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Miscellaneous chorological, nomenclatural and taxonomic notes on *Carex* (Cyperaceae) from South America, including the description of three new species

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Summary. Despite the ongoing intensive efforts on disentangling the diversity of the genus *Carex* (Cyperaceae) in South America, there is much still to be accomplished. In this note we studied collections from some of the main South American and North American herbaria, new field collections, and observations from the citizen platform iNaturalist, to report chorological, nomenclatural, and taxonomic notes for 16 South American *Carex* species. These include comments on invasive species, novel national reports for five species, including the first report of *Carex echinata* to the continent, the clarification of the use of the name *Carex peruviana* and the exclusion of *Carex vixdentata* from the Peruvian flora, and the description of three new species from the Northern Andes and the Peruvian desert: *Carex guaguarum* Jim.Mejías & Muñoz-Schüler, *Carex ros-desertum* Jim.Mejías & Muñoz-Schüler (subg. *Vignea*, sect. *Bracteosellae*), and *Carex via-montana* A.Mor.Alons. & Jim.Mejías (subg. *Psyllophorae*, sect. *Junciformes*).

Key Words. chorology, iNaturalist, taxonomy.

Introduction

The genus *Carex* L. (Cyperaceae) is among the largest of all angiosperm genera (Moonlight *et al.* 2024; POWO 2025, continuously updated). *Carex* diversity in South America is represented by c. 200 species (Jiménez-Mejías *et al.* 2018a), but despite recent efforts, its biodiversity there is still less understood than other continental areas. In this work we present a series of novel reports and notes on chorology, nomenclature and taxonomy for 16 South American *Carex* species. These reports constitute a piece of a continuously published series of articles that aims to progressively

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improve on the current understanding of the genus in the New World (Jiménez-Mejías *et al.* 2016, 2021; Muñoz-Schüler *et al.* 2023; Morales-Alonso *et al.* 2024; among other recent works).

Materials and Methods

Material from A, CONC, CPUN, CUZ, F, HAL, HSP, HUH, HUSA, HUT, K, LIL, MO, MOL, MOLF, NY, OH, QCA, QCNE, US, USM, and VALD was studied (acronyms according to *Index Herbarorium*; Thiers 2025, continuously updated), as well as material collected by the authors in Chile and Ecuador, housed at VALD, MURAY and UPOS. In addition, georeferenced photographs of living specimens uploaded into the citizen science platform iNaturalist (www.iNaturalist.org) were carefully evaluated and considered only when their image quality, date and location were reliable enough to allow a confident identification (see López-Guillén *et al.* 2024).

The determination of the revised material was carried out using appropriate taxonomic literature (Barros 1969; Wheeler 2006; Jiménez-Mejías *et al.* 2021; Muñoz-Schüler *et al.* 2023).

Results and Discussion

Five new national records are provided for Argentina, Chile, Ecuador, Peru and Uruguay, plus novel regional reports for Peru and Chile. This includes the citation of *Carex echinata* Murray for the first time in South America, as well as the reinstatement of the presence of *Carex vulpinoidea* Michx. in South America. A new population of the rare *Carex catamarcensis* C.B.Clarke ex Kük. from Chile is provided. With respect to introduced species, we comment on the expansion of the Western Palearctic *Carex divulsa* Stokes in Argentina and Uruguay, and *Carex pendula* Huds. in Chile. We provide a rectification of the use of the name *Carex peruviana* J.Presl & C.Presl., and proceed to synonymise *Carex vixdentata* (Kük.) G.A.Wheeler and further exclude this name from the flora of Peru.

Two new species are herein newly described from populations previously considered to be *Carex bonariensis* Desf. ex Poir.: *Carex guaguarum* Jim.Mejías & Muñoz-Schüler from the Northern Andes, and *Carex ros-desertum* Jim.Mejías & Muñoz-Schüler from the coastal Lomas formations in Arequipa, Peru.

Furthermore, we provide an amend for *Carex viamontana* A.Mor.Alons. & Jim.Mejías, a new species for the Tropical Andes which was intended to be published earlier in Morales-Alonso *et al.* (2024) but was invalid due to an erratum.

Carex catamarcensis *C.B.Clarke ex Kük.*

A rare and poorly understood species, the only species from *Carex* sect. *Fecundae* Kük. occurring in extra-tropical latitudes (Lois *et al.* 2023). We report here the first records of the species in Peru, from Pacific-facing slopes of the Andes in Arequipa and Tacna provinces. These Peruvian populations are disjunct c. 900 km from the closest ones reported from Salta (Argentina).

We also report the third population known from Chile, second from the 20th Century in this country (Muñoz-Schüler *et al.* 2023), all of them from the Coquimbo Region.

SPECIMENS EXAMINED. CHILE. Coquimbo: Cordillera de Combarbalá, Potrero Grande, cerca del agua, 31°18'S 70°50'W, 2600 m, 5 Jan. 1963, *C. Jiles* 4401 (OH!). **PERU. Arequipa:** Alto Selva Alegre, laderas del Misti, 2750 m, 3 March 1999, *P. Cáceres et al.* (HUSA-002883!). Yarabamba, Sogay, 2720 m, 16°34'18"S 71°60'15"W, *F. Cáceres & U. Baldárrago* 5155 (USM-215627!). Cataratas del Sogay, 16°34'14.3"S 71°24'45.6"W, 22 April 2019, *Daniel B. Montesinos-Tubée* @danplant; iNaturalist observation 67165523). **Tacna**: Tarata, Ticaco, 3600 – 4000 m, 31 March 1998, *A. Cano* 8309 (USM-159913!).

Carex divulsa *Stokes*

A species native from the Western Palearctic, first reported for South America in Argentina by Barros (1935). It was originally known only for the coastal areas of the Autonomous City and province of Buenos Aires, and later for the Entre Ríos Province (Jiménez-Mejías *et al.* 2016).

Recent observations on iNaturalist have shown an expansion of this alien species into other sub-humid areas of Atlantic South America. Three observations of this species confirm its presence in Uruguay and represent the first reports for the country (Fig. 1A).

Additionally, two novel reports for the Buenos Aires Province show that this species is colonising further inland, reaching c. 150 km distance from the Atlantic shore into the drier Austral Pampa (Oyarzabal *et al.* 2018), c. 370 km from its nearest known occurrences in Buenos Aires metropolitan area.

SPECIMENS EXAMINED. URUGUAY. Montevideo: Montevideo, Buceo, 34°53'51.7518"S 56°8'32.7042"W, 15 Sept. 2024, *Mauro Berazategui* (@mauro148; iNaturalist observation 241963916). Canelones, Canelones, 34°31'36.084"S 56°16'3.8856"W, 12 Sept. 2022, *Canelones Sustentable* (@intendencia_de_canelones; iNaturalist observation 136170688). Canelones, Empalme Olmos, 34°42'13.431"S 55°56'29.4102"W, 15 May 2023, *Canelones Sustentable* (@intendencia_de_canelones; iNaturalist observation 165717042). **ARGENTINA. Buenos Aires:** Achupallas, 35°6'35.8848"S 60°4'20.3406"W, 17 Oct. 2020, *Gonzalo Roget* (@gonsaro; iNaturalist observation 62858010). Buenos Aires, Laprida, 37°31'31.9362"S

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Fig. 1. Studied material for newly reported taxa. **A** *Carex divulsa* observed by @mauro148 in Buceo, Uruguay (https://inaturalist.org/observations/241963916); **B** *C. vulpinoidea* observed by @diegoamaya in Cundinamarca, Colombia (https://inaturalist.org/observations/126900258); **C** *C. meridensis* observed by @principemb in Ayacucho, Peru (https://inaturalist.org/observations/216400635); **D** studied material of *C. multifaria* from Catamarca, Argentina (LIL 459104); **E** *C. echinata* growing near Valdivia, Chile (VALD 3602).

