Rhodora

(ISSN 0035-4902)

JOURNAL OF THE

NEW ENGLAND BOTANICAL CLUB

Vol. 83 October 1981 No. 836

TAXONOMIC AND NOMENCLATURAL NOTES ON THE FLORA OF ISLA DE LOS ESTADOS (STATEN ISLAND), TIERRA DEL FUEGO, ARGENTINA.

T. R. DUDLEY[1]

A large and comprehensive manuscript entitled *A Contribution to the Flora and Vegetation of Isla de los Estados (Staten Island), Tierra del Fuego, Argentina* has been completed and submitted for ultimate publication in hard-back book format by the American Geophysical Union (Washington, D.C.). This book will appear as No. 11 of Volume 30 of the *Antarctic Research Series: Terrestrial Biology*. This rather massive manuscript summarizes in detail, for the first time, the vascular plant, fern, and fern-ally components of the vegetation, and the ecological structure and associations of this remote and inhospitable Argentine island that lies directly off the southeastern tip (Península Mitre) of South America. More specifically this in-depth floristic study is based primarily on the extensive vascular plant, fern, and fern-ally collections accumulated principally from Isla de los Estados and Península Mitre during the 1971 early austral spring joint U.S.-Argentine botanical exploration of Isla de los Estados conducted as Research Vessel Hero Cruise 71-5 under the auspices of the Office of Polar Programs, National Science Foundation, Washington, D. C. The vascular plant collectors were: Dr. T. R. Dudley, Herbarium, U. S. National Arboretum, Washington, D.C., 20002; Mrs. R.N.P. Goodall,

[1]Research Botanist, U. S. National Arboretum, Science and Education Administration, USDA, Washington, D. C., 20002, and scientist-in-charge of vascular plant collections on the joint 1971 U.S.-Argentine botanical expedition, Research Vessel Hero 71-5 Cruise to Isla de los Estados, Argentina, under the auspices of the Office of Polar Programs, National Science Foundation, Washington, D.C., 20550.

Sarmiento s.n. and Estancia Harberton, 9410 Ushuaia, Tierra del Fuego, Argentina; and Dr. G. E. Crow, Curator of the Albion R. Hodgdon Herbarium, Department of Botany and Plant Pathology, University of New Hampshire, Durham, New Hampshire, 03824.

Since this volume of the Anarctic Research Series: Terrestrial Biology may be delayed in its publication and since it may not be generally available to botanists because of limited edition and distribution, a summary of the results is provided here.

As the collections, numbering nearly 2,000 numbers and amounting to nearly 6500 actual specimens, from the 1971 botanical exploration of Isla de los Estados were being collated, determined, and duplicates being distributed (the first set and all unicates are deposited in the Herbarium of the U.S. National Arboretum–NA) four collection numbers were ascertained as representing two new and previously undescribed taxa. At the same time it also became evident that four new epithet combinations had to be made. These new taxa and combinations are described and discussed below.

NEW COMBINATIONS

COMPOSITAE (Asteraceae)

Gamochaeta Weddell, Chloris Andina, **1**(4–6): 151. 1856.

Gamochaeta malvinensis (H. Koyama) T. R. Dudley, *comb. nov.*

Basionym:

Gnaphalium malvinense H. Koyama, *nom. nov.*, Acta Phytotax. Geobot. **29**: 84. 1978.

Synonyms:

Gnaphalium affine Dumont d'Urville, *Flores des Îles Malouines*, p. 42, October 1825.—*non Gnaphalium affine* D. Don, *Prodromus Florae Nepalensis*, p. 173, February 1825.

Gamochaeta affinis (Dumont d'Urville) Cabrera, Bol. Soc. Argent. Bot. **9**: 363. 1961.

Koyama (1978) correctly pointed out that *Gnaphalium affine* Dumont d'Urville is a later homonym of *Gnaphalium affine* D. Don by virtue of D. Don's epithet having a seven month nomenclatural priority. Accordingly, Cabrera's 1961 combination of the South American taxon as *Gamochaeta affinis*, using *Gnaphalium affine* Dumont d'Urville as the basionym, is superfluous and can no longer be regarded as valid. Cabrera in Correa (1971), however, continues to apply the epithet *Gamochaeta affinis* to the perennial herb which

he maintains as a strict endemic only to Islas Malvinas (the Falkland Islands). These nomenclatural facts of priority stimulated Koyama to rename the taxon previously known as *Gnaphalium affine* Dumont d'Urville or *Gamochaeta affinis* (Dumont d'Urville) Cabrera and indigenous to the Falkland Islands, Tierra del Fuego and Patagonia as *Gnaphalium malvinense*, a *nomen novum*. However, since this New World plant truly is assignable to the genus *Gamochaeta* rather than to *Gnaphalium*, Koyama's *Gnaphalium malvinense nomen novum* must be recombined under *Gamochaeta*.

Gamochaeta malvinensis (H. Koyama) T. R. Dudley is represented among the 1971 R/V Hero Cruise 71–5 to Isla de los Estados collections by *T. R. Dudley, R.N.P. Goodall & G. E. Crow 303* (BAB, E, MO, NA, RNG, RNPG[1], SGO, SI) from Península Mitre of Isla Grande, and from Isla de los Estados by numbers *1789* (NA), *880* (BAB, NA, RNG, RNPG, SI), *986* (NA), and *1266* (NA). Spegazzini (1896) also reports this species by the synonym *Gnaphalium affine* Dumont d'Urville with three new *formae* (f. *pusillum*, f. *parvulum*, and f. *medium*) from Puerto Cook, Puerto Vanvouver, and Puerto San Juan del Salvamento, all three being collecting stations on Isla de los Estados.

LAGENIFERA Cassini
Bull. Sci. Soc. Philom Paris **1816** (fasc. 1): 199. 1816.

vs.

LAGENOPHORA Cassini
Bull. Sci. Soc. Philom. Paris **1818** (fasc. 7):34. 1818.

Regarding the acceptance of *Lagenophora* Cassini (1818) as the legitimate name of this genus and while rejecting *Lagenifera* Cassini (1816), Cabrera (1966) argues that although *Lagenophora* was published originally as a *nomen nudum*, it was simply the Latinized equivalent of the original Greek root of *Lagenifera* and that Cassini's *Lagenophora* (1818) was intended as a correction to Cassini's *Lagenifera* of 1816. It is, however, my view that the earlier published generic name, *Lagenifera* (1816) clearly has nomenclatural priority. Koster, in Backer and Bakkhizen van den Brink (1965), clearly accepts the generic name *Lagenifera* and regards

---

[1]The herbarium acronym "RNPG" denotes the private herbarium of Mrs. R.N.P. Goodall of Estancia Harberton, 9410 Ushuaia, Tierra del Fuego, Argentina.

Lagenophora as an etymological variant. But the issue is further complicated by Cabrera (1966) who states: "This would imply that under *Lagenifera* no new combinations are necessary". However, since the Type Species of *Lagenifera,* as well as of *Lagenophora,* is *Aster nudicaulis* Commerson ex Lamarck (1783), the specific epithet *nudicaulis* must be re-combined under the earliest legitimate and correct name available at generic rank, which certainly appears to be *Lagenifera.* However, before any new re-combinations can be proposed it must be established without any question that the later 1818 name, *Lagenophora,* is not a conserved name, i.e. a *nomen conservanda.*

As it turns out the spelling *Lagenophora* was indeed proposed for conservation by Bullock (1966) on the grounds that the original 1816 spelling as *Lagenifera* had not been adopted, even as a *nomen nudum,* by any authors subsequent to the 1818 publication of *Lagenophora.* The Bullock proposal to regard *Lagenophora* as a *nomen conservanda* was not enacted. Rather, it was soundly rejected by Crosswhite (1967) and McVaugh (1968), both of whom presented excellent independent rebuttals to the Bullock conservation proposal. Appendix III "Nomina Generica Conservanda et Rejicienda" in the latest (Leningrad) *International Code of Botanical Nomenclature* (Stafleu, et al., 1978) does not refer to either *Lagenifera* or *Lagenophora.* However, the published card file of *Index Nomenum Genericorum* (Card No. 14/18072) clearly implies that *Lagenophora* is a nomenclatural synonym, being based on the same type species as *Lagenifera.* Likewise Card No. 75/32528 designates *Lagenophora* as a taxonomic synonym of *Lagenifera:* "...only the earliest legitimate one, if any, being listed. Based on the same nomenclatural type as the conserved name" (cf. Stafleu, et al., p. 258, 1978). The view that *Lagenifera* is the only legitimate and validly published generic name is maintained by Airy Shaw (1966 & 1973), and also by Drury (1974) in his excellent appraisal and taxonomic treatment of the genus as it occurs in New Zealand. More recent final proof is to be found in E. R. Farr, et al., *Index Nominum Genericorum (Plantarum),* volume 2 (*Regum Vegetabile 101*, 1979). *Lagenifera* is cited on page 928 of the above mentioned work as being the valid legitimate generic name, while on page 929 *Lagenophora* is equated to *Lagenifera* with a triple line identity sign (i.e. ≡) with the accompanying comment: "intended as correction to Cassini's earlier name". The (≡) identity sign is defined on page xvi

of volume 1 of E. R. Farr, et al. *Index Nominum Genericorum (Plantarum)* (*Regnum Vegetabile 100,* 1979) as "denoting nomenclatural synonymy for names based on the same type species".

With the acceptance of *Lagenifera* Cassini (1816) as the correct and legitimate generic epithet, *Lagenophora hariotii* Franchet (Mission Scientifique de Cap Horn, 1882–1883, Phanérogamie, Botanique **5**: 344. 1889) and the combination of *Lagenophora nudicaulis* (Commerson ex Lamarck) Dusén, Gefässpflanzen Magellansländer (in Wissensch. Ergebnisse Svenska Exped. Magellansländerna, 1895–1897 **3**(5), Botanik: 98. 1900) automatically become superfluous and synonymous with the necessary new specific combinations under *Lagenifera.* Only two species of *Lagenifera* are pertinent to the flora of Isla de los Estados and Tierra del Fuego. These are *Lagenifera hariotii* (Franchet) T. R. Dudley, *comb. nov.* and *Lagenifera nudicaulis* (Commerson ex Lamarck) T. R. Dudley, *comb. nov.* Without conducting a comprehensive monographic and systematic investigation of the other 28 or so species that have been ascribed to the genus *Lagenophora* on a world-wide basis, I feel it would be presumptive and inappropriate at this time to make any additional re-assignment or new combinations to *Lagenifera* other than the two that follow below.

Lagenifera Cassini, Bull. Sci. Soc. Philom. Paris, **1816** (fasc. 1): 199. 1816——*non Lagenophora* Cassini, Bull. Sci. Soc. Philom. Paris, **1818** (fasc. 7): 34. 1818.

Lagenifera hariotii (Franchet) T. R. Dudley, *comb. nov.*

Basionym:

Lagenophora hariotii Franchet, Mission Scientifique de Cap Horn 1882–1883. Phanérogamie, Botanique **5**: 344. 1889.

Although the 1971 explorations of Isla de los Estados and the Península Mitre of Isla Grande did not yield any collections of *Lagenifera hariotii* from these locations, logically it definitely should have been evident, especially since it is well documented from a number of sites in Southern Tierra del Fuego, including from Bahía Thetis on the north coast of Península Mitre. Since Moore (1974) considers *L. hariotii* a component of Vegetation Zone 3

(Evergreen Forests) and Vegetation Zone 4 (Magellanic Moorlands) of Tierra del Fuego, I am convinced that more intensified exploration into the interior, very mountainous terrain of Isla de los Estados will demonstrate the presence of this taxon. However, failing actual documentation of *L. hariotii* in 1971 it has been included in the section entitled "Selected Taxa Unrecorded for Isla de Los Estados, and Bahías Buen Suceso and Valentín of Península Mitre" which will appear in *A Contribution to the Flora and Vegetation of Isla de los Estados (Staten Island), Tierra del Fuego, Argentina.*

From nearby Isla Grande of Tierra del Fuego and southern Fuegia *Lagenifera hariotii* has been verified by Cabrera in Correa (1971), and I have examined and verified the following representative specimens: CHILEAN TIERRA DEL FUEGO, Río Bueno, *E. Pisano 2485* (HIP, NA); Bahía Cuevas, Fiordo Parry, *E. Pisano 2969* (HIP, NA); Orange Harbor, *Wilkes Expedition* (US). ARGENTINE TIERRA DEL FUEGO, Bahía Thetis, Península Mitre, Rio Moat, Estancia Moat, *D. M. Moore 1679* (LP, NA, RNG); Departmento Ushuaia, Estancia Harberton, No Top Mountain above Estancia, *R. N. P. Goodall 767* (NA, RNPG, US); Departmento Los Logos, Villa la Angostura, 1400 m. on Cerro Burro, 16 February 1952, *T. M. Pedersen* (C, US).

