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1883.

WESTERN AUSTRALIA.

# THE PLANTS

INDIGENOUS AROUND

SHARKS BAY AND ITS VICINITY,

CHIEFLY FROM COLLECTIONS OF

THE HONORABLE JOHN FORREST,

C.M.G., F.L.S., F.R.G.S.,

SURVEYOR GENERAL OF WESTERN AUSTRALIA,

ENUMERATED

BY

BARON FERD. VON MUELLER,

K.C.M.G., M.D., Ph.D. F.R.S., F.L.S., F.G.S., F.R.G.S.

*Presented to the Legislative Council by His Excellency's Command.*

SECOND SESSION.

PERTH:

BY AUTHORITY: RICHARD PETHER, GOVERNMENT PRINTER.

1883.

No. 26.

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A l'Academie des sciences  
de Barcelona  
hommage de l'auteur.

1883.

WESTERN AUSTRALIA.  
*Parliament*

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*The Plants indigenous around Sharks Bay and its vicinity, chiefly from collections of the Honorable John Forrest, C.M.G., F.L.S., F.R.G.S., Surveyor General of Western Australia, enumerated by Baron Ferd. von Mueller, K.C.M.G., M.D., Ph.D., F.R.S., F.L.S., F.G.S., F.R.G.S.*

It is now somewhat more than a fourth of a thousand years since the first ship furrowed the waters of Sharks Bay. It was the Dutch Captain Dirk Hartog, in the "Endragt," who anchored at the island bearing his name in 1616, as is well known from geographic literature, although that island was only settled less than 20 years ago. His countryman, Captain Vlamingh, touched at the same place in 1697, having just then discovered and named Swan River, Rottneest Island, and Garden Island. Tasman, in 1644, came no further south on the western coast than near Dampier's Archipelago; but in 1699, Captain Dampier reached also Sharks Bay, so named then by him, though priority is due to the Dutch appellation "Dirk Hartog's Bay." From not much later time, dates the first scientific account of plants of this region, inasmuch as Woodward, partly in Dampier's own work and partly in the "Amalthæum of Plukenet," gave illustrations and brief notes on the species gathered at Sharks Bay; but a portion of the collections, then already elucidated, came from the Archipelago which bears Dampier's name. On the suggestion of the writer of the present essay, Dampier's original collection of plants (40 species), still preserved in the Museum of Oxford University, was re-examined in 1873 by Professor Lawson, and the result promulgated in a paper read by him before the British Association held that year in Bradford.

A fuller insight into the vegetation surrounding Sharks Bay was obtained through the second of the five French naval expeditions, sent out successively in search for tidings of Count LaPérouse and his officers and crew. This second expedition, commanded by Captain Baudin, visited Sharks Bay in the year 1803, when Leschenault seems to have formed also there considerable collections, which afforded material for some memoirs of Desfontaines, the then Director of the Jardin des Plantes of Paris. Furthermore, the elder De Candolle was able, from the botanical results of Baudin's expedition, to render known some more of plants obtained at Sharks Bay, chiefly in the volumes of his "Prodromus." In 1818, the search-expedition under Captain Freycinet gave to Gaudichaud the opportunity of securing plants at various places of the "Baie des chiens marins"; for an account of some of the species may be referred to Gaudichaud's "Botanique, Voyage autour du Monde par Freycinet," pp. 33-37, and occasionally pp. 407-487, several of the plants being also splendidly illustrated in the large atlas of that work.

