Article

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Notes and chorological updates regarding the native and introduced vascular flora of Gran Canaria (Canary Islands, Spain)

Abstract

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This paper covers 21 taxa of native or introduced vascular plants that were recently recorded in the island of Gran Canaria. Five taxa are new records for the Canary Islands: *Aegilops triuncialis*, *Aristolochia baetica*, *Dysphania pumilio*, *Holcus mollis* and *Ranunculus paludosus*. Five are new to Gran Canaria: *Anacyclus clavatus*, *Erodium touchyanum*, *Helianthemum ledifolium*, *Parentucellia latifolia* and *Scleranthus annuus* subsp. *polycarpos*. Furthermore, new chorological data are presented for eleven rare or little-known species: *Cynanchum acutum*, *Diplotaxis tenuifolia*, *Euphorbia serrata*, *Ephedra fragilis*, *Helianthemum salicifolium*, *Krubera peregrina*, *Lupinus albus*, *Ornithopus pinnatus*, *Rhamnus crenulata*, *Serapias parviflora* and *Veronica cymbalaria*.

Key words: floristic research, alien flora, chorological data, Mediterranean Area.

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Introduction

During numerous excursions spread throughout the island of Gran Canaria, several species have been discovered that are either new to the flora of the Canary Islands or to the flora of the island of Gran Canaria. This article has a threefold purpose. Firstly, to present these newly discovered species; secondly, to update the distribution of some other poorly known taxa; and finally, to confirm the presence of certain species that were once reported, often a long time ago, for Gran Canaria, but without concrete data that confirmed their real presence on the island. Our data are important for updating the floristic catalogues and even, in some cases, to gain a better understanding of the local distribution of some very rare species. Furthermore, it is essential that the BIOTA database (Biodiversity Database of the Canary Islands) is as up-to-date and accurate as possible, as it is an important source of information for both private users and public authorities that consult it to check the distribution of species, their legal status or their residence status (indigenous or introduced).

This database is considered a reliable source for decision making, even if the references are old or outdated. For this reason, we consider it essential to update this database with our newly acquired information.

Materials and methods

The data presented here are supported by herbarium material collected by the first author and deposited in the BR herbarium (Meise Botanic Garden, Belgium), as well as by field observations and photographs for taxa that were not collected. For hard-to-reach sites, a binocular was used and photographs were taken to help us with the identification. The botanical nomenclature follows that of the Canary Islands Biodiversity Database (BIOTA, www.biodiversidadcanarias.es, various consultations in 2024). In the case of species not included in this database, the Plants of the World Online (POWO) database was followed (https://powo.science.kew.org/, various consultations in 2024). For the geographical location of each species we used maps of the Military Cartography of Spain, series L, scale 1:50,000, published by the Army Cartographic Service. The data were then converted to WGS84 coordinates.

Results

This article presents data on 21 taxa belonging to 20 genera and 18 families. Five taxa are new to the Canary Islands: *Aegilops triuncialis* L., *Aristolochia baetica* L., *Dysphania pumilio* (R. Br.) Mosyakin & Clemants, *Holcus mollis* L. and *Ranunculus paludosus* Poir. Five are new to Gran Canaria: *Anacyclus clavatus* (Desf.) Pers., *Erodium touchyanum* Delile ex Godron, *Helianthemum ledifolium* (L.) Mill., *Parentucellia latifolia* (L.) Caruel and *Scleranthus annuus* subsp. *polycarpos* (L.) Bonnier & Layens. The presence of the native species *Serapias parviflora* Parl. is confirmed on Gran Canaria. In addition, new chorological data are provided that confirm the presence on the island of species with only historical references: *Euphorbia serrata* L., *Helianthemum salicifolium* (L.) Mill., *Krubera peregrina* (L.) Hoffm. and *Lupinus albus* L. For the recently newly reported species *Ornithopus pinnatus* (Mill.) Druce, concrete localities are presented for the first time. Furthermore, new chorological data are reported for *Cynanchum acutum* L., *Diplotaxis tenuiflora* (L.) DC. and *Veronica cymbalaria* Bodard. Finally, new localities of rare or interesting native species, such as *Ephedra fragilis* Desf. and *Rhamnus crenulata* Aiton, are given.

Taxa new to the Canary Islands

Aegilops triuncialis L. (*Poaceae*)

This species has a circum-Mediterranean and Iranian-Turanian distribution (Negrillo 2011). In Gran Canaria, a small population has been found in a mountain grassland, dominated by the species *Avena barbata* Pott ex Link, at about 1300 m. a.s.l., in an area with a humid and cold climate in winter and dry and warm in summer. The population is located at the edge of a path, which could indicate an accidental introduction, since only two small groups could be found.

Exsiccatum: Islas Canarias, Gran Canaria, La Siberia (Cueva Grande), WGS84: 27º 59' 50.90" N, 15º 34' 05.20" W, 1300 m. a.s.l., 12-06-2020, *Eliseo A. Déniz Suárez* (BR).

Aristolochia baetica L. (*Aristolochiaceae*) (Fig. 1a)

A native species in the south of the Iberian Peninsula and northwest Africa (Morales Torres 2011), of which a small naturalized population has been observed near the Sintes or Umbría Dam at an altitude of 610 m. More exotic species have been found recently at this site (Verloove & al. 2018), such as *Cistus ladanifer* L., *Phlomis purpurea* L., *Iris albicans* Lange and *Crassula ovata* (Mill.) Druce. Likewise, naturalized endemic species can be observed there, resulting from a repopulation carried out on the slopes of the dam, including striking specimens of *Dracaena draco* (L.) L. subsp. *draco*, *Juniperus turbinata* subsp. *canariensis* (Guyot & Mathou) Rivas Mart., Wildpret & P. Pérez and *Marcetella moquiniana* (Webb & Berthel.) Svent. Remnants of potential thermosclerophilic forests are also observed in the area, from the *Pistacio lentisci-Oleetum cerasiformis* (del Arco Aguilar & Rodríguez Delgado 2018), with species such as *Pistacia lentiscus* L., *Olea cerasiformis* Rivas-Mart. & del Arco, *Periploca laevigata* Aiton, *Hypericum canariense* L., *Convolvulus floridus* L.f., *Aeonium percarneum* (R.P. Murray) Pit. & Proust, and *A. arboreum* (L.) Webb & Berthel. subsp. *arboreum*, among others.