60°46'59.6346"W, 4 Nov. 2023, *Nadia Codugnello* (@nadialaprida; iNaturalist observation 190443165).

Carex echinata *Murray*

A widespread species reported for most of the Palearctic and Nearctic, as well as several Asian countries, eastern Australia and northern New Zealand (POWO 2025). Its southernmost area of presence in the Americas was previously known for the Tehuantepec Isthmus, in Mexico. We here report the occurrence of this species for the first time in South America. The studied specimen (Fig. 1E) was collected from the coastal range of Los Ríos Region in southern Chile, within the Valdivian temperate rainforest ecoregion, surrounded by a matrix of

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continuous native vegetation. The ecological integrity of the site suggests that the species' presence in Chile represents a natural disjunction. Consequently, we propose this species to be considered as native to Chile.

SPECIMENS EXAMINED. CHILE. Los Ríos: Valdivia, Parque Oncol, en sitio húmedo bajo bosque de *XX*, 39°42'28.457"S 73°17'4.166"W, 395 m, 27 Dec. 2024, *P. Silva & M. Corvalán* (VALD 3602!; @sur_endemico iNaturalist observation 257081184).

Carex hookeri *Kunth*
An endemic species of Chile previously reported for Valparaíso, Metropolitana, O'higgins, and Los Lagos administrative regions, most of these reports being highly doubtful. The species has only been confirmed recently from Chiloé in Los Lagos (Muñoz-Schüler *et al.* 2023). Here we provide another recent report for Biobío Region, from the Concepción area, where the species was originally described. The studied specimen was found growing in the margins of a freshwater marsh near an industrial park.

SPECIMENS EXAMINED. CHILE. Biobío: Talcahuano, humedal Tralkawenu, junto a la avenida Gran Bretaña camino a la desembocadura, en pajonal estacionalmente inundado, 36°45'56.698''S 73°7'12.661''W, 9 m, 15 May 2021, *P. Muñoz-Schüler & C. León* PMS-355 (CONC!; @paulaceae; iNaturalist observation 79414534).

Carex meridensis (*Steyerm.*) *J.R.Starr*
This species is among the most widespread taxa within South American *Carex* sect. *Uncinia* (Pers.) Baill., as its area of distribution occupies the whole length of the Andes, from Venezuela to Tierra del Fuego. It is also present in the sub-Antarctic archipelagos of the Falklands, Tristan d'Acunha and South Georgia (POWO 2025). In Peru it was previously known for the departments of Cuzco and Junín (Sanz-Arnal *et al.* 2025), where it grows in scattered, azonal Andean bofedales and *Polylepis* understory, alongside other sedge species. Here we report it for the first time for the Ayacucho department. The studied specimen (Fig. 1C) was found growing abundantly in the understory of a *Polylepis subsericans* J.F.Macbr. (Rosaceae) forest, on *Polylepis* leaf litter and alongside several mosses. The area of the record is located 590 m SW of the limit between Ayacucho and Huancavelica departments. As the same *Polylepis* forest extends into the Huancavelica department, further search in this area may report the presence of *C. meridensis* in this latter department as well. As the specimen was found growing at 4613 m above sea level, this report represents the highest record for the species.

SPECIMENS EXAMINED. PERU. Ayacucho: Huamanga, distrito de Vinchos, 13°11'34.245"S 74°33'24.6312"W, 4613 m, 16 May 2024, *Príncipe Mendoza Babilón* (@principemb; iNaturalist observation 216400635).

Carex multifaria (*Nees ex Boott*) *J.R.Starr*
A typical species in the understory of lowland sclerophyllous and evergreen forests in South Central and Southern Chile, from where it was previously considered as an endemic species (Muñoz-Schüler *et al.* 2023). The revision of the collection of *Carex* section *Uncinia* at LIL revealed the presence of *C. multifaria* in North-Western Argentina (Catamarca Province). It is the only known population of the taxon on the eastern slopes of the Andes. The locality indicated on the label, 'El Clavillo', probably refers to the 'Cuesta del Clavillo' route, a mountain road that connects the city of Concepción, in the western portion of the Tucumán Province, with the city of Andalgalá, in the eastern part of the Catamarca Province. This route traverses through the lower portion of the Aconquija range system, with a drastic environmental gradient as it goes higher. The 46-km point of this route matches the border landmark of Tucumán and Catamarca provinces, which may be the likely locality where this specimen was collected. The vegetation of this area corresponds to the Mountain Yungas phytogeographic district (Cabrera 1976), which in this area is characterised by the dominance of myrtle trees such as *Eugenia uniflora* L. (Myrtaceae), *Blepharocalyx salicifolius* (Kunth) O.Berg (Myrtaceae), and *Myrcianthes pungens* (O.Berg) D.Legrand (Myrtaceae), transitioning into a higher *Podocarpus parlatorei* Pilg (Podocarpaceae). montane forests (Oyarzabal *et al.* 2018). Despite the striking c. 1000 km disjunction between this area and the northernmost localities where *C. multifaria* is found in Chile, no apparent morphological differences could be observed in the studied material (Fig. 1D). Further collection and molecular analyses may shed light on unseen differences in this disjunct population.

As the locality is very close to the border with Tucumán Province, this species could potentially be present in this province too.

SPECIMENS EXAMINED. ARGENTINA. Catamarca: El Clavillo km 46, 1750 m, 12 Dec. 1969, *P. R. Legnome* s.n. (LIL 459104!).

Carex pendula *Huds.*
A Western Palearctic taxon recently reported as introduced in Chile, where it was first reported as

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naturalised in the city of Valdivia, Los Ríos Region (Muñoz-Schüler *et al.* 2023). Recent observations in iNaturalist indicate a seemingly ongoing expansion within Valdivia. Interestingly, one of the observations comes from the botanical garden of the Universidad Austral de Chile, which may suggest that this could have been the source of the introduction. Here we report the second known naturalised population of this species in the country, and new for the neighbouring Los Lagos Region near the city of Osorno. The studied specimen was found growing in the understory of a *Nothofagus obliqua* (Mirb.) Oerst. (Nothofagaceae) – *Laurelia sempervirens* (Ruiz & Pav.) Tul. (Atherospermataceae) remnant forest next to a stream with invasive species such as *Rubus ulmifolius* Schott (Rosaceae), *Ranunculus repens* L. (Ranunculaceae) and *Hedera helix* L. (Araliaceae). The population was growing 89 km SW to the previously known occurrences from Valdivia which suggests that the species may be expanding its range of distribution in the temperate forests of southern Chile.

SPECIMENS EXAMINED. CHILE. Los Ríos: Valdivia, Jardín Botánico de la Universidad Austral de Chile, 39°48'18.13"S 73°15'7.55"W, 15 m, 25 Oct. 2024, *Nodora L. Moyano* (@nodora; iNaturalist observation 250026761); Valdivia, Parque Urbano Playa Las Ánimas, 39°49'8.15"S 73°13'35.96"W, 3 m, 8 Jan. 2025, *Camila Molina González* (@araucami; iNaturalist observation 259075907); **Los Lagos:** Osorno, Las Quemas, 40°36'20"S 73°7'28"W, 48 m, 29 Nov. 2024, *B. Saucedo* 49 (VALD!).

