

AN EXCURSION THROUGH MY HERBARIUM-II

by

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ABSTRACT

Following up the revision of herbarium material (now kept at the Conservatoire Botanique, Geneva), the author gives additional notes concerning the distribution of some species native or introduced in the Canary Islands, and describes several new hybrids, a new subspecies, nine varieties and numerous new forms of plants. Nineteen comb. novs. are proposed, including a new name for a plant commonly known as *Ononis angustifolia*.

RESUMEN

Finalizando sus investigaciones florísticas en el Archipiélago--Canario, el autor presenta breves notas acerca de adiciones para la--flora en general, nuevos datos fitogeográficos, descripciones de nuevos híbridos, y nuevas subespecies, formas y variedades. Se proponen varias adaptaciones nomenclatónicas así como, un nuevo nombre para un taxon del gén. *Ononis*. El presente trabajo concluye la "excursión--por mi herbario" iniciada en Cuadernos de Botánica Canaria n°28, pags. 53-63 (1977), herbario que ha sido incorporado al Conservatoire Botanique de Ginebra, donde se preserva la mayoría de los tipos de nuevos taxones descritos.

ASPIDIACEAE

Dryopteris guanchica Gibby & Jermy

This fern from Tenerife and Gomera, only recently described in the *Bot. Journ. Linn. Soc.* 74: 258-260, adds to the complexity and confusion

concerning *Dryopteris* species in the Canary Islands. However, the cited-species is not endemic in the archipelago as it has also been found in--Portugal and northwestern Spain.

Other species to be dealt with in the Canary Islands include *D. aemula* (Ait.) O.Ktze., *D. pseudomas* (Wollast.) Holub & Pouzar, and *D. oligodonta* (Desv.) Pichi Sermolli.

ASPLENIACEAE

Asplenium hemionitis L., Sp. Pl. p. 1078; 1753

var. *hemionitis*, the typical form, and
var. *longilobatum* Kunkel, var. nov.

A forma typica frondibus quinquelobatus angustioribus differt. Fronde longestipitata; stipitibus 30-40 cm. longis. Lobula terminalis usque ad 30 cm. longa et 4,5 cm. lata.

HOLOTYPUS: Kunkel 17725 (G.), 24.III.1975; La Gomera, Monte Aguilo, 1.100 m.; fairly frequent.

This rather exuberant woodland form seems to be restricted to La Gomera. Curious growth-forms from other islands have been described as f. *multifidum* hort., f. *lobatum* Bolle, f. *cristatum* Kunkel, f. *pinnatipartitum* Kunkel, and f. *urticifolium* Benl.

POLYPODIACEAE

Polypodium australe Fée, Mém. Fam. Foug. 5 : 236; 1852

var. *cambricum* (L.) Kunkel, Ber. Schw. Bot. Ges. 76: 56; 1966
f. *crispum* Kunkel, forma nova

A forma typica fronde crispifolia differt; margine undulato-crenatis.

HOLOTYPUS: Kunkel 9711 (G.), 6.I.1967; Gran Canaria, La Culata de Valsequillo, 900 m.

This attractive form covers mossy rocks and is fairly frequent in the locality.

SINOPTERIDACEAE

Cheilanthes guanchica Bolle

A fairly variable species including *Cheilanthes* x *sventenii* Benl, and thought to be endemic in the Canary Islands. However, according to RASBACH & REICHSTEIN (Ber. Dt. Bot.Ges. 90: 527-530) the species also grows in Southern Spain, in Corsica, Sardinia, and in North Africa.

Notholaena marantae (L.) R.Br., Prodr. Fl.N.Holl. p.146; 1810
ssp. *subcordata* (Cav.) Kunkel, Cuad. Bot.Canar. 5:46; 1969
f. *dryopteroides* Kunkel, forma nova

A subspecies *subcordata* frondibus tripinnatisectis differt. Fronde usque ad 55 cm. longa; pinna primaria 5-7 cm. longa.

HOLOTYPUS: Kunkel 10937a (G.), 8.IV.1967; Gran Canaria, Barranco La Virgen, 950 m.

A rare, quite exuberant and much divided form from Gran Canaria -- suggesting further investigation.

ASPARAGACEAE

Asparagus acutifolius L.

This is probably a first record for Lanzarote: Ku 15077, Malpaís--de la Corona, 100 m., growing with *A. stipularis* Forssk. and *A. nesiotetes* Svent.

Asparagus pastorianus Webb & Berth., Phytogr.canar.3:329; 1847
f. *longifolius* Kunkel, forma nova

A forma typica cladodia longiore (usque ad 6 cm.) differt.

HOLOTYPUS: Kunkel 14278 (G.), 7.VII.1971; Gran Canaria, Barranco de -- Gufa, 200 m.

CYPERACEAE

Fimbristylis bisumbellata (Forssk.) Bubani

As shown by DUVIGNEAUD & VIVANT (Cuad. Bot. Canar. 28: 43), the common Canarian material until now cited as "*F. dichotoma* Vahl.", must be correctly cited as *F. bisumbellata* (Forssk.) Bub.; synonym: *F. dichotoma* auct. canar. non (L.) Vahl. Its distribution in Gran Canaria is insufficiently known. However, material from Bco. Angostura 250 m., Bco. de Siberio 300 m., Bco. de Arguineguín 650 m. and from Presa de Chira 900 m. seems to belong to this taxon.

Fimbristylis ferruginea (L.) Vahl

A. Hansen, Copenhagen, kindly revised my material Ku.15920 collected in October 1973 in Barranco de Ayagaure (Gran Canaria), at 250 m. ab. sealevel. Plants up to 60 cm. tall, with large, much branched inflorescences; single spikes over 1 cm. long. This seems to be an addition to the Canary flora in general. In Macaronesia the species is known to occur in the Cape Verde Islands; according to A. HANSEN (in litt.) it is a widespread weedy species of the tropics.

IRIDACEAE

Freesia refracta Klatt. var.