Three years later Captain (afterwards Admiral) Ph. P. King made a short stay during his fourth survey voyage at Sharks Bay; also enabling Allan Cunningham to add somewhat to our knowledge of the vegetation there. In 1839 Captain (later Sir) G. Grey discovered the Gascoyne River; but the disasters of that tragic expedition did not allow of scientific observations beyond those strictly geographical. Subsequently

Captain Denham, as an exploring navigator, touched likewise at the Great Western Bay, from the shores of which Mr. Milne carried away many plants for the rich museum formed by Sir William Hooker in the Royal Botanic Garden of Kew, and these were identified for the "Flora Australiensis," by Bentham. In 1863 I received some plants gathered on the River Gascoyne by Mr. Maitland Brown; and in 1877 I made personally an overland tour from Champion Bay to Freycinet Harbor under the auspices of the West Australian Government; but although rather extensive collections were formed, I was prevented, partly by the extraordinary dryness of the season (water existing then only in a single well on a line of nearly 100 miles between the Murchison River and the Bay), and also partly by prior arrangements for early forest services in the South, from extending my stay for more than two days. Under such circumstances most of the region, particularly that in the vicinity of the Gascoyne River and its tributaries, remained to be explored yet for its vegetation, and happily this was accomplished last year, to a large extent, by the Honorable John Forrest, who while carrying on his trigonometric survey through the Gascoyne country found means also for investigating the Flora there, setting thus a splendid example to survey parties elsewhere for enlarging their scope of action by securing material for elucidating the vegetable resources of new regions while mapping them,—the native Flora always being largely exponent of the rural capabilities of a country.

Some smaller botanic contributions, hitherto obtained from several other collectors at Sharks Bay, are noted in the pages of the present enumeration. The latter is, however, far from claiming exhaustiveness, inasmuch as the ample space along so wide a bay needs traversing in all directions, and in every month of the year, before a complete insight into its Flora can be gained. We know, however, now enough already of the general character of the vegetation for allowing to point to much resemblance which the Gascoyne country bears to a portion of Riverina in pastoral aspects; we have also now full assurance that the deleterious bushes of *Gastrolobium* and *Oxylobium* neither extend so far North, nor are replaced by any congeneric hurtful species there. Grasses and Salt bushes are largely represented in the Gascoyne District, and contain many nutritive kinds. The herbage is remarkably varied, and in some respects excellent. Scientifically, Mr. Forrest's collections proved important, not only as exhibiting many altogether new forms of plants, but also as showing that more tropical species than we anticipated pass the circle of Capricorn on the western side of Australia; thus we are able to record as extra-tropical, or rather sub-tropical, from thence, representatives of *Clome*, *Waltheria*, *Ficus*, *Sesbania*, *Tephrosia*, *Aeschynomene*, *Erythrina*, *Canavalia*, *Vigna*, *Rhynchosia*, *Cantium*, *Oldenlandia*, *Melothria*, *Cucumis*, *Pterocaulon*, *Flaveria*, *Gymnanthera*, *Evolvulus*, *Bucchnera*, and *Clerodendron*, all these genera being new for extra-tropical West Australia. On the other hand, various southern forms, such as *Marianthus*, *Pileanthus*, *Loudonia*, *Anigozanthus*, *Wurmbea*, *Lyginia*, were not known to proceed so far North. The occurrence of two new *Verticordias* (Fringe-myrtles) in an almost sub-tropic region is also very interesting, as this beautiful genus of plants, in all its species except two, is restricted to extra-tropical Western Australia. Two *Banksias*, with various other plants, reach from the Murchison River for more than half-way to Sharks Bay, whereas one species of each of the genera *Adenanthos*, *Persoonia*, *Petrophila*, *Styphelia*, *Candollea* (*Stylidium*), *Euphrasia*, *Anthocercis*, *Conostylis*, *Arnocrinum*, *Xerotes* and *Lepidobolus* approach rather closely to Freycinet Harbor. The extreme scantiness of *Epacrideae*, *Candolleaceae*, and *Ferns* is perhaps not less remarkable than the absence of *Orchideae* in any of our collections from the Sharks