Carex peruviana *J.Presl & C.Presl, Reliq. Haenk.* 1 (3): 205 (Presl 1828). Lectotype (**here designated**): **PERU** [apparently erroneous]. In montanis ad Oronocum Peruvia/ Montana Peruvia ad Huanocco, *Haenke* s.n. (PRC-450339 digital image!; isolectotype HAL-109856!, K!).
= *Carex vixdentata* (Kük.) G.A.Wheeler, *Aliso* 12: 98 (1988). ≡ *Carex extensa* var. *vixdentata* Kük., *Physis* (*Buenos Aires*) 9: 392, pl (Kükenthal 1929). Lectotype (designated by Wheeler 1988): **URUGUAY.** Montevideo. Punta Brava, *Osten* 5229, 12 Nov. 1911 (MVN, not seen; isolectotype SI! US-1176086!)

Thaddaeus Haenke (1761 – 1816) was a Czech botanist that joined the Malaspina scientific expedition (1789 – 1794) organised by Spain under the rule of King Carlos IV (Stafleu & Cowan 1976 – 1997). He visited, among other parts of the World, the Rio de la Plata region (Uruguay and Argentina), as well as Peru, where Haenke collected in the province of "Huanocco" [Huanuco] (Presl 1828).

Carex peruviana J.Presl & C.Presl was described together with other *Carex* species collected by Haenke in the work *Reliquiae Haenkeanae* (Presl 1828). The protologue specifies as geographic indication "Hab. in montanis Huanoccensibus Peruviae" [it occurs in the mountains of Huanocco, in Peru]. However, *C. peruviana* has remained almost unnoticed in most treatments and checklists referring to Peru (e.g. Macbride 1936). A thorough revision of the full collections of the main Peruvian herbaria (CPUN, CUZ, HSP, HUSA, HUT, MOL, MOLF, USM) as well as the main North American herbaria (A, F, MO, NY, US) revealed no putative material belonging to this species.

We have located three original collections of *Carex peruviana*: the holotype in PRC, and two isotypes in HAL and K, all bearing Presl's handwritting. After a careful examination and dissection of the HAL and K specimens, these revealed a striking resemblance with species in sect. *Spirostachyae* (Drejer) L.H.Bailey s.s. (see Roalson *et al.* 2021), with proximal bract sheathing, spikes cylindric, utricles red-dotted, and nutlets elliptic (Luceño & Escudero 2008). This group (as conceived in a broad sense) is represented in South America by seven species: *Carex berteroniana* Steud., *C. fernandezensis* Mack. ex G.A.Wheeler, *C. fuscula* d'Urv., *C. lamprocarpa* Phil., *C. poeppigii* C.B.Clarke ex G.A.Wheeler, *C. trifida* Cav., and *Carex vixdentata* (Kük.) G.A.Wheeler, none of which is present in Peru.

The type of *Carex peruviana* seems virtually identical to small-sized specimens of *C. vixdentata*, a taxon from brackish environments distributed in the region of Rio de la Plata and adjacent territories, closely related to the Western Palearctic *C. extensa* Gooden. (Escudero *et al.* 2010). This view was shared by C. B. Clarke, who left notes on two specimens from K. First, on the type of *C. peruviana*: "This set is throughout correct, and this is (beyond doubt of mine) the plant collected by Haenke at Huanuco in the Mts. of Peru and is *C. peruviana*/But the "Paris" *C. peruviana* also seen by Kunth and Boott, was collected by Commerson at Buenos Ayres and is, as they say "= the European *C. extensa* Gooden". And second, on two *C. vixdentata* collections from Buenos Aires (Argentina) and Montevideo (Uruguay) by Commerson, presumably the specimens he refers to in the former comment: "The "type" of *Carex peruviana* Presl is in the West Tropical American bundle here [referring to the *C. peruviana* type in another folder] and does not differ materially from this". A comparison of the inflorescences, utricles, glumes, and nutlets of *C. peruviana* and the collection of *C. vixdentata* from Montevideo is shown in Fig. 2.

Taking all this data into consideration, we believe that the most plausible hypothesis behind such an unusual scenario is a mislabeling of Haenke's *Carex peruviana* specimen. Probably, the plant was collected by him during a stay in the Rio de la Plata region, but it ended up mislabelled as found in Huanuco when the vouchers were studied by Presl back in Europe. Accordingly, we proceed to synonymise *C. vixdentata* to *C. peruviana*, and to exclude this name from the checklist of sedges of Peru.

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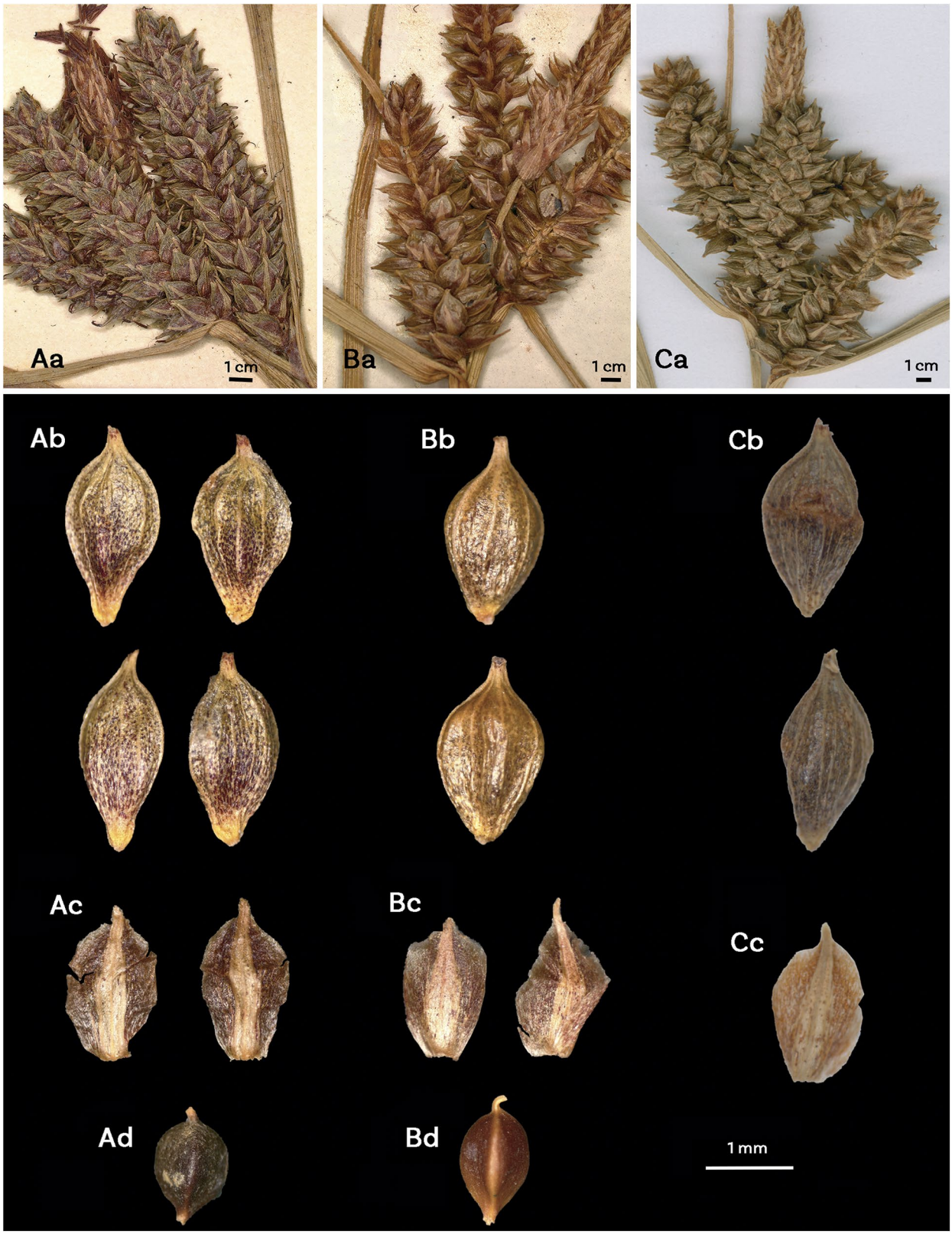