A frequently cultivated species of parks and gardens. Nevertheless in Gran Canaria, between Valsendero and Fontanales (850 m.) found growing in masses on a Chestnut-covered slope (Ku. 16248) where the species has, obviously, escaped cultivation.

LILIACEAE

Scilla dasyantha Webb & Berth.

Material (Ku. 18744g) from Lanzarote (Feméz, Roque Aceituno 450m.)

probably belongs to this species.

POACEAE

Dactylis cf. *smithii* Link

Sterile material from Fuerteventura - Riscos de Jandía, 750 m.-resembles this species but this suggestion needs revision.

Ehrharta longiflora J.E.Sm.

An addition to the Canary flora and said to be native in South Africa. It is an *Avena* -like but very delicate species found at Las Madres, near Firgas (Gran Canaria, 650 m.), covering a moist, shady place where it is quite frequent. This material (Ku. 19273) was kindly determined by A. Hansen, Copenhagen, who suggests (in litt.) that it-- may be an escape from cultivation.

Parapholis pycnantha (Hackel ex Druce) Hubbard

A widely distributed species found near Gran Tarajal, in Fuerteventura (see *Naturalia Hispanica* 8: 28). It also occurs in Gran Canaria: in Pto. Sardina, 100 m. (Ku. 14866); however comparative study specially -- with *P. incurva* (L.) Hubb. is recommended.

Sorghum halepense (L.) Pers.

A much cultivated species specially of the lower (Banana) zone; sometimes subspontaneous. Less common but occasionally found growing on--roadsides near to Arucas (Gran Canaria; Ku. 12159) is

Sorghum bicolor (L.) Moench

which may be counted as an addition to the Check-list's concerning the flora of these islands.

APIACEAE

Bupleurum lancifolium Hornem.

This weedy but quite showy species of Mediterranean origin should be added to Canary plant lists: occasional findings are reported from-- Gran Canaria where it grows in some gardens of the Tafira-Atalaya zone. The constancy of this subspontaneously growing species remains to be -- seen.

Tinguarra montana (Webb ex Christ) Hansen & Kunkel, comb. nov.

Todaroa montana Webb ex Christ, Engl.Bot.Jahrb. 9:107; 1888

According to BRAMWELL & BRAMWELL (Wildflow. Can.Isl. 169,1974) the species widely known as *Todaroa montana* is given as *Tinguarra montana* Webb. However WEBB (mss. in Bourg.) never published this species which was, later, described by H. CHRIST (l.c.) as *Todaroa*. A previous citation by BENTHAM & HOOKER fil. (Gen. Plant. I: 897, 1867) results a nom. illeg. whereas the valid description of this plant was published-- 20 years later, by CHRIST.

In order to refer to this "*Todaroa*" as a validly published *Tinguarra* the comb. nov. realized above seems necessary.

ASTERACEAE

Andryala pinnatifida Ait., s.lat.

In the Canary Islands the 3 recognized species of *Andryala* form a diffuse complex in urgent need of comparative cytological and experi-- mental study. The sorting-out of this extremely variable complex may-- help to explain evolutionary trends and hybridization, beginning with *A. glandulosa* of the eastern islands via its relationship with *A. pin-- natifida* (and its complexity) then to connect both with the equally va-- riable *A. integrifolia* of Mediterranean origin but also present in -- the archipelago.

Andryala glandulosa Lam., Encycl. Méth. Bot. 1: 154; 1783

A. cheiranthifolia L'Hér.; *A. varia* Lowe ex DC.

ssp. *glandulosa*

syn. *A. robusta* Lowe

A. cheiranthifolia var. *congesta* Lowe

ssp. *varia* (Lowe ex DC.) R.Fernandes, An.Soc. Brot. 25: 28; 1959

syn. *A. varia* Lowe ex DC.

A. cheiranthifolia var. *sparsiflora* Lowe

Both subspecies, with forms and varieties cited for Madeira by R. FERNANDES (l.c., p.25-30), have been found in Lanzarote and are probably also to be found in the island of Fuerteventura. Records for Tenerife are in need of revision. Plants with subentire or pinnatifid leaves which are herbaceous, greyish-green with a yellowish-brown tomentum seem to belong to ssp. *varia*, whereas ssp. *glandulosa* is characterized by plants with rather stiff, whitish-tomentose pinnatisect -- leaves. The borderline between both subspecies is complicated by marginal cases (forms, varieties). Plants of ssp. *glandulosa* resemble those of *A. pinnatifida* ssp. *latifolia*, from Tenerife.

Andryala pinnatifida Ait., Hort. Kew. 3: 129; 1789

ssp. *pinnatifida*

var. *pinnatifida*, the "typical" form,

var. *tolpicifolia* Kunkel, var. nov.

Herba 70-80 cm. alta, parce ramificatis, remotifolius; lamina lanceolata vel oblanceolata, margine sinuato-dentatum; capitula valde pilosa.

HOLOTYPUS: Kunkel 15685 (G.), 30.V.1973; Tenerife, Monte Esperanza, -- 1.500 m.

In principle similar to 4βa of Sch. Bip. in WEBB & BERTH, except -- the description of the involucre; not in Fuerteventura! The epithet "tolpicifolia" refers to the resemblance of the plants to species of *Tolpis*.

ssp. *preauxiana* (Sch.Bip.) Kunkel, Cuad. Bot. Canar. 14/15:54; -- 1972

Inflorescence almost like in *A. integrifolia* but specimens much -- branched; flowerheads brownish, densely pilose.

var. *preauxiana*

Plants up to 80 cm. tall; branches few, suberect. Leaves deeply pinnatifid, very hairy, rather pale green. Representative specimen (Ku. 13327) from Gran Canaria, Bco. la Virgen, 800 m.

var. *sprengeliana* (Sch. Bip.) Kunkel, comb. et stat. nov.