Exsiccata: Islas Canarias, Gran Canaria, Entornos de la Presa de Sintes (Umbría), WGS84 28º 03' 18.28" N, 15º 29' 30.72"W, 610 m. a.s.l., 14-04-2023, *Eliseo A. Déniz Suárez* (BR); *ibid.*, 17-11-2023, *Eliseo A. Déniz Suárez* (BR).

Dysphania pumilio (R. Br.) Mosyakin & Clemants (*Amaranthaceae*) (Fig. 1b)

This species is native to Australia, New Zealand and New Caledonia (Uotila 1990). A small population has been found on the edge of the road from Laguna de Valleseco to Pico de Osorio. It is associated with other species such as *Chenopodium album* L., *Amaranthus hybridus* L. subsp. *hybridus*, *Rumex obtusifolius* L., *Portulaca oleracea* L., *Echinochloa crus-galli* (L.) P. Beauv. and *Polygonum aviculare* L., among others.

Exsiccata: Islas Canarias, Gran Canaria, Entornos de la Laguna de Valleseco, WGS84 28º 04' 01.43 N, 15º 33' 44.26 W, 825 m. a.s.l., 9-7-2023, *Eliseo A. Déniz Suárez* (BR); *ibid.*, 14-08-2023, *Eliseo A. Déniz Suárez* (BR).

Holcus mollis L. (*Poaceae*)

This is a species with European distribution, which extends to Western Asia and also reaches Northwest Africa (Algeria and Tunisia) (Sequeira 2020). A small population of this grass has been observed in the bed of a ravine, near an old spring, which is dry most of the year and from which water only flows in winter, in the Hoya de la Cruz area in Galaz (Vega de San Mateo). Among the accompanying species were *Rumex conglomeratus* Murray and *Juncus effusus* L.

The species is here taken in a broad sense; it differs slightly from the plants found in Western Europe, notably in the nodes and sheaths that are glabrous whereas they normally are hairy.

Exsiccatum: Islas Canarias, Gran Canaria, Hoya de la Cruz (Galaz), Vega de San Mateo, WGS84 28º 00' 52.84" N, 15º 34' 48.07" W, 1380 m. a.s.l., 13-06-2023, *Eliseo A. Déniz Suárez* (BR).

Ranunculus paludosus Poir. (*Ranunculaceae*) (Fig. 1c)

Herbaceous plant of Mediterranean and Western European origin, including most of the Iberian Peninsula and the Balearic Islands (Cook & al. 1986), of which a small population has been found in the area known as Era del Barranco, more precisely in the protected area called "Paisaje Protegido de las Cumbres", which is also a Site of Community Importance. This population has been known since 2018, always with the same number of individuals, at most 20 specimens. These are found in the middle of a thicket formed by *Teline microphylla* (DC.) P.E. Gibbs & Dingwall and *Adenocarpus foliosus* (Aiton) DC. The plants are found next to a forest path, which could indicate an accidental introduction. The area is rich in species, in particular a population of *Onopordum carduelium* Bolle, an endangered species, seriously affected by land use changes.

Ranunculus paludosus is a variable species. It is a pubescent perennial with fusiform tubers and a usually stout, fibrous stock; cauline leaves are rudimentary and petals are orangish yellow.

Exsiccatum: Islas Canarias, Gran Canaria, Era del Barranco (Vega de San Mateo), WGS84 27º 57' 52.63" N, 15º 33' 34.73" W, 1840 m. a.s.l., 18-05-2024, *Eliseo A. Déniz Suárez* (BR).

Taxa new to Gran Canaria

Anacyclus clavatus (Desf.) Pers. (*Asteraceae*)

Previously reported from La Palma (Otto & Verloove 2016), Tenerife (Santos Guerra & al. 2013), Fuerteventura (Weller 2011) and Lanzarote (Hohenester & Welss, 1993; Hansen & Sunding 1993), this species has been observed, with a very small number of specimens, on the edge of a street in the village of Valsequillo, where it behaves as a ruderal species. In this locality, it appears with other herbaceous plants, notably *Convolvulus althaeoides* L. subsp. *althaeoides*, *Malva parviflora* L. and *Polycarpon tetrapyllum* (L.) L. subsp. *diphyllum* (Cav.) O. Bolòs & Font Quer, among others. It should be noted that most specimens were removed during a cleanup of the area, after which less than 10 individuals survived. Therefore, the survival of this species is uncertain unless it is found in other locations.

Exsiccata: Islas Canarias, Gran Canaria, Valsequillo, (al lado del campo de fútbol), WGS84 27º 59' 40.39" N, 15º 29' 45.67" W, 550 m. a.s.l., 13-03-2024, *Eliseo A. Déniz Suárez* (BR); *ibid.*, 24-05-2024, *Eliseo A. Déniz Suárez* (BR).

Erodium touchyanum Delile ex Godron (*Geraniaceae*)

Therophyte native to the Sahara-Syndian region, from Morocco to Iraq (Guittonneau 1972) and reported in the Canary Islands from Lanzarote (Reyes Betancort & al. 2000) and Fuerteventura (Scholz & al. 2004). In Gran Canaria, a small population was observed at the beginning of the 'camino real' on the north face of the Tauro Mountain. The fact that all the individuals were found along the path suggests that it is an accidental introduction, as the area is frequented by tourists. The plants grow in Canary pine forest, belonging to the association *Pinetum canariensis* subass. *typicum* (del Arco Aguilar & Rodríguez Delgado 2018), characterized, in general, by low humidity, abundant sunshine and scarce rainfall in the autumn and winter months. This pine forest, is, however, very rich in both

shrubs and herbaceous plants, as is shown by the occurrence of *Vicia filicaulis* Webb & Berthel., as well as *Sonchus acaulis* Dum. Cours., *Ferula linkii* Webb or *Silene tamaranae* Bramwell, among others.