Fig. 2. Comparison between *Carex vixdentata* and *C. peruviana*. **A** *C. vixdentata*: Montevideo, 13 Feb. 1831, Herb. J. Gay, K; **Aa** inflorescences; **Ab** utricles; **Ac** glume; **Ad** nutlets. **B** *C. peruviana*: isolectotype, K; **C** lectotype, HAL. **Ba, Ca** inflorescences; **Bb, Cb** utricles; **Bc, Cc** glumes; **Bd** nutlet of **Ba**.

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Carex pumila *Thunb.*
This seemingly widespread species is distributed along many Pacific coast countries in Asia and Oceania, as well as in Oregon (United States) (POWO 2025). For Chile it has been reported as introduced and known for most central and southern Chilean regions, where it inhabits sandy soils, although its native or introduced status needs re-evaluation. Here we report this species for the Araucanía Region for the first time. The studied specimen was growing on dunes with *Panicum racemosum* (P.Beauv.) Spreng. (Poaceae) and *Lupinus arboreus* Sims (Fabaceae) as dominant species.

SPECIMENS EXAMINED. CHILE. Araucanía: Cautín, dunas de Moncul, 38°44'42.15"S 73°26'10.25"W, 20 m, 18 Nov. 2024, *J. Urutia, M. Romero-Mieres & S. Teillier* JUE 301 (CONC!)

Carex salticola *J.R.Starr*
A species from temperate montane forests of the Southern Cone, it was previously known to have its northern distributional limit in the Biobío Region (Muñoz-Schüler *et al.* 2023). Here we report an observation coming from the Maule Region, c. 180 km north. Ecological observations on the distribution of this species indicate that it matches with the distribution of *Nothofagus alpina* (Poepp. & Endl.) Oerst. (Nothofagaceae) forests, which develop on a submontane to montane altitudinal belt (200 m – 1400 m) between the Maule and Los Lagos Regions, in Chile, and in the Neuquen province, in Argentina. So far, *Carex salticola* has been found throughout these provinces, with the only exception being Los Lagos Region. Further fieldwork in *N. alpina* forests of these areas may reveal its presence in Los Lagos and extend its southern distributional limit.

SPECIMENS EXAMINED. CHILE. Maule: Talca, Parque Natural Tricahue, 35°40'49.406"S 71°4'19.881"W, 676 m, 18 Feb. 2025, *Benjamin Saucedo* (@sausalsa; iNaturalist observation 262932439). Armerillo, Parque Tricahue, 35°40'33"S 71°4'10"W, 745 m, 19 April 2025, *B. Saucedo* 238 (MURAY!).

Carex subfuegiana *G.A.Wheeler*
A Patagonian endemic reported for the Argentinian provinces of Neuquén, Río Negro, Chubut, Santa Cruz and a disjunct specimen collected in San Juan province. Although Wheeler (2006) pointed that "it may also occur in Chilean Patagonia" it has not been formally reported for the country yet. Similarly, Muñoz-Schüler *et al.* (2023) included this species in the general key for Chile as it potentially may be present within the country. A specimen collected in Chile but unreported in Muñoz-Schüler *et al.* (2023) was included in the phylogenies by Martín-Bravo *et al.* (2019) and Jiménez-Mejías *et al.* (2021). This specimen corresponds to the voucher *S. Teillier* 6033 (CONC 170972) from the Pampa La Perra locality in the Chile Chico area (Aysén Region), less than 15 km W of the Argentinian border. Recently, this species was collected 5 km east from the previous collection (voucher *L. Faúndez & F. Larraín* 11, MURAY-BV 0120).

Accordingly, we here formally report the presence of *Carex subfuegiana* in Chile. This species thrives in hydric azonal vegetation along with other native Cyperaceae and Juncaceae, and some adventives such as *Taraxacum officinale* F.H.Wigg. (Asteraceae). It is worth mentioning that this area, on the south shore of General Carrera Lake (Buenos Aires Lake on the Argentinian side), occupies the western boundary of the vast dry grassland ecoregion known as Patagonian Steppe, largely represented in Argentina and only marginal in Southern Chile.

SPECIMENS EXAMINED. CHILE. Aysén: Chile Chico, Pampa La Perra, Oct. 2003, *S. Teillier* 6033 (CONC 170972!). Chile Chico, Laguna Verde, Feb. 2021, *L. Faúndez & F. Larraín* 11 (MURAY-BV 0120!).

Carex via-montana *A.Mor.Alons. & Jim.Mejías*
An Andean species distributed along the Tropical Andes, from northern Peru to Ecuador, Colombia, and Venezuela, with a disjunct population in Guatemala. It is included in the *Carex phalaroides* Kunth group, revised by Morales-Alonso *et al.* (2024). The name was originally intended to be published in that work. However, due to an erratum in the protologue, two specimens were cited as the holotype, rendering the name not validly published. For this reason, we amend its publication in this work by selecting a single specimen as the holotype (UPOS-17960), while designating the other specimen as an isotype (HUTI-1910).

Carex via-montana *A.Mor.Alons. & Jim.Mejías* **sp. nov.** (Morales-Alonso *et al.* 2024: Figs 1R, 2AE, 4AF). Type: Ecuador: Prov. Pichincha, Cerro Corazón, en pajonal con matorral, en el camino y borde de camino, 00°34.1401' S 078°39.8770'W, 3805 msnm, 4 Aug. 2022, *A. Morales Alonso, P. Jiménez Mejías & I. Masa Iranzo* 94ECU-AMA22 (holotype UPOS-17960; isotype HUTI-1910).

http://www.ipni.org/urn:lsid:ipni.org:names:77376859-1

Carex via-montana A.Mor.Alons. & Jim.Mejías, nom. inval., *Bot. J. Linn. Soc.* 207 (4): 358 (Morales-Alonso *et al.* 2024).

