

*Floristic Notes from the Canary Islands
(especially La Palma)*

By A. Hansen *

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This floristic contribution contains the results of a visit from the end of August to the beginning of September 1972, to the islands of Tenerife and La Palma. Again, it has been possible to report on the existence of a number of plant-species — natives or \pm established aliens, respective garden-escapes — new either to La Palma or Tenerife; also a few species on the whole new to the Canary Islands, were collected, viz. *Agrostis olivetorum*, *Alopecurus geniculatus*, *Paspalum urvillei*, *Cyperus esculentus*, *Oenothera indecora* and *Verbascum virgatum*. The material of most of the plants mentioned in this paper are kept in the herbarium of the Botanical Museum, University of Copenhagen (Herb. C.).

I. *Species new to the Canary Islands:*

GRAMINEAE:

Agrostis olivetorum Gren & Godr. (*A. castellana* Boiss. & Reul. var. *mutica* Hack.). — By roadsides on the eastern slope of the Cumbre Nueva, near the roadtunnel carrying the mainroad Santa Cruz-Los Llanos right through the Cumbre, at about 1200 m. Probably a native species, which has also been recorded on Madeira, where according to Tutin (1931) it forms the grass-turf of the Serra in high altitudes, and on S. Miguel, the Azores (Palhinha 1966). It has been originally described from the South of France (Gren. & Godr.,

(*) Botanical Museum, Gothersgade 130, 1123 Copenhagen K.

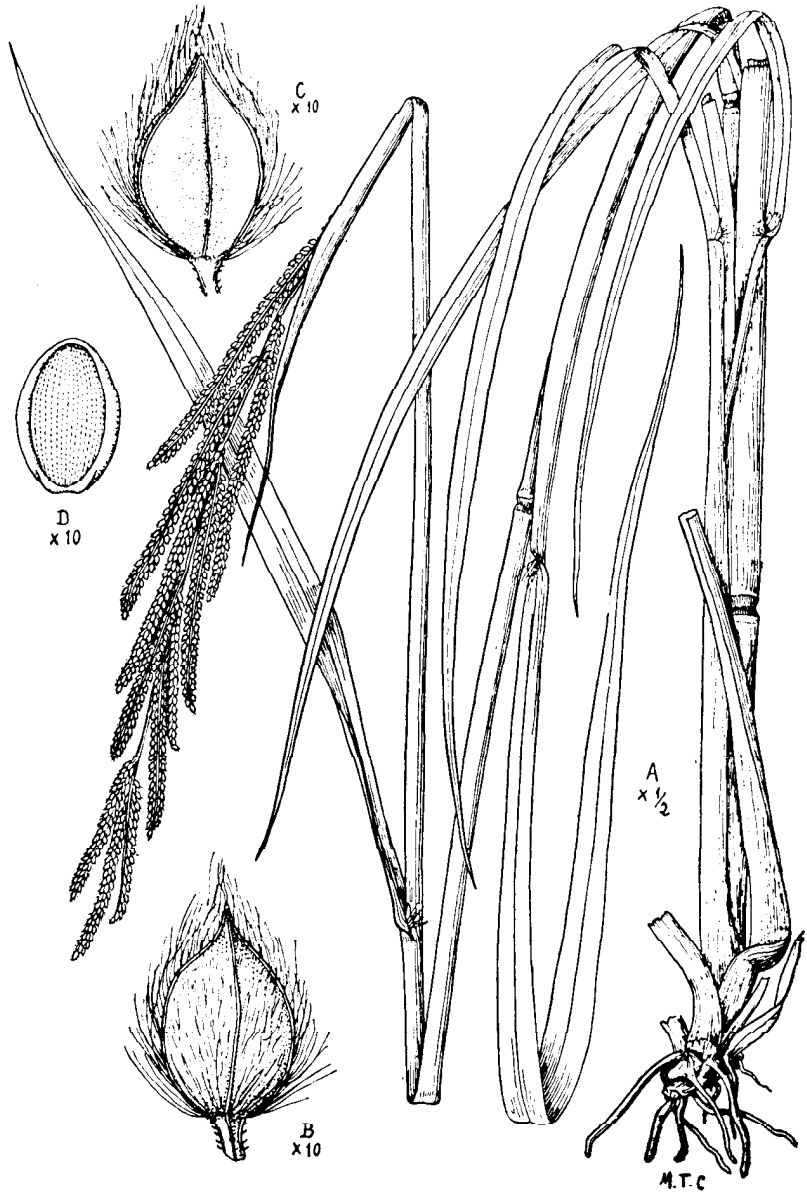


Fig. 1. *Paspalum urvillei* Steud. A, planta; B, C, espiguillas en vista dorsal y ventral; D, antecio fértil. (after A.L. Cabrera: Flora de la Provincia de Buenos Aires, Gramineae, vol. 4 (2), 1970.