Exsiccatum: Islas Canarias, Gran Canaria, Camino real a la Montaña de Tauro. Carretera Presa de las Niñas al Barranquillo Andrés, WGS84 27º 54' 14.02" N, 15º 41' 15.01" W, 930 m. a.s.l., 26-01-2024, *Eliseo A. Déniz Suárez* (BR).

Helianthemum ledifolium (L.) Mill. (*Cistaceae*)

This species is native to the Mediterranean region, Macaronesia and western Asia (López González 1993). In the Canary Islands, it was cited for Lanzarote and Fuerteventura (Webb & Berthelot 1842). During fieldwork in the 'tabaibales' in the east of the island, which are very rich in herbaceous plants, several populations of this species were found at altitudes ranging from 120 m (Montaña los Vélez) to 200 m (Montaña Malfú). The specimens observed are very small in size, sometimes barely exceeding 1 cm in height, and the largest less than 5 cm tall. The associated flora is very interesting: *Euphorbia balsamifera* Aiton subsp. *balsamifera*, *Plantago ovata* Forssk., *Euphorbia regis-jubae* Webb & Berthel. and *Bupleurum semicompositum* L., among others, corresponding to the *Euphorbietum balsamiferae* association (del Arco Aguilar & Rodríguez Delgado 2018).

Localities: Islas Canarias, Gran Canaria, Lomo Gordo (Telde), WGS84 27º 58' 04.76" N, 15º 24' 59.82" W, 190 m. a.s.l., 20-02-2021, *Eliseo A. Déniz Suárez* s.c.; *ibid*., Montaña Malfú, WGS84 27º 55' 42.78" N, 15º 25' 10.94" W, 200 m. a.s.l., 13-03-2021, *Eliseo A. Déniz Suárez* s.c; *ibid*., Montaña Los Vélez, WGS84 27º 54' 24.28" N, 15º 24' 39.03" W, 120 m. a.s.l., 14-02-2023, *Eliseo A. Déniz Suárez* s.c.

Parentucellia latifolia (L.) Caruel (*Orobanchaceae*) (Fig. 1d)

This annual herbaceous plant has a Mediterranean, Macaronesian and Iranian-Turanian distribution (Mota Poveda & Pérez García 2011). In the Canary Islands it was cited for Tenerife by Hansen (1979). In Gran Canaria it was, very rarely, found in a few places in the high midlands of the island, specifically in the Aríñez-Valleseco area (in Galaz), and in grasslands near the Cueva Grande area, corresponding to the *Echio plantaginei-Galactition tomentosae* alliance (del Arco Aguilar & Rodríguez Delgado 2018). In addition, small populations have also been found in Los Llanos de Constantino and in the Malpaís del Montañón Negro. All locations have high rainfall and winter cold in common, so in years with low rainfall this species is difficult to find.

Exsiccata: Islas Canarias, Gran Canaria, Galaz (Cruce de Ariñez-Valleseco), WGS84 28º 01' 02.43" N, 15º 34' 54.76 W, 1400 m. a.s.l., 01-04-2024, *Eliseo A. Déniz Suárez* (BR); *ibid*., Cruce de Cueva Grande, WGS84 27º 59' 59.92" N, 15º 34' 13.48" W, 1250 m. a.s.l., 08-04-2024, *Eliseo A. Déniz Suárez* (BR).

Scleranthus annuus L. *subsp.* ***polycarpos*** (L.) Bonnier & Layens (*Caryophyllaceae*) (Fig. 2a)

Herb native to Europe, North Africa and Asia Minor, including much of the Iberian Peninsula (Rössler 1990), as *Scleranthus polycarpos* L. Hansen & Sunding (1993) mentioned *Scleranthus annuus* L. subsp. *annuus* for Tenerife and Gran Canaria. However, for Tenerife two subspecies are cited: subsp. *polycarpos* and subsp. *annuus*, while for Gran

Fig. 1. a) *Aristolochia baetica*, Presa de Sintes, November 2023, Eliseo Déniz Suárez; b) *Dysphania pumilio*, Laguna de Valleseco, July 2023, Eliseo Déniz Suárez; c) *Ranunculus paludosus*, Era del Barranco, May 2024, Eliseo Déniz Suárez; d) *Parentucellia latifolia*, Galaz, May 2018, Eliseo Déniz Suárez.

Canaria only the latter is mentioned (Acebes Ginovés & al. 2010; BIOTA 2024). The herbarium specimens that were recently collected turned out to be of the subspecies *polycarpos*, which, according to Díaz de la Guardia (2011), is distinguished by having smaller fruits (achenes) (1.5–2.8(–3) mm) and erect or slightly curved sepals. In contrast, the subspecies *annuus* has larger fruits (3–4(–4.5) mm) and patent sepals, rarely erect (p. 494). The population was found in Era del Barranco, a locality in the mountainous area of Gran Canaria that is very rich in species belonging to the association *Micromerio benthamii-Telinetum microphyllae* (del Arco Aguilar & Rodríguez Delgado 2018). Part of the population is located along a forest path, while other specimens are accompanied by other interesting species, among which one of the largest populations on the island of the rare *Ranunculus parviflorus* L., together with other interesting species, such as *Ranunculus cortusifolius* Willd., *Centranthus calcitrapae* L., or the only population known to date of another species mentioned in this article, *Ranunculus paludosus* Poir. Land use changes in the protected area of Las Cumbres represent a real threat to these and many other species. These changes have significantly reduced a population of the endangered *Onopordum carduelium* Bolle.