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Laxly caespitose, diminutive, base of shoots more-or-less thickened. Acaulescent or with fertile *culms* 0.4 – 2 cm × 0.3 – 0.7 mm, trigonous, slightly scabrid towards terminal spike. *Basal sheaths* brown, splitting into fibres. *Leaf-blades* 3 – 7 cm × 0.3 – 1 mm, longer than stems, linear, flat or slightly V-folded. *Inflorescence* 1.3 – 1.8 cm long, crowded, with 2 – 3 sessile spikes, overlapping. Proximal-most bract 2.5 – 7.7 cm × 0.6 – 3 mm, leaf-like, longer than the inflorescence; distal-most bract 1 – 3.3 cm × 0.3 – 1.2 mm, needle-like, longer than the spike. *Spikes* 0.3 – 0.7 cm × 1.4 – 4.5 mm, ovate, obovate, or subglobose, staminate portion usually non-conspicuous and concealed by the utricles, utricles ascending to spreading. *Pistillate glumes* 2.2 – 4 × 1.1 – 2 mm, obovate to elliptic, hyaline to whitish with a greenish middle band, aristate, constricted to attenuated towards the apex, the middle ones with a 1.1 – 2.2 mm awn, antrorsely scabrid. *Stigmas* 3. *Utricles* 2 – 5 × 0.8 – 2.2 mm, obovate to elliptic, trigonous, whitish proximally, greenish distally, laxly pubescent, hair mainly on the nerves, with 3 – 24 ± conspicuous but not elevated secondary nerves, ± attenuated proximally into a sub-stipitated base 0.6 – 1.1 mm long, constricted at the apex into a short beak 0.1 – 0.6 mm long. *Nutlets* 1.3 – 3.5 × 0.9 – 2.2 mm, elliptic, trigonous, ± constricted into a short stipitate base, usually the sclerified style base persistent as short cylindrical remnant.

RECOGNITION. This species is similar to *Carex phalaroides* Kunth, from which it is mainly distinguished by its size. *Carex via-montana* exhibits smaller sizes of every structure, both vegetative and reproductive, when compared with individuals of *C. phalaroides*. Additionally, plants are frequently acaulescent or culms do not exceed 2 cm long. Moreover, the distribution of *C. via-montana* does not overlap with any other *C. phalaroides* group species nor does the habitat in which this species occur.

DISTRIBUTION. Tropical Andes from N Peru, to Ecuador, Colombia, and Venezuela, disjunct in Guatemala. [CLM ECU GUA PER VEN] (Morales-Alonso *et al.* 2024: Fig. 6 F).

SPECIMENS EXAMINED (PARATYPES). ECUADOR: Loja: Cerca de Ramos Urku, carretera Loja-Cuenca, 03°40.5102'S 079°16.0522'W, 2900 m, 28 July 2022, *A. Morales Alonso, P. Jiménez Mejías, I. Masa Iranzo & E. Sánchez* 22ECU-AMA22 (UPOS s.n.); cerca de Oña, 03°30.5420'S 079°10.3658'W, 2839 m, 27 July 2022, *A. Morales Alonso, P. Jiménez Mejías, I. Masa Iranzo & E. Sánchez* 28ECU-AMA22 (UPOS s.n.); **Tungurahua**: Carretera Parque Nacional Llanganates, 01°04.8339'S 078°24.5341'W, 3577 m, 2 Aug. 2022, *A. Morales Alonso, P. Jiménez Mejías & I. Masa Iranzo* 74ECUAMA22 (UPOS s.n.); Carretera Parque Nacional Llanganates, 01°04.6880'S 078°25.6385'W, 3617 m, 2 Aug. 2022, *A. Morales Alonso, P. Jiménez Mejías & I. Masa Iranzo* 79ECU-AMA22 (UPOS s.n.); **Pichincha**: Subida al cerro Corazón, 00°34.0922'S 078°39.9008'W, 3837 m, 4 Aug. 2022, *A. Morales Alonso, P. Jiménez Mejías & I. Masa Iranzo* 92ECUAMA22 (UPOS s.n.); Camino desde estación final del teleférico (cerro Cruz Loma) al Rucu-Pichincha, 00°11.0232'S 078°32.3160'W, 4078 m, 13 Aug. 2022, *A. Morales Alonso, P. Jiménez Mejías & I. Masa Iranzo* 147ECU-AMA22 (UPOS s.n.). **PERU: Piura**, Camino a la Laguna Negra, 5°3'39.964"S 079°29'17.52"W, 3553 m, 10 Oct. 2021, *S. Martín-Bravo, P. Jiménez-Mejías, P. García-Moro & R. M. Gonzales Tiburcio* 80PERPJM21 (UPOS s.n.).

HABITAT. Open grass and shrub formations, and pajonal edges. 2800 – 4100 m.

ETYMOLOGY. From the Latin *via*, path, way, and *montana*, mountain, relating to its typical location on the margins of paths at high altitudes in the Andes.

Carex vulpinoidea *Michx.*

A species native to North America, reported as introduced in other parts of the world (Standley 2002). Here we (re)confirm the presence of this species in northern South America after its exclusion from the catalogue of androgynous species of *Carex* subg. *Vignea* in the continent by Jiménez-Mejías *et al.* (2021), who did not locate any specimen to support the citation in POWO (2025).

The taxon was indeed cited from Colombia by Boott (1862: 125), which is probably the reason behind the report in POWO. We have confirmed the identity of the vouchers cited by Boott using the treatment of *Carex* sect. *Multiflorae* (J.Carey) Kük. in *Flora of North America* (Standley 2002).

On one of the vouchers C. B. Clarke left some notes about putative differences from the North American populations: "This differs from the New England *vulpinoidea* — perhaps not specifically " (1) the beak of the utricle is smooth instead of hispid-scabrous (2) the utricle has 3 distinct nerves on the plane face and is very near or quite = to C. [illegible]. C.B. Clarke 28 March 1898".

After comparing with material from North America and Standley's (2002) description, we consider that the studied South American samples fall within the reported variation of *Carex vulpinoidea*, with the utricles in the lowest portion of the size range.

Several recent observations from iNaturalist confirm the current presence of *Carex vulpinoidea* in Colombia (Fig. 1B). We also confirm one of our own collections from Ecuador as this species.

Given the invasive character of this species in other parts of the World (Wallnöfer 2012; Kiraly *et al.* 2021), it should not be disregarded that this is also an introduced plant in South America. However, several North American sedges are known to

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display natural disjunctions in the Andes (e.g. *Carex buxbaumii* Wahlenb., *C. leptalea* Wahlenb., *C. livida* (Wahlenb.) Willd.; Jiménez-Mejías *et al.* 2018b, 2020), and our own collection in Ecuador comes from a well-preserved area. Further studies are needed to confirm whether *C. vulpinoidea* is native to South America.

There is another related species in South America, *Carex brongniartii* Kunth, from the Southern Cone in Argentina, Chile, Uruguay, and Brazil (Jiménez-Mejías *et al.* 2021).

KEY. *Carex vulpinoidea* and *C. brongniartii* both key out in couplet 12 of Jiménez-Mejías *et al.*'s (2021) key as *C. brongniartii*. They can be distinguished by the following characters:

1. Flowering stems shorter than the longest leaves; utricles veinless or faintly veined, with 2 – 5 veins on each face ..... *C. vulpinoidea*
1. Flowering stems longer than the longest leaves; utricles veined, usually with >4 veins on each face, those on the abaxial side raised ..... *C. brongniartii*

SPECIMENS EXAMINED. COLOMBIA. Santander: Páramo de Cuchero [Cachirí], *W. Purdie* s.n. (K!, four vouchers). **Cundinamarca:** Parque del Chicó, Bogotá, 4°40'24.102"S 74°2'37.043"W, 11 Jan. 2025, *Stevie-Ray Cairns* (@steviakiwi; iNaturalist observation 258163072). Choachí. 4°34'24.231"N 73°54'40.388"W, 9 Sept. 2020, *Mateo Hernández Schmidt* (@mateohernandezschimdt; iNaturalist observation 59954812). Tena, 4°39'59.332"N 74°22'21.02"W, 16 July 2022, *Diego Amaya* (@diegoamaya; iNaturalist observation 126900258). **ECUADOR. Tungurahua:** Cerca Laguna Pisayambo, Parque Nacional Llanganates, borde de laguna, 01°06.5481'S 078°22.0496'W, 3609 m, 2 Aug. 2022, *A. Morales Alonso, P. Jiménez-Mejías & I. Masa* 70ECU-AMA22 (UPOS!).