Lagenifera nudicaulis (Commerson ex Lamarck) T. R. Dudley, *comb. nov.*

Basionym:

Aster nudicaulis Commerson ex Lamarck, Encyclopédie Méthodique, Botanique **1**(1): 308. 1783.

Synonyms:

Lagenophora commersonii Cassini, Dict. Sci. Nat. Paris **1**: 110. 1826.

Lagenophora nudicaulis (Commerson ex Lamarck) Dusén, Gefässpflanzen Magellansländer in Wissensch. Ergebnisse Svenska Exped. Magellansländerna 1895 1897, **3**(5). Botanik: 98. 1900.

Lagenifera nudicaulis (Commerson ex Lamarck) T. R. Dudley is represented among the 1971 R/V Hero Cruise 71–5 to Isla de los Estados collections by *T. R. Dudley, R.N.P. Goodall & G.E. Crow 456* (NA), *741* (BAB, NA, RNPG), *753* (NA, RNPG), *889* (BAB, NA, RNPG), *907* (NA, RNPG), *1008* (NA, RNPG), *1058* (AAS, BAB, E, HIP, NA, RNG, RNPG, SI), *1069* (NA, RNPG), *1355* (NA), *1391* (NA, RNPG), *1543* (NA), *1611* (BAB, NA, RNG, RNPG), *1642* (NA), *1658* (HIP, NA, RNPG), *1697* (NA, RNPG), *1723* (NA), and *1809* (NA, RNPG).

Just recently I discovered in the Smithsonian Herbarium (US) a very historically interesting specimen of *Lagenifera nudicaulis*. It was distributed by NYS from the Lewis C. Beck collection, and was originally collected by Captain J. Eights, "Staten Island. Cape Horn". This specimen is Accession No. *920040* in US. The original collector, Captain Eights, was a famous 18th Century Sea Captain and is commemorated by *Senecio eightsii* Hooker & Arnott.

GRAMMITIDACEAE (Grammitaceae)

Grammitis Swartz, Jour. Bot. (Schrader 2), **1800**(1):17. 1801.

Grammitis magellanica Desvaux, Ges. Naturf. Freunde Berlin Mag. **5**: 313. 1811.

This epiphytic fern is quite common on Isla de los Estados, and is very variable, particularly with respect to the length of the leaves. The average leaf length is 5–12 cm. All but one of the 25 separate collections of *Grammitis magellanica* made from Península Mitre of Isla Grande and from Isla de los Estados while participating on the 1971 R/V Hero Cruise 71-5 are readily identifiable as *G. magellanica* f. *magellanica*. The leaves of one collection, *T. R. Dudley, R.N.P. Goodall & G. E. Crow 981* (NA) are suspiciously and atypically shorter, measuring to ¼–½ the length of those of most of the other collections. However, this number, No. *981*, does not demonstrate the diagnostic character of simple and translucent trichomes scattered along the margins of the very short leaves, along the upper portions of the petioles, or intermixed with the indusia. These trichome characters and their orientation correlated with very small leaves serve to distinguish *G. magellanica* f. *nana* from f. *magellanica*.

Grammitis magellanica f. **nana** (Brackenridge) de la Sota ex T. R. Dudley, *comb. nov.*

Basionym:

Grammitis nana Brackenridge in Wilkes, U.S. Explor. Exped. Filices **16**: 1. 1854. (CHILEAN TIERRA DEL FUEGO, Orange Harbor, frequent among loose rocks; TYPE Specimen No. *2759* (US No. *60716*), *Brackenridge 1*, (K, US).

Synonyms:

Polypodium poeppigianum Mettenius, Abh. Senckenberg. Naturf. Ges. **2**: 37. 1856.

Grammitis australis var. *nana* Franchet, Mission Scientifique de Cap Horn 1882–1883, Phanérogamie, Botanique **5**: 397. 1889.

Polypodium billardieri var. *magellanica* f. *nana* (Franchet) Skottsberg, Ver. Kungl. Svenska Vetens. Akad. Handl. Stockholm **56**(5): 167. 1916.

Grammitis billardieri var. *magellanica* f. *nana* (Franchet) de la Sota, Opera Lilloana **5**: 208. 1960.

Grammitis armstrongii Tindale, Contrib. New South Wales Natl. Herb. III **2**: 88. 1961.

Grammitis kerguelensis Tardieu-Blot, Adansonia **2**: 114. 1962.

Grammitis poeppigiana (Mettenius) Pichi Sermolli, Webbia **32**(2): 461. 1978.

Grammitis magellanica f. *nana* (Brackenridge) de la Sota ex T. R. Dudley is represented among the 1971 RV Hero Cruise 71-5 to Isla de los Estados collections by only one collection number, *T. R. Dudley, R.N.P. Goodall & G. E. Crow 1269* (GH, NA, RNPG). The extreme rarity of this taxon on Isla de los Estados is indicated by the field notes accompanying the collection: "rare, only one population seen with *Hymenophyllum* sp. and *Serpyllopsis caespitosa*, steep wet sea cliffs and over-hanging ledges...".

This very dwarfed expression of *Grammitis magellanica* had been previously regarded by E. de la Sota (1960) as *G. billardieri* var. *magellanica* f. *nana*. However, subsequently de la Sota reaffirmed in 1966 (and in 1976 by personal conversation) the conclusion that *G. magellanica* was indeed the correct species name for the Fuegian plant. Although de la Sota discusses (1966) at some length the foliar anatomy of f. *magellanica* as compared to that of f. *nana*, regrettably he did not make the essential formal and documented new combination (*comb. nov.*) of f. *nana* under *G. magellanica* which is essential and required to legitimize the epithet *nana* at the rank of forma. Accordingly, the necessary new combination is made above citing the Brackenridge basionym.

Although the *Grammitis australis* var. *nana* Franchet (1889) is clearly based on different type material and specimens than the basionym *Grammitis nana* Brackenridge (1854), both names are referrable to the same taxon. When treated at the infraspecific rank of *forma*, this should be designated as *Grammitis magellanica* f. *nana* (Brackenridge) de la Sota ex T. R. Dudley, the Brackenridge epithet, *Grammitis nana*, being regarded as the basionym with a 35-year publication priority.

R.N.P. Goodall interestingly reports (pers. comm. in 1977 and 1978) that most of her collections (RNPG) of *Grammitis magellanica* from Isla Grande of Tierra del Fuego have leaves as small or smaller

than those of *G. magellanica* f. *nana* (*T. R. Dudley, R.N.P. Goodall & G. E. Crow 1269*) from Isla de los Estados. I have examined most of the small-leaved duplicates of Mrs. Goodall's collections deposited at NA and US and find that they are completely glabrous and otherwise characteristic and congruous with *G. magellanica* f. *magellanica*. However, two exceptional collections from among the Goodall materials do possess the trichomes diagnostic for *G. magellanica* f. *nana*. These two collections clearly document the presence of this morphological expression and f. *nana* from the "Mainland" of Isla Grande, Tierra del Fuego. These Fuegian collections of *G. magellanica* f. *nana* are: *R.N.P. Goodall 1443b* (NA, RNPG) from Punta Segunda near Río Encojonado and *R.N.P. Goodall 3338* (NA, RNPG) from along Río Rancho Lata and the Bridges trail near Mte. Moore. With respect to leaf dimensions it is curious that only one of the 1971 collections of *G. magellanica* from Isla de los Estados (no. *1269*) is clearly within the circumscription of f. *nana*, 0.5–1 (–2) cm long.

Parris and Given (1976) regard *Grammitis nana* Brackenridge, the basionym of *G. magellanica* f. *nana* (Brackenridge) de la Sota ex T. R. Dudley, as a synonym of a new species, *Grammitis armstrongii* Tindale (Contrib. New South Wales Natl. Herb., III **2**: 88. 1961). If the taxonomic appraisal that the plant merits recognition at full specific rank, rather than at infraspecific status as *G. magellanica* f. *nana*, is to be accepted unquestionably, then *Grammitis armstrongii* Tindale should be used (*fide* Parris & Given, 1976). *Grammitis nana* Brackenridge (1854) cannot be used at specific rank because it is pre-dated by one year by *Grammitis nana* Fée (1853)—now considered to be a synonymn of *Polypodium lasiosorum* (Blume) Hooker from Malaysia. Following the Parris and Given (1976) appraisal the 1971 *Dudley et al. 1269* from Isla de los Estados, and the *Goodall Nos. 1443b and 3338* from Isla Grande could be reannotated as *Grammitis armstrongii* Tindale, if specific recognition is desirable. I have examined an isotype specimen of *G. armstrongii* from Australia (*Johnson & Constable 3086*, US) and confirm that it, *Haumann* (US No. *691533*), *Kidder* (US Nos. *653674* and *653675*)—all from Kerguelen, and *D. Walton SG-19* (AAS, NA-det. *G. kerguelensis*) from South Georgia, all refer to the taxon I have designated as *G. magellanica* f. *nana* from Isla Grande and Isla de los Estados of Tierra del Fuego.

It is essentially a matter of degree of emphasis or weight placed on a given set of correlated morphological continuities (or discontinuities) that determines whether full specific rank is warranted or whether an infraspecific rank, such as a *forma,* is more appropriate. However, at the present time I will take a conservative and perhaps simplistic view and regard the taxon first documented and described by Brackenridge, and documented from Isla de los Estados for the first time in 1971, as *Grammitis magellanica* f. *nana* (Brackenridge) de la Sota ex T. R. Dudley. I am fully aware, moreover, that this taxonomic judgement and nomenclatural placement may be altered by the publication of "An Analysis of the *Grammitis armstrongii-G. magellanica* Complex in the South Atlantic and South Indian Oceans" announced as being "In Press" in the British Fern Gazette by B. S. Parris (cf. Parris & Given, 1976). To my current knowledge this very important paper has not yet been published, and in fact, Dr. Parris wrote to me from the University of Cambridge, Great Britain, in October 1979 with the news that she had withdrawn this paper while waiting for additional and pertinent collections to be made available to her.

A different view, very strongly conflicting with that proposed by Parris and Given (1976) has been recently presented by R. E. G. Pichi Sermolli (1978). Dr. Pichi Sermolli maintains that since Parris and Given (1976) regard *Polypodium poeppigianum* Mettenius (1856) as conspecific and synonymous with *Grammitis armstrongii* Tindale (1961) the oldest epithet at specific rank clearly is *Polypodium poeppigianum* Mettenius, and must be used if the taxon is to be treated at specific rank. Accordingly, Professor Pichi Sermolli proposes the new combination of *Grammitis poeppigiana* (Mettenius) Pichi Sermolli, *comb. nov.* (1978).

If specific recognition, either as *Grammitis poeppigiana* or *G. armstrongii* is preferred for No. *1269* from Isla de los Estados which I have designated herein as *G. magellanica* f. *nana,* then all of the other 1971 *Grammitis* collections from Península Mitre of Isla Grande and the additional 1971 materials from Isla de los Estados would have to be referred to as *G. magellanica* subsp. *magellanica* (cf. Parris & Given, 1976). These authorities, in fact, cited only one specimen from Isla de los Estados ("Statenland: 1787. Menzies"), which is deposited at E and K. The other subspecies of *G. magellanica* is subsp. *nothofageti* Parris, which is confined to the North and South Islands of New Zealand and one station in Tasmania.

NEW TAXA

PLUMBAGINACEAE

Armeria Willdenow, *Enumeratio Plantarum Horti Regi Botanici Berolinensis,* p. 222. 1809.

Armeria maritima (Miller) Willdenow, *Enumeratio Plantarum Horti Regi Berolinensis,* p. 133. 1809.

subsp. **andina** (Poeppig ex Boissier) D.M. Moore & Yates, Bot. Not. **127**(2): 191. 1974. (var. *andina,* typical *varietas).*

The current information about the population dynamics of the "Thrifts", in particular the amphiarctic and amphiantarctic *Armeria maritima* by D. M. Moore and Yates (1974), indicates that the nomenclatural combination of *Statice chilensis* var. *magellanica* (Boissier) Macloskie (1905) should be treated as a synonym of *Armeria maritima* subsp. *andina.* This taxon (as var. *andina*) was well documented in 1971 from Isla de los Estados by 16 separate collections resulting from the botanical exploration while participating on the R/V Hero Cruise 71-5.

Throughout the entire natural geographical range of *Armeria maritima* in both the Old and New Worlds, and the northern and southern hemispheres, the morphological variation expressed between individual plants and within populations is enormous (cf. Lawrence, 1940; D. M. Moore & Yates, 1974). One is often tempted to recognize and describe some of the variations that appear to be clearly manifested, or at the very least to assign infraspecific, or occasionally specific, epithets to some of the most obvious or aberrant morphological variants and phenotypic expressions. Until such a time as far more herbarium collections are available for critical analyses and transplant experiments are evaluated from the geographical, ecological, and populational viewpoints, the solution of *Armeria maritima* subsp. *andina* as provided by D. M. Moore & Yates (1974) to the seemingly impervious dilemma of excessive "splitting", both at the specific and infraspecific levels, within the *A. maritima* complex as it occurs in South America, is certainly adequate—if not verging on being extremely conservative.