Exsiccatum: Islas Canarias, Gran Canaria, Era del Barranco (Vega de San Mateo), WGS84 27º 57’ 52.22” N, 15º 33’ 36.44” W, 1840 m. a.s.l., 08-05-2024, *Eliseo A. Déniz Suárez* (BR).

Miscellaneous records of interest

Cynanchum acutum L. (*Apocynaceae*) – new locality for Gran Canaria.

This species of circum-Mediterranean and Iranian-Turanian origin (Blanca 2011), has been reported from Lanzarote (Kunkel 1973), Fuerteventura (Kunkel 1985) and Tenerife (Santos Guerra & al. 2013) in the Canary Islands. Salas Pascual (2013) was the first to mention it for Gran Canaria. Both this author and Kunkel (1973, 1985) believe that the vector of introduction to the islands is the import of palm trees for gardening. A small population of less than 20 individuals was observed at the edge of a gravel parking lot in the town of Cruce de Arinaga. This is almost certainly a recent introduction, the seeds probably having arrived with materials deposited in the area. The small size of the individuals may support this hypothesis. It is a ruderal area subject to trampling and dog walking, where other species such as *Malva parviflora* L. or *Atriplex semilunaris* Aellen can be found.

Exsiccatum: Islas Canarias, Gran Canaria, Cruce de Arinaga, WGS84 27º 52’ 30.77” N, 15º 25’ 36.77” W, 60 m. a.s.l., 30-05-2024, *Eliseo A. Déniz Suárez* (BR).

Diplotaxis tenuifolia (L.) DC. (*Brassicaceae*) – new localities for Gran Canaria.

This species was previously reported on Gran Canaria, in “Arguineguín near Patalavaca, barranco, dry riverbed, one plant” (Verloove 2013: 80). Recently, we found a large individual along the road from Maspalomas to Palmitos Park. This ephemeral species is known from few locations, although it is becoming more frequent. A small population of between 5 and 10 specimens was found amidst *Euphorbia balsamifera* Aiton subsp. *balsamifera* thickets on the Montaña de Agüimes.

Exsiccatum: Islas Canarias, Gran Canaria, Carretera a Palmitos Park, (al lado del club Hípico “El Álamo”), WGS84 27º 46’ 56.82” N, 15º 36’ 54.06” W, 90 m. a.s.l., 20-04-2024, *Eliseo A. Déniz Suárez* (BR).

Euphorbia serrata L. (*Euphorbiaceae*) – confirmation for Gran Canaria.

In the area known as Llanos de Constantino, at about 1640 m. a.s.l., amidst the pastures of *Avena barbata* Pott ex Link and the shrub communities of *Adenocarpus foliosus* (Aiton) DC., a small population consisting of four specimens of *Euphorbia serrata* was found. The species is seriously threatened because it grows in the narrow strip along the road that is periodically cleared to prevent fires. In addition, it is also subject to grazing by a flock of sheep. This species was cited for "San Bartolomé de Tirajana (Gran Canaria), route de Fataga, terrains vagues découverts aux abords d'une pineraire claire, altitude environ 800 m, 29 mars 1975, rec. J. Vivant. Espèce non encore signalée à la Gran Canaria" (Duvigneaud & Vivant 1977: 42). The area was revisited – even though the exact location was unknown – but the actual presence of the species could not be confirmed.

It is important to point out that our herbarium specimen shows leaf margins that are less serrate than usual.

Exsiccatum: Islas Canarias, Gran Canaria, Llanos de Constantino, WGS84 28º 00' 57.87" N, 15º 36' 02.91" W, 1640 m. a.s.l., 03-06-2023, *Eliseo A. Déniz Suárez* (BR).

Ephedra fragilis Desf. (*Ephedraceae*) – new locality for Gran Canaria.

According to Marrero (2021) this "taxon is very rare in Gran Canaria, with sporadic populations (individuals) mainly in the north and west of the island from Barranco de Guiniguada and Azuaje to Tirma and Güigüí" (p. 82). A group of at least four adult specimens and another four juvenile ones was observed on the right slope of Barranco de Guiniguada, at the height of Angostura (Santa Brígida). These specimens grow in front of a house, on a vertical slope, mixed with remains of thermosclerophyllous vegetation from the *Pistacio lentisci-Oleetum cerasiformis* association (del Arco Aguilar & Rodríguez Delgado 2018). As accompanying species we highlight *Olea cerasiformis* Rivas-Mart. & del Arco, *Rumex lunaria* L. and *Bosea yervamora* L. Other interesting species present on the same slope are *Syderoxilon canariense* T. Leyens, Lobin & A. Santos and *Crambe pritzelii* Bolle. The population can hardly expand as it is limited by agricultural lands.

Locality: Islas Canarias, Gran Canaria, Ladera derecha del barranco de Guiniguada (Santa Brígida), Escarpes verticales, WGS84 28º 02' 55.22" N, 15º 28' 56.67" W, 380 m. a.s.l., 21-09-2022, *Eliseo A. Déniz Suárez* s.c.