A. pinnatifida Ait. forma *Sprengeliana* Sch. Bip. in Webb & Berth., Phytogr. canar. II/2:415; 1849-50

Much branched; lower leaves pinnatisect, upper leaves coarsely pinnatifid to subentire; blade dark green, rather soft. Representative specimen (Ku. 9853) from Gran Canaria, Monte Doramas, 800 m.

ssp. *webbii* (Sch. Bip. ex Christ) Kunkel, Cuad. Bot. Canar. 25:27; 1975.

A Gomeran woodland form (probably also in Tenerife and La Palma) -- with small, very woolly flower heads. Leaves soft, glaucous-green, shallowly incised or toothed only; leaves usually stalked. The material -- from La Gomera (Ku. 17938) is quite uniform but comparison with material from other islands is needed.

ssp. *latifolia* (Bornm.) Kunkel, comb. et stat. nov.

A. pinnatifida Ait. var. *latifolia* Bornm., Engl. Bot. Jahrb. 33: 489; 1904.

A rather isolated form approximating *A. integrifolia* and which -- may be worthy of specific distinction. Plants with large and broad capituli which are densely hairy. Leaves very large, soft, dark green above, woolly and somewhat brownish beneath. Margin incised; lobes with a more or less rounded apex. Leaves almost sessile. Representative specimens -- (Ku. 12893) from Tenerife, Montes de Anaga, 700-900 m. The distribution of this subspecies is insufficiently known but BORNMÜLLER cites it from Hierro also.

Andryala integrifolia L., Sp. Pl. p. 808; 1753

This third (and maybe originally introduced) species, of Mediterranean origin, is little distributed in the Canary Islands (Hierro and -- Gran Canaria) but frequent in some localities of the latter, i.e. above

San Mateo, Teror, Valleseco, etc. The common material, tentatively, is recognized as

var. *integrifolia*

whereas a broad-leaved form with long pilose flower-stalks and heads,-- from Valleseco, has been described as

var. *floccosa* Svent., Ind. Sem. Hort. Acclim. Pl. Arautap. 1968: 50; 1969.

Andryala x christii Kunkel, hybr. nat. nov.

Forma inter *Andryala integrifolia* L. et *A. pinnatifida* Ait. quasi intermedia. Herba bienal vel perenne, multiramificati; folia *A. pinnatifida* ssp. typica simile, involucrum *A. integrifolia* aproximatum. Folia basi pinnatifida, folia caulina integerrima.

HOLOTYPE: Kunkel 17314a (G.), 13.VI.1974; Gran Canaria, above Teror,-- 650 m. An obvious hybrid form growing between its suspected parents, dedicated to the memory of Hermann Christ (1833-1933).

Argyranthemum frutescens (L.) Sch. Bip.

ssp. *canariae* (Christ) Humphr.

Common form, especially in the rocky coastal zone of northern Gran Canaria.

ssp. *gracilescens* (Christ) Humphr.

Said to be endemic in Tenerife. However material (Ku. 14002) from western Gran Canaria (Aldea, towards Amurga, 250 m.) seems to belong to this subspecies.

ssp. *foeniculaceum* (Pit. & Pr.) Humphr.

A widely cultivated form often subsponaneous along roadsides (i.e. Gran Canaria: Telde-Marzagan-San Roque), or a very near related hybrid-form.

Argyranthemum pumilum (Humphr.) Kunkel, comb. et stat. nov.

A. frutescens (L.) Sch. Bip. in Webb & Berth. ssp. *pumilum* Humphries,

Bull. Brit. Mus., Bot. 5: 189; 1976

This species is fairly frequent in the Guayedra zone of Gran Canaria, at above 400 m. ab. sea-level (Ku. 13985).

Babcockia platylepis (Webb & Berth.) Boulos, Bull. Jard. Bot. Nat. Belg.-35: 64; 1965

var. *platylepis*, the rather uniform, typical form.

var. *remotilacinia* Kunkel, var. nov.

A forma typica folia remotilaciniata differt. Lamina usque ad 30 cm. longa, cum 3-5 lacinia grandes; basem et apicem integerrima.

HOLOTYPE: Kunkel 14248 (G.), 29.VI.1971; Gran Canaria, Riscos de Tirajana, 1.450 m.

An apparently rare form of the otherwise quite common species and distinguished by its leaves with few lobes.

f. *diffluens* Kunkel, forma nova

Forma anomalis; pedunculi elongati; squamosi-foliosa, interdum ramificati.

HOLOTYPE: Kunkel 14222 (G.), 23.VI.1971; Gran Canaria, Aserradero (Agate), 1.300 m.

This curious form growing together with numerous typical specimens might be of hybrid origin. However, a second possible parent is not too obvious; nearby grows *Sonchus acaulis*, *Taeckholmia pinnata* and, more distant, *Prenanthes pendula* all of which are potential hybridizers, of which *Sonchus acaulis* seems to be the most likely.

x *Babcolmia* Boulos & Kunkel

In the northeastern sector of Gran Canaria a shrubby Sonchoid hybrid was observed, of *Babcockia-Taeckholmia* parentage. This form, here with provisionally named x *Babcolmia canariensis*, will be described elsewhere.

