macrathera*), floret 1.1–1.4 cm long (floret 0.9–1.2 mm long in *N. macrathera*), lemma glabrous (lemma hairy on the lower part of the dorsal nerve in *N. macrathera*). **Representative specimen**: O'Higgins Region: Cardenal Caro, 19 km E of Pichilemu, 2.6 km W of Puente Los Valles 1 on Hwy to Nancagua, 370 m, Lammers *et al.* 7885 (CONC).

50. ***Nassella pfisteri*** (Matthei) Barkworth, Taxon 39(4): 611. 1990. **Basionym**: *Stipa pfisteri* Matthei, Gayana Botánica 13: 100. 1965. **Type**: Provincia de Maule, Camino de Parral a Cauquenes km 36, 11-I-1964, Marticorena & Matthei 488 (CONC).

Life cycle: Perennial. **Flowering period**: September to January. **Distribution**: Endemic to South-Central Chile, where it is found in the regions of Maule and Biobío, between 60 and 360 m of elevation. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 29, 65]. **Comments**: Cialdella et al. [65] cited the specimen Matthei 259 as type of *S. pfisteri*. **Representative specimen**: Biobío Region, Ñuble, camino a San Nicolás, 100 m, Matthei 252 (CONC).

51. ***Nassella pungens*** E. Desv., Hist. Fis. Pol. Chile, Bot. 6: 268. 1854. **Type**: Chile, San Fernando in collibus, Gay 69.

Life cycle: Perennial. **Flowering period**: September to May. **Distribution**: North-Central Chile: Regions of Arica and Parinacota, Tarapacá, Antofagasta, Atacama, Coquimbo, and Metropolitan, between 5 and 1000 m.a.s.l. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 65, 66]. **Representative specimen**: **Arica y Parinacota Region**: East of Arica at Termas Jurasi above Putre, Peterson & Soreng 15742 (CONC).

52. ***Paspalum chilense*** Catanzaro & G.H. Rua, Phytotaxa 197(4): 247. 2015. **Type**: Chile, Región de Los Ríos, provincia de Ranco, Lago Ranco, río Calcurrupe, 40°13′32.8″S, 72°14′22.4″W, 81 m, 18 December 2007, G.H. Rua, M. Medina-Nicolas & E. Piel 918 (BAA).

Life cycle: Perennial. **Flowering period**: December. **Distribution**: This species was described recently [68] based on material collected in the regions of Biobío, Araucanía, and Los Ríos. **Conservation status**: Endangered (EN) [68]. **References**: [68]. **Reference specimen**: Los Ríos Region, Lago Ranco, río Calcurrupe, 81 m, G.H. Rua *et al*. 918 (BAA, type).

53. ***Paspalum forsterianum*** Fluggé, Gram. Monogr., Paspalum 165. 1810. Type: Nova Caledonia, Forster s.n. **Common name**: Mauku toa, heriki hare.

Life cycle: Perennial. **Distribution:** This species is endemic to Eastern Island where it grows on sea cliffs of Rapa Nui and Moto Nui. **Conservation status**: Not evaluated. **References**: [6, 12, 13, 22]. **Representative specimen**: Isla de Pascua, Costa de Motu Tautara, Zizka 593 (CONC).

54. ***Phalaris amethystina*** Trin., Mém. Acad. Imp. Sci. Saint-Pétersbourg, Sér. 6, Sci. Math., Seconde Pt. Sci. Nat. 5,3(3): 56. 1839. **Type**: Chile, in pascuis herbidis aquosis montis La Leona Rancagua, Bertero 534 (Lecotype: LE; Isolectotype: SGO!); lectotype designated by Hitchcock in Jepson, Fl. Calif. 3: 96–99.

Life cycle: Annual. **Flowering period**: September to January. **Distribution**: Regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, Maule, Biobío, Araucanía, and Los Lagos. It is also found in Juan Fernández Archipelago (Masatierra) [9, 16, 69]. It grows mainly at low elevations up to 1000 m.a.s.l., associated to the "espinal" of *Acacia caven* (Mol.) Mol., in rich, loamy soils with shallow water. **Conservation status**: Not evaluated. **References**: [9, 12, 13, 22, 70–73].**Representative specimen**: Coquimbo Region, Coquimbo, Ovalle, Quebrada Toigoncillo, 250 m, Jiles 852 (CONC).

55. ***Piptochaetium angolense*** Phil., Anales Univ. Chile 93: 734. 1896. **Type:** Chile. "Angol, Novemb. 1887", Philippi s.n. (HT: SGO).

Life cycle: Perennial. **Distribution**: Regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, Maule, Biobío, and Araucanía from 10 to 740 m.a.s.l. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 74]. **Representative specimen**: Valparaíso Region: Petorca, Pichicuy, Marticorena *et al*. 189 (CONC);

56. ***Poa acinaciphylla*** E. Desv., Hist. Fis. Pol. Chile, Bot. 6: 412. 1854. Type: Chile, Gay 1119, Cat. Propr. Synomym: *Poa villaroelii* Phil., Anales Univ. Chile 94: 169. 1896.