Helianthemum salicifolium (L.) Mill. (*Cistaceae*) – confirmation for Gran Canaria. (Fig. 2b)

This species has been mentioned for Gran Canaria for a long time, although without concrete locations that confirm its real presence. It was first reported by Despréaux, cited by Webb (1840). However, later authors (e.g. Lems 1960) have often doubted the real presence of the species. According to Kunkel (1975) the references to this species had to be revised, while for Marrero & Mesa Coello (2003) "it could be confused with certain more or less young forms of *Helianthemum canariense*" (p.150); according to Marrero & al. (1995) it is a species of rather doubtful presence. Hansen & Sunding (1993) included the species in their checklist and it is still mentioned in the most recent lists and databases (Acebes Ginovés & al. 2010; BIOTA 2024), still without any locations that unequivocally confirm its presence. This species actually occurs in the very species-rich grasslands of the tabaibal in the east of the island, corresponding to the *Euphorbietum balsamiferae* association (del Arco Aguilar & Rodríguez Delgado 2018), dominated by the shrub *Euphorbia*

balsamifera Aiton subsp. *balsamifera*. The specimens observed, exposed to extremely dry weather conditions, with sporadic rainfall during autumn and winter, hardly reach a height of 15 cm. The species is accompanied by *Artemisia reptans* C. Sm., *Helianthemum canariense* (Jacq.) Pers. and the rare *Trigonella stellata* Forssk., among others.

Exsiccatum and localities: Islas Canarias, Gran Canaria, Montaña Malfú, WGS84 27º 55' 43.32" N, 15º 25' 13.95" W, 350 m. a.s.l., 11-03-2021, *Eliseo A. Déniz Suárez* s.c.; *ibid*., Montaña de Agüimes, WGS84 27º 53' 50.88" N, 15º 26' 15.55" W, 350 m. a.s.l., 04-01-2023, *Eliseo A. Déniz Suárez* (BR); *ibid*., Montaña los Vélez, WGS84 27º 54' 24.33" N, 15º 24' 37.82" W, 120 m. a.s.l., 14-02-2023, *Eliseo A. Déniz Suárez* s.c.

Krubera peregrina (L.) Hoffm. (*Apiaceae*) – confirmation for Gran Canaria. (Fig. 2c)

This species was already recorded in quite old documents, starting with Webb & Berthelot (1842). Specific localities were mentioned in the literature by Pitard & Proust (1908), who listed the species for San Lorenzo (Bourg.) and San Cristóbal, as well as Lid (1967), who reported the species for Jinámar. A visit to these localities, which are imprecise in the case of the first two, did not confirm its current presence there. After this last reference, the species was no longer reported for the island. Hansen & Sunding (1993) did include it in their checklist and it is still mentioned in recent lists and databases (Acebes Ginovés & al. 2010; BIOTA 2024). Nevertheless, the presence of the species has been recently confirmed on the island: a small population was found at the edge of a mud pool on the campus of the Tafira University. As accompanying species, we found *Cenchrus ciliaris* L., *Phagnalon saxatile* (L.) Cass. and *Beta macrocarpa* Guss., among others.

Locality: Islas Canarias, Gran Canaria, Campus Universitario de Tafira, WGS8428º 04' 31.18" N, 15º 27' 08.60" W, 280 m. a.s.l., 11-04-2018, *Eliseo A. Déniz Suárez* s.c.

Lupinus albus L. (*Fabaceae*) – confirmation for Gran Canaria.

In the 1960s, this species was cited as an escape from cultivation in Las Lagunetas (Kunkel 1967), without giving an exact location. During several visits to the region in 2023, the presence of this species, either spontaneously or in cultivation, could not be confirmed. The taxon is still listed for Gran Canaria, as a safe non-invasive introduced species for the Las Lagunetas area (BIOTA 2023). We confirm its presence on the island, in another nearby location. Since at least 2018, a naturalized population has been found, possibly since the cessation of cultivation, of more than 50 specimens, in the Lechuza district in the Vega de San Mateo.

Exsiccatum: Islas Canarias, Gran Canaria, La Lechuza, WGS84 28º 00' 07.87" N, 15º 33' 02.35" W, 1040 m. a.s.l., 26-04-2024, *Eliseo A. Déniz Suárez* (BR).

Ornithopus pinnatus (Mill.) Druce (*Fabaceae*) – confirmation for Gran Canaria.

Quintana Vega (2015) first mentioned this species for Gran Canaria in his thesis for the municipality of Valleseco as: "a plant of roadsides, abandoned farms, borders of uncultivated land" (p. 292), without mentioning any locations. We confirm its presence on the island, where a large population has been found along the road that goes from Laguna de Valleseco to Pico de Osorio, as well as some specimens near Chorros de Firgas. The species seems to be very expansive.