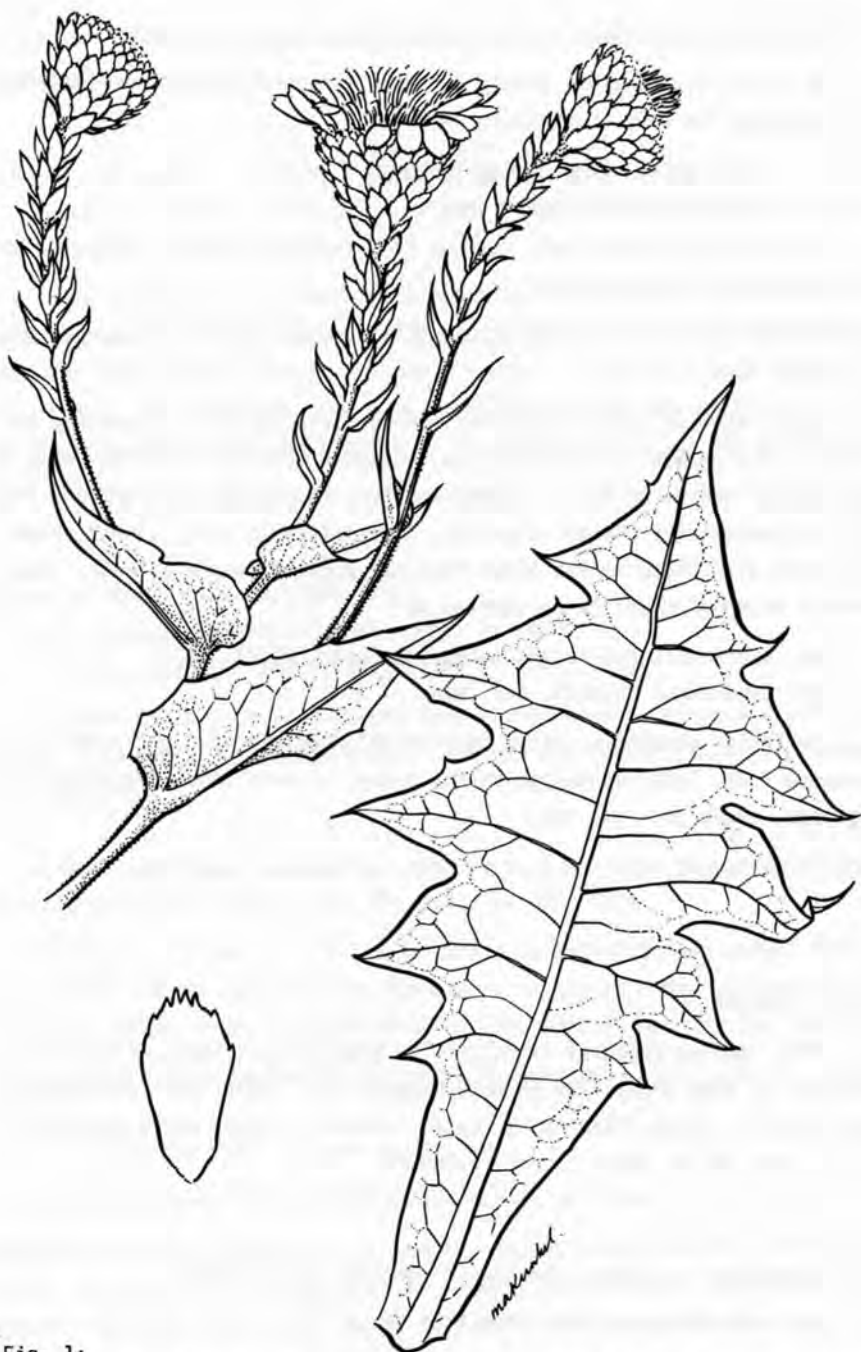


Fig. 1:

Babcockia platylepis forma *diffluens*; flowering branchlets, basal leaf, scaly bract. (Drawing: M.A. Kunkel).

Carlina salicifolia (L.f.) Cav., Anal. Cienc. Nat. 4: 8; 1801

A widely distributed, highly variable Macaronesian endemic (Madeira and Canarias) in need of thorough revision.

ssp. *salicifolia*, the common form.

f. *excedens* Kunkel, forma nova

A forma typica pedunculi ramorum floriferorum longiore, usque ad 30 cm. rosulam foliorum excedens.

HOLOTYPE: Kunkel 17851 (G.), 29.III.1975; La Gomera, El Bailadero, 950 m.; quite rare.

Other material from La Gomera, more or less typical, presumably belongs to the common ssp. *salicifolia*. However material from the Roque--Guro, from Chorros de Epina (18380) and from Tagoluche near Hermigua (18586) is tentatively placed under ssp. *lancerottensis*, an almost spineless form with broad leaves known from the eastern Canary Islands. Such Gomeran material might be recognized as

ssp. *lancerottensis* Kunkel, Cuad. Bot. Canar. 20:22; 1974

var. *gomerensis* Kunkel, var. nov.

Suffrutex compactus. Folia caulina oblanceolata, 5-8 cm. longa et-- usque ad 2 cm. lata, spinulosa versus basem; bractae involucretae late ellipticae usque ad 1 cm. lat.

HOLOTYPE: Kunkel 18413 (G.), 9.VI.1975; La Gomera, Roque Guro, 500 m.

Crepis foetida L.

This species probably introduced to the Canary Islands (P-H-G-T) is frequent in some localities on Gran Canaria: Ku. 12697, Bco. de Arguineguín, 320 m.; 13274, Paso de la Plata, 1.500 m.; 13839, above Agüimes,-- 500 m., and 14178, Risco Blanco, 1.050 m.

Crepis vesicaria L. ssp. *haenseleri* (Boiss. ex DC.) Sell

syn.: ssp. *taraxacifolia* (Thuill.) Thell.

Previously known from Gran Canaria it was also found on Tenerife:--

Ku. 19307, Vivero Forestal de La Laguna (det. A.Hansen), probably also--introduced.

Helichrysum webbii (Sch.Bip.) Hansen & Kunkel, comb. nov.

Gnaphalium webbii Sch. Bip. in Webb & Berth., Phytogr. Canar. II/2: 313; 1845

This "Algodonera", a well-known endemic of Lanzarote, unfortunately needed renaming because it was validly published as *Gnaphalium webbii* where the name *Helichrysum gossypinum* appears in the explanatory text to fig. 109 of the same work. The name *Gnaphalium gossypinum* cannot be accepted because of its earlier homonym *G. gossypinum* Nuttall, given to an American plant.

Ifloga spicata (Forssk.) Sch. Bip.

ssp. *obovata* (Bolle) Kunkel, comb. et stat. nov.

Ifloga obovata Bolle, Bonplandia 7 : 297; 1859

A more fleshy, broader-leaved form of the common *Ifloga spicata*, originally published for Fuerteventura (Jandia) but recently also discovered on Lanzarote.