Bay country, although possibly some terrestrial orchideous plants may yet be found there during the cool season with other ephemeral herbs. The charming Everlastings of the more southern regions spread copiously also to the Gascoyne country, and may with many other far extra-tropical plants even transgress the circle of Capricorn, a subject which it would be all the more desirable to inquire into (as the Everlastings, for instance, are known not to spread so far as the Nickol Bay region) to form a leading feature in the herbaceous vegetation there. Much, also, is it to be wished that travellers and settlers in the Gascoyne District will make efforts at all favorable opportunities to provide additional collections of plants, with a view of affording material for carrying the list, now commenced, gradually to completion. Indeed the desire of obtaining such aid applies to many other tracts of Western Australia, where, particularly far inland, the regional distribution of the species has yet to be extensively traced. In this age of progress it is expected that all educated people should promote local research wherever and whenever possible, and this is all the more incumbent on explorers or residents in new territories, where nature's treasures are yet scantily recognised, and where additional discoveries also in the empire of plants must contribute towards the advancement of prosperous colonisation and the establishment of happy and permanent homes.

F. v. M.

#### **Ranunculaceae.**

*Clematis microphylla*. D.C., Syst. i., 147; Freycinet Harbor, F. v. M.

#### **Dilleniaceae.**

*Hibbertia spicata*. F. v. M., Fragm. ii., 1; Freycinet Harbor, F. v. M.

*Hibbertia Huttii*. F. v. M., Fragm. vii., 123; Freycinet Harbor, F. v. M.

#### **Capparideae.**

*Cleome viscosa*. L. Sp. Pl., 672; Gascoyne River, J. Forrest and Polak.

*Emblingia calceoliflora*. F. v. M., Fragm. ii., 3; Freycinet Harbor, F. v. M.

*Capparis Lasiantha*. R. Br. in D.C. Prodr. i., 247; Menilyalya, J. Forrest; Gascoyne River, Polak. Stamens to 20.

*Capparis spinosa*. L. Sp. Pl., 503; Freycinet Harbor, F. v. M. With many other plants from this locality, noted in Fragm. Phytogr. Austr. xi., 120.

#### **Cruciferae.**

*Stenopetalum pedicellare*. F. v. M. in Benth. Fl. Austr. i., 79; Gascoyne River, J. Forrest.

*Stenopetalum croceum*. Bunge in Lehm. Pl. Preiss. i., 258; Menilyalya, J. Forrest; Gascoyne River, Polak. Common in the southern regions around Sharks Bay, F. v. M.

- Lepidium strongylophyllum*. F. v. M. in Benth. Fl. Austr. i., 84; Menilyalya, J. Forrest; Gaseoyne River, Polak. Also a variety with velvet downy branches, petioles, and pedicels. The large flowers, the long style, as well as the shape and size of the fruit, bring this near *L. leptopetalum*. All these species are doubtless excellent fodder-herbs for sheep.
- Lepidium linifolium*. Benth. Fl. Austr. i., 84; Peron Peninsula and Dirk Hartog Island, Gaudichaud.
- Lepidium leptopetalum*. F. v. M., Pl. Vict. i., 48; Gascoyne River, J. Forrest and Polak. Petals broader than usual.
- Lepidium rotundum*. D.C., Syst. ii., 537; Gascoyne River, J. Forrest and Polak.
- Lepidium papillosum*. F. v. M. in Linnaea xxv., 370; Freycinet Harbor, F. v. M.
- Lepidium foliosum*. Desv. Journ. de Bot. iii., 164 and 180; Gascoyne River, Polak. A slightly hairy variety with not dilated bases of the leaf stalks, thus offering a transition to *L. piscidium*.

#### Violaceae.

- Hybanthus emneaspermus*. F. v. M., Fragm. x., 81; var. *aurantiacus*, Menilyalya, J. Forrest.

#### Pittosporae.

- Pittosporum phillyroides*. D.C. Prodr. i., 347; Dirk Hartog Island, Cunningham; Freycinet Harbor, F. v. M.; Gascoyne River, Polak.
- Marianthus pictus*. Lindl. in Bot. Reg. xxv., App. Freycinet Harbor, F. v. M.; Gascoyne River, O. Jones. It is probably this plant to which Prof. Lawson refers as a *Pittosporum*, occurring scantily in Dampier's collection.