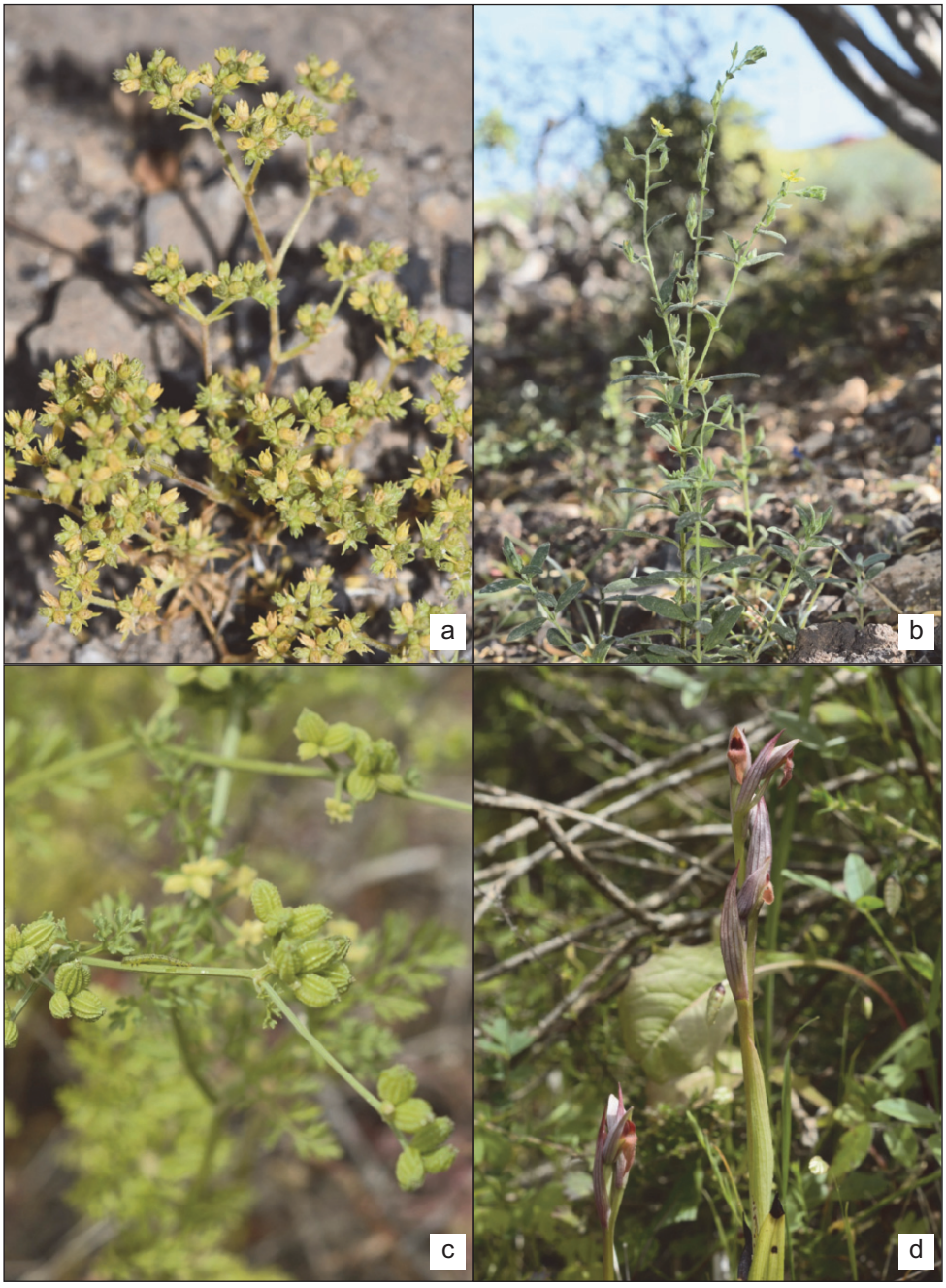

Fig. 2. a) S*cleranthus annuus* subsp. *polycarpos*, Era del Barranco, May 2024, Eliseo Déniz Suárez; b) *Helianthemum salicifolium*, Montaña de Agüimes, January 2023, Eliseo Déniz Suárez; c) *Krubera peregrina*, Tafira, April 2018, Eliseo Déniz Suárez; 2) *Serapias parviflora*, near Presa de Sintes, April 2018, Eliseo Déniz Suárez.

Exsiccatum: Islas Canarias, Gran Canaria, Entre la Laguna de Valleseco y el Pico de Osorio, WGS84 28º 04' 21.70" N, 15º 33' 28.68" W, 830 m. a.s.l., 06-05-2024, *Eliseo A. Déniz Suárez* (BR).

Rhamnus crenulata Aiton (*Rhamnaceae*) – new locality for Gran Canaria.

This rare native species was cited by Suárez (1994) from the right slope of Montaña de Guía, Siete Puertas and La Calzada. Marrero (2021) confirmed its presence in the Jardín Canario and also mentioned it from Cabezo in Bandama. On the right slope of the ravine of Guiniguada, at the end of the vertical wall, very close to the confluence with the Colegio ravine, two specimens of this species have been observed, partially covered by a specimen of *Pistacia lentiscus* L. These individuals are of great interest due to their scarcity on the island. According to Suárez (1994: 391), "in Gran Canaria it is found in very localized situations. Sporadically present on steep edges of the potential zone of the thermophilic forest in places with elements typical of the green mountain".

Locality: Islas Canarias, Gran Canaria, Ladera derecha del barranco Guiniguada, (Santa Brígida), WGS84 28º 03' 01.50" N, 15º 28' 52.04" W, 375 m. a.s.l., 21-09-2022, *Eliseo A. Déniz Suárez* s.c.

Serapias parviflora Parl. (*Orchidaceae*) – confirmation for Gran Canaria. (Fig. 2d)

In a recent study of the Orchidaceae family on Gran Canaria, Marrero & al. (2019) could not confirm the presence of this species on the island. It had previously been reported by Bornmüller (1904) for Tafira at 400 m; later, Sventenius (1947) cited it for Santa Brígida at 650 m and Suárez (1994) for San Isidro de Teror. Bramwell & Bramwell (1990) also mentioned it for Tafira and Teror. In the vicinity of the Umbría or Sintes dam, near communities with *Erica canariensis* Rivas-Mart., M. Osorio & Wildpret and *Pistacia lentiscus* L., a few specimens of this very rare plant have been found. *Serapias parviflora* grows in cracks on the upper edge of the local road and in the shade of reforested palm groves. The droughts of recent years have had a very negative effect on this species, leading to a drastic decrease in numbers; possibly less than 20 individuals are left. If no new populations are found and the weather conditions remain the same, it is not unlikely that this species will become extinct in Gran Canaria. The fence around the water reservoir unfortunately does not allow to search for new populations or individuals. It is worth noting that in the same location some individuals of another rare orchid, *Ophrys bombyliflora* Link, are growing along the side of the road.

Locality: Islas Canarias, Gran Canaria, Entorno de la presa de la Umbría, WGS84 28º 03' 02.95" N, 15º 29' 59.96" W, 625 m. a.s.l., 16-04-2016, *Eliseo A. Déniz Suárez* s.c.

Veronica cymbalaria Bodard (*Plantaginaceae*) – new locality for Gran Canaria.