Fl. Fr. III: 483, 1856), and is also recorded from Spain, but often included under *A. castellana* Boiss. & Reut.

Alopecurus geniculatus L. — Found as a weed on grass-lawns in Puerto de la Cruz, Tenerife, most likely unintentionally sown when laying out the lawns, and now more or less established. A common grass throughout Europe, temperate N. Asia and N. America.

Paspalum urvillei Steud. — Abundant, and fully established, by roadsides and in near-by fields at Las Nieves, northwestern outskirts of Santa Cruz, and near the harbour of Santa Cruz itself, La Palma. A native of S. America (Brazil - Argentina), subsponaneous in many other parts of America and cultivated as fodder grass f. inst. in Australia, S. Africa and Europe; in Portugal it is known as a well established escape from cultivation (Pinto da Silva 1940, Paiva 1961), and very recently it has been found on the Azores (Hansen 1971 b).

CYPERACEAE:

Cyperus esculentus L. — Along riverlet in the southern part of Santa Cruz, La Palma. A common plant in the Mediterranean region, also recorded on both Madeira and the Azores.

OENOTHERACEAE:

Oenothera indecora Cambess. — Abundant, and fully established, on roadsides northwest of Fuencaliente near the southernmost point of La Palma. Annual and a native of S. America (S. Brazil - Argentina), introduced in S. Africa and in various European countries, f. inst. Holland and Sweden (since at least 1920, Hylander 1970).

SCROPHULARIACEAE:

Verbascum virgatum Stokes (*V. blattaroides* Lam.). — By roadside at La Galga, north of S. Cruz, La Palma. A native of West and Southwest-Europe, but also recorded on both the Azores and Porto Santo (Madeira-Archipelago), most likely a native as well.



Fig. 2 (izq.) *Oenothera indecora* Camb. E, rama en flor; F, fruto (after A.L. Cabrera: Flora de la Provincia de Buenos Aires, vol. 4, 1965).

Fig. 3. *Verbascum virgatum* Stokes. A, calyx; B, corolla, opened; C, capsule; D, seed. (after R.W. Butcher: A new illustrated British Flora, vol. 2, 1961).

II. Various records:

PTERIDOPHYTA:

Azolla filiculoides Lam. — Completely covering the surface of the water of a deep irrigation-tank, in banana-plantation on the eastern outskirts of Puerto de la Cruz, Tenerife; probably one of the localities hinted at by Kunkel (1968); also observed in lesser quantity in a near-by irrigation-canal. In the water-tank this small fern is forming a real "Azolla-swamp", yielding growth conditions for other plants such as *Polypogon semiverticillatus* and *Briza minor*. Among the Canary Islands it has also been recorded on Gran Canaria (Kunkel 1968). A native of western N. America, C. and S. America, naturalized f. inst. in W., C. and S. Europe.

SPERMATOPHYTA AMARANTHACEAE:

Amaranthus quitensis HBK. — Waste place in Santa of Puerto de la Cruz, Tenerife, a well established escape Cruz, La Palma. New to this island, and previously given for Tenerife only (Hansen 1970).

BALSAMINACEAE:

Impatiens walleriana Hook. f. (*I. sultani* Hook. f., *I. Holstii* Engl. & Warb.). — On roadside in El Durazno, SE from cultivation. A native of Zanzibar and the mountains of tropical Africa, also recorded as an escape on G. Canaria (Kunkel 1972 b).

CARYOPHYLLACEAE:

Moehringia pentandra J. Gay (*M. trinervia* (L.) Clair. ssp. *pentandra* (J. Gay) Nym.). On roadside, eastern slope of Cumbre Nueva near the road-tunnel, La Palma. New to this island, previously recorded on L., C., T., G. and H.

CHENOPODIACEAE:

Rhagodia nutans R. Br. — On waste place near the sea just south of S. Cruz near the road-tunnel (road to the new airport), La Palma. A single record from Puerto Espindola, northern part of this island, has been published by Kunkel (1970).