#### Rutaceae.

- Boronia crenulata*. Sm. in Trans. Linn. Soc. viii., 284; Sharks Bay, Maitl. Brown. In the Fragmenta Phytogr. Austr. ix., 115, it was noted, that the fruit from this region was not known; hence the northern plant remains somewhat doubtful.
- Eriostemon Geleznowii*. F. v. M., Fragm. i., 107; Sharks Bay, Capt. Denham; Dirk Hartog Island, Milne; near Freycinet Harbor, F. v. M.
- Diplolaena Dampieri*. Desf. in Mem. Mus. 452, t. 20; near Freycinet Harbor, F. v. M. Easily recognized from Dampier's illustration pl. 3, fig. 3.

#### Zygophylleae.

- Nitraria Schoberi*. L. Syst. Nat. x., 1044; near Freycinet Harbor, F. v. M.
- Zygophyllum apiculatum*. F. v. M. in Linnaea xxv., 373; Gascoyne River, J. Forrest and Polak. Leaves exceptionally indented at the summit. Ripe fruit not seen.
- Zygophyllum glaucescens*. F. v. M., Pl. Vict. i., 228; near Freycinet Harbor, F. v. M. The minute-flowered variety.
- Zygophyllum Billardieri*. D.C. Prodr. i., 705; Gascoyne River, J. Forrest.
- Zygophyllum fruticulosum*. D.C. Prodr. i., 705; var. *aurantiaca*; Sharks Bay, Gaudichaud, Cunningham; Freycinet Harbor, F. v. M.; Menilyalya, J. Forrest; Gascoyne River, Polak.
- Tribulus terrestris*. L'Obel, Stirp. Ic. ii., 84; Gascoyne River, J. Forrest.
- Tribulus Hystria*. R. Br., App. Sturt's Exp. 6; Gascoyne River, Bunbury, Forrest, Polak.
- Tribulus macrocarpus*. F. v. M. in Benth. Flor. Austr. i., 289; Gascoyne River, J. Forrest; root slender, perhaps annual; stems rather short, procumbent, as well as the foliage appressed-hairy; upper leaves opposite, lower alternate; leaflets in 3-7 pairs, lanceolar-oblong, 3-5 lines long, glabrescent above; flowers unknown; fruit-stalk  $\frac{1}{2}$ -1 inch long; fruitlets when well developed with 3-5 seed-bearing cells, and besides some smaller empty cavities.
- Tribulus platypterus*. Benth. Flor. Austr. i., 289, var. *hirsuta*; Gascoyne River, J. Forrest and Polak.
- Tribulus astrocarpus*. F. v. M., Fragm. xii., 4; Gascoyne River, J. Forrest.



**Geraniaceae.**

*Erodium cygnorum*. Nees in Lehm. Pl. Preiss. i., 162; near Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest and Bunbury.