An example of the problem of identification is provided by two *T. R. Dudley, R.N.P. Goodall & G. E. Crow* collections (Nos. *70* & *103*) from Provincia Magallanes, Chile. These specimens initially appeared to fall within the broad morphological circumscription of *A. maritima* var. *magellanica* (Willdenow) Skottsberg (= *A. maritima* subsp. *andina, sensu lato*). Upon closer examination, however, particularly when compared with materials in the Philippi Her-

barium in Santiago, Chile (SGO), our two 1971 collections from Provincia Magallanes, with their long, slender flowering scapes, and their long, very narrow, nearly fistulose leaves, could readily be referred to as *A. patagonica* Philippi (= *A. maritima* var. *patagonica* (Philippi) Lawrence, considered by Moore & Yates (1974) to be yet another synonym of *A. maritima* subsp. *andina, sensu lato*).

With only one exception, the 1971 collections of *Armeria maritima* from numerous sites on Isla de los Estados were extremely uniform morphologically with respect to habit, foliage, floral characters, and inflorescence coloration. Until further studies are conducted, utilizing more than the 112 collections (the number of specimens analysed and correlated by Moore & Yates in 1974), subspecific rank as *A. maritima* subsp. *andina* is preferred at the present time for the common Southern Hemisphere New World, rosy-pink to purplish flowered representatives (= var. *andina,* the typical *varietas*).

The one exceptional population collection, *T. R. Dudley, R.N.P. Goodall & G. E. Crow 1034* mentioned above, was discovered as an intact, self-contained, discrete population on the south coast of Isla de los Estados, and must also be included taxonomically and nomenclaturally under *A. maritima* subsp. *andina.* However, because of its striking and consistent dissimilarity of having yellowish to greenish-white or pale cream-coloured involucral bracts, calyces, and corollas, it is described below as a new *varietas,* having a limited but uniform and isolated distribution.

Armeria maritima subsp. **andina** var. **goodalliana** T. R. Dudley, *var. nov.*

Diagnosis: Affinis manifestis *A. maritimae* subsp. *andinae* var. *andinae* a qua in involucri phyllis exterioribus et interioribus, calicis et tubis bracteolis interfloralibus et corollae cum tubae in vivo albidis vel pallidis cremeis ad luteolis et viridulis albicans differt.

Obviously allied to *A. maritima* subsp. *andina* var. *andina,* variety *goodalliana* differs from it by the external and internal involucral bracts, the calyces and their tubes, the interfloral bracts on the capitulum and the corollas with their tubes all being whitish or pale cream to yellowish or greenish-white in the living state.

HOLOTYPE: República Argentina, Territorio Nacional de la Tierra del Fuego, Antártida e Islas del Atlántico Sur, Departamento

Ushuaia, ISLA DE LOS ESTADOS, Puerto Vancouver, 54°48′S., 64°03′W., common at this site *only*, several hundred individual plants forming a compact self-contained population occupying about 20 square meters on wet ledges and in the crevices of rocks at the top of sea cliffs at the tip (Punta) Gilbert, the easternmost headland of Puerto Vancouver, exposure SW., 15 meters altitude, 29 October 1971, *T. R. Dudley, R.N.P. Goodall & G. E. Crow 1034* (NA). ISOTYPES of this new variety have been distributed to (AAS, BAB, E, HIP, MO, MSC, P, RNG, RNPG, SI).

This very extraordinary, very striking, seemingly self-contained, and "apparently self-breeding" population having consistently white to cream or yellowish flowers and infloresencence parts was discovered by R.N.P. Goodall and T. R. Dudley while on a foray of Punta Gilbert. An exhaustive search of this eastern headland, Punta Gilbert of Puerto Vancouver, surprisingly failed to discover or unveil any possible contaminatory plants or populations having the rosy-pink or purplish flowers and infloresencence parts characteristic of *Armeria maritima* subsp. *andina* var. *andina.* The closest geographical collection of *A. maritima* subsp. *andina* var. *andina* (*T. R. Dudley, R.N.P. Goodall & G. E. Crow 1022*) with typical rose-pink flowers and inflorescences was found about two kilometers north of Punta Gilbert at the end of Caletta Goodall, just before attaining the narrow, low isthmus between Puerto Cook on the north coast and Puerto Vancouver on the south coast of Isla de los Estados.

Although white and cream-coloured flowers are known in the genus *Armeria* in the Old World (i.e. *A. maritima* var. *maroccana* (Font Quer) Lawrence), the *T. R. Dudley, et al. No. 1034* collection from Punta Gilbert headland of Puerto Vancouver on the South Coast of Isla de Los Estados is the first New World record and population collection that I know of at this time: a population of several hundred individual plants, in South America, having white-yellowish - cream coloured inflorescence and floral parts.

This variant and self-containing population, presumably true-breeding, discrete within the population, and which we hope will maintain the white-yellowish flower's identity upon introduction into cultivation is named in honour of Natalie Rae Prosser Goodall, who was one of my superlative vascular plant exploration collecting assistants on the R/V Hero Cruise 71-5 to Isla de los Estados, in the

very early austral spring of 1971. Mrs. R.N.P. Goodall unstintingly shared her knowledge and experiences in Tierra del Fuego. (cf. R.N.P. Goodall, The National Geographic Magazine, vol. 139 (**1**): 130–150. 1971).

HELLEBORACEAE

Caltha L. *Species Plantarum 1*: 558. 1753.

Caltha × **goodalliana** T. R. Dudley, *hybrida nova.*

Synonym:

Caltha (*dionaeifolia* Hooker *f.* × *appendiculata* Persoon) D. M. Moore & R.N.P. Goodall, Bol. Soc. Argent. Bot. **15**(1): 72–76. 1973.

Diagnosis: Planta inter *C. dionaeifoliae* Hooker f. et *C. appendiculatae* Persoon quasi intermedia et verisimiliter ex hybridatione harum specierum orta, ab ambobus foliis appendicibus numero multo magus et marginibus foliorum multo valde ciliato-fimbriatis differt, quad floribus cum *C. appendiculatae* sat congruens sed similis *C. dionaeifoliae* brevis pedicellatis differt.

Caltha × *goodalliana* is a plant almost intermediate between the putative parents, *C. dionaeifolia* and *C. appendiculata,* and it probably originated from hybridization of these two species. It differs from both by possessing a much larger number of leaf appendages, and by having leaf margins that are much more strongly ciliate-fimbriate. With regard to its flower structure *C.* × *goodalliana* agrees well with *C. appendiculata,* but differs in the primary feature that they are short-pedicellate like *C. dionaeifolia.*

HOLOTYPE: República Argentina, Territorio Nacional del Tierra del Fuego, Departamento Ushuaia, Isla Grande, Sierra Lucas Bridges, 54° 45′S., 67° 13′W., Monte Spion Kop, steep west-facing slope, February 1971, *R.N.P. Goodall 3367* (BAB). Isotypes of this new hybrid were distributed to LTR, NA, and RNPG.

PARATYPES: República Argentina, Territorio Nacional de la Tierra del Fuego, Antártida e Islas del Atlántico Sur, Departamento Ushuaia.

ISLA DE LOS ESTADOS. Puerto Parry, 54° 46′S., 64° 23′W., rare at only one site, completely submerged in icy cold pool in boggy *Astelia pumila* heath on open, exposed and steep slopes SW. of inner caleta, Mte. Fantasma to the SE., Mte. Fitton to the N., exposure N., 150 meters altitude, 10 November 1971, *T. R. Dudley, R.N.P. Goodall & G. E. Crow 1715A* (NA, RNPG); Bahía Capitán

Cánepa, 45° 51′S., 64° 31′W., intermixed with *C. appendiculata* on wet subalpine slopes and ridges above W end of upland laguna feeding cascades that descend to narrow inlet on the W side of the Bahía, exposure E., 120–180 meters altitude, 4 November 1971, *T. R. Dudley, R.N.P. Goodall & G. E. Crow 1411A* (BAB, NA, P, RNPG); *ibid.*, intermixed with *C. dionaeifolia* in extensive *Astelia pumila* bog on very steep slopes of Mte. Crow, between the eastern inlet of Bahía Capitán Cánepa and Bahía Liberty, opposite the northwestern tip of Ite. Alexander, exposure W., 400 meters altitude, 3 November 1971, *T. R. Dudley, R.N.P. Goodall & G. E. Crow 1344B* (NA, P, RNPG).

Recently while perusing several herbaria I uncovered yet another paratype of *Caltha* × *goodalliana* from República Argentina. This collection is designated as: Southern Patagonia, Provincia Santa Cruz, east of Lago Buenos Aires, near town of Perito Moreno, observed growing only in moist boggy areas within steppe region, near steppe-forest transition zone, 29 October 1975, *T. A. Ager 437* (DUKE, US).

Regarding the paratype collections from Isla de los Estados, the minor "B" portions of *T. R. Dudley, et al.* Nos. *1715* and *1411* clearly represent *Caltha dionaeifolia,* whereas the predominate "A" portions are distinguished as *C.* × *goodalliana,* the naturally occuring hybrid between *C. dionaeifolia* and *C. appendiculata.* Reversely, the predominate "A" portion of *T. R. Dudley, et al. 1344* represents *C. dionaeifolia,* while the minor "B" portion is identifiable as the hybrid, *C.* × *goodalliana.*

Moore and Goodall (1973) report the first record of interspecific hybridization for the genus *Caltha,* specifically between the sympatric *C. dionaeifolia* and *C. appendiculata* from the southern part of Isla Grande, Tierra del Fuego. They demonstrate that the putative hybrid collection (*R.N.P. Goodall 3367*), now designated as the TYPUS of *C.* × *goodalliana,* was intermediate between the parental species. Three additional populations of this new hybrid combination were found in 1971 on Isla de los Estados (*T. R. Dudley et al. Nos. 1715A, 1411A & 1344B*), and yet another was discovered in 1975 in Provincia Santa Cruz of southern Patagonia (*T. A. Ager 437*). With this further confirmation of five independent collections from populations that demonstrated naturally occurring hybrid plants when *C. dionaeifolia* and *C. appendiculata* are sympatric, it now seems appropriate and desirable to recognize this

hybrid with the epithet *Caltha* × *goodalliana, hybrida nova.*

Moore and Goodall (1973) provided an excellent table of differentiating characters that can be used to distinguish *C. dionaeifolia,* the putative hybrid (= *C.* × *goodalliana*) and *C. appendiculata.* Since the original *R.N.P. Goodall 3367* material of this hybrid was sterile, Moore and Goodall could not compare floral characters. However, the *T. R. Dudley, et al. Nos. 1411A & 1344B* from Isla de los Estados and the *T. A. Ager 437* from southern Patagonia all possessed flowers which are similar in size to those of *C. appendiculata,* but are shortly pedicellate like those of *C. dionaeifolia.*

The following table is based primarily on analysis of the abundant collections of *Caltha dionaeifolia, C. appendiculata,* and the hybrid *C.* × *goodalliana* amassed while participating on the R V Hero Cruise 71-5 to Isla de los Estados. The sympatric *C. appendiculata* and *C. dionaeifolia,* and the putative hybrid of these two species, *C.* × *goodalliana,* which occurs sporadically as small populations or even as individual plants intermixed with the presumed parents on Isla Grande and Isla de los Estados, are distinguished.