COMPOSITAE:

The following species are considered new to La Palma: *Aster laevis* L., on waste place in S. Cruz; *Chamaemelum mixtum* (L.) All. (*Ormenis m.* (L.) DC.), on roadside, eastern slope of the Cumbre Nueva, near the road-tunnel (also observed on waste place at the Los Rodeos-Airport, Tenerife; seems to be a rare plant on this island); *Carthamus lanatus* L., Santa Lucía, North of S. Cruz; *Conyza floribunda* HBK., Barranco de las Nieves near S. Cruz, Barranco del Puente, North of S. Cruz, and by roadside, eastern slope of Cumbre Nueva, near the road-tunnel; *Lactuca sativa* L., Barranco de las Nieves near S. Cruz; *Lactuca serriola* L., abundant by roadside near the old airport at Breña Alta.

Helichrysum bracteatum (Vent.) Willd. — On waste place near the airport, Los Rodeos, Tenerife. A native of S. Africa and probably an escape from cultivation, new to the Canary Islands.

CONVOLVULACEAE:

Two *Ipomoea*-species are new to La Palma, viz. *I. acuminata* (Vahl) R. & S. found near the old airport at Breña Alta, and *I. cairica* L. observed on rock-wall at S. Cruz, both well-established escapes from cultivation.

CRUCIFERAE:

Lepidium bonariense L.—On roadside, eastern slope of the Cumbre Nueva near the road-tunnel, and on roadside at La Galga, North of S. Cruz. This plant was published as being new to the Canary Islands by Lid (1968) found on G. and T.

CUCURBITACEAE:

Citrullus colocynthis (L.) Schrad. (*C. vulgaris* Schrad.) Waste place in S. Cruz, La Palma, new to this island.

CYPERACEAE:

Two *Cyperus*-species new to La Palma, viz. *C. eragrostis* Lam. (*C. vegetus* Willd.), found along riverlet in the southern part of S. Cruz, on roadside and near-by field at

the airport, Breña Alta, on roadside at Las Nieves, further *C. alternifolius* L. observed along riverlet in the southern part of S. Cruz.

DIPSACACEAE:

Scabiosa atropurpurea L. (*S. maritima* L.). — On roadsides at Breña Alta and North of Fuencaliente, La Palma. New to this island, probably an escape from cultivation, but quite established; previously recorded on C. and T.

GERANIACEAE:

Geranium purpureum Vill. — Eastern slope of the Cumbre Nueva near the road-tunnel, La Palma. Probably new to this island, but confused with *G. robertianum* L. already accepted on La Palma; in my opinion true *G. robertianum* does not at all occur on the Canaries.

GRAMINEAE:

The following grass-species seem to be new to La Palma: *Bromus willdenovii* Kunth (*B. unioloides* (Willd.) HBK., *B. catharticus* Vahl), on waste place in S. Cruz; published as new to the Canaries by Kunkel (1967) found on C., according to Lid (1968), also found on G. and T.; *Digitaria ciliaris* (Retz.) Koel., by roadside at Tunnel de la Galga and in Barranco de las Nieves (C., T., G.); *Lolium rigidum* Gaud., Barranco de las Nieves (known from rest of the islands); *Paspalum dilatatum* Poir., by roadside at La Galga, previously on found on C. (Kunkel 1972 a); *Paspalum distichum* L. emend. Bor, on wet roadside at Las Nieves near S. Cruz (T.); *Paspalum paspaloides* (Michx.) Scribn. (*P. distichum* auct. non L.), waste place in S. Cruz (C., T.). The nomenclature of these 2 species are still somewhat intricate. I have here followed Bor in his conception, expressed f. inst. in "Flora or Iraq. Gramineae" (1968); another view has recently been expressed by Jovet & Guédés (1972). *Pennisetum setaceum* (Forssk.) Chiov., on roadside near the new airport South of S. Cruz, probably a quite recent introduction (previously recorded on C. and T. (Hansen 1970); *Phalaris canariensis* L., by roadside near the road-

tunnel ,Cumbre Nueva (F., C., T., G., H.); *Polypogon fugax* Nees ex Steud., at the same locality as the preceding (L., F., C., T., G.); *Setaria adhaerens* (Forssk.) Chiov., on waste place of S. Cruz, probably an overlooked species, often confused with *S. verticillata* (L.) PB., see Hansen (1971 b); *Setaria geniculata* (Lam.) PB., on roadside at La Galga (previously only recorded on T. (Hansen 1971 a).