**Malvaceae.**

- Lavatera plebeja*. Sims in Bot. Mag. t. 2269; Menilyalya, J. Forrest.
- Plagianthus glomeratus*. Benth. in Proc. Linn. Soc. vi., 103; near Freycinet Harbor, F. v. M.
- Plagianthus diffusus*. Benth. Fl. Austr. i., 190; frequent south of Sharks Bay, F. v. M.; Menilyalya, J. Forrest.
- Sida corrugata*. Lindl. in Mitch. Threc Exped. ii., 13; Sharks Bay, Sanford.
- Sida virgata*. Hook. in Mitch. Trop. Austr., 361; Gascoyne River, J. Forrest. This or an allied species was figured already in Dampier's work, Pl. 3., Fig. 2.
- Sida calyxhymenia*. Gay in D.C. Prodr. i., 462; Peron Peninsula and Dirk Hartog Island, Gaudichaud; Gascoyne River, J. Forrest and Polak.
- Sida physocalyx*. F. v. M., Fragm. iii., 3; Gascoyne River, J. Forrest and Polak.
- Sida lepida*. F. v. M., Fragm. vi., 168; Menilyalya, J. Forrest; Gascoyne River, Polak. Petals in this instance yellow; sometimes already in flower when only a span high from first year's root.
- Abutilon geranioides*. Benth. Flor. Austr. i., 202; Gascoyne River, Bunbury, J. Forrest, and Polak; Shrub up to 8 feet high (Maitl. Brown); leaves often only shortlobed at the base; petals yellow; carpels 7-8, permanently connate, shorter than the calyx, beaked by a subulate somewhat divergent acumen, outside beset with short starry hairs. Seeds smooth.
- Hibiscus Coatesii*. F. v. M., Fragm. iii., 5; Gascoyne River, J. Forrest, Polak. Flower-stalks attaining a length of  $2\frac{1}{2}$  inches; segments of the involucre 8-12, often spatulate-linear; lobes of the calyx prominently 3-nerved, but not conspicuously margined; fruit calyx gaining sometimes a length of  $1\frac{1}{2}$  inches; capsule nearly globular, measuring about  $\frac{3}{4}$  inch, beset with starry and partly simple hair; Seeds 4 to 5 in each fruit-cell, silky downy. This species belongs to the section *Bombicella*; it was first defined from specimens in young flower only, gathered on the Hamersley Range; hence the discrepancies from the original description.
- Hibiscus Haynaldi*. F. v. M. in Wing's South. Science Rec., March 1883; Menilyalya, J. Forrest.
- Hibiscus Pinonianus*. Gaudichaud in Freycinet's Voy. Bot. 476, t. 100; Peron Peninsula and Dirk Hartog Island, Gaudichaud, Maitl. Brown; Menilyalya, J. Forrest. Found by Mr. Tietkens also, north of Fowler's Bay; involucre generally much smaller than in Gaudichaud's plate.
- Hibiscus panduriformis*. Burm. Fl. Ind. 151, t. 47; Gascoyne River, J. Forrest and Polak.
- Hibiscus Sturtii*. Hook. in Mitch. Trop. Austr., 363; Gascoyne River, J. Forrest; *Var. Forrestii*; leaves lanceolar-ovate or slightly cordate, grey-velvety on both pages; flowers large; involucre cleft nearly to the base into 5-7 semilanceolar upwards conspicuously narrowed divisions; lobes of the calyx also much attenuated towards the summit; petals whitish. I have not ventured to assign to this plant, in the absence of its fruit, specific rank, to which it is perhaps entitled.
- Hibiscus cuneiformis*. D.C. Prodr. i., 454; Sharks Bay, Sanford; from somewhat South of Hamelin Harbor far towards the Gascoyne River, replacing the more southern *H. hakeifolius*, of which it may perhaps be a variety. A tall shrub.
- Gossypium australe*. F. v. M., Fragm. i., 46; Menilyalya, J. Forrest.
- Gossypium Robinsoni*. F. v. M., Fragm. ix., 126; Gascoyne River, J. Forrest and Polak.

**Sterculiaceae.**

*Waltheria Indica*. L. Spec. Pl., 637; Gascoyne River, Bunbury.

- Commerçonia densiflora*. F. v. M., Fragm. x., 21; not far South of Freycinet Harbor, F. v. M.
- Commerçonia Gaudichaudi*. J. Gay in Mem. Mus. Par. x., 213, t. 14; Peron Peninsula and Dirk Hartog Island, Gaudichaud; near Sharks Bay, Cunningham; near Freycinet Harbor, F. v. M.
- Hannafördia quadrivalvis*. F. v. M., Fragm. ii., 9; near Freycinet Harbor, F. v. M.
- Seringea microphylla*. F. v. M., Fragm. ii., 5; Peron Peninsula and Dirk Hartog Island, Gaudichaud; near Freycinet Harbor, F. v. M.
- Lasiopetalum oppositifolium*. F. v. M., Fragm. ii., 5; near Freycinet Harbor, F. v. M.
- Guichenotia ledifolia*. J. Gay in Mem. du Mus. Par. vii., 449, t. 5; Peron Peninsula, Leschenault.