Taxonomic notes on *Carex* sect. *Bracteosellae* Jim.Mejías & Muñoz-Schüler

Carex bonariensis *Desf. ex Poir.*

Carex bonariensis is a widespread species currently known from all Southern Cone countries, including the two southern-most states of Brazil (Santa Catarina and Río Grande do Sul). It is primarily distributed on the eastern Atlantic side of the Southern Cone, with reports from a few disjunct populations in Chile. Populations from northern South America formerly ascribed to *C. bonariensis* are here described as *C. guaguarum* (see below).

In Chile *Carex bonariensis* has been poorly studied. It is known to occur in just a few localities in central Chile, as shown by herbaria and field observations (P.M.-S, pers. obs.). These localities are within or near-by urban areas, being abundant in meadows next to industrial parks or within urban green areas. This seems to point to the introduced status of *C. bonariensis* in Chile. Interestingly, *C. bonariensis* frequently co-occurs with *C. bracteosa* Kunze, an endemic species from central Chile closely related to *C. bonariensis* (see Jiménez-Mejías *et al.* 2021) and with a broad ecological spectrum: from meadows and scrub to artificial lawns.

Unpublished phylogenomic results recover a Chilean sample of *Carex bonariensis* as more closely related to *C. bracteosa* than to the disjunct populations of *C. bonariensis* from the Atlantic side of the South Cone (P.M.-S. & P.J.-M., unpubl.). From a morphological point of view, the Chilean populations display some subtle morphological features that make them deviant from the Atlantic ones and approach those of *C. bracteosa*: the utricles have an oblong body more similar to that of *C. bracteosa*, something that contrasts with the obovate to deltoid body of the populations from the eastern side of the Southern Cone (see figures in Jiménez-Mejías *et al.* 2021). Additionally, the conspicuous verrucose papillae that the Atlantic populations of *C. bonariensis* exhibit are usually just faintly visible in the Chilean specimens. This genomic and morphologic evidence may point to hybridisation between *C. bracteosa* and the putatively introduced Chilean populations of *C. bonariensis*. Further studies may confirm this and evaluate if this potential hybridisation may pose any threat to the endemic *C. bracteosa*.

SPECIMENS EXAMINED. CHILE. Biobío: Hualpén, Parque Pedro del Río, 36°46'S 73°12'W, 150 m, Jan. 1941, *Gunckel* 9968 (CONC 68172!, GH!). Hualpén, Al sur de la ENAP - Refinería Bío Bío, 39°49'8.15"S 73°13'35.96"W, 7 m, 4 Feb. 2023, *J. I. Márquez-Corro & P. Muñoz-Schüler* 80JMC23 (UPOS!); Concepción, Universidad de Concepción, 36°49'38"S 73°02'0.17"W, 120 m, 30 Sept. 2020, *P. Muñoz Schüler* PMS-3 (CONC!). **Araucanía**: Angol, junto a laguna artificial en prado inundable, 37°47'06.5"S 72°37'33.9" W, 120 m, 15 Dec. 2021, *P. Muñoz Schüler* PMS-54 (CONC!). Temuco, Truf-Truf, 38°44'S 72°34'W, 100 m, Dec. 1947, *Gunckel* 26595 (CONC 67931!).

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Carex guaguarum *Jim.Mejías & Muñoz-Schüler* **sp. nov.** Type: Ecuador. **Loja:** camino Celica-Guachanamá, 40°5.6097'S 79°57.3236'W, 2080 m, 27 July 2022, *A. Morales-Alonso, P. Jiménez-Mejías, I. Masa-Iranzo & E. Sánchez* 10 ECU-AMA22 (holotype UPOS!; isotype UTI!).

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= *Carex bonariensis* var. *tolimensis* Maury, *J. Bot.* (*Morot*) 2: 423 (1888). Lectotype (designated in Jiménez-Mejías *et al.* 2021): Colombia. Cerca de Piedras, in decliv. or. montis, Tolima, alt. 390 m, *André* 1883 (K-001129612 digital image!).

Plant perennial, cespitose, rhizomes with short internodes. *Fertile culms* 11.8 – 46.5 cm, largely exceeding the leaves, trigonous, smooth, 0.7 – 1.7 mm wide at its middle length; basal sheaths stramineous. *Leaves* 2.1 – 4 mm wide, flat to V-folded, glabrous, margins and nerves smooth. *Inflorescence* 1.2 – 2.5 cm long, 1.1 – 1.7 cm wide, spike-like, oblong to oblong-pyramidal, the pseudospikelets aggregated; lowermost bract leaf-like 2.7 – 8.3 cm long, 1.1 – 2.7 mm wide, long exceeding the inflorescence. *Pseudospikelets* 6.1 – 9.6 mm, androgynous, with 15 – 40 spreading utricles. *Glumes* 1.4 – 3.4 mm shorter than the utricles, ovate to ovate-elliptic, acute to acuminate, pale brown, stramineous or orangish with hyaline margins, middle nerve green to hyaline. *Utricles* 2.9 – 4.1 mm long, 1.1 – 2 mm wide plano-convex, the body oblong to elliptic, with the widest part towards the middle, the surface covered by high papillae, constricted proximally into a 0.5 – 0.9 substipitate base or not contracted, attenuated distally into a 0.7 – 1.6 mm long truncate to inconspicuously bidentate beak, the margins smooth to antrorsely scabrid towards the apex, the abaxial side with 5 – 7 veins, the adaxial one with 3 – 6 faint veins or veinless, the base with a corky U-shaped bulge on the adaxial side. *Nutlets* narrowly biconvex, orbicular, brown, 1.5 – 2.4 mm long, 1.1 – 1.5 mm wide, constricted or not proximally into a 0.1 – 0.5 substipitate base or not contracted, closely enveloped by the utricle, the remains of the style base absent or persistent as a 0.2 – 0.6 subcylindrical to flattened appendix at the top of the nutlet.

RECOGNITION. *Carex guaguarum* is distinguished from the closely related *C. bonariensis* by the shape of its utricles (body oblong to elliptic vs ovate to deltoid) and the colour of the glumes (pale brown or orangish vs dark to reddish-brown). From *C. ros-desertum* it is distinguished by its longer ratio of utricle body vs utricle beak, as well as by the utricles long-surpassing the glumes, see Fig. 3). It also may also be superficially similar to *C. bracteosa* Kunze, from which it is easily distinguished by having utricles with papillae on the adaxial side, which *C. bracteosa* lacks.

DISTRIBUTION. Ecuador, northern Peru, and southern Colombia. It has been collected for the Azuay, Carchi and Loja provinces in Ecuador, Cajamarca department in Peru, and Tolima department in Colombia.