This new hybrid, *C.* × *goodalliana,* is named in honour of Mrs. Rae Natalie Prosser Goodall of Ushuaia and Estancia Harberton in Territorio National de la Tierra del Fuego, who recognized the hybridity of her original collection. Mrs. Goodall was one of the indefatigable and competent collecting assistants (the other assistant was Dr. Garrett E. Crow) of vascular plants, ferns, and fern allies during the R/V Hero Cruise 71-5 to Isla de los Estados. With Dr. David M. Moore, Department of Botany, The University of Reading, Reading, England, Mrs. Goodall is co-author of the eagerly anticipated definitive *Flora of Tierra del Fuego.*

A summary of the vascular plant, fern, and fern ally collections resulting from the R/V Hero Cruise 71-5 to Isla de los Estados (Staten Island), Territorio Nacional de la Tierra del Fuego, Argentina in the early austral spring of 1971 follows. Unless otherwise indicated all of the specimens cited below are designated as *T. R. Dudley, R.N.P. Goodall & G. E. Crow* numbers. The collection numbers cited are accompanied by very general geographic locality designations; *i.e.* Argentina—Isla de los Estados (I), Argentina—Islas de Años Nuevos (II), Argentina—Península Mitre of Isla Grande (III), and Chile—Provincia Magallanes (IV). A

Table 1. **Distinguishing Caltha dionaeifolia, C. appendiculata, and C. × goodalliana.**

Significant characters	*C. dionaeifolia.*	*C. × goodalliana.*	*C. appendiculata.*
Leaf blades	2–4 mm long & wide, coriaceous, margins involute & ciliate.	6–11 mm long, 5–10 mm wide, coriaceous, margins more or less involute & very strongly ciliate-fimbriate.	5–20 mm long, 2–12 mm wide, membraneous, margins flat, smooth & glabrous
Leaf appendages	2	2–6	0–4
Petiolar sheaths.	3–10 mm long, adnate to petioles for 1–5 mm	6–20 mm long, adnate to petioles for 4–12 mm	10–30 mm long, adnate to petioles for 5–20 mm
Perianth segments.	3–6 mm long.	4–10 mm long.	5–12 mm long.
Stamens.	5–10 in number, 1/2–3/4 the length of the perianth.	6–10 in number, 1/2–3/4 the length of the perianth.	8–12 in number, 1/4 the length of the perianth.
Pedicels.	2–5 mm long.	3–7 mm long.	8–15 mm long.

single representative collection, sometimes from over 40, and having had wide herbaria distribution, is cited from each of these primary geographic localities (*e.g.* I, II, III, IV).

SUMMARY OF PLANT COLLECTIONS FROM THE R V HERO 1971 (71-5) EXPLORATION OF ISLA DE LOS ESTADOS

PTERIDOPHYTA

ASPIDIACEAE

Polystichum multifidum (Mettenius) Moore

I-*1103* (AAS, BAB, E, GH, HIP, LP, MO, MSC, NA, P, RNG, RNPG, SI).
II-*513A* (BAB, GH, HIP, LP, NA, RNG, RNPG, SI).
III-*198* (BAB, E, GH, MO, NA, P, RNG, RNPG, SI).
IV-*16* (GH, NA, RNPG, SGO).

ASPLENIACEAE

Asplenium dareoides Desvaux

II-*609* (AAS, BAB, BLFU, GH, NA, RNG, RNPG).
III-*262* (BAB, GH, NA, P, RNG, RNPG).

ATHRYIACEAE

Cystopteris fragilis (L.) Bernhardi

I-*1261* (GH, LP, MSC, NA, P, RNPG).
II-*512* (AAS, GH, HIP, NA, RNG, RNPG, SI).

BLECHNACEAE

Blechnum magellanicum (Desvaux) Mettenius

I-*1211* (AAS, BAB, GH, HIP, LP, MSC, NA, P, RNG, RNPG, SI).
III-*256* (BAB, GH, NA, P, RNG, RNPG, SI).

Blechnum penna-marina (Poiret) Kuhn

I-*1453* (GH, LP, MSC, NA, RNPG).
II-*517* (BAB, GH, NA, RNPG).
III-*222* (GH, NA, RNPG).
IV-*11* (NA, RNPG).

GLEICHENIACEAE

Gleichenia cryptocarpa Hooker

I-*1170* (AAS, BAB, E, GH, LP, MSC, NA, P, RNG, RNPG, SI).

GRAMMITIDACEAE (Grammitaceae)

Grammitis magellanica Desvaux f. *magellanica* (typical *forma*)

I-*1593A* (BAB, GH, LP, NA, RNG, RNPG).
III-*237* (GH, NA, P, RNPG, SI).

G. magellanica f. *nana* (Brackenridge) de la Sota ex T. R. Dudley, *comb. nov.* (cf. p. 483).

I-*1269* (GH, NA, RNPG).

HYMENOPHYLLACEAE

Hymenophyllum darwinii Hooker *f.*

I-*780* (BAB, GH, HIP, LP, NA, RNG, RNPG).

Hymenophyllum dentatum Cavanilles

I-*1185* (GH, LP, NA, P, RNPG).

II-*525* (GH, NA, RNG, RNPG).

III-*146A* (BAB, E, GH, NA, P, RNG, RNPG, SI).

Hymenophyllum falklandicum Baker

I-*1052* (AAS, BAB, GH, HIP, LP, MO, NA, P, RNG, RNPG).

Hymenophyllum ferrugineum Colla

I-*1565* (BAB, GH, HIP, LP, NA, RNG, RNPG).

Hymenophyllum secundum Hooker & Greville

I-*508* (BAB, GH, LP, NA, P, RNG, RNPG).

III-*228* (BAB, GH, NA, P, RNG, RNPG).

Hymenophyllum tortuosum Hooker & Greville

I-*590* (BAB, E, GH, LP, NA, P, RNG, RNPG).

III-*258* (BAB, GH, NA, RNG, RNPG).

Serpyllopsis caespitosa (Gaudichaud) C. Christensen

I-*874* (BAB, E, GH, LP, MSC, NA, RNG, RNPG).

III-*356* (AAS, BLFU, GH, HIP, NA, P, RNG, RNPG, SI).

LYCOPODIACEAE

Lycopodium confertum Willdenow

I-*1738* (AAS, BAB, E, GH, HIP, LP, MO, MSC, NA, P, RNG, RNPG, SI).

Lycopodium magellanicum (Beauvois) Swartz

I-*1720* (GH, HIP, LP, MSC, NA, P, RNPG, SI).

III-*403* (BAB, GH, NA, RNPG).

SPERMATOPHYTA

GYMNOSPERMAE

CUPRESSACEAE

Cupressus sempervirens L.

IV-*45*-cult. (AAH, NA).

ANGIOSPERMAE - DICOTYLEDONAE

BERBERIDACEAE

Berberis buxifolia Lamarck

I-*1113* (BAB, NA, P, RNPG).

III-*311* (NA).

IV-*65* (MO, NA, P, SGO).

Berberis empetrifolia Lamarck var. *magellanica* Schneider

IV-*114* (BAB, NA, RNPG).

Berberis ilicifolia Forster *f.*

I-*1054* (BAB, MSC, NA, RNG, RNPG).

II-*599* (BAB, NA, RNG, RNPG).

III-*160* (NA, P, RNPG).

IV-*47* (BAB, NA, SGO).

CALLITRICHACEAE

Callitriche antarctica Engelmann ex Hegelmaier

I-*1031* (BAB, E, HIP, MO, MSC, NA, P, RNG, RNPG, SI).

II-*601* (NA, RNPG).

Callitriche deflexa A. Braun ex Hegelmaier

I-*384* (AAS, BAB, NA, RNPG).

II-*608* (BAB, HIP, NA, RNG, RNPG, SI)

CARYOPHYLLACEAE

Cerastium arvense L. var. *arvense* (typical *varietas*)

III-*325* (BAB, NA, RNG, RNPG).

Cerastium arvense var. *fuegianum* Hooker *f.*

I-*1293* (BAB, E, NA, P, RNG, RNPG, SI).

III-*215* (BAB, NA, RNG, RNPG).

Cerastium fontanum Baumgarten

I-*783* (BAB, NA, RNG, RNPG).

Colobanthus quitensis (Humboldt, Bonpland, & Kunth) Bartling

I-*1753* (AAS, BAB, HIP, NA, P, RNG, RNPG, SI).

II-*527* (AAS, BAB, HIP, E, NA, P, RNG, RNPG).

III-*376* (BAB, NA, RNG, RNPG).

IV-*20* (NA, RNPG, SGO).

Colobanthus subulatus (Dumont d'Urville) Hooker *f.*

I-*379A* (AAS, BAB, BLFU, E, HIP, MO, NA, P, RNG, RNPG, SI).

II-*522A* (BAB, NA, RNG).

III-*207* (BAB, NA, P, RNG, RNPG, SI).

IV-*118* (BAB, NA, RNG, RNPG).

Stellaria debilis Dumont d'Urville

I-*1709* (BAB, HIP, MSC, NA, RNG, RNPG).

Stellaria media (L.) Villars
I-*1796* (BAB, MSC, NA, RNG, RNPG).
IV-*42* (NA, RNPG).

COMPOSITAE (Asteraceae)
Abrotanella emarginata (Cassini) Cassini
I-*1327* (AAS, E, HIP, LP, MSC, NA, RNPG, SI).
III-*364* (AAS, BAB, NA, RNPG).
Abrotanella linearifolia A. Gray
I-*1381* (NA, RNPG).
Aster vahlii (Gaudichaud) Hooker & Arnott
I-*1583* (BAB, NA, RNPG).
III-*280B* (NA).
Baccharis patagonica Hooker & Arnott
IV-*6* (BAB, MO, NA, RNPG, SGO, SI).
Chiliotrichum diffusum (Forster *f.*) Kuntze
I-*912* (BAB, MSC, NA, RNG, RNPG).
II-*582* (AAS, BAB, E, NA, P, RNG, RNPG).
III-*149* BAB, MO, NA, P, RNG, RNPG, SI).
IV-*63* (BAB, NA, P, RNPG, SGO, SI).
Cotula scariosa (Cassini) Franchet
I-*328* (BAB, NA, RNG, RNPG).
II-*588* (NA, RNPG).
Gamochaeta malvinensis (H. Koyama) T. R. Dudley, *comb. nov.* (cf. p. 478).
I-*880* (BAB, NA, RNG, RNPG, SI).
III-*303* (BAB, E, MO, NA, RNG, RNPG, SGO, SI).
Gamochaeta nivalis Cabrera
I-*481* (AAS, BAB, NA, RNG, RNPG).
Hypochaeris incana (Hooker & Arnott) Dusén
IV-*93* (NA).
Lagenifera nudicaulis (Commerson ex Lamarck) T. R. Dudley, *comb. nov.* (cf. p. 482).
I-*1058* (AAS, BAB, E, HIP, NA, RNG, RNPG, SI).
Lepidophyllum cupressiforme (Lamarck) Cassini
IV-*82* (NA, RNPG, SGO, SI).
Macrachaenium gracile Hooker *f.*
I-*1790* (NA, RNPG).
Nardophyllum bryoides (Lamarck) Cabrera
IV-*84* (NA, RNG, RNPG, SGO, SI).

Nassauvia latissima Skottsberg
I-679 (BAB, NA, RNG, RNPG).
Nassauvia pygmaea (Cassini) Hooker *f.*
I-*1330* (AAS, BAB, HIP, NA, P, RNG, RNPG, SI).
III-*425* (NA, RNPG).
Perezia magellanica (L. *f.*) Lagasca
I-*1602* (BAB, E, HIP, NA, RNG, RNPG, SI).
III-*365* (NA, RNPG).
Perezia recurvata (Vahl) Lessing
IV-*8* (BAB, NA, RNPG, SGO).
Perezia variabilis (Philippi) Reiche
I-*1262* (BAB, NA, RNPG).
Senecio acanthifolius Hombron & Jacquinot
I-*890* (HIP, NA, P, SGO, SI).
II-*604* (BAB, BLFU, HIP, NA, RNPG).
III-*130* (BAB, NA, RNG).
IV-*67* (NA, RNPG, SGO).
Senecio alloeophyllus O. Hoffmann
III-*428* (BAB, NA, RNPG).
Senecio argyreus Philippi
IV-10 (NA, RNPG, SGO).
Senecio candidans De Candolle
I-*716* (AAS, BAB, NA, RNG, RNPG, SI).
III-*213* (NA, RNG, RNPG).
IV-*94* (BAB, NA, P, RNPG, SGO, SI).
Senecio eightsii Hooker & Arnott
I-*1366* (AAS, BAB, E, HIP, MSC, NA, P, RNG, RNPG, SI, UC).
II-*208* (BAB, NA, P, RNG, RNPG, SGO, SI, UC).
Senecio humifusus (Hooker *f.*) Cabrera
III-*366A* (BAB, NA, RNG, RNPG).
Senecio magellanicus Hooker & Arnott
IV-*95* (NA, RNPG, SGO).
Senecio patagonicus Hooker & Arnott subsp. *patagonicus* (typical *subspecies*)
IV-*81* (BAB, MO, NA, P, RNG, RNPG, SGO, SI, UC).
S. patagonicus subsp. *alyssoides* (C. H. Schultz-Bipontinus) Cabrera
IV-*116* (NA, RNG, RNPG, SGO).
Senecio smithii De Candolle
I-*1710* (BAB, NA, RNPG).
II-*515* (BAB, E, NA, RNPG).

Senecio [*smithii* De Candolle × (?) *S. candidans* De Candolle]
II-*536* (BAB, HIP, NA, RNPG).
Senecio trifurcatis (Forster *f.*) Lessing
I-*1422A* (AAS, BAB, NA, RNG, RNPG, SI).
Senecio websteri Hooker *f.*
I-*1037* (AAS, BAB, E, GH, HIP, LP, MO, MSC, NA, P, RNG, RNPG, SI, UC).
II-*605* (AAS, BAB, NA, RNG, RNPG).
Taraxacum gilliesii Hooker & Arnott
I-*1511* (NA, RNPG).
Taraxacum officinale Weber ex Wiggers
I-*1510* (NA).
II-*595* (NA).
III-*263* (NA).