#### Euphorbiaceae.

- Euphorbia erythrantha*. F. v. M., Fragm. ii., 152; Gascoyne River, Bunbury.
- Euphorbia Drummondi*. Boiss. Cent. Euph. 14; near Freycinet Harbor, F. v. M.; Menilyalya and Gascoyne River, J. Forrest.
- Euphorbia myrtoides*. Boiss. in D.C. Prodr. xv., 15; Gascoyne River, J. Forrest.
- Euphorbia eremophila*. Cunn. in Mitch. Trop. Austr. 348; near Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest and Polak.
- Poranthera microphylla*. Brogn. in Duper. Voy. Bot. 218, t. 50; near Freycinet Harbor, F. v. M.
- Beyeria viscosa*. Mig. in Ann. Scienc. Nat. ser. trois. i., 350, t. 15; near Sharks Bay, Maitl. Brown.
- Phyllanthus crassifolius*. J. Muell. in Regensb. Flora, 513; Dirk Hartog Island, Milne.
- Adriana tomentosa*. Gaud. in Ann. des Scienc. Nat. ser. 1, v., 223; near Sharks Bay, Denham, Milne. Figured already by Dampier in his "Voyage to New Holland" Pl. 2, Fig 3 (see transact. of the Bot. Soc. of Edinburgh for 1863, p. 480).

#### Urticaceae.

- Ficus platypoda*. Cunn. in Hook. Lond. Jour. vi., 561; Upper Gascoyne River, Polak.
- Parietaria debilis*. G. Forst. Flor. Ins. Austr. Prodr., 73; near Freycinet Harbor, F. v. M.

#### Casuarineae.

- Casuarina humilis*. Otto and Dietr. in Allg. Gartenz., 163; Dirk Hartog Island, Milne; Freycinet Harbor, F. v. M. Dryander in Koenig et Sims's Annals of Botany ii., 532 (1806), refers to a *Casuarina* from Dampier's work pl. 4, fig. 1; Lawson draws it to *C. equisetifolia*, which we possess not yet from a locality so far South on the West coast as Sharks Bay.

#### Sapindaceae.

- Heterodendron oleaefolium*. Desf. in Mem. Mus. iv., 8, t. 3; Dirk Hartog Island, Cunningham, Milne; near Freycinet Harbor, F. v. M.; Menilyalya, J. Forrest and Polak.
- Diplopeltis Huegelii*. End. in Hueg. enum. 13; near Freycinet Harbor, F. v. M.
- Dodonaea platyptera*. F. v. M., Fragm. i., 73; Gascoyne River, J. Forrest. Specimens without flowers but with semi-mature fruit.
- Dodonaea inaequifolia*. Turcz. in Bull. Soc. Mosc. xxxi., 408; Sharks Bay, Capt. Denham; Dirk Hartog Island, Cunningham.

#### Stackhousiaceae.

- Stackhousia viminea*. Sm. in Rees' Cycl. xxxiii.; near Sharks Bay, F. v. M.
- Stackhousia Brunonis*. Benth. Fl. Austr. i., 409; near Sharks Bay, F. v. M.

**Frankeniaceae.**

*Frankenia laevis*. L. Spec. Pl., 331; Dirk Hartog Island, Cunningham; Menilyalya River, J. Forrest. The glabrous narrow-leaved form.

**Plumbagineae.**

*Statice salicorniacea*. F. v. M., Fragm. xi., 7; near Freycinet Harbor, F. v. M. It is evidently this species to which Gaudichand alludes as occurring on Peron Peninsula and Dirk Hartog Island, in his "Botanique" to the "Voyage autour du monde sur l'Uranie et Physicienne," p. 37.

**Caryophylleae.**

*Polycarpacea longiflora*. F. v. M., Rep. Babb. Exp., 8; Gascoyne River, J. Forrest. Flowering sometimes already at the height of a few inches from an annual root.

