

Additions to the Flora of Gran Canaria

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R E S U M E N

Adiciones para la flora de Gran Canaria: Discusión crítica de especies de fanerógamas nuevas o raras, con referencia especial a la flora de Gran Canaria. Se cita cada especie con su localidad y fecha de su encuentro. Como especies nuevas para la flora local resultan *Juncus inflexus*, *Neotinea intacta*, *Gymnocarpus decandrum*, *Herniaria fontanesii*, *Polycarpaea carnosa*, *Vicia dasycarpa*, *Convolvulus caput-medusae*, *Anthemis arvensis* y *Sonchus bourgeauii* var. *imbricatus*, mientras que *Moricandia arvensis* y *Petunia parviflora* son adiciones para la flora del archipiélago en general.

In 1965, 1966 and 1967 the author stayed three months in Gran Canaria performing studies of the vegetation of this island. During the phytosociological work some interesting plant finds were made, and below are reported some species new to the Canary Islands, new to the island of Gran Canaria, or especially rare in the archipelago. All collections are conserved in the herbarium of the Botanical Museum, University of Oslo. Abbreviations used in the text are: G.C. for Gran Canaria, Bco. (in place names) for Barranco. Altitudinal records are in metres above sea level (abbr. m).

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G r a m i n e a e

1. *Melica minuta* L. var. *teneriffae* (Hack.) Lid
(syn. *M. teneriffae* Hack.)

Los Castillejos, southwest of El Palmital, 560 m. 5th April 1966. In the *Erica arborea* - *Ilex canariensis* forest.

M. minuta was reported from G.C. by Kunkel (1967 a, p. 8) and stated to be a new species to the Canary Islands. As shown by Lid (1968 p. 30) *M. teneriffae* Hack., described from Tenerife and Gomera, has been regarded as a variety under *M. major* S. Sm. (see also Lems 1960 p. 83), a taxon which again, however, is considered just a variety of *M. minuta*. The plant of G.C. is similar to those of the other islands.

J u n c a c e a e

2. *Juncus inflexus* L. (syn. *J. glaucus* Ehrh.)

Bco. de Tejeda, below La Culata, 1020 m. 14th March 1967. Wet place, with *Nasturtium officinale*, etc.

New to G.C. Earlier reported from Tenerife (Lid 1968) and from the Canary Islands in general without giving localities (Sauer 1880).

O r c h i d a c e a e

3. *Neotinea intacta* (Link) Rchb.f.

Cliffs on the northwest side of Tamadaba, near the upper part of Bco. Guayedra, 1180 m. 25th March 1966. Frequent in *Pinus canariensis* forest, associated with *Cistus symphytifolius*, *Micromeria pineolens*, *Asphodelus microcarpus*, *Phillyrea angustifolia*, etc.

New to G.C., earlier reported from Tenerife, Hierro and Palma (Pitard & Proust 1908, Lems 1960, Lid 1968).

C a r y o p h y l l a c e a e

4. *Gymnocarpos decandrum* Forsk.

North of Arinaga, between the village and the Faro. 26th February 1967. Stony desertique habitat with only sparse cover of soil. Associated with *Atractylis preauxiana*, *Convolvulus caput-medusae*, *Kickxia urbanii*, *Herniaria fontanesii*, *Chenolea tomentosa*, *Suaeda vermiculata*, *Franckenia laevis*, etc.

New to G.C. A shrubby species of North Africa and Southwest Asia (Ozenda 1958 p. 207, Maire 1963 p. 36), in the Canary Islands earlier known only from Fuerteventura and Tenerife (Pitard & Proust 1908).

5. *Herniaria fontanesii* Gay (syn. *H. fruticosa* Desf., non L.)

Punta de Melenara (Punta Comisaria), north of MeLENARA. 19th March 1966 and 5th March 1967. In a plant community dominated by *Atractylis preauxiana*, *Suaeda vermiculata*, *Chenolea tomentosa*, *Zygophyllum fontanesii*, etc.

North of Arinaga, between the Faro de Arinaga and Montaña de Arinaga, and north of the Faro. 5th March 1967. Associated species, see *Gymnocarpus decandrum*.