Kleinia neriifolia Haw., Syn. Pl. Succ. p. 312; 1812

Although it seems a risky undertaking to separate this common Canarian endemic based only on leaf-characters, material from Lanzarote and certain material from La Gomera deserve some sort of recognition, especially as these plants remain morphologically constant after years in cultivation.

f. *ovalifolia* Kunkel, forma nova

A forma typica foliis laterioribus usque ad 4 cm. lat. differt.

HOLOTYPE: Kunkel 18538 (G.), La Gomera, Montes above Gran Rey, 850 m. Material from near Tias (Lanzarote, Ku. 12903) seems almost identical. The extreme opposite form, with leaves only 2 to 4 mm. wide, was observed on La Palma.

Launaea glomerata (Cass.) Hook.

Previously known from Fuerteventura, this species was also found in La Graciosa (Ku. 13229) but was overlooked in the present author's respective enumeration (Monogr. Biol. Canar. N°2).

Launaea cf. *lanifera* Pau

At the southern point of Fuerteventura (Jandfa) exists a small colony of a dwarf *Launaea* probably belonging to *L. lanifera* which is known from southern Spain and North Africa. It is a small shrub 10 to 15--cm. tall, spiny and branched like *L. arborescens* but with numerous secondary rosettes on lower branches; leaves very fleshy, more or less --spathulate and coarsely denticulate. This finding (Ku. 12590) should --not cause too much surprise as other North African plants (i.e. *Zygophyllum gaetulum* and *Mesembryanthemum theurkauffii*) were discovered on--the same Punta de Jandfa.

Odontospermum stenophyllum (Link) Sch. Bip. in Webb & Berth., Phytogr. canar. 2: 237; 1844

f. *tenui-ascendens* Kunkel, forma nova

A forma typica tenuifoliorum et ramuli tenuir ascendissimus differt; foliis 3-5 cm. longis. Inflorescentiae minore.

HOLOTYPUS: Kunkel 14683 (G.), 1.III.1972; Gran Canaria, Barranco de Temisas, 300 m.

Several specimens found, growing together with the typical form.--The above described new form somewhat resembles *O. odorum* (Schousb.) --Sch.Bip., in a rather wide sense.

Prenanthes pendula (Webb) Sch. Bip. in Webb & Berth., Phytogr. canar.2 :421; 1849

ssp. *pendula*, the typical, arching or hanging form.

var. *erecta* Kunkel, var. nov.

Suffrutex dense ramificatis usque ad 80 cm. altis, ramis erectis; lamina glauca, 3-5 lobata.

HOLOTYPUS: Kunkel 14226 (G.), 23.VI.1971; Gran Canaria, Presa de Soria, 900 m., on rocky slopes.

Several specimens were observed. This particular variety differs-- from var. *pendula* mainly by its upright growth-habit and the more divided leaves which have 3 to 5 lobes (each side) instead of 2 to 3 in-- the typical form. The new variety seems to be the "counterpart" of ssp. *flaccida* Svent., described from the Riscos de Guayedra.

Reichardia intermedia (Sch.Bip.) Cout.

An addition to La Palma: Ku. 12971, La Galga, hanging in shady -- cliffs with stalks up to 1,5 m. long. On the other hand the citation-- of this species for Fuerteventura may have to be replaced by *R. ligu-- lata*(Vent.) Kunkel & Sunding, also these particular specimens have a-- close resemblance to *R. intermedia* .

Schizogyne x *intermedia* Kunkel, hybr. nat. nov.

Suffrutex 30-40 cm. alt., *Schizogyne sericea* (L.f.) DC. et *S.gla-- berrima* DC. *intermedia*; ramuli sericea, folia glaberrima. Inflores-- centiae minorevidetur sterilis.

HOLOTYPUS: Kunkel 15603 (G.), 25.IV.1973; Gran Canaria, Barranco de Ar-- guineguín, 100 m.

This apparently hybrid form which seems to be sterile and rather rare, was found growing between its obvious parents.

Senecio leucanthemifolius Poir., Voy, Barb. 2: 238; 1789

In all current "Enumerations" *Senecio crassifolius* Willd. is cit-- ed, especially for the eastern Canary Islands. However a recent revision of the genus (Flora Europaea IV) gives *S. leucanthemifolius* , only, in-- dicating that it is a highly variable annual plant foud in coastal sands and rocks of the Western and Central Mediterranean region. "Ro-- bust plants with thicck, fleshy, unlobed or only slightly lobed lea-- ves have been called *S. crassifolius* Willd., and contrast veri strong

ly with small, spring-flowering ephemerals with only slightly fleshy leaves. Nevertheless, a series of intermediates seems to connect all the variants" (CHATER & WALTERS, l.c. p. 204).

Therefore, considering certain outstanding characters the Canarian--material under discussion should retain subspecific level and be recognized as ssp. *crassifolius* (Willd.) Batt. Dwarf plants with extremely fleshy, purple-coloured leaves from Punta de Jandía (Fuerteventura; Ku. 12593) are separated as

var. *falcifolius* (Bolle) Kunkel, comb. nov.

Senecio crassifolius Willd. var. *falcifolius* Bolle, Bonplandia 8: 134; 1860

This variety exists also on Montaña CJara (Ku. 13435), found at 40 ab. sealevel.

Senecio tussilaginis (L'Hér.) Less.

To confirm an accusation of an earlier negligence: the species grows on Gran Canaria in the Barranco los Palos (Tamadaba-Guayedra; Ku. 10438), at about 650 m. above sealevel.

Sonchus brachylobus vs. *S. canariae*

Although some authors (i.e. L. BOULOS, Bot. Not. 127: 24-26; 1974) refer to the latter as a variety of *S. brachylobus*, the present author--prefers to keep them as separate species at the same time agreeing that--it is often difficult to distinguish one species from the other. Described here are two new forms of the complex:

Sonchus brachylobus Webb & Berth., Phytogr. canar. 2: 438; 1849-50

f. *spathulatus* Kunkel, forma nova

A forma typica folia spathulata differt. Lamina subintegra, margine denticulatae.