CRASSULACEAE
Crassula moschata Forster *f.*
I-*1030* (AAS, HIP, MSC, NA, P, RNG, RNPG).
II-*607* (AAS, BAB, E, HIP, MO, NA, P, RNG, RNPG, SI).
III-*205* (BAB, E, NA, P, RNG, RNPG, SI).

CRUCIFERAE (Brassicaceae)
Cardamine geraniifolia (Poiret) De Candolle
I-*1201* (NA).
III-*232* (NA, RNPG).
Cardamine glacialis (Forster *f.*) De Candolle—*sensu lato* (including the glabrous and hirsute-pubescent phases).
I-*1023* (AAS, BAA, BAB, E, GH, HIP, MO, MSC, NA, P, RNG, RNPG, SI, UC).
II-*524* (NA).
III-*214* (BAB, NA, RNPG).
IV-*101* (NA, RNPG).
Draba magellanica Lamarck
IV-*110* (NA).
Erophila verna (L.) Chevallier
IV-*100* (BAA, MO, NA, P, RNG, RNPG, SI).
Hesperis matrionalis L.
IV-*44*-cult. (AAH, NA).
Onuris oligosperma (Spegazzini) Gilg & Muschler
IV-*112* (NA, RNPG).
Thlaspi magellanica Commerson ex Persoon
IV-*41* (NA, RNPG).

DROSERACEAE

Drosera uniflora Willdenow

I-*885* (AAS, BAB, E, HIP, MO, NA, P, RNG, RNPG, SI, UC).

III-*357* (BAB, NA).

EMPETRACEAE

Empetrum rubrum Vahl ex Willdenow

I-*333* (BAB, BLFU, HIP, NA, RNG, RNPG).

II-*537* (BAB, HIP, NA, P, SI).

III-*139* (MO, NA, P, RNG, RNPG, SI).

IV-*33* (BAB, MO, NA, P, RNG, RNPG, SGO, SI).

EPACRIDACEAE

Lebetanthus myrsinites (Lamarck) Dusén

I-*1010* (BAB, E, MO, NA, RNG, RNPG, SI).

III-*152* (BAB, MO, NA, RNG, RNPG).

ERICACEAE

Gaultheria antarctica Hooker *f.*

I-*891* (BAB, E, MSC, NA, P, RNG, RNPG).

III-*245* (NA, RNPG).

Pernettya mucronata (L. *f.*) Gaudichaud ex A. Sprengel

I-*1212* (AAS, HIP, MSC, NA, RNPG, SI).

II-*540* (BAB, BLFU, HIP, NA, P, RNG, RNPG, NI).

III-*285* (BAB, MO, NA, P, RNG, RNPG, SI).

IV-*6* (BAB, NA, P, SGO).

Pernettya pumila (L. *f.*) Hooker

I-*790* (AAS, BAB, NA, P, RNPG, SI).

II-*528* (AAS, BAB, HIP, E, NA, P, RNG, RNPG, SI).

III-*421A* (BAB, NA, RNG, RNPG).

IV-*28A* (NA).

ESCALLONIACEAE

Escallonia serrata J. E. Smith

I-*763* (BAB, E, HIP, NA, RNG, RNPG, SI).

II-*590* (BAB, E, HIP, NA, RNG, RNPG).

III-*212* (BAB, E, NA, P, RNG, RNPG).

EUPHORBIACEAE

Dysopsis glechomoides (Richard) Mueller-Argoviensis

I-*722* (AAS, BAB, HIP, NA, RNG, RNPG).

II-*531* (BAB, NA, RNG, RNPG).

III-*235* (BAB, NA, RNPG).

FAGACEAE

Nothofagus antarctica (Forster *f.*) Oersted

I-*625* (BAB, E, NA, RNG, RNPG, SI).

III-*200* (BAB, NA, P, RNG, RNPG).

IV-*57* (NA, RNG, RNPG, SGO, SI).

Nothofagus betuloides (Mirbel) Oersted

I-*1522* (A, BAB, HIP, MO, MSC, NA, P, RNG, RNPG, SI).

III-*155* (BAB, MO, NA, P, RNG, RNPG, SI).

IV-*30* (BAB, E, MO, NA, P, RNG, RNPG, SGO, SI).

Nothofagus pumilio (Poeppig & Endlicher) Krasser

I-*1061* (NA).

III-*174A* (BAB, NA, RNG, RNPG).

GROSSULARIACEAE

Ribes magellanica Poiret

I-*1124* (A, E, MO, NA, P, RNPG).

IV-*37* (BAB, NA, RNG, RNPG).

GUNNERACEAE

Gunnera lobata Hooker *f.*

I-*751* (BAB, NA, RNG, RNPG, SI, UC).

III-*247* (NA, RNPG).

Gunnera magellanica Lamarck

I-*881* (BAB, MSC, NA, RNG, RNPG).

II-*585* (AAS, BAB, NA, RNG, RNPG).

III-*187* (NA, P, RNG).

HELLEBORACEAE

Caltha appendiculata Persoon

I-*343* (AAS, BAB, NA, P, RNG, RNPG).

II-*541* (NA, P, RNPG).

III-*162* (NA, P, RNG, RNPG).

Caltha dionaeifolia Hooker *f.*

I-*642* (AAS, BAB, BLFU, HIP, NA, P, RNG, RNPG).

III-*277* (BAB, NA, P, RNPG).

Caltha × *goodalliana* T. R. Dudley, *hybrida nova* (cf. p. 490).

I-*1411A* (BAB, NA, P, RNPG).

Caltha sagittata Cavanilles

I-*1273* (BAB, E, MSC, NA, P, RNG, RNPG).

III-*308* (NA, P, RNG, RNPG).

IV-*68* (NA, P, RNPG).

HIPPURIDACEAE

Hippuris vulgaris L.

IV-*66* (BAB, MO, NA, P, RNPG, SGO).

HYDROCOTYLACEAE

Azorella caespitosa Cavanilles

IV-*24* (NA, RNPG, UC).

Azorella filamentosa Lamarck

I-*1024* (BAB, E, NA, RNG, RNPG, SI, UC).

Azorella fuegiana Spegazzini

I-*1509B* (NA).

IV-*111* (NA, RNPG).

Azorella lycopodioides Gaudichaud

I-*903* (AAS, BAB, NA, RNG, RNPG, UC).

III-*368* (NA).

IV-*23* (NA, RNPG, SGO, UC).

Azorella selago Hooker *f.*

I-*1419* (AAS, BAB, HIP, MSC, NA, P, RNG, UC).

III-*354* (BAB, HIP, NA, RNG, RNPG, UC).

Azorella trifurcata Persoon

III-*265* (BAB, MO, NA, P, RNG, RNPG, SI, UC).

IV-*7* (BAB, NA, P, RNPG, SGO, UC).

Bolax caespitosa Hombron & Jacquinot ex Decaisne

I-*1640* (AAS, BAB, BLFU, HIP, MO, MSC, NA, P, RNG, RNPG, SI, UC).

Bolax gummifera (Lamarck) Sprengel

I-*1460* (AAS, BAB, E, HIP, MO, MSC, NA, P, RNPG, SI, UC).

III-*427* (BAB, BLFU, NA, RNG, RNPG, UC).

HYDROPHYLLACEAE

Phacelia magellanica (Lamarck) Coville

IV-*80* (BAB, NA, P, RNPG, SGO).

LEGUMINOSAE (Fabaceae)

Vicia sericella Spegazzini

IV-*39* (BAB, HIP, NA, RNPG, SI).

LENTIBULARIACEAE

Pinguicula antarctica Vahl

I-*734* (BAB, NA, P, RNG, RNPG).

III-*405* (NA).

LOBELIACEAE

Pratia repens Gaudichaud

I-*656A* (BAB, BLFU, NA, RNG, RNPG, SI).

II-*532* (BAB, NA, RNG, RNPG).

MISODENDRACEAE

Misodendrum brachystachyum De Candolle

I-*877* (AAS, BAB, E, MSC, MO, NA, RNG, RNPG, SI).

III-*217A* (A, BAB, E, MO, NA, RNG, RNPG, SI).

Misodendrum punctulatum Banks & Solander ex De Candolle

I-*915* (AAS, BAB, E, MSC, MO, NA, RNG, RNPG, SI).

III-*300* (BAB, E, MO, NA, P, RNG, RNPG, SI, UC).

IV-*17* (BAB, MO, NA, P, RNG, RNPG, SGO, SI).

MYRTACEAE

Myrteola nummularia (Poiret) Berg

I-*738* (AAS, BAB, HIP, NA, RNG, RNPG).

III-*226* (BAB, E, MO, NA, P, RNG, RNPG, SI).

ONAGRACEAE

Epilobium cunninghamii Haussknect

I-*1274* (AAS, BAB, E, MO, NA, P, RNG, RNPG, SGO, SI, UC).

OXALIDACEAE

Oxalis magellanica Forster *f.*

I-*1281* (NA, P, RNPG).

PLANTAGINACEAE

Littorella australis Grisebach ex Skottsberg

I-*1613* (BAB, HIP, NA, P, RNG, RNPG).

III-*306A* (BAB, NA, RNG, RNPG).

Plantago barbata Forster *f.*

I-*847* (AAS, BAB, HIP, NA, P, RNG, RNPG).

III-*148* (BAB, E, NA, P, RNG, RNPG, US).

IV-*19* (NA, RNPG, SGO).

Plantago lanceolata L.

IV-*96* (NA).

Plantago maritima L.

IV-*18* (NA, RNPG, SGO).

PLUMBAGINACEAE

Armeria maritima (Miller) Willdenow subsp. *andina* (Poeppig ex

Boissier) D. M. Moore & Yates var. *andina* (typical *varietas*)
I-*1708* (BAB, HIP, MSC, NA, P, RNG, RNPG, SI).
IV-*103* (BAB, NA, RNG, RNPG, SGO, SI).
A. maritima subsp. *andina* var. *goodalliana* T. R. Dudley, *var. nov.*
(cf. p. 488).
I-*1034* (AAS, BAB, E, HIP, MO, MSC, NA, P, RNG, RNPG, SI).

POLYGONACEAE
Polygonum maritimum L.
IV-*97* (BAB, MO, NA, P, RNPG, SGO).
Rumex acetosella L.
II-*587* (NA).
IV-*74* (BAB, NA, P, RNPG, SGO).
Rumex magellanica Campdéra
IV-*40* (NA, RNPG, SGO).

PORTULACACEAE
Montia fontana L.
I-*846* (BAB, HIP, NA, RNG, RNPG).
III-*374* (AAS, BAB, BLFU, NA, P, RNG, RNPG).

PRIMULACEAE
Anagallis alternifolia Cavanilles var. *repens* (Dumont d'Urville) Pax & Kunth
I-*888* (BAB, NA, RNPG).
Primula magellanica Lehmann
I-*930A* (BAB, MSC, NA, RNG, RNPG, SI).

PROTEACEAE
Embothrium coccineum Forster & Forster *f.*
IV-*12* (BAB, NA, P, RNPG).

RANUNCULACEAE
Hamadryas delfinii Commerson ex A. L. Jussieu
IV-*104* (NA, P, RNPG, SGO).
Hamadryas magellanica J. F. Gmelin f. *paniculata* (Hooker) Lourteig
I-*1310* (AAS, BAB, BLFU, E, HIP, MO, NA, P, RNG, RNPG, SGO, SI, UC).
Ranunculus biternatus J. E. Smith
I-*1370* (BAB, NA, P, RNPG).
III-*307* (NA, P, RNG, RNPG).

ROSACEAE

Acaena antarctica Hooker *f.*

I-*1719A* (AAS, NA, RNG, RNPG).

III-*359* (AAS, NA, RNG, RNPG).

Acaena magellanica (Lamarck) Vahl

I-*1299* (AAS, BAB, E, MO, NA, P, RNG, RNPG).

II-*592* (AAS, BAB, NA).

III-*309* (AAS, NA, RNG, RNPG).

IV-*64* (AAS, BAB, NA, RNG, RNPG, SGO).

Acaena ovalifolia Ruiz & Pavón

I-*469* (AAS, NA, RNPG).

II-*529* (AAS, BAB, NA, P, RNG, RNPG).

IV-*61* (AAS, NA, P, RNG, RNPG, SGO).

Acaena pumila Vahl

I-*1412* (AAS, BAB, NA, RNG, RNPG).

III-*164* (AAS, BAB, NA, RNG, RNPG).

Acaena sericea Philippi

IV-*113* (AAS, NA, RNG, RNPG, SGO).

Rubus geoides J. E. Smith

I-*1494A* (AAS, BAB, HIP, NA, RNG, RNPG).