SPECIMENS EXAMINED (PARATYPES). ECUADOR. Azuay: near Baños, along the río Tarqui, 4 – 18 km S of Cuenca, 2530 m, 26 Feb. 1945, *W. H. Comp* 1845 (US-2279430!). **Carchi:** road between San Gabriel and Bolivar, dry roadside swale, 2895 m, 18 Aug., *W. B. Drew* E-491 (US!). **Loja:** carretera Alamor-Celica, remanente de bosque montano a orilla de carretera, 4°04.5740'S 79°58.9422'W, 1869 m, 27 July 2022, *A. Morales-Alonso, P. Jiménez-Mejías, I. Masa-Iranzo & E. Sánchez* 09 ECU-22AMA; Celica-Zapotillo road, c. km 5, forest remnants, 4°8'S 80°7'W, 2100 – 2200 m, 23 Feb. 1985, *G. Harling & L. Andersson* 22467 (QCA-36350!); Jera 10 km N of Saraguro, 3°24'S 79°14'W, 2400 m, 15 Feb. 1989, *L. Ellemann* 66969 (AAU, QCA-36334!, QCNE 198912!); app. 2 km SE of El Cisne, open, grazed scrub along road, at border of pond, 3°53'S 79°24'W, 2350 – 2400 m, 19 Feb. 1988, *S. Laegaard* 70254 (AAU, QCA-26453!, QCNE 25862!); Vivero forestal de Predesur at Colaisaca, grazed area with scrubs, 4°19'S 79°41'W, 2500 m, *S. Laegaard* 18474 (QCA-36386!, LOJA) **PERU. Cajamarca:** Cajamarca, alrededores de Cajamarca, 2670 m, 16 June 1975, *A. A. Sagástegui, J. S. Cabanillas & O. C. Dios* 8031 (HUT, NY-00636782!). Santa Cruz, Pulan, Succhapampa, pastizales húmedos, 2000 m, 31 July 2006, *L. Santa Cruz* 321 (USM 241536!)

HABITAT. Open habitats in Andean montane forests, such as clearings, meadows, and roadsides, between 1870 – 2900 m.

CONSERVATION STATUS. Careful assessment of herbarium label data and field observations have led to the conclusion that *Carex guaguarum* may not be restricted to a specific type of habitat within the Andean montane forest ecoregions. Rather, it seems to take advantage of mesic and open habitats within a wide altitudinal range. Furthermore, the common appearance of this species on roadsides and grazed meadows along a wide geographical range in the northern Andes supports the conclusion that *C. guaguarum* is probably better assessed as Least Concern [LC] according to IUCN guidelines (IUCN 2017).

ETYMOLOGY. While discussing the taxonomic status on the 2nd of November of 2024 —Día de los Difuntos —, we noticed the similarity between the general shape of the utricles of this new species and that of *guaguas de pan* [literally "babies of bread"], a traditional sweet bread usually decorated with spots of sugar icing and widely consumed during this festival in Ecuador. With this we want to honour Ecuadorian culture through the Día de los Difuntos, one of the most important celebrations of the country. The word *guagua* is a loanword from Quechua, meaning

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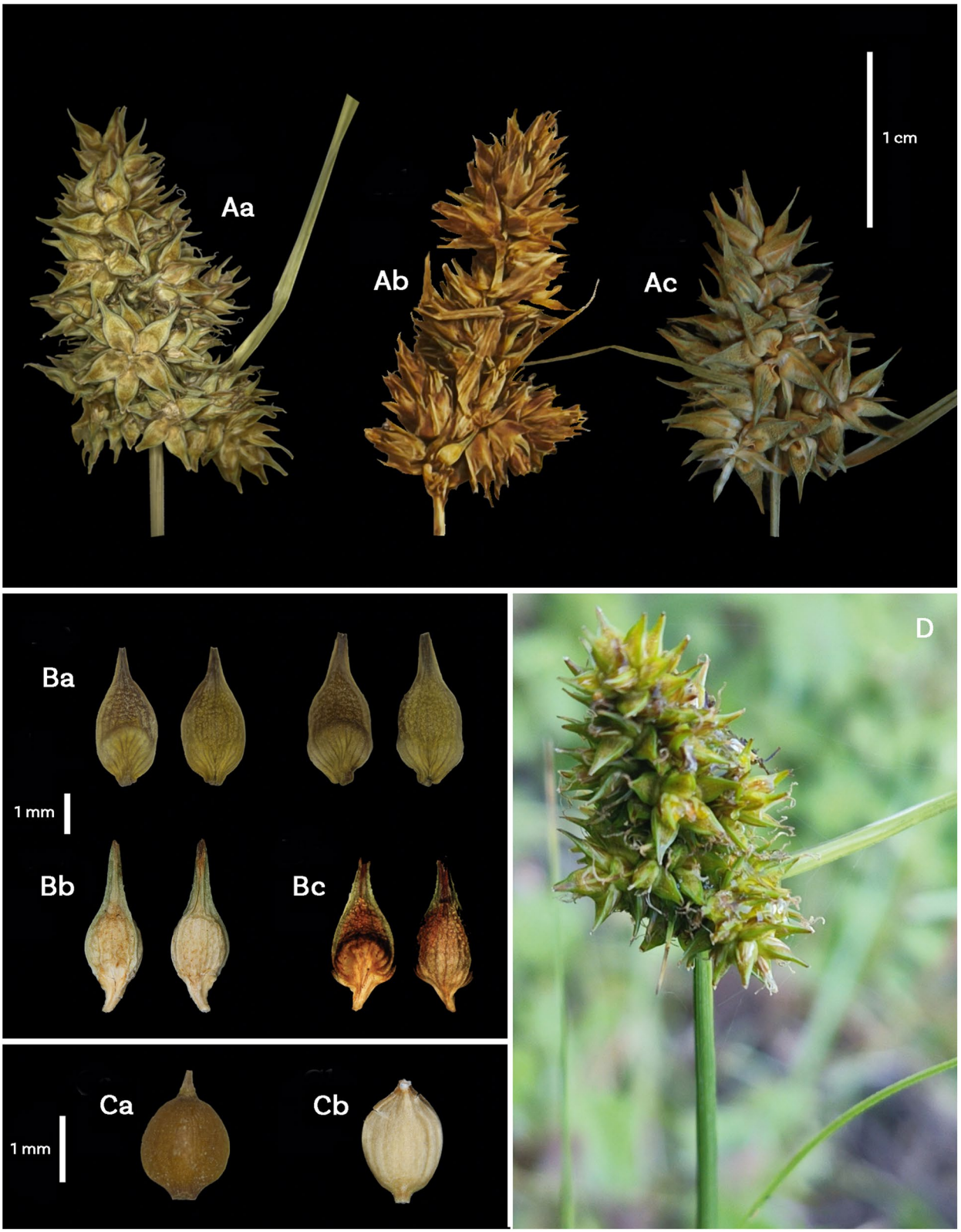

Fig. 3. Detailed comparison between *Carex guaguarum*, *C. ros-desertum* and *C. bonariensis*. *Carex guaguarum*: **Aa** inflorescence; **Ba** utricles; **Ca** nutlet; **D** living specimen. *Carex ros-desertum*: **Ab** inflorescence; **Bb** utricles; **Cb** nutlet. *Carex bonariensis* (extracted from (Jiménez-Mejías *et al.* 2021): **Ac** inflorescence; **Bc** utricles.