Life cycle: Perennial. Flowering period: January to February. Distribution: North-central Chile, in the regions of Coquimbo, Valparaíso, and Metropolitan. Conservation status: Not evaluated.

References: [12, 13, 22, 75]. Representative specimen: Metropolitan Region: Santiago, Valle Nevado, Negritto 961 (CONC).

57. ***Poa pfisteri*** Soreng, J. Bot. Res. Inst. Texas 2(2): 850. 2008. **Type**: Chile, Region VIII: Bio-BÍo, Province of Santa Bárbara, Puente Mininco, 1 Nov 1943, A. Pfister s.n.

Life cycle: Perennial. **Flowering period**: November. **Distribution**: A rare endemic known only from the type collection from Santa Bárbara [Province of Biobío], between 200 and 300 m. **Conservation status**: Not evaluated. **References**: [13, 75]. **Representative specimen**: Biobío Region, Biobío Prov., Santa Bárbara, Puente Mininco, Pfister s.n. (US, CONC, type).

58. ***Poa cumingii*** Trin., Mem. Acad. Imp. Sci. Saint.Petersbourg, Sér. 6. Sci. Math., Seconde Pt. Sci. Nat. 4,2(1): 66. 1836.

Life cycle: Perennial. **Flowering period**: November to February. **Distribution**: A fairly common species distributed from Coquimbo to Chiloé (Regions of Coquimbo, Valparaíso, Maule, Biobío, Araucanía, Los Ríos, and Los Lagos) between 3 and 350 m. **Conservation status**: Not evaluated. **References**: [13, 75]. **Representative specimens**: Biobío Region, Concepción, Playa de Lenga, 10 m, L. Giussani s.n. (CONC).

59. ***Poa gayana*** E. Desv., Hist. Fis. Pol. Chile, Bot. 6: 416. 1854. **Type**: Chile: Cordilleras de Chile, Gay s.n.

Life cycle: Perennial. **Flowering period**: October to April. **Distribution**: Regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, Maule, and Biobío between 470 and 3400 m of elevation. **Conservation status**: Not evaluated. **References**: [12, 13, 18, 22, 75]. **Comments**: Some authors consider that this taxon includes *Poa lanuginosa* var. *neuquina*; under this concept, *P. gayana* grows in Chile and Argentina [18]; this idea was not accepted in recent treatments of *Poa* for Argentina [76]. The taxonomy of *Poa gayana* is difficult and its status needs to be clarified [75]. **Representative specimen**: Maule Region: Talca, Central Los Cipreses, Quebrada El Ciego, Finot & López 2011 (CONC).

60. ***Poa paposana*** Phil., Fl. Atacam. 55: 1860. Type: Chile, Antofagasta Region: In regione herbosa prope Paposo inveni.

Life cycle: Perennial. **Flowering period**: August to November. **Distribution**: North-central Chile: Regions of Antofagasta, Atacama, Coquimbo, Valparaíso, and Metropolitan, between 30 and 820 m. **Conservation status**: Not evaluated. **References**: [12, 13, 75]. **Representative specimen**: Coquimbo Region, Limarí, Parque Nacional Fray Jorge, Soreng & Soreng 7055 (CONC).

61. ***Poa schoenoides*** Phil., Anales Univ. Chile 94: 166. 1896. **Type**: Chile: Prope Queñi in Andibus prov. Valdivia, O. Philippi s.n.

Life cycle: Perennial. **Distribution**: Southern Chile, Los Ríos Region. **Conservation status**: Not evaluated. **References**: [12, 13, 18, 22]. **Comments**. The taxonomy of this species needs to be clarified [13].

62. ***Poa trachyantha*** Hack., Repert. Spec. Nov. Regni Veg. 10(243–247): 173. 1911. **Type:** In expeditione ad flumen Aysen, P. Dusén 568 (W).

Life cycle: Perennial. **Distribution**: Aysen Region. **Conservation status**: Not evaluated. **References**: [12, 13, 18, 22]. **Representative specimen:** Aysen Region, Río Aysen, Dusén 568 (US).

63. ***Poa tricolor*** Nees ex Steud., Syn. Pl. Glumac. 1: 259. 1854. Type: Chile, Valparaíso, Cumming s.n. (B).

Life cycle: Perennial. **Distribution**: Valparaíso Region. **Conservation status**: Not evaluated. **References**: [12, 13, 18, 22]. **Representative specimen**: Chile, Valparaíso Region, Cuming 468 (US, type).

64. ***Podophorus bromoides*** Phil., Anales Univ. Chile 13: 169. 1856. **Typus**: CHILE: frequens in insula Juan Fernández, Germain s.n. (LT: SGO 37130).

Life cycle: Probably perennial. **Flowering period**: October. **Distribution**: Restricted to the Robinson Crusoe Island (Masatierra or Más a Tierra), Juan Fernández Archipelago. **Conservation status**: Extinct (EX). **References**: [12, 13, 16, 18, 22, 77, 78, 79]. **Comments**: After the collection made by German in 1854, this species has not been collected again. Skottsberg [17] referred the genera *Brachyelytrum* and *Aphanelytrum* as the nearest relatives of *Podophorus*. **Representative specimen**: Juan Fernández Island (Masatierra), Germain s.n. (SGO, type).