II-*530* (NA).

III-*145A* (BAB, NA).

RUBIACEAE

Galium antarcticum Hooker *f.*

I-*1320A* (BAB, NA, RNG, RNPG).

Galium fuegianum Hooker *f.*

I-*1105* (BAB, HIP, NA, P, RNG, RNPG).

IV-*71* (NA, P, RNPG, SGO).

Nertera depressa Banks & Solander ex J. Gaertner

I-*883* (AAS, BAB, E, HIP, NA, P, RNPG, SI).

II-*526* (BAB, BLFU, HIP, NA, RNG, RNPG, SI).

SANTALACEAE

Nanodea muscosa Banks ex C. F. Gaertner

I-*923* (AAS, NA, RNG, RNPG).

II-*544* (NA).

III-*142* (NA, RNG, RNPG).

IV-*51* (NA).

SAXIFRAGACEAE

Chrysosplenium macranthum Hooker

I-*1021A* (AAS, BAB, E, HIP, MO, NA, P, RNG, RNPG, SI).
II-*597* (BAB, MO, NA, RNG, RNPG).
III-*204* (BAB, NA, RNG, RNPG).

Saxifraga magellanica Poiret
I-*1244* (AAS, BAB, HIP, MSC, NA, P, RNG, RNPG, SI).
IV-*105* (NA).

SCROPHULARIACEAE
Calceolaria darwinii Bentham
IV-*88* (NA, RNPG).

Hebe elliptica (Forster *f.*) Pennell
I-*1036* (AAS, BAB, E, HIP, MO, NA, P, RNG, RNPG, SI).

Ourisia breviflora Bentham
I-*1717* (BAB, NA, NY, RNPG).

Ourisia ruelloides (L.) Kuntze
I-*1268* (A, AAS, BAB, BLFU, E, HIP, LP, MO, MSC, NA, NY, P, RNG, RNPG, SGO, SI, UC).

Ourisia uniflora Philippi
I-*1373A* (BAB, HIP, NA, NY, P, RNG, RNPG, SI).

THYMELIACEAE
Drapetes muscosoides Banks ex Lamarck
I-*921* (AAS, BAB, MSC, NA, RNG, RNPG, SI).
III-*419* (AAS, NA, RNPG).

TRIBELACEAE
Tribeles australis Philippi
I-*1714A* (AAS, BAB, E, HIP, MSC, NA, P, RNG, RNPG, SI).
III-*243* (BAB, NA, RNPG).

UMBELLIFERAE (Apiaceae)
Apium australe Thouars
I-*381* (BAB, BLFU, NA, RNG, RNPG, SI, UC).
II-*538* (AAS, BAB, HIP, NA, RNG, RNPG, SI, UC).
III-*206* (BAB, NA, P, RNG, RNPG, UC).
Lilaeopsis macloviana (Gandoger) H. H. Hill
I-*557* (BAB, NA).

VERBENACEAE
Verbena tridens Lagasca
IV-*98* (BAB, NA, P, RNG, RNPG, SGO).

VIOLACEAE

Viola commersonii De Candolle ex de Gingins
I-*1722* (NA, P, RNPG).
Viola magellanica Forster *f.*
I-*1267A* (BAB, NA, P, RNG, RNPG).
III-*305B* (NA).
Viola tridentata Menzies ex de Gingins
I-*1341* (BAB, E, HIP, NA, RNG, RNPG, SI).

WINTERACEAE

Drimys winteri Forster & Forster *f.*
I-*1039* (BAB, MSC, NA, RNG, RNPG).
II-*539* (E, MO, NA, RNG, RNPG, SI).
III-*161* (BAB, MO, NA, RNG, RNPG, SI).
IV-*46* (BAB, HIP, MO, NA, P, RNG, RNPG, SGO, SI).

ANGIOSPERMAE-MONOCOTYLEDONAE

CENTROLEPIDACEAE

Gaimardia australis Gaudichaud
I-*1336* (AAS, BAB, BLFU, HIP, NA, RNG, RNPG, SI).
III-*352A* (BAB, NA, RNG, RNPG, SI).

CYPERACEAE

Carex banksii Boott var. *banksii* (typical *varietas*).
I-*1271* (AAS, BAB, E, HIP, MO, NA, P, RNG, RNPG, SI, UC).
Carex microglochin Wahlenberg subsp. *fuegina* Kükenthal
III-*373B* (AAS, BAB, E, LP, MO, NA, P, RNG, RNPG, SI).
Eleocharis albibracteata Nees & Meyen ex Kunth
I-*460* (BAB, NA, RNPG).
II-*586* (AAS, BAB, NA, P, RNG, RNPG).
Oreobolus obtusangulus Gaudichaud
I-*1152* (AAS, HIP, NA, P, RNG, RNPG, SI).
III-*241* (AAS, BAB, HIP, LP, NA, P, RNPG, SI).
Schoenus antarcticus (Hooker *f.*) Dusén
I-*1384D* (NA).
III-*273* (BAB, NA, RNG, RNPG).
Scirpus cernuus Vahl
I-*1033* (BAB, HIP, MSC, NA, RNG, RNPG, SI).
Uncinia brevicaulis (Thouars) Kunth
I-*1134* (AAS, BAB, HIP, MSC, NA, RNG, RNPG, SI).
III-*176* (NA, RNPG).

GRAMINEAE (Poaceae)

Agropyron magellanicum (Desvaux) Hackel

I-*715* (BAB, HIP, NA, RNG, RNPG, SI).

IV-*85* (BAB, E, NA, P, RNG, RNPG, SGO, SI).

Agrostis sp.

I-*1005* (BAB, HIP, NA, RNPG, SI).

III-*323* (BAB, NA, RNG, RNPG).

IV-*69* (BAB, NA, RNG, RNPG, SI).

Deschampsia kingii (Hooker *f.*) Desvaux

I-*1432* (AAS, BAB, HIP, NA, RNG, RNPG, SI).

II-*543* (NA).

III-*220* (NA, RNPG).

Festuca longidiurna Parodi

I-*562* (BAB, NA, RNG, RNPG).

Festuca sp.

I-*646* (BAB, NA, RNG, RNPG, SI).

III-*431* (BAB, NA, RNPG).

Hierochloë redolens (Solander ex Vahl) Roemer & Schultes

I-*718* (AAS, BAB, E, MO, NA, RNG, RNPG, SI).

II-*577* (AAS, BAB, BLFU, HIP, NA, RNG, RNPG).

III-*211* (BAB, NA, P, RNG, RNPG).

Hordeum parodii Covas var. *parodii* (typical *varietas*).

III-*398* (BAB, NA, RNG, RNPG).

IV-*87* (NA, RNPG, SGO).

Poa alopecurus (Gaudichaud) Kunth subsp. *alopecurus* (typical *subspecies*).

I-*1301A* (AAS, BAB, MSC, NA, RNG, RNPG).

P. alopecurus subsp. *fuegiana* (Hooker *f.*) D. M. Moore & Doggett

I-*1291* (BAB, HIP, NA, RNG, RNPG).

II-*606* (NA)

Poa annua L.

I-*1284C* (NA).

III-*122* (NA).

Poa darwiniana Parodi

I-*551* (BAB, NA, RNG, RNPG).

II-*516* (BAB, NA, RNPG).

IV-*28B* (NA).

Poa flabellata (Lamarck) Raspail

I-*382* (AAS, BAB, E, HIP, LP, MO, NA, P, RNG, RNPG, SI).

II-*548* (AAS, BAB, E, HIP, MO, NA, P, RNG, RNPG, SI).

Poa rigidifolia Steudel
I-*1130* (BAB, HIP, NA, RNG, RNPG).
IV-*22* (BAB, NA, RNG, RNPG, SGO, SI).
Poa robusta Steudel
I-*1707* (BAB, HIP, NA, RNG, RNPG, SI).

JUNCACEAE
Juncus balticus Willdenow var. *mexicanus* (Willdenow ex Roemer & Schultes) Kuntze
IV-*78* (BAB, NA, RNPG, SGO, SI).
Juncus depauperatus Philippi
I-*892* (BAB, NA, RNPG).
Juncus scheuchzerioides Gaudichaud
I-*1614* (NA, RNPG).
III-*373A* (AAS, BAB, E, LP, MO, NA, RNG, RNPG, SI).
Luzula alopecurus Desvaux
I-*1367* (AAS, BAB, E, HIP, MSC, NA, P, RNG, RNPG, SI).
Luzula antarctica Hooker *f.*
I-*1466* (AAS, BAB, HIP, MO, NA, P, RNG, RNPG, SI).
Marsippospermum grandiflorum (L. *f.*) Hooker *f.*
I-*1619* (BAB, E, HIP, NA, P, RNG, RNPG, SI).
II-*578* (AAS, BAB, E, NA, RNG, RNPG).
III-*252* (BAB, NA, RNG, RNPG).
Marsippospermum reichei Buchenau
III-*273* (AAS, NA, RNG, RNPG).
Rostkovia magellanica (Lamarck) Hooker *f.*
I-*1459* (AAS, BAB, E, HIP, MO, MSC, NA, P, RNG, RNPG, SI).

JUNCAGINACEAE
Tetroncium magellanicum Willdenow
III-*272* (BAB, NA, RNPG).

LILIACEAE
Astelia pumila (Forster *f.*) Banks & Solander ex R. Brown
I-*1174* (AAS, BAB, HIP, MSC, NA, RNG, RNPG, SI).
III-*257* (BAB, MO, NA, P, RNG, RNPG, SI).

PHILESIACEAE
Luzuriaga marginata (Banks & Solander ex J. Gaertner) Bentham & Hooker *f.*
I-*666A* (AAS, BAB, NA, RNG, RNPG, SI).
II-*534* (BLFU, NA, P, RNPG, SI).
III-*230* (MO, NA, P, RNG, RNPG, SI).

ORCHIDACEAE
Codonorchis lessonii (Dumont d'Urville) Lindley
I-*946* (BAB, NA, RNPG).
III-*124B* (NA).
Gavilea lutea (Persoon) Correa
IV-*49* (BAB, NA, RNPG, SGO).

The following records of additional plant taxa are reported to occur on Isla de los Estados (I), Islas Años Nuevos (II), or from Peninsula Mitre (III) of Isla Grande, Tierra del Fuego. These plants, however, were *not* re-collected or documented in 1971 by the collecting team of the R/V Hero Cruise 71-5 to Isla de los Estados. This enumeration hopefully will stimulate further botanical exploration of Isla de los Estados, as well as other nearby land masses and islands, throughout the austral spring, summer, and autumn. The rugged mountain massifs of the interior of Isla de los Estados, which are the southernmost terminus of the South American Andes, particularly await the critical eyes of plant collectors and systematists.

BERBERIDACEAE
Berberis empetrifolia Lamarck. I-Spegazzini (1896).

CHENOPODIACEAE
Chenopodium antarcticum (Hooker *f.*) Bentham & Hooker *f.*
I-Dusén in Macloskie (1904); I-Stuckert in Macloskie (1915).

COMPOSITAE (Asteraceae)
Adenocaulon chilensis Lessing. I-Spegazzini (1896); II-Cabrera in Correa (1971).

CYPERACEAE
Carpha alpina Banks & Solander ex R. Brown var. *schoenoides* (Banks & Solander) Kükenthal. I-Barros in Correa (1969).
Uncinia kingii Boott. I-Spegazzini (1896); I-Macloskie (1904); I-Barros in Correa (1969). *U. lechleriana* Steudel subsp. *triquetra* (Kükenthal) Kükenthal. I-Barros in Correa (1969).

DESFONTAINIACEAE
Desfontainea spinosa Ruiz & Pavón. I-Hooker (1847); I-Macloskie (1903).

GLEICHENIACEAE

Gleichenia quadripartita Hooker. I-Spegazzini (1896).

GRAMINEAE (Poaceae)

Agrostis magellanica Lamarck. I-Spegazzini (1896); I-Rúgolo de Agrassar in Nicora (Correa, 1978). *A. uliginosa* Philippi. I-Rúgolo de Agrassar in Nicora (Correa, 1978).

Cortaderia pilosa (Dumont d'Urville) Hackel. I-Nicora in Correa (1978).

Deschampsia flexuosa (L.) Trinius. I-Spegazzini (1896). *D. parvula* (Hooker *f.*) Desvaux. I-Nicora in Correa (1978).

Festuca contracta T. Kirk. I-Nicora in Correa (1978). *F. purpurascens* Banks & Solander ex Hooker. I-Spegazzini (1896).

Hierochloë moorei De Paula de Brooks. I-De Paula de Brooks in Nicora (Correa, 1978).

Orthachne rariflora (Hooker *f.*) Hughes. I-Spegazzini (1896). I-Macloskie (1904). I-Dusén in Macloskie (1915).