**Portulacaceae.**

*Claytonia ptychosperma*. F. v. M., Syst. Census Austr. Pl. 27; Gascoyne and Menilyalya Rivers, J. Forrest.

*Claytonia polyandra*. F. v. M., Syst. Census, 27; near Freycinet Harbor, F. v. M.; Gascoyne River, O. Jones, Polak; near the Lyons River, J. Forrest. Mr. Forrest notes, that it is the "Coonda" of the local native tribes, who use this succulent herb as aliment, and that sheep when largely feeding on this shrub can do for a considerable time without drinking water. Leaves generally narrower than illustrated in the Botanical Magazine t. 4833. Racemes occasionally several, forming a fascicle or panicle. Seeds brown, numerous, very small; in age slightly furrowed; minutely reticulated.

**Amarantaceae.**

*Ptilotus grandiflorus*. F. v. M., Fragm. i., 237; near Sharks Bay, J. Forrest, Polak. Occasionally somewhat downy.

*Ptilotus latifolius*. R. Br., in App. Sturt's Exped. 25; Menilyalya, J. Forrest; Gascoyne River, Polak. A variety with lanceolar leaves and somewhat pointed bracts and bracteoles.

*Ptilotus gomphrenoides*. F. v. M., Fragm. vi., 233; Gascoyne River, J. Forrest. The plant there fully a foot long, with spikes finally lengthened to one inch. *P. Murraji* should be reduced to this species.

*Ptilotus macrotrichus*. F. v. M., Fragm. iv., 90; Peron Peninsula, Maitl. Brown.

*Ptilotus obovatus*. F. v. M., Fragm. vi., 228; near Sharks Bay, Cunningham, Maitl. Brown; Gascoyne River, J. Forrest, Polak; Freycinet Harbor, F. v. M.

*Ptilotus rotundifolius*. F. v. M., Fragm. vi., 260; Gascoyne River, J. Forrest. Sepals beautifully red towards the summit.

*Ptilotus alopecuroides*. F. v. M., Fragm. vi., 227; Gascoyne River, J. Forrest and Polak. In some specimens the bracts are more acute than usual, and rarely the summit of the sepals becomes pink.

*Ptilotus hemisteirus*. F. v. M., Fragm. iv., 90; Sharks Bay, Maitl. Brown; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest and Polak.

*Ptilotus Polakii*. F. v. M. in Wing's South. Science Record, Dec. 1882; Gascoyne River, Polak. The species differ from *P. parvifolius* in larger glabrous and flat leaves, which, however, are also only 2-5 lines long, but not mucronate-pointed, besides they are not sessile but attenuated into a very short stalk; the bracts and bracteoles are glabrous and colorless, as in normal specimens of *P. parvifolius* gathered on Mount Poole in the Grey Ranges by the Revd. W. Webster, but not distinctly pointed; the sepals are usually four to five lines long and less villous towards the summit, but of the same bright red; the outer sepals are slightly blunt and denticulated, while in the normal form they are all pointed. In all specimens the inner sepals are woolly bearded inside at the base; only two fertile stamens are developed as in *P. laxis*, or very rarely only one; the pistil is glabrous and the fruit proves unilaterally turgid in every instance. Observations from future more extended material must prove whether specific value should be assigned to Mr. Polak's plant.