HOLOTYPUS: Kunkel 14664 (G.), 16.II.1972; Gran Canaria, Barranco de Moya, 120 m.; somewhat frequent.

Sonchus canariae Pit. in Pit. & Pr., Iles Canaries, Fl.Arch.p.261; 1908
f. *angustissimus* Kunkel, forma nova

A forma typica foliis linear-lanceolatis, integris vel leviter denticulatis differt.

HOLOTYPUS: Kunkel 11018 (G.), 8.V.1967; Gran Canaria, Cenobio de Valerón 180 m.; very rare.

Sonchus bourgeaui Sch. Bip.

Known from near Mogadar (Maroc), La Graciosa, Lanzarote and northern Fuerteventura; herewith a new locality of this species: Fuerteventura, -- Jandía, Pico de la Zarza, 780 m. (Ku. 12545).

Sonchus pinnatifidus Cav., Anal. Cienc. Nat. 4: 78; 1801
var. *integrifolius* Kunkel, var. nov.

Frutex 1,5 - 2,5 m. alt.; a var. *pinnatifidus* folia integerrima differt. Lamina ovaliforme-elliptica, usque ad 20 cm. longa et 10 cm. lata; margine leviter undulatae.

HOLOTYPUS: Kunkel 18831 (G.), 22.II.1976; Lanzarote, Malpaís de la Corona, 140 m.; frequent, on rocks.

Taeckholmia capillaris (Svent.) Boulos

Material (Ku. 15595) from Arteana. 300 m. (near Fataga, Gran Canaria) should belong to this taxon; however a revision with *T. microcarpa* Boulos, from Tenerife, is recommended.

Taeckholmia regis-jubae (Pit.) Boulos

In case this rather variable taxon remains separated from related species, a new locality may be added: Tenerife, El Sauzal, 350 m.; Ku. 14582. The species was known before to be endemic in La Palma, Gomera, and Gran Canaria.

FABACEAE

Astragalus mareoticus Del.

ssp. *handiensis* (Bolle) Kunkel, stat. nov.

A. mareoticus Del. var. *handiensis* Bolle, Engl. Bot. Jahrb. 14: 239; 1892

This subspecies is quite frequent in Fuerteventura and, recently, has also been discovered in Lanzarote: Ku. 14928, near Tias, 100 m.

Chamaecytisus proliferus (L.f.) Link, Handb. 2: 154; 1838

ssp. *proliferus*, the widely distributed, typical form;

ssp. *angustifolius* (O.Ktze.) Kunkel, comb. nov.

Cytisus proliferus L.f. var. *angustifolius* O. Ktze., Rev. Gen. Plant. 178; 1891

This variety, known from higher elevations on Tenerife (Las Cañadas), seems also to be present on Gran Canaria: in the Bco. Arguineguín, to 650 m., there exists a very narrow-leaved form (Ku. 15199) almost identical to material gathered in Tenerife.

ssp. *palmensis* (Christ) Kunkel, comb. et stat. nov.

Cytisus proliferus L.f. var. *palmensis* Christ, Engl. Bot. Jahrb. 9: 120; 1888

C. palmensis Hutch.

Cited as "*Chamaecytisus palmensis*" (Christ) Hutch. by BRAMWELL & BRAMWELL (Wildfl. Canar. Isl. p. 155; 1974) but never validly published as such, the present author prefers to keep this plant on subspecific level. *Chamaecytisus proliferus* is extremely variable and distinguishing characteristics as used by before-named authors fall well within this complex of variability.

Lathyrus clymenum L.

An addition to the flora of Lanzarote: Ku. 14939, near Masdache,-- and 18830, from Timanfaya.

Lotus genistoides Webb

This name seems to be a *nomen nudum* for a rare but good species-- of plant in need of its valid description. Somewhat similar to *Teline microphylla* (growth-habit, leaves), and reaching up to 70 cm. in height this frequently overlook species is found in the Bco. Ayagaure, at about 200 m. ab. sealevel (Ku. 15930). Leaflets very short or only 2-4 mm. long, silvery-tomentose and arranged almost in whorls. Similar specimens were found in the same valley, between Las Tederas and La Gambuesa.

Medicago tornata (L.) Miller

var. *spinulosa* (Moris) Heyn

The specimens Ku. 13868 and 13889 from above Agüimes as well as 13686 from the Bco. de Temisas (300 m.) seem to be additions to the flora of Gran Canaria.

Ononis irritabilis Kunke1

A frequent species of Gran Canaria clearly divided into two ecotypes treated here on a lower taxonomic level: a southern (inland) form, with shorter, very hairy leaflets, and a northern (coastal) form with longer, scarcely hairy leaflets. The complex as such is recognized by BRAMWELL & BRAMWELL (Wildfl. Canar. Isl. p.148; 1974) as *Ononis angustifolia* Lam. ssp. *ulicina* Webb & Berth. but is not acceptable as it stands because WEBB & BERTHELOT clearly distinguished only 2 varieties. SIRJAEV (1932) dealt with it as *Ononis natrix* L. ssp. *angustissima* Sir. where it could remain if it definitely belonged to *O. natrix*. However this species s. SIRJAEV forms a confusing complex in which the Canarian material seems to be only marginally represented, the reason for the above suggested renaming which should read as follows:

Ononis irritabilis Kunke1, nom. nov.

O. natrix L. ssp. *angustissima* Sirjaev, Beih. Bot. Centralbl. 49,2 Abt.: 470; 1932

non *O. angustissima* Lam., nec *O. angustissima* Batt. & Tr.

O. longifolia auct., non Willd.

forma *irritabilis*

forma *ulicina* (W. & B.) Kunkel, comb. et stat. nov.

O. angustissima Lam. var. *ulicina* Webb & Berth., Phytogr. canar. II/1: 23; 1836

O. ulicina Webb & Berth. in iconibus 51-B

The name *irritabilis* indicates "irritation" arising from the taxonomic-nomenclatural confusion as well as for its irritating effect (allergy of the skin) to some persons.