Poa chrysantha Lindman. I-Nicora in Correa (1978). *P. shuka* (Spegazzini) Parodi. I-Nicora in Correa (1978).

Puccinellia magellanica (Hooker *f.*) Parodi. I-Spegazzini (1896); I-Macloskie (1904). *P. pusilla* (Hackel ex Dusén) Parodi. II-Macloski (1915).

Trisetum phleoides (Dumont d'Urville) Kunth. I-Nicora in Correa (1978); II-Dusén in Macloskie (1915). *T. spicatum* (L.) Richter. I-Spegazzini (1896); I-Nicora in Correa (1978).

HYDROCOTYLACEAE

Schizeilema ranunculus (Dumont d'Urville) Domin. I-Spegazzini (1896); I-Dusén in Macloskie (1905); I-Domin in Macloskie (1915).

HYMENOPHYLLACEAE

Hymenophyllum pectinatum Cavanilles. I(?)-Spegazzini (1896).

IRIDACEAE

Tapeinia pumila (Forster *f.*) Baillon. I(?)-Ravenna in Correa (1969); III-Moore (1979).

JUNCACEAE

Juncus inconspicuus Dumont d'Urville. II-Barros in Correa (1969); II-Moore (1974).

Luzula pumila Hooker *f.* I-Spegazzini (1896); I-Moore (1974).

MISODENDRACEAE

Misodenrum quadrifolium De Candolle. I-De Candolle (1830); I-Macloskie (1904); III-Goodall (pers. comm., 1977).

ONAGRACEAE

Fuchsia magellanica Lamarck. I-Macloskie (1905).

OPHIOGLOSSACEAE

Botrychium lunaria (L.) Swartz. I-Spegazzini (1896); I-Macloskie (1911); I-Alston (1960); III-Alston (1960).

ORCHIDACEAE

Gavilea lutea (Persoon) Correa. I-Spegazzini (1896)—by the synonym *Chloraea commersonii* Brongiart.

PHILESIACEAE

Philesia magellanica F. J. Gmelin. I-Goodall (pers. comm., 1977).

PRIMULACEAE

Anagallis alternifolia Cavanilles var. *densiflora* Hooker *f.* II-Macloskie (1905).

ROSACEAE

Geum magellanicum Commerson ex Persoon. I-Spegazzini (1896)—by the *pro parte* synonym *G. chiloense multo auct.;* III-Goodall (pers. comm., 1977). *G. parviflorum* Commerson ex J. E. Smith. I-Goodall (pers. comm., 1977).

SAXIFRAGACEAE

Saxifragella bicuspidata (Hooker *f.*) Engler. I-Spegazzini (1896)—by the synonym *Saxifraga bicuspidata* Hooker *f.*; I-Macloskie (1915).

STYLIDIACEAE

Phyllachne uliginosa Forster. I-Dusén in Macloskie (1905); III-Dusén in Macloskie (1905).

VALERIANACEAE

Valeriana sedifolia Dumont d'Urville. I-Spegazzini (1896); I-Macloskie (1905).

ACKNOWLEDGMENTS

I am particularly indebted to Dr. Rolla Tryon and Dr. Garrett Crow for their continued patience, and their extremely perceptive and pertinent recommendations, commentaries, and viable suggestions.

BIBLIOGRAPHY AND SELECTED REFERENCES

ALBOFF, N. 1902. Essai de Raissonée de la Terre de Feu. Anal. Mus. La Plata, secc. Bot. **1**: 1–85.

ALSTON, A. H. 1960. Some New Species of Ferns from South America. Lilloa **30**: 107–112.

AMERICAN GEOGRAPHICAL SOCIETY (New York). 1956. Map of Tierra del Fuego, 1:1,000,000.

ARNAUD, P., F. ARNAUD, & J. C. HUREAU. 1967. Bibliographie Général de Biologie Antarctique et Subantarctique No. **18**. Comité National Française de Recherches Antarctiques. Paris. 47 pp.

BARROS, M. 1969. Cyperaceae. *In:* M. N. Correa (Ed.), Flora Patagonica, Parte II, Typhaceae a Orchidaceae (Exceptio Gramineae). Colec. Cient. Instituto Nacional de Tecnologia Agropecuaria **8**: 38–92. Buenos Aires.

———. 1969. Juncaceae. *In:* M. N. Correa (Ed.), *ibid.*; 109–137.

BRACKENRIDGE, W. D. 1854. Filices including Lycopodiaceae and Hydropteroides. *In:* C. Wilkes, U. S. Exploring Expedition During the Years 1838, 1839, 1840, 1841, 1842 Under the Command of Charles Wilkes U.S.N., 16 (Botany): 357 pp. Philadelphia *Ibid.*, 1855: Atlas, 46 pls.

BRIDGES, E. L. 1963. Uttermost Part of the Earth, ed. 2. Hodder & Stoughton, London, 558 pp.

BULLOCK, A. A. 1966. Two Examples of the Application of Art. 73. Taxon **15**: 75–77.

CABRERA, A. L. 1961. Observaciónes sobre las Inulae-Gnaphalineae (Compositae) de America del Sur. Bol. Soc. Argent. Bot. **9**: 359–386.

———. 1966. The Genus *Lagenophora* (Compositae). Blumea **14**(2): 285–308.

———. 1971. Compositae. *In:* M. N. Correa (Ed.), Flora Patagonica, Parte VII. Compositae. Colec. Cient. Instituto Nacional de Tecnologia Agropecuaria **8**: 451 pp. Buenos Aires.

CASSINI, A.-H. G. 1816. Aperçu des Genrés ou sous-Genrés Nouveaux Formés par...dans la Famille des Synantherées. Bull. Sci. Soc. Philom. Paris fasc. **1**: 198–200. *Ibid.* 1818. fasc. **7**(2): 33–34.

CONSTANCE, L. 1963. Amphitropical Relationships in the Herbaceous Flora of the Pacific Coast of North and South America. Quart. Review Biology **38**: 109–177.

CORREA, M. N. (Ed.). 1969. Flora Patagonica, Parte II, Typhaceae a Orchidaceae (Exceptio Gramineae), Colec. Cient. Instituto Nacional de Tecnologia Agropecuaria **8**: 219 pp. Buenos Aires

———. 1971. Flora Patagonica, Parte VII, Compositae. 451 pp.

———. 1978. Flora Patagonica, Parte III, Gramineae. 579 pp.

CROSSWHITE, F. S. 1967. Against Proliferation of Superfluous Names by Giving Formal Status to Spellng Variants. Taxon **16**: 109–112.

CROW, G. E. 1975. Vegetation of Isla de los Estados, Argentina. Antarctic Jour. of the United States **10**(3): 81–85.

———. 1981. (In Press). Climate. *In*: T. R. Dudley & G. E. Crow, A Contribution to the Flora and Vegetation of Isla de los Estados (Staten Island), Tierra del Fuego, Argentina. Antarctic Research Series: Terrestrial Biology **30**(11). American Geophysical Union, Washington, D.C.

DARLINGTON, P. J. 1965. Biogeography of the Southern End of the World: Distribution and History of the Far Southern Life and Land, With an Assessment of Continental Drift. 236 pp. Harvard University Press.

DIMITRI, M. J. (Ed.). 1972. La Región de los Bósques Andino-Patagonicos, Sinopsis General, Colec. Cient. Instituto Nacional de Tecnologia Agropecuaria **10**: 381 pp. Buenos Aires.

DOMIN, K. 1915. Umbelliferae. *In:* G. Macloskie & P. Dusén, Revision of Flora Patagonica. Reports of the Princeton University Expeditions to Patagonia 1886–1890 (Ed. W. B. Scott), **8** (Suppl. Botany): 188–192. Princeton, New Jersey and Stuttgart.

DRURY, D. G. 1974. A Broadly based Taxonomy of *Lagenifera* Section Lagenifera and *Solenogyne* (Compositae-Asteraceae) with an Account of Their Species in New Zealand. New Zealand Jour. Bot. **12**(3): 365–395.

DUDLEY, T. R. & G. E. CROW. 1981 (In Press). A Contribution to the Flora and Vegetation of Isla de los Estados (Staten Island), Tierra del Fuego, Argentina. Antarctic Research Series: Terrestrial Biology **30**(11). American Geophysical Union, Washington, D.C. (T. R. Dudley—Coordinates and Codes of Geographical Features and Landmarks; Systematics and Annotated Synopsis of Vascular Plants; Addendum to the Systematic and Annotated Synopsis of Vascular Plants; Taxa Reported from Isla de los Estados or Peninsula Mitre, but *not* re-confirmed in 1971; Selected Taxa Unrecorded for Isla de los Estados and Bahias Buen Suceso and Valentín of Península Mitre; Comprehensive Bibliography. T. R. Dudley & G. E. Crow—Introduction. T. R. Dudley, G. E. Crow & D. W. Walton—Addendum ot the Comprehensive Bibliography. G. E. Crow, T. R. Dudley, & E. C. Dudley—Vegetation.)

DUMONT D-URVILLE, J. S. C. 1825. Flore des Îles Malouines. Paris. 56 pp.

DUSÉN, P. 1900. Gefässpflanzen der Magellansländerna. *In:* O. Nordenskjold (Ed.), Svenska Expeditionen till Magellansländerna. Wissensch. Ergebnisse Svenska Exped. Magellansländerna 1895–1896, **3**(5), Botanik: 77–266. Stockholm.

FARR, E. R., et al. 1979. Index Nominum Genericorum (Plantarum) 1 (*AA-Epochnium*): 630 pp. Bohn, Scheltema & Holkema, Utrecht, [(Regnum Vegetabile **100**.].

_____. 1979. Index Nominum Genericorum (Plantarum) 2 (*Eprolithus-Peersia*): 631–1276. Bohn, Scheltema & Holkema, Utrecht. [Regnum Vegetabile **101**].

GAUDICHAUD-BEAUPRE, C. 1825. Flore des Iles Malouines. Anal. Sci. Nat. Paris, ser. 1, **5**: 89–110.

GIVEN, D. R. 1968. Subantarctic Pteridophytes: Observations and New Records. New Zealand J. Bot. **16**(4): 551–552.

GODLEY, E. J. 1960. The Botany of Southern Chile in Relation to New Zealand and the Sub-antarctic. Proceed. Royal Soc. London, ser. B., **152**(949): 457–475.

_____. 1960. General Discussion on the Botany of the Southern Cold Temperate Zone. Proceed. Royal Soc. London, ser. B, **152**(949): 532–540.

GOODALL, R. N. P. 1970. Tierra del Fuego, ed. 1, Macchi, Saltzmann, 72 pp. Buenos Aires.

_____. 1971. Housewife at the end of the world. National Geographic Society Magazine **139**(11): 13–150.

———. 1975. Tierra del Fuego, ed. 2, 253 pp., Ed. Shanamaiim, Buenos Aires and Ushuaia.

———. 1978. Collections, Observations and Illustrations of the Flora of Tierra del Fuego. National Geographic Society Research Reports, 1970 Reports. **11:** 217–222.

———. 1980. Collections, observations, and illustrations of the flora of Tierra del Fuego, 1971–1973. National Geographic Society Research Reports, 1971 Reports. **12:** 275–281.

GREENE, E. L. 1890. Against Revertable Names. Pittonia **2**: 185–195.

GREENE, S. W. 1964. The Vascular Flora of South Georgia. British Antarctic Survey Scientific Reports **45**: 58 pp. London.

———. 1970. New Records for South Georgia Vascular Plants. British Antarctic Survey Bull. **22**: 49–59.

———. & D. M. GREENE. 1963. Checklist of the Sub-antarctic and Antarctic Vascular Flora. Polar Record **11**(73): 411–418.

———. & D. W. H. WALTON. 1975. An Annotated Checklist of the Subantarctic and Antarctic Vascular Flora. Polar Record **17**(110): 473–484.

HARRINGTON, H. J. 1943. Observaciones Geológicos en la Isla de los Estados. Ann. Mus. Argent. Cienc. Nat. Geol. Pub. **29**: 29–52.

HARRINGTON, R. 1934. La Isla de los Estados. Revista Geografica Argent. **1**(9): 617–628.

HOLDGATE, M. W. 1960. Biology of the Southern Cold Temperate Zone. Nature (London) **185**(470): 204–206.

———. 1961. Vegetation and Soils in the South Chilean Islands. Jour. Ecology **49**: 559–580.

———. 1961. Biological Routes Between the Southern Continents. New Scientist No. **239**: 636–638.

———. 1962. Ecology of the Antarctic Fringe. Polar Record **11**(72): 335–336.

———. & N. M. WACE. 1961. The Influence of Man on the Floras and Faunas of Southern Islands. Polar Record **10**(68): 475–493.

HOMBRON, Y. B. & CH. JACQUINOT. 1853. Botanique. *In:* Y.S.C. Dumont d'Urville, Voyage au Pôle Sud et dans l'Océanie sur les Corvettes L'Astrolabe et la Zelée **2**: 96 pp. Paris. *Ibid.* Atlas: 66 pls. 1843–1853.