- Ptilotus exaltatus*. Nees in Lehm. Pl. Preiss. i., 630; Gascoyne River, J. Forrest and Polak. Mr. E. Giles brought it from the Ashburton River.
- Ptilotus divaricatus*. F. v. M., Fragm. vi., 229; Sharks Bay, Gaudichand, Maitl. Brown; Gascoyne River, O. Jones, Polak; Menilyalya, J. Forrest.
- Ptilotus helipteroides*. F. v. M., Fragm. vi., 231; Gascoyne River, J. Forrest and Polak; the Rev. H. Kempe sent this from the vicinity of the Finke River; thus the plant occupies probably many intervening places.
- Ptilotus Stirlingii*. F. v. M., Syst. Census of Austr. Pl., 28; Sharks Bay, Maitl. Brown.
- Ptilotus striatus*. F. v. M., Census, 28; Dirk Hartog Island, Milne.
- Ptilotus Drummondii*. F. v. M., Fragm. vi., 229; Gascoyne River, J. Forrest.
- Amarantus pallidiflorus*. F. v. M., Fragm. i., 140; Gascoyne River, J. Forrest.
- Polycnemon diandrum*. F. v. M., Nat. Pl. of Vict. i., 163; Saltmarshes, Sharks Bay, Milne.

### Salsolaceae.

- Rhagodia Billardieri*. R. Br., Prodr., 408; Gascoyne River, J. Forrest.
- Rhagodia parabolica*. R. Br., Prodr., 408; Gascoyne River, Bunbury.
- Rhagodia Gaudichaudiana*. Moq., Chen. Monogr. Enum. 11; Peron Peninsula and Dirk Hartog Island, Gaudichand; Gascoyne River, Bunbury, and Polak.
- Rhagodia obovata*. Moq., Chen. Mon. Enum., 10; Sharks Bay, Denham, Milne.
- Rhagodia spinescens*. R. Br., Prodr., 408; Freycinet Harbor, F. v. M.
- Chenopodium nitrariaceum*. F. v. M. in Benth. Flor. Austr. v., 158; Freycinet Harbor, F. v. M.
- Chenopodium carinatum*. R. Br., Prodr., 407; Gascoyne River, Polak.
- Dysphania plantaginella*. F. v. M., Fragm. i., 61; Gascoyne River, Polak.
- Atriplex Moquinianum*. Webb. in Cand. Prodr. xiii., part ii., 97; Sharks Bay, Milne.
- Atriplex isatideum*. Moq. Chen. Mon. Enum., 63; Sharks Bay, Milne.
- Atriplex halimoides*. Lindl. in Mitch. Thrice Exped. i., 282; Gascoyne River, Polak.
- Atriplex Bunburyanum*. F. v. M., in Wing's South. Sc. Rec., Dec., 1882; Gascoyne River, Bunbury.
- Kochia lanosa*. Lindl. in Mitch. Trop. Austr., 88; Gascoyne River, J. Forrest and Bunbury.
- Kochia villosa*. Lindl. in Mitch. Trop. Austr., 91; Sharks Bay, Milne; Gascoyne River, Polak and Bunbury. Although *K. aphylla* is the oldest name for this species, it has been discarded as applicable only to the leafless state of this Salt bush.
- Kochia planifolia*. F. v. M., Fragm. i., 213; Gascoyne River, Polak.
- Kochia prothecochoaeta*. F. v. M., Fragm. xii., 14; Gascoyne River, J. Forrest.
- Kochia melanocoma*. F. v. M., Fragm. xii., 14; Gascoyne River, J. Forrest.
- Bassia carnosae*. F. v. M., Syst. Census, 30; Gascoyne River, J. Forrest and Polak.
- Bassia uniflora*. F. v. M., Syst. Census, 30; Dirk Hartog Island, Cunningham; Sharks Bay, Milne.
- Bassia lanicuspis*. F. v. M., Syst. Census, 30; Gascoyne River, J. Forrest.
- Bassia paradoxa*. F. v. M., Syst. Census, 30; Gascoyne River, J. Forrest and Polak.
- Bassia tridens*. F. v. M., Fragm. xii., 12; Gascoyne River, J. Forrest.
- Bassia Forrestiana*. F. v. M., Fragm. xii., 12; Gascoyne River, J. Forrest.
- Enchylaena tomentosa*. R. Br., Prodr., 408; Dirk Hartog Island and Peron Peninsula, Gaudichand; Freycinet Harbor, F. v. M.
- Threlkeldia diffusa*. R. Br., Prodr., 410; Freycinet Harbor, F. v. M