Teline canariensis (L.) Webb & Berth., Phytogr. canar., III/2: 37; 1842

var. *ramosissima* (Poir.) Kunkel, comb. nov.

Cytisus ramosissimus Poir. in Lam., Encycl. Méth. Bot., Suppl. 2 : 440; 1812

C. canariensis (L.) Masf. var. *ramosissima* (Poir.) Bornm.

Teline ramosissima (Poir.) Webb & Berth.

var. *lanuginosa* Kunkel, var. nov.

A var. *canariensis* ramuli dense foliosus, foliis juvenilibus angustissimus et albo-tomentosus differt; inflorescentia adenocarpi simile.

HOLOTYPUS: Kunkel 13738 (G.), 12.III.1971; Gran Canaria, Barranco la Virgen below El Zumacal, 750 m. Material (Ku. 13324, 25) from El Caserón -- (Valleseco, 800 m.) probably belongs to the same variety.

At first thought to be a hybrid between *Teline* and *Adenocarpus fo-liolosus*; however frequent checking of the growing and developing specimens show a very close relationship to *Teline canariensis* with which it is now placed here.

Teline hillebrandtii (Christ) Kunkel

This still somewhat dubious species (at least as far as its taxonomic position is concerned) really does seem to exist. First described by H. CHRIST (Engl. Bot. Jahrb. 9: 121), renamed as *Cytisus* and again fully described by BRIQUET, it was finally placed in the genus *Teline* by KUNKEL (Cuad. Bot. Canar. 22:24; 1974). Material from Gran Canaria (Ku. 14333, 14704, 15563), from Los Tiles de Moya (650-700 m.) show much re-

semblance to the original description. The shrubs are 2 to 3 m. tall, have long, dark green and almost glabrous leaflets and a lax and long inflorescence. The material is cited and illustrated by KUNKEL & KUNKEL in "Flora de Gran Canaria" vol. I as "*Teline canariensis*", and a thorough investigation in the matter is recommended.

Teline microphylla (DC.) Gibbs & Dingw., Bot. Soc. Brot. 45: 278; 1971
var. *microphylla*, the widely spread, typical form;
var. *rosmarinoides* Kunkel, var. nov.

A var. *microphylla* foliis longiore pallidi-pilosissimum differt.

HOLOTYPUS: Kunkel 14771 (G.), 1.IV.1972; Gran Canaria, Riscos de Tirajana, 1.400 m.

Similar specimens closely resembling the true *Teline rosmarinifolia* Webb & Berth. were also found in nearby Risco Blanco (Ku. 14180, 15048), between 1.050 and 1.100 m. above sealevel.

Trifolium obscurum Savi
ssp. *aequidentatum* (Pérez Lav.) Vicioso

An addition to the flora of Gran Canaria: Ku. 15580, Guayadeque, 750 m.; det. A. Hansen. This particular form is sometimes cited as *T. isodon* Murb.

Trifolium dubium Sibth.

This species is recorded for Fuerteventura: Ku. 19052, from Vallebrón, La Muda, 250 m.

Trifolium glomeratum L.

Another addition to the island's flora (Fuerteventura) found in -- the same locality: Ku. 19041, La Muda, 200 m.

GERANIACEAE

Pelargonium capitatum (L.) Aiton

A "geranio" which is quite common especially on slopes covered by volcanic ashes, of the Timanfaya National Park (Lanzarote), and is usually wrongly named. This "malvarosa", until now cited as *Pelargonium inquinans*, according to A. HANSEN (in litt.) should be recognized as *P. capitatum*. The species is of South African origin but well established in Lanzarote.

LAMIACEAE

Lavandula pedunculata Miller

Sometimes referred to as *L. stoechas* L. ssp. *pedunculata* (Mill.)-- Samp. ex Rozeira, this species grows spontaneously on some higher slopes of the southern sector of Gran Canaria (cf. ICONA) and its name should be added to the list of species probably originally introduced to the Canary Islands.

Leucophaea bolleana Bornm. ex Kunkel, comb. nov.

Bornmüller in sched.

Sideritis bolleana Bornm., Fedd. Rep. 19: 277; 1924

Leucophaea cretica (L.) Kunkel, comb. nov.

Sideritis cretica L., Sp. Pl. 2: 574; 1753

non *S. cretica* Boiss. nec *S. cretica* Sibth. & Sm.

S. candicans Benth., non Ait.

Leucophaea candicans Webb & Berth.

Maintaining my opinion concerning the genus *Leucophaea* as a recognizable unit separable from the *Sideritis* complex, the following nomenclatural adaptations are proposed:

var. *cretica*

var. *anagae* (Christ) Kunkel, comb. nov.

L. candicans Webb & Berth. var. *anagae* Christ, Eng. Bot. Jahrb. 9 : 139; 1888

Sideritis cretica L. var. *anagae* (Christ) Mend.-Heuer

var. *stricta* (Webb ex Mend.-Heuer) Kunkel, comb. nov.

Sideritis cretica L. var. *stricta* Webb ex Mend.-Heuer, Vieraea, 3:135; 1974

Leucophaea eriocephala Webb ex Clos.

Disregarding recent treatments of this group in the Canary Islands, the present author suggests that *L. eriocephala* (*Sideritis eriocephala*) be treated as a recognizably "good" species probably confined to the Cañadas, of Tenerife. It is easily distinguished by its relatively long -- leaves which are white pubescent all over, and its dense and rather leafy inflorescences. The typical *Leucophaea cretica* is also present in the Cañadas del Teide.

Leucophaea soluta Webb ex Kunkel, comb. nov.

Webb in sched.