Santos & Fernández (1981) cited a find from Ayagaures in the south of the island, at 400 m, based on a report by Sventenius (1947). More recently, Sauerbier & al. (2023) mentioned this species for Risco Prieto and Aríñez (Vega de San Mateo). In Galaz (Vega de San Mateo) we have found this species in very small numbers on damp, northeast facing walls, accompanied by other herbaceous plants such as *Avena barbata* Pott ex Link, *Lathyrus clymenum* L. and *Aichryson punctatum* (C. Sm. ex Link) Webb & Berthel., among others.

Exsiccatum: Islas Canarias, Gran Canaria, Galaz (Vega de San Mateo), WGS84 28º 00' 48.69" N, 15º 34' 55.70" W, 1410 m. a.s.l., 18-04-2024, *Eliseo A. Déniz Suárez* (BR).

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References

Acebes Ginovés, J. R., León Arencibia, M. C., Rodríguez Navarro, M. L., Del Arco Aguilar, A., García Gallo, P. L., Pérez de Paz, O., Rodríguez Delgado, V., Martín Osorio, V. E., & Wilpret de la Torre, W. 2010: Pteridophyta, Spermatophyta. – Pp. 119-172 in: Arechavaleta, M., Rodríguez, S., Zurita, N., & García, A. (coords.), Lista de especies silvestres de Canarias. Hongos, plantas y animales terrestres. – Santa Cruz de Tenerife.

BIOTA Biodiversidad de Canarias 2023: *Lupinus albus* L. – https://www.biodiversidadcanarias.es/biota/especie/F00541 [accessed 26/11/2023]

BIOTA Biodiversidad de Canarias 2024: *Krubera peregrina* (L.) Hoffm. – https://www.biodiversidadcanarias.es/biota/especie/F00822 [accessed 03/08/ 2024]; S*cleranthus annuus* L. subsp. *annuus*. – https://www.biodiversidadcanarias.es/biota/especie/F00195 [accessed 05/08/2024]; *Scleranthus annuus* L. subsp. *polycarpos* (L.) Bonnier & Layens. – https://www.biodiversidadcanarias.es/biota/especie/F02090 [accessed 05/08/2024]; *Helianthemum salicifolium* (L.) Mill. – https://www.biodiversidadcanarias.es/biota/especie/F00887 [accessed 05/08/2024]

Blanca, G. 2011: *Asclepiadaceae*. – Pp. 1158-1159 in: Blanca, G., Cabezudo, B., Cueto, M., Salazar, C. & Morales Torres, C. (eds), Flora Vascular de Andalucía Oriental. – Granada.

Bornmüller, J. 1904: Die nachfolgende Arbeit: Ergebnisse zweier botanischer reisen nach Madeira undden Canarischen Inseln. – Bot. Jahrb. **33:** 387-492.

Bramwell, D. y Bramwell, Z. 1990: Flores silvestres de las islas Canarias. – Las Palmas de Gran Canaria.

Cook, C.D.K., Grau, J., y López González, G., 1986: *Ranunculaceae*. – Pp. 279-371 in: Castroviejo, S., Laínz, M., López González, G., Montserrat, P., Muñoz Garmendia, F., Paiva, J. & Villar, L. (eds), Flora iberica, **1.** – Madrid.

Del Arco Aguilar, M. J. & Rodríguez Delgado, O. 2018: Vegetation of the Canary Islands. – Heidelberg.

Despréaux, M.1840: *Helianthemum salicifolium*. www.jardincanario.org [accesed 07/08/2024]

Díaz de la Guardia, C. 2011: *Scleranthus*. – Pp. 494-495 in: Blanca, G., Cabezudo, B., Cueto, M., Salazar, C., & Morales Torres, C. (eds), Flora Vascular de Andalucía Oriental. – Granada.

Duvigneaud, J. & Vivant, J. 1977: Notes Floristiques sur les Canaries. – Cuad. Bot. Canaria **28:** 39-51.

Guittonneau, G. G. 1972 : Contribution a I 'étude biosystématique du genre *Erodium* L'Hér. dans le bassin méditérranéen occidental. – Boissiera **20:** 1-154.

Hansen, A. 1979: Some floristic notes from the Canary Islands. – Vieraea **8:** 107-112.

— & Sunding, P. 1993: Flora of Macaronesia. Checklist of vascular plants. – Sommerfeltia **17:** 1-295. http://dx.doi.org/10.2478/som-1985-0001

Hohenester, A. & Welss, W. 1993: Exkursionsflora für die Kanarischen Inseln mit Ausblicken auf ganz Makaronesien. – Stuttgart.

Kunkel, G. 1967: Plantas Vasculares nuevas para la Flora de Gran Canaria. – Cuad. Bot. Canaria **1:** 3-24.