LABIATAE:

Calamintha. In the floristic literature of the Canary Islands, confusion seems to prevail on the number of species within this genus, known to exist on the islands. The following binominals have been used by various authors for Canarian material of this genus: *Calamintha menthaefolia* Host, *C. nepeta* (L.) Willk. or (L.) Savi or (L.) Link & Hoffm., *C. officinalis* Moench, *C. ascendens* Jord. and *Satureja calamintha* (L.) Scheele. However, all the material available to me has clearly proved that in fact, only a single species occurs on the islands, viz. *Calamintha sylvatica* Bromf. ssp. *ascendens* (Jord.) P. W. Ball (nomenclature according to the recent treatment of this genus for "Flora Europaea III" by P. W. Ball (1972)), with the following synonyms: *C. ascendens* Jord., *C. baetica* Boiss. & Reut., *Satureja calamintha* (L.) Scheele ssp. *ascendens* (Jord) Briq., *S. calamintha* ssp. *menthifolia* sensu Gams, *C. hirta* (Briq.) Hayek, *C. officinalis* auct., non Moench. *C. sylvatica* ssp. *ascendens*, most likely a true native of the Canaries, is so far known on the 5 western islands (C., T., G., P., H.); its main-distribution lies in W., S. and S. Central Europe.

LILIACEAE:

Allium ampeloprasum L. — Field at Sta. Lucia, North of La Palma, probably new to this island, but hardly a native; previously recorded on L., C. and T.

OENOTHERACEAE:

Oenothera suaveolens Desf. — On waste place of S. Cruz, La Palma, new to this island. Published as new to the Canaries by Hansen (1970) found on T. in 1969.

POLYGONACEAE:

Rumex obtusifolius L. — On roadside, eastern slope of the Cumbre Nueva near the road-tunnel, La Palma; new to this island and previously recorded on C., T. and H.

SAPINDACEAE:

Cardiospermum grandiflorum Swartz (f. *hirsutum* (Willd.) Radlk). — Abundant in Barranco de las Nieves, La Palma, as a well-established escape from cultivation. New to the island and hitherto accepted on C. and T.

SOLANACEAE:

Datura stramonium L. — A frequent plant on waste places in S. Cruz, La Palma; new to the island and further known on C., T. and G.

VERBENACEAE:

Verbena bonariensis L. — A subsponaneous plant in Barranco de Las Nieves near S. Cruz, and in the village Las Nieves itself, La Palma. New to the island and previously given on C., T. and G. A native of S. America, also on Madeira and the Azores.

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R E S E Ñ A

SIEGHARD WINKLER: *Einführung in die Pflanzenökologie.*

Uni-Taschenbücher 169. Gustav Fischer Verlag, XII + 220 pp., 80 figs.; Stuttgart 1973. DM 14,80.

Introducción a la Ecología Vegetal, un gran libro presentado a tamaño (y precio) para el bolsillo. Lamentablemente obras tan importantes como Weaver & Clements "Plant Ecology", Warming's "Oecology of Plants", Clarke's "Elements of Ecology", Benton & Werner's "Principles of Field Biology and Ecology" y las varias e importantes publicaciones por Bates y por Bennett, por ejemplo, no han sido consideradas. Pero se sabe: Nunca una obra es completa, y lo que parece importante a un autor, carece de tal importancia a otros.

Sobre nuestro libro podemos decir que éste sigue un orden sistemático, conciso aunque abreviado, explicando la ecología y sus fundamentos: ecosistemas, círculos bioquímicos, sucesión y climax como factores *sinecológicas*, y factores como agua, temperatura, luz, sustrato e influencias recíprocitas como factores *autecológicas*. Se habla (un subcapítulo interesante, especialmente para nuestra zona tan árida) de *precipitaciones no-mensurables* que suelen ser dos a tres veces superiores a las mensurables en su sensu conservativo (pluviómetros). Se habla del *disclimax* (tal que caracteriza gran parte de nuestras islas), de las reservas hidráulicas, y del así llamado equilibrio de la Naturaleza, factor que conocemos sólo por literatura.

Nuestro libro casi es un Compendio; faltan sólo instrucciones para experimentos, y falta la clave vital: ¿Qué hacer para que la Naturaleza de nuestro ambiente vuelva a un estado más o menos "natural"? — Pero, es una "introducción" solamente.

En el capítulo final el autor describe la *ecología de poblaciones*, tratando el origen y propiedades de las biocenosis, tratando crecimiento y tendencias inflenciales, terminando su exposición con un tema como *evolución y formación de especies*. Veintidós páginas de referencias invitan a estudios particulares, asunto que también se agradece al autor.

G. K.