Sideritis soluta Webb ex Clos, An. Sc. Nat. IV, 16: 81; 1861

L. dendro-chahorra (Bolle) Christ var. *soluta* (Webb ex Clos.) Kunkel

Micromeria helianthemifolia Webb & Berth.

var. *mary-annae* Pérez & Kunkel, Cuad. Bot. Canar. 26/27: 27; 1976

f. *glomerata* Kunkel, forma nova

A var. *helianthemifolia* habito repens, a var. *mary annae* folia conglomerata subimbricatae differt; lamina 5-7 mm. longa.

HOLOTIPUS: Kunkel 17368 (G.), 25.VI.1974; Gran Canaria, Barranco de Sibe-rio, 900 m., growing together with specimens of the recently described variety *mary-annae*.

Micromeria x perez-pazii Kunkel, hybr. nat. nov.

Micromeria benthami Webb & Berth. x *M. tenuis* (Link) W. & B.

Suffrutex sempervirens usque ad 40 cm. alt. inter parentes crecens. Aspectus hirsutiei *Micromerio benthami* simile, inflorescentiae pedunculatae et distantia foliorum *M. tenuis* approximata.

HOLOTYPUS: Kunkel 15200 (G.), 1.VIII.1972; Gran Canaria, Barranco de Argineguín, 700 m.

This obviously perfectly intermediate natural hybrid is dedicated to Pedro Luis Pérez de Paz, the eminent Canarian Micromeriologist.

ONAGRACEAE

Fuchsia boliviana Carr.

An ornamental plant, shrubby and sometimes cited as *F. corymbiflora* auct. non R. & P. which, according to A. HANSEN (in litt.) is known as a garden escape on S. Miguél, in the Azores. My collection number 19275, from Madres de Agua de Firgas, Gran Canaria, seems to belong to this taxon. Non-flowering plants were found growing in walls, towards the end of the existing road.

RAFFLESIACEAE

Cytinus hypocistis (L.) L.

Recent investigations besides a revision of generally poorly represented herbarium material revealed that two distinctive "forms" of this parasite occur in the Canary Islands, living on roots of two commonly distributed species of the genus *Cistus*. However these "forms" also do belong to two different species thus complicating the matter but simplifying initial recognition.

Although the present note should be taken as a preliminary communication, the separation of the *Cytinus* complex in the Canary Islands

is suggested as follows:

Cytinus ruber (Fourr.) Komarov

C. hypocistis (L.) L. ssp. *hermesinus* Guss.

ssp. *canariensis* (Webb & Berth.) Finschow & Kunkel, comb. nov.

Cytinus hypocistis var. *canariensis* Webb. & Berth., Phytogr.
canar. III/2: 429; 1849

C. canariensis Webb & Berth., in sched.

C. hypocistis ssp. *canariensis* Wettst.

Planta parasitans epi *Cistus symphytifolius* Lam.

Cytinus hypocistis (L.) L., Syst. Nat., ed. 12, 2: 602; 1767

ssp. *subexsertum* Finschow & Kunkel, subsp. nov.

C. ruber ssp. *canariensis* Kunkel in sched.

Planta parasitans in radicibus *Cistus monspeliensis* L. *crecens*.
A forma typica flores exsertes supra bractee prophyllarum differt. Plan-
ta glaberrima.

HOLOTYPUS: Kunkel 18278 (G.), 5.VI.1975; La Gomera, Roque Zarzita, 950
m.; common in this locality. For an illustration of this new subspecies
see M.A. & G. KUNKEL, Flora de Gran Canaria, pl. 101.

RUBIACEAE

Galium divaricatum Pourr. ex Lam.

Sometimes also considered a subspecies of *Galium parisiense* L.,-
this species was found in two localities of Gran Canaria: Ku. 17312 in
Barranco la Virgen, 800 m., and 19137-b, Degollada la Manzanilla, 1.000
m. The material was revised by A. Hansen, Copenhagen, and seems to be
an addition to the Canary flora.

Galium murale (L.) All.

This new addition to the flora of Fuerteventura is cited in Natu-

ralia Hispanica 8: 93; 1977. Here only some more precise localities :
Ku. 15992, Riscos de Jandfa, 730 m.; 16018, El Fraile (Jandfa), 550 m.
and 19056, Vallebrón, La Muda, 150 m.

Galium rotundifolium L.

This slender and mostly glabrous species is frequent on La Gomera where, in higher mountains, it grows in association with the more common *Galium scabrum* L. from which it is distinguished by its larger -- leaves and hairy stems. This note corrects the present author's previous remarks: see *Naturalia Hispanica* 7: 94; 1977.

Galium spurium L.

An overlooked species quite frequent in Lanzarote found growing-- under fig trees in the marginal zone of the Timanfaya National Park. At first sight much resembling *G. aparine*, this probably introduced species might also be present in other islands of this archipelago.

SCROPHULARIACEAE

Kickxia heterophylla (Schousb.) Dandy

ssp. *subsucculenta* Kunkel, Cuad. Bot. Canar. 26/27: 54; 1976

This rather fleshy form of a widely distributed species was originally described as endemic to the Famara mountains, on Lanzarote. However some specimens from Punta de Jandfa (Fuerteventura; Ku. 18821) resemble the Famara material except for being very small.

CONCLUDING NOTES

Plants distributed by the present author as "*Exsiccati selecti flora canariensis*" (Cuad. Bot. Canar. 7: 26-54; 1969) suffer certain mis-identifications. The following items are noted for correction:

- N°10 *Lotus holosericeus* = *Lotus* cf. *sessilifolius* DC.
N°71 *Lotus spartioides* = *Lotus holosericeus* Webb & Berth.
N°80 *Vicia filicaulis* = *Vicia cirrhosa* Chr. Sm.

During his work in gardening and landscaping the same author confesses that he introduced, amongst numerous other (mostly exotic) species, the following plants to Lanzarote:

Aeonium manriqueorum Bolle,
Argyranthemum broussonetii, hybrids,
Artemisia thuscula (*A. canariensis*), and
Echium decaisnei ssp. *decaisnei* ,

all of which now seem well established in gardens, partly Hotel San Antonio, partly in the Urbanization Barcarola.

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