— 1973: Nuevas adiciones para la flora de las islas orientales (incluyendo Gran Canaria). – Cuad. Bot. Canaria **18/19:** 25-31.
— 1975: Additions and Corrections to O. Eriksson, A. Hansen & P. Sunding: "Flora of Macaronesia. Checklist of Vascular Plants 1974". – Cuad. Bot. Canaria **23-24:** 29-29.
— 1985: Adiciones y nuevas localidades para la flora de Fuerteventura (Islas Canarias). – Vieraea **14(1-2):** 185-189.
Lems, K. 1960: *Helianthemum salicifolium*. – Sarracenia **5:** 1-94.
Lid, J. 1967: Contributions to the flora of the Canary Islands. – Skr. Utg. Det Norske Videnskaps-Akademi **23:** 1-212.
López González, G. 1993: *Helianthemum*. – Pp. 365-421 in: Castroviejo, S., Aedo, C., Cirujano S., Laínz, M., Montserrat, P., Morales, R., Muñoz Garmendia, F., Navarro, C., Paiva, J. & Soriano, C. (eds), Flora iberica, **3.** – Madrid.
Marrero, A. 2021: Flora y vegetación nativa espontánea del jardín Botánico Viera y Clavijo. – Bot. Macarónesica **31:** 67-108.
— & Mesa Coello, R. 2003: El género *Helianthemum* Mill. en la isla de La Gomera, Islas Canarias. – Candollea **58:** 149-162.
—, González Martín, M. & González Artiles, F. 1995: Descripción de una nueva especie de *Helianthemum* Miller para Gran Canaria, Islas Canarias. – Bot. Macaronésica **22:** 3-11.
—, Claessens, M., González, D., Santiago, C. & Claessens, J. 2019: Chorological additions and distribution of the native orchids of Gran Canaria. – Bot. Macaronésica **30:** 65-88.
Morales Torres, C. 2011: *Aristolochiaceae*. - Pp. 403-404 in: Blanca, G., Cabezudo, B., Cueto, M., Salazar, C., & Morales Torres, C. (eds), Flora Vascular de Andalucía Oriental. – Granada.
Mota Poveda J. F. y Pérez García, F. J. 2011: *Parentucellia*. – Pp. 1283-1284 in: Blanca, G., Cabezudo, B., Cueto, M., Salazar, C. & Morales Torres, C. (eds), Flora Vascular de Andalucía Oriental. – Granada.
Negrillo, A. M. 2011: *Aegilops*. – Pp. 283-284 in: Blanca, G., Cabezudo, B., Cueto, M., Salazar, C. & Morales Torres, C. (eds), Flora Vascular de Andalucía Oriental – Granada.
Otto, R. & Verloove, F. 2016: New xenophytes from La Palma (Canary Islands, Spain), with emphasis on naturalized and (potentially) invasive species. – Collect. Bot. **35:** e001. https://doi.org/10.3989/collectbot.2016.v35.001
Pitard, J. y Proust, L. 1908: Les Iles Canaries. Flore de L´Archipiel. – Paris.
Quintana Vega, G. 2015: Flora y Vegetación del Municipio de Valleseco (Gran Canaria-Canarias). – Tesis doctoral. Universidad de la Laguna. Tenerife.
Reyes Betancort, J. A., León Arencibia, M. C., Wildpret de la Torre, W. 2000: Adiciones a la flora vascular de la isla de Lanzarote (islas Canarias). III. – Vieraea **28:** 39-49
Rössler, W. 1990: *Scleranthus*. – Pp 140-145 in: Castroviejo, S., Laínz, M., López González, G., Montserrat, P., Muñoz Garmendia, F., Paiva, J., & Villar, L. (eds), Flora iberica, **2. –** Madrid.
POWO 2024: Plants of the World Online. Royal Botanic Gardens, Kew. – https://powo.science.kew.org/ [accessed 09/07/2024]
Salas Pascual, M. 2013: Dos nuevas especies introducidas en Gran Canaria: *Cynanchum acutum* y *Youngia Japonica*. Biological invasions in the Canary Islands – https://invasionesbiologicas.blogspot.com/2013/09/dos-nuevas-especies-introducidas-en.html [accessed 05/08/2024]
Santos-Guerra, A., Reyes-Betancort, J. A., Padrón-Mederos M. A., y Mesa-Coello, R. 2013: Plantas poco o nada conocidas de la flora vascular silvestre de las Islas Canarias. – Bot. Complutensis **37:** 99-108. https://dx.doi.org/10.5209/rev_BOCM.2013.v37.4227
— & Fernández, M. 1981: *Veronica cymbalaria*. – www.jardincanario.org [accessed 05/08/2024]
Sauerbier, H., Cabrera Calixto, F., y Muer, T. 2023: Flora Vascular de Canarias. – San Cristóbal de La Laguna.

Scholz, S., Reyes Betancort, J. A., Scholz, H., Wildpret de la Torre, W. 2004: Adiciones a la Flora Vascular de Fuerteventura (Islas Canarias). – Bot. Macarónesica **25:** 165-174.

Sequeira, M. 2020: *Holcus*. - Pp. 547-570 in: Castroviejo S. (coord. gen.). Devesa, J. A., Romero Zarco, C., Buira, A., Quintanar, A. & Aedo, C. (eds), Flora iberica **19(1). –** Madrid.

Suárez Rodríguez, C. 1994: Estudios de los relictos actuales del monteverde en Gran Canaria. – Las Palmas de Gran Canaria.

Sventenius, E. R. 1947: *Serapias parviflora*. – www.jardincanario.org [accessed 05/08/2024]

— 1947: *Veronica cymbalaria.* www.jardincanario.org [accessed 05/08/2024]

Uotila, P. 1990: *Chenopodium*. - Pp. 484-500 in: Castroviejo, S., Laínz, M., López González, G., Montserrat, P. & al. (eds), Flora Iberica, **2. –** Madrid.

Verloove, F. 2013: Nuevos xenófitos de Gran Canaria (Islas Canarias, España), con énfasis en las especies naturalizadas y (potencialmente) invasoras. – Collect. botánica **32:** 59-82. https://doi.org/10.3989/collectbot.2013.v32.006

—, Salas-Pascual, M. & Marrero Rodríguez, Á. 2018: New records of alien plants for the flora of Gran Canaria (Canary Islands, Spain). – Fl. Medit. **28:** 119-135. http://dx.doi.org/10.7320/FlMedit28.119

Webb, P. B. 1840: Sur le Parolinia. Notice sur le *Parolinia*, nouveau genre de la famille des Crucifères, et sur des espèces à ajouter à la flore des Canaries. – Ann. Sci. Nat., 2° sér., **13:** 129-139.

— & Berthelot, S. 1842: Histoire Naturelle des Iles Canaries. Tome troisième. Deuxième partie. Phytographia Canariensis. Sectio I. – Paris.

— & — 1842: Histoire Naturelle des Iles Canaries. Tome troisième. Deuxième partie. Phytographia Canariensis. Sectio II. – Paris.

Weller, A. A. 2011: New records and noteworthy range extensions of vascular plants from the Canary islands and Madeira. – Bocagiana **234:** 1-11.

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