HOOKER, J. D. 1844–1847. Flora Antarctica incl. Summary of the Voyage (The Botany of the Antarctic Voyage of H.M. Discovery Ships "Erebus" and "Terror" in the Years 1839–1843, vol. 1) pt. **1** (nos. 1–10, Botany of Fuegia, the Falklands, Kerguelen, etc:): 208 pp. London. *Ibid.*, 1845–1847, pt. **2** (nos. 11–25): 209–574. London.

IMSHAUG, H. A. 1972. R/V Hero Cruise 71–5 to Isla de los Estados. Antarctic Jour. of the United States **7**(2): 42–44.

KOSTER, J. 1965. *Lagenifera. In:* C. A. Backer & R. C. Bakhuizen van den Brink, Jr., Flora of Java **2**: 362–381. Groningen.

KOYAMA, H. 1978. On a New Name of *Gnaphalium* from Falkland Islands. Acta Phytotax. Geobot. **29** (1–5): p. 84.

LAWRENCE, G. M. 1940. Armerias Native and Cultivated (Article 38). Gentes Herbarium **4**(11): 390–418.

MACLOSKIE, G. 1904. Flora Patagonica, Reports of the Princeton University Expeditions to Patagonia, 1896–1899 (Ed. W. B. Scott), **8**-Botany (Pinaceae-Santalaceae): 139–338. Princeton, New Jersey and Stuttgart.

———. 1905. *Ibid.* (Santalaceae-Cactaceae): 339–594.
———. 1906. *Ibid.* (Cactaceae-Compositae): 595–810.
———. 1906. *Ibid.* (Compositae-cont.): 811–905.
———. 1906. *Ibid.* Character and Origin of the Patagonian Flora: 945–960.
———. 1906. *Ibid.* Topography: 937–943.
———. 1906. *Ibid.* Supplementary Revision and Corrections: 961–963.
———. 1914. Revision of Flora Patagonica. Pteridophyta. Reports of the Princeton University Expeditions to Patagonia. 1896–1899 (Ed. W. B. Scott), **8** Suppl. Botany I.: 1–31.
———, & P. Dusén. 1915. Revision of Flora Patagonica. Reports on the Princeton University Expeditions to Patagonia, 1896–1899 (Ed. W. B. Scott), **8** (Suppl. Botany): 32–297.
———, & L. M. Underwood. 1903. Pteridophyta. Ferns and Fern Allies. *In:* G. Macloskie, Flora Patagonica. Reports of the Princeton University Expeditions to Patagonia, 1896–1899 (Ed. W. B. Scott), **8**(Botany): 127–138.
Macloskie, G., *et al.* 1903–1915. All of G. Macloskie's publications and sections of his *Flora of Patagonica* are liberally and amply provided with discussions, descriptions, commentaries and corrections by C. Skottsberg, P. Dusén, Th. Stuckert, among other specialists of that period.
McVaugh, R. 1968. Reports of the Committe for Spermatophyta. Conservation of Generic Names. IX, *Lagenophora* vs. *Lagenifera*. Taxon **17**: 325–329.
Moore, D. M. 1968. The Vascular Flora of the Falkland Islands. British Antarctic Survey Research Reports No. 60: 220 pp. London.
———. 1970. Additions to the Vascular Flora of Tierra del Fuego. Bol. Soc. Bot. Argent. **13**(1): 1–9.
———. 1973. Additions and Amendments to the Vascular Flora of the Falkland Islands. British Antarctic Research Survey Bull. **32**: 85–88.
———. 1974. Catalogo de las Plantas Vasculares Nativas de Tierra del Fuego. Anal. Instituto Patagonica **5**(1–2): 105–121.
———. 1975. The Alpine Flora of Tierra del Fuego. Anal. Instituto Cavanilles (Madrid) **32**(3): 419–440.
———., & M. C. Doggett. 1975. *Hierochloë redolens* (Vahl) Roemer & Schultes in Tierra del Fuego and Adjacent Regions. Bol. Soc. Argent. Bot. **16**(4): 390–396.
———. 1976. Pseudo-Vivipary in Fuegian and Falkland Island Grasses. British Antarctic Survey Bull. **43**: 103–110.
———, & R.N.P. Goodall. 1973. Interspecific Hybridization in Fuegian *Caltha*. Bol. Soc. Argent. Bot. **15**(11): 72–76.
———., & ———. 1974. Further Additions to the Native Flora of Tierra del Fuego. Bot. Notiser **127**(1): 38–43.
———. & B. Yates. 1974. *Armeria* L. in South America. Bot. Notiser **127**(2): 183–192.
Muños Pizarro, C. 1966. Flores Silvestres de Chile. Universidad de Chile, Santiago. 245 pp.
———. 1966. Sinopsis de la Flora Chilena. ed. 2. Universidad de Chile, Santiago, 500 pp.

NICORA, E. G. 1978. Selected Genera. *In:* M. N. Correa (Ed.) Flora Patagonica, Parte III, Gramineae. Colec. Cient. Instituto National Tecnologia Agropecuaria **8**: 580 pp. Buenos Aires

PANTIN, C. F. A. (Ed.). 1960. A Discussion of the Biology of the Southern Cold Temperate Zone. Proceedings Royal Soc. London., ser. B., **152** (949): 429–677.

PARRIS, B. S. 1975. A Revision of the Genus *Grammitis* (Filicales: Grammitidaceae) in Australia. Bot. Jour. Linn. Soc. Australia **70**: 21–43.

———., & D. R. GIVEN. 1976. A Taxonomic Revision of the genus *Grammitis* in New Zealand. New Zealand Jour. Bot. **14**(1): 85–112.

PICHI SERMOLLI, R. E. G., AND M. P. BIZZARRI. 1978. The botanical collections (Pteridophyta and Spermatophyta) of the AMF Mares - G.R.S.T.S. Expedition to Patagonia, Tierra del Fuego and Antarctica. Webbia **32**(2): 455–534.

PISANO, V. E., & M. J. DIMITRI. 1973. Estudio Ecológico de la Region Continental Sur del Area Andino-Patagónica. Anal. Instituto Patagonica **4**(1–3): 201–271.

RAVENNA, P. K. 1969. Iridaceae. *In:* M. N. Correa (Ed.). Flora Patagonica, parte II (Typhaceae a Orchidaceae -exceptio Gramineae). Colec. Cient. Instituto Nacional de Tecnologia Agropecuaria **8**: 138–151. Buenos Aires.

ROIVAINEN, H. 1954. Studien über der Moore Feuerlands. Annal. Bot. Soc. Bot. Zoolog. Fennicae "Vanomo" **28**(2): 1–205.

RÚGOLO DE AGRASAR, Z. E., & M. E. DE PAULA DE BROOKS. 1978. XLIV. *Agrostis*. *In:* E. M. Nicora & M. N. Correa (Eds.), Flora Patagonica, parte III, Gramineae. Colec. Cient. Instituto Nacional Tecnologia Agropecuaria **8**: 389–394. Buenos Aires.

SHAW, H. K. A. 1966. A Dictionary of Flowering Plants and Ferns (Willis), ed. 7, University of Cambridge Press, 1214 pp. *Ibid.* ed. **8**, 1973, 1245 pp.

SKOTTSBERG, C. 1904. On the Zonal Distribution of South Atlantic and Antarctic Vegetation. Preliminary Report. Geogr. Jour. Royal Geogr. Soc. London **24**(6): 655–663.

———. 1906. Zur Flora der Feuerlandes. Floristiche Beobachtungen über Gefäasspflanzen, Gesammelten den Jahren 1902–1093. *In:* O. Nordenskjöld (Ed.), Wissenschaftliche Ergebnisse Schwedische Süd-Polar Expedition, 1901–1904, **4** (4-Botanik): 41 pp. Stockholm.

———. 1905. Some Remarks Upon the Geographical Distribution of the Vegetation in the Colder Southern Hemisphere. Ymer **25**(4): 402–427.

———. 1910–1928. Botanische Ergebnisse der Schwedischen Expedition nach Patagonien und dem Feuerland, 1907–1909. I. Übersicht über der Wichtigsten Pflanzenformationen Südamerikas, S. von 41°, Ihre Geographische Verbreitung und Beziehlungen zum Klima. II. A Botanical Survey of the Falkland Islands. III. Die Vegetationverhaltnisse langs der Cordillera de los Andes S. von 41° Breit. Ein Beitrage zur Kenntnis der Vegetation in Chiloé, West Patagonien, dem Andinem Patagonien und Feuerland. Verh. Kungl. Svenska Vetenskaps. Akad. Handl. (Stockholm), **46**: 1910. *Ibid.*, **50**: 1913. *Ibid.*, **51**: 1914. *Ibid.*, **56**: 1916. *Ibid.*, **57**: 1920. *Ibid.*, **61**: 1926. *Ibid.*, **63**: 1928.

_____. 1911. The Wilds of Patagonia. A Narrative of the Swedish Expedition to Patagonia, Tierra del Fuego, and the Falkland Islands in 1907–1909. London. 336 pp.

_____. 1915. Notes on the Relations Between the Floras of Subantarctic America and New Zealand. Plant World **18**: 129–142.

_____. 1924. Zur Gefässpflanzen Flora West Patagoniens. Göteborgs Kungl. Vetensk.-O Vitterh. Samh. Handl. **28**(3): 1–29.

_____. 1925. Eine Kleine Pflanzenliste aus dem Feuerland. Acta Horti Gothoburg **2**: 27–37.

_____. 1932. Zur Pflanzengeographie Patagoniens. Berichte Deut. Bot. Gesell. **49**: 481–493.

_____. 1953. The Influence of the Antarctic Continent on the Vegetation of Southern Lands. Proceed. 7th Pacific Science Congress **5**: 92–99.

_____. 1960. Remarks on the Plant Geography of the Southern Cold Temperate Zone. Proceed. Royal Soc. London, ser. B., Biol. **152**(949): 447–467.

_____. 1963. Papers on Antarctic and Subantarctic Botany by Dr. C. J. F. Skottsberg. Polar Record **11**: 605–608.

SMIT, P. G. 1973. A revision of *Caltha* (Ranunculaceae). Blumea **21**(1): 119–150.

SORENSON, J. H. 1954. Ecology of the Subantarctic Islands. Botanical Factors. Proceed. New Zealand Ecological Society **2**: 17–18.

SOTA, E. R. DE LA. 1960. Polypodiaceae y Grammitidaceae Argentinas. Opera Lilloana (Lilloa) **5**: 1–229.

_____. 1966. Consideraciones sobre Especies Australes de *Grammitis*... Anatomia *Grammitis magellanica* Desv. y su forma *nana* (Grammitidaceae-Filices). Darwiniana **14**: 42–54.

SPEGAZZINI, C. 1880. Plantae Argentinae Novae vel critical Manipulus Primus. Anal. Soc. Cienc. Argent. Buenos Aires **10**: 290–323.

_____. 1896. Plantae per Fuegian a Carlo Spegazzini anno 1882 Collectae. Anal. Museo Nac. Hist. Buenos Aires, ser. 2, **5**(8): 39–104.

_____. 1897. Plantae Patagoniae Australes. Revista Fac. Agron. Vet. La Plata **3**: 485–589.

STAFLEU, F. A., et al. 1978. International Code of Botanical Nomenclature—Leningrad Edition. 456 pp. (Regnum Vegetabile **97**).

TARDIEU-BLOT, M. L. 1962. Sur les *Grammitis* des Îles Australes. Adansonia new ser., **2**(1): 111–116.

TINDALE, M. D. 1961. Pteridophyta of Southeastern Australia. Contrib. New South Wales Natl. Herb., Flora Series, Nos. **208–211**: 78 pp.

TROLL, C. 1960. The Relationship between Climates, Ecology and Plant Geography of the South Cold Temperate Zone and of the Tropical High Mountains. Proceed. Royal Soc. London, ser. B., **152** (949): 529–532.

WACE, N. M. 1960. The Botany of the Southern Oceanic Islands. Proceed. Royal Soc. London, ser. B., **152**(949): 475–490.

WALTON, D. W. H. 1975. European Weeds and Their Alien Species in the Subantarctic. Weed Research **15**: 271–282.

_____. 1980. An Annotated Bibliography of Antarctic and Sub-Antarctic Pedology and Perglacial Processes. British Antarctic Survey Data No. 5: 1–75.

YOUNG, S. B. 1973. Subantarctic Rain Forest of Magellanic Chile: Distribution, Composition and Age and Growth Rate Studies of Common Forest Trees. Antarctic Research Series: Terrestrial Biology **20**: 307–322.

U.S. NATIONAL ARBORETUM
SCIENCE AND EDUCATION ADMINISTRATION
USDA
WASHINGTON, D. C. 20002