New to G.C. Densely caespitose dwarfshrub distributed in North Africa, Spain and Sicily. In the Canary Islands previously reported from Fuerteventura (Bolle 1892). Reports of this species from Tenerife (Pitard & Proust 1908, Lindinger 1926, and subsequent workers) probably pertain to the related *H. mauritanica* Murb. (Lid 1968 p. 64).

6. *Polycarpaea carnosae* Chr. Sm.

Playa de Jinámar. 18th February 1965. Sand dune vegetation.

New to G. C. Endemic species earlier reported from Tenerife and Gomera (Pitard & Proust 1908, Lems 1960).

C r u c i f e r a e

7. *Moricandia arvensis* (L.) DC.

Lomo del Cortijo, north of Telde, 120 m. 17th March 1967. Road embankments, partly also in *Euphorbia balsamifera* vegetation (tabaibal).

New to the Canary Islands. Mediterranean species, known from South Europe, North Africa, and Southwest Asia.

L e g u m i n o s a e

8. *Vicia dasycarpa* Ten.

Above Tenteniguada, 1100 m. 22nd February 1967.

New to G.C., earlier reported from Palma and Tenerife (Pitard & Proust 1908, Lid 1968).

O l e a c e a e

9. *Notelaea excelsa* Webb et Berth.

Bco. de los Tiles, about 4.5 km south of Moya, 600-690 m. 3rd April 1966. In the *Erica arborea* — *Ilex canariensis* forest, associated with *Erica*, *Ilex*, *Persea indica*, *Viburnum rugosum*, *Hypericum canariense* var. *floribundum*, *Micromeria varia* var. *citriodora*, etc.

Rare species, first and hitherto only report from G. C. given in Kunkel (1967 a) from a nearby locality. *Notelaea* has been extensively exploited in the Canary Islands due to its valuable timber (Burchard 1911 p. 203). It was probably more frequent in G. C. in earlier times, as on the other islands in the archipelago where the species has also been found.

Convolvulaceae

10. *Convolvulus caput-medusae* Lowe

North of Arinaga, between the village and the Faro, and north of the Faro. 26th February and 5th March 1967. Arid, stony habitat; associated species, see *Gymnocarpus decandrum*.

New to G. C. A peculiar member of the genus, being a cushionformed hemisphaerical dwarfshrub with densely interwoven rigid and spiny branches, giving the plant almost a porcupine-like appearance, similar to some species of *Astragalus*, *Poterium*, etc., in Mediterranean countries and also some other arid growing species of the genus *Convolvulus*, for instance *C. trabutianus* (cp. for instance Braun-Blanquet 1964 p. 493, Quézel 1967). *C. caput-medusae* (see Fig. 1) was described from Fuerteventura by Lowe (1860 a and b) as an endemic species of the genus different from the related African species *C. hystrix*, *C. spinosus*, *C. trabutianus*, etc. However, the name and description of Lowe later seem to have been forgotten (except by Hallier, see below). Bolle (1861 p. 54) and (1892 p. 247), Pitard & Proust (1908 p. 281), and subsequent workers on the Canarian flora have used the name *C. hystrix* Vahl (or *C. armatus* Del.) without any reservation for the Fuerteventura plant, referring to the older report of Bourgeau, and without mentioning Lowe's name even as a sy-



Fig. 1. *Convolvulus caput-medusae*, near Faro de Arinaga, East coast of Gran Canaria. 5th March 1967, Photo P. Sunding. Diameter of plant approx. 60 cm.

nonym. Hallier in his *Convolvulaceae africanae* correctly states its position as a distinct species different from *C. hystrix* ("*C. Hystrix* Bolle, non Vahl". Hallier 1894 p. 97).

Solanaceae

11. *Petunia parviflora* Juss.

Irrigation ponds about 2 km west of Tamaraceite, 210 m. 1th March 1966. Together with *Verbena supina*, dominating the plant community of the floor of these dry ponds. Other associated species: *Aster squamatus*, *Chenopodium ambrosioides*, *Coronopus squamatus*, etc.

New to the Canary Islands. An annual species of the genus, originating from South and Central America northwards to Mexico, introduced and widespread as a casual in North America and the Westindies (Fries 1911 p. 39). As far as can be seen the find in G.C. is the first one from the east side of the Atlantic.

Rubiaceae

12. *Phyllis nobla* L.

The north side of Montaña Bibique, on track leading up from San Pedro, 900 m. 25th March 1966.