65. ***Polypogon cachinalensis*** Phil., Fl. Atacam. 54. 1860. **Type**: Chile: Ad Cachinal de la Sierra, 25° lat. m., 7000 p.s.m. legi, Philippi 341 (SGO).

Life cycle: Perennial. **Distribution**: Endemic to northern Chile; it has been collected in the regions of Antofagasta and Coquimbo between 2600 and 3000 m. **Conservation status**: Not evaluated. **References**: [12, 13, 80]. **Representative specimen**: Coquimbo Region: Cordillera de Combarbalá, Potrero Grande, 2700–2800 m, Jiles 4824 (CONC).

66. ***Polypogon elongatus*** Kunth var. ***strictus*** E. Desv., Hist. Fis. Pol. Chile, Bot. 6: 302. 1854. **Type**: Chile: Santiago, Gay s.n. (SGO).

Life cycle: Perennial. **Flowering period**: December to January. **Distribution**: It has been collected in the Regions Metropolitan, Los Ríos, and Los Lagos between 5 and 200 m.a.s.l. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 80]. **Representative specimen**: Los Ríos Region: Valdivia, Corral, La Rama, 6 m, Gunckel 40920 (CONC).

67. ***Polypogon linearis*** Trin., Linnaea 10(3): 301. 1841. Type: Chile bor. in campis ad Concón.

Life cycle: Annual. **Flowering period**: September to February. **Distribution**: Regions of Coquimbo, Valparaíso, Metropolitan, O'Higgins, Maule, and Biobío, from 20 to 740 m. **Conservation status**: Not evaluated. **References**: [12, 13, 22, 80]. **Representative specimen**: Metropolitan Region, Santiago, Peñaflor, Montero 193 (CONC).

68. ***Rytidosperma paschale*** (Pilger) C.M. Baeza, Gayana Botánica 47(3–4): 84. 1990. **Basionym**: *Danthonia paschalis* Pilger, *in* Skottsberg, Nat. Hist. Juan Fernández 2: 67. 1922. **Type**: Chile. Isla de Pascua, on the slope of Mountain Katiki, 16-VI-1917, Skottsberg & Skottsberg 658.

Life cycle: Perennial. **Flowering period**: January to June. **Distribution**: Endemic to Easter Island; it was collected in mount Katiki and Rano Kao volcano [4]. **Conservation status**: Not evaluated. **References:** [4, 12, 13, 48]. **Representative specimen**: Rano Kao, interior del cráter, 200 m, Etienne s.n. (CONC).

69. ***Rytidosperma quirihuense*** C. Baeza, Novon 12: 31. 2002. **Type**: Chile. Ñuble: Camino Las Achiras hacia Quirihue (36°13'S, 72°45'W), 355 m, 20 Nov. 2000, C. Baeza, P. López & M. Parra 2112 (HT: CONC).

Life cycle: Perennial. **Distribution**: *Rytidosperma quirihuense* is found in Valparaíso Region and Biobío Region from 355 to 390 m.a.s.l. **Conservation status**: Not evaluated. **References**: [16]. **Ilustrations**: [16]. **Representative specimen**: Biobío Region, Ñuble, camino Las Achiras hacia Quirihue, 355 m, Baeza *et al*. 2112 (CONC, holotype).

70. ***Trisetum johnstonii*** (Louis-Marie) Finot subsp. ***mattheii*** (Finot) Finot, Curr. Topics Plant Biol. 11: 61. 2010. **Basionym**: *Trisetum matthei* Finot, Ann. Missouri Bot. Gard. 92(4): 551. 2005. **Type**: Chile, Región I: Tarapacá, camino de Arica al Portezuelo de Chapiquiña, km 111, 10°18'S, 69°30'W, 4100 m, C. Marticorena *et al*. 86 (CONC).

Life cycle: Perennial. **Flowering period**: February. **Distribution**: This species is restricted to Arica and Parinacota Region, 4100 m. This subspecies is known only from the type collection. **Conservation status**: Not evaluated. **References**: [12, 13, 81]. **Representative specimen**: Tarapacá Region, camino de Arica al Portezuelo de Chapiquiña, Marticorena *et al*. (CONC, type).

71. ***Trisetum nancaguense*** Finot, Ann. Missouri Bot. Gard. 92(4): 553. 2005. **Type**: Chile, Región VI: Prov. Cardenal Caro, 12 km E of Pichilemu on Hwy toward Nancagua, T. Lammers *et al*. 7894 (CONC).

Life cycle: Perennial. **Flowering period**: November to February. **Distribution**: Regions Metropolitan, O'Higgins, Maule, and Biobío between 45 and 2450 m. **Conservation status**: Not evaluated. **References**: [12, 13, 81]. **Representative specimen**: O'Higgins Region, Pichilemu, Nancagua, Lammers et al. 7894 (CONC, type).

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