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baby, as the *guaguas de pan* are often decorated simulating newborns.

NOTES. Unpublished results show that *Carex guaguarum* is phylogenetically close to *C. bonariensis*, from which it is herein segregated. The name *C. bonariensis* var. *tolimensis* Maury refers to the same North-Andean population of *C. bonariensis*-like plants, which were then segregated from the type variety and combined into the latter due to their smaller growing habit and size compared to the typical *C. bonariensis* (Maury 1888): "L'unique échantillon de M. E. André, un peu rabougri, semble, par son port et ses dimensions, se rapprocher advantage du *C. bracteosa* Kunze que du *C. bonariensis*" [The only specimen from Mr. E. André, a little stunted, seems, by its shape and dimensions, to be closer to *C. bracteosa* Kunze than to *C. bonariensis*]. However, P. Maury failed to distinguish further differences between both taxa, and his description is poorly developed for what we consider here a different species to *C. bonariensis*. For this reason, we decided to redescribe the species using recently collected material as the type and providing a complete description of the new taxon.

Carex ros-desertum *Jim.Mejías & Muñoz-Schüler* **sp. nov.** Type: Peru. **Arequipa:** Caravelí, Lomas de Atiquipa, 700 – 900 m, 6 Dec. 1997, *FLSP* 610 (holotype USM-245949!).

http://www.ipni.org/urn:lsid:ipni.org:names:77376872-1

Plant perennial, rhizomes unknown. *Fertile culms* 9 – 25 cm, apparently exceeding the leaves, trigonous, smooth, 0.7 – 1.5 mm wide at their middle length; basal sheaths unknown. *Leaves* 1.5 – 3 mm wide, flat to V-folded, glabrous. *Inflorescence* (0.9) 1.6 – 3 cm long, 7 – 16 mm wide, spike-like, oblong to oblong-pyramidal, the pseudospikelets aggregated; lowermost bract leaf-like 2.5 – 10 cm long, 0.5 – 2.5 mm wide, equalling to long exceeding the inflorescence. *Pseudospikelets* 6.1 – 9.6 mm, androgynous, with about 15 – 30 spreading utricles. *Glumes* 3 – 3.7 mm, slightly shorter or nearly equalling the utricles and only the utricle beak surpassing the glumes, elliptic, acuminate, pale brown or orangish with narrow hyaline margins, middle nerve green. *Utricles* 3.7 – 4.8 mm long, 1.5 – 1.6 mm wide plano-convex, elliptic to oblong, with the widest part towards the middle, the surface wrinkled or verrucose on both sides, constricted proximally into a 0.5 – 0.8 substipitate base, attenuated distally into a 1.7 – 2 mm long truncate to inconspicuously bidentate beak, the margins smooth to sparsely antrorsely scabrid towards the apex, the abaxial side with 4 – 8 veins, the adaxial one with 4 – 7 faint veins or veinless, the base with a corky C-shaped bulge on the adaxial side. *Nutlets* narrowly biconvex, suborbicular, brown, 1.6 mm long, 1.5 mm wide, contracted proximally into a 0.2 substipitate base, closely enveloped by the utricle, the remains of the style base persistent as a c. 0.2 shortly subcylindrical appendix at the top of the nutlet.

RECOGNITION. *Carex ros-desertum* is similar to *C. bonariensis* and *C. guaguarum*, from which it is readily segregated by its larger ratio of the utricle beak vs utricle body, where the beak can be as long as or longer than the utricle body. In *C. bonariensis* and *C. guaguarum* the beak length hardly reaches half the length of the utricle body. *Carex ros-desertum* is also distinguished from these two species by the utricle body being mostly concealed by the glumes (see Fig. 3), while in *C. bonariensis* and *C. guaguarum* the utricles are much longer than the glumes and become apparent when in the pseudospikelets.

DISTRIBUTION. Endemic to Peru, on the coasts of Arequipa. Known from a couple of locations on coastal Lomas formations, ocean-facing hills that obtain humidity from mist and dew.

SPECIMENS EXAMINED (PARATYPES). PERU. Arequipa: Islay, Lomas de Mejía, 800 m, 20 Nov. 1997, *FLSP* 0234 (MO-5313016!, US-02141515!).

HABITAT. Open habitats, probably in the wettest locations as crevices or drainage beds.

CONSERVATION STATUS. Coastal deserts are an extremely arid area. This is an unusual habitat for *Carex*, which until now was entirely absent from Tropical deserts worldwide. *Carex ros-desertum* inhabits coastal hills where it seems to be able to persist in a limited altitudinal range between 700 – 900 m thanks to the humidity these hills capture from the fog coming from the sea. Although one of the populations is located within protected land (in the Private Conservation Area "Lomas de Atiquipa", funded to protect the coastal hill forest and scrub of South Peru), there is only one other known occurrence, which is separated by about 400 km. Together, these occurrences account to an AOO=8 km^2, as a result of which according to the IUCN guidelines (IUCN 2017), this species should be better classified as Critically Endangered [CR].

ETYMOLOGY. The epithet *ros-desertum* means "desert dew", as the coastal Lomas formations where the species grows obtain most the humidity from condensation rather than from rain.

NOTES. Although we have not been able to account for molecular evidence on the phylogenetic relationship of this species to other taxa within sect. *Bracteosellae*, it is clear for us that a very close affinity to *C. bonariensis* and *C. guaguarum* can be argued on the basis of morphological and geographical data. Phylogenomic results (Morales-Alonso *et al.* unpub. results) recovered a monophyletic group within sect. *Bracteosellae* formed by *C. bonariensis* as the sister lineage of a subclade with *C. guaguarum*

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and *C. bracteosa* as sister species. These species form an alliance which here could be referred as "the *C. bonariensis* group". The measurements provided in this publication are based on a few specimens. The variability of the species in nature is probably wider.

KEY. *Carex guaguarum* and *C. ros-desertum* both key out in the couplet 31 of Jiménez-Mejías *et al.*'s (2021) key as *C. bonariensis*. Both can be distinguished from *C. bracteosa* and from each other by the following characters:

1. Utricle beak >1.5 mm, as long as the utricle body or nearly so; utricles shortly surpassing the glumes, the utricle bodies concealed by them and only the beaks being apparent …….. *C. ros-desertum*
1.' Utricle beak <1.6 mm, about ½ the length of the utricle body; utricles surpassing the glumes, apparent ……. 2.
2. Utricle body ovate to deltoid, widest near its base; glumes dark to reddish-brown ……..*C. bonariensis*
2.' Utricle body elliptic or oblong, widest near or around its middle part; glumes pale brown to orangish …… ……. *C. guaguarum*

Acknowledgements

We would like to thank the curators of CONC, HAL, LIL, MURAY, QCNE, UPOS, US, USM, UTI, and VALD herbaria for providing access to their collection.

Declarations

Authors contribution PMS and PJM conceived the article, edited figures, and wrote the manuscript with help of all authors, SMB helped with further revisions, JCZ contributed with nomenclatural notes on the new species, AMA, NO, and PJM helped with fieldwork in Ecuador, JMC, ACE, AC, and PM helped on measuring and photo-documenting the new species *Carex ros-desertum*, MCF and PSR found, collected and reported *C. echinata*, all other authors contributed on the report of regional novelties.

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Data availability All novel reports are openly available at www.Cyperaceae.org.

Conflict of interest The authors declare that they have no conflict of interest.

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