Cliffs on the northwest side of Tamadaba, near the upper part of Bco. Guayedra, 1150 m. 25th March 1966.

The two localities of this shrubby species, which has earlier been reported from the four western islands (Lems 1960), was discovered by Mr. Günther Kunkel and the author during a common tour in the Tamadaba massif. One of the two finds has been reported earlier in Kunkel (1967 a).

Compositae

13. *Anthemis arvensis* L.

Bco. de la Virgen, south of Valsendero, 900-1050 m. 18th March 1967.

New to G.C., previously reported from Tenerife and Lanzarote (Lems 1960).

14. *Aster squamatus* (Spr.) Hiern.

Irrigation ponds about 2 km west of Tamaraceite, 210 m. 5th April 1966. In the dry floor of the ponds. Associated species, see *Petunia parviflora*.

New to the Canary Islands, as also stated in Kunkel (1967 a). Later (Lid 1968 p. 175) also reported from Tenerife.

15. *Atractylis preauxiana* Sch. Bip. ex Webb et Berth.

North of Arinaga, between the village and the Faro, and north of the Faro. 26th February 1967. Arid stony habitat, see description and list of associated species under *Gymnocarpus decandrum*.

The coast below Cuesta de Silva, 5-20 m. 27th February 1967. Steep, salt sprayed scree near to the sea, with *Crithmum maritimum*, *Astydamia latifolia*, *Limonium pectinatum* var. *incomptum*, *Lycium europaeum* var. *intricatum*, etc.

This extremely rare endemic has been known since its discovery (Webb & Berthelot 1836-50, sect. 2, p. 350) only from its type locality in the small peninsula of Punta de Melenara, where it is abundant (Burchard 1929, Lid 1968). In the first of the above mentioned localities the plant community is similar to that of Melenara and *A. preauxiana* is rather frequent and spreads over a large area. In the locality of Cuesta de Silva only a few specimens were found.

16. *Hyoseris radiata* L.

Lomo la Solana, southwest of San Isidro, 900 m. 6th April 1966. In the floor vegetation of the secondary *Cytisus proliferus* - *Adenocarpus foliolosus* shrub community of the higher regions, associated with *Avena barbata*, *Bromus rigidus*, *Briza maxima*, *Phalaris coerulescens*, *Daucus carota*, etc.

A Mediterranean species known from South Europe and North Africa (Bonnier 1923 p. 61). On the specimens from Lomo la Solana Dr. I. Jörstad found the rust fungus *Puccinia hieracii*. The fungus as well as the host have been reported earlier by him (Jörstad 1966 p. 224), and the occurrence of *Hyoseris radiata* in the Canary Islands was also announced by Kunkel (1967 a).

17. *Sonchus bourgeaui* Sch. Bip. var. *imbricatus* (Svent.) Boulos (syn. *S. imbricatus* Svent.)

La Isleta. 4th April 1966. Confirm. I. Boulos (Boulos 1967 p. 7).

New to G.C. Hitherto only known from its type locality on the small island of Roque del Este in the eastern part of the archipelago (Sventenius 1960). The find was also reported (as *S. bourgeaui*) in Kunkel (1967 a).

18. *Xanthium spinosum* L.

Between Las Tosquillas (north of Melenara) and the sea, in the barranco. 19th March 1966. Open *Nicotiana glauca* dominated vegetation in the river bed.

Bco. Tenoya between Tenoya and Tinocas. 4th March 1967.

Bco. Real de Telde, north of Telde. 17th March 1967.
River bed dominated by *Nicotiana glauca*.

Rare in the Canary Islands. Kunkel (1967 b) reported the species for the first time in the Canary Islands. Lid (1968) besides giving several localities for *X. spinosum* from G.C. also reports the species from Tenerife.

S U M M A R Y

Floristic observations made during phytosociological field work in Gran Canaria are dealt with. 2 species are reported as new to the Canary Islands, viz. *Moricandia arvensis* and *Petunia parviflora*.

Nine species (*Juncus inflexus*, *Neotinea intacta*, *Gymnocarpus decandrum*, *Herniaria fontanesii*, *Polycarpha carnososa*, *Vicia dasycarpa*, *Convolvulus caput-medusae*, *Anthemis arvensis*, and *Sonchus bourgeaui* var. *imbricatus*) are reported for the first time from Gran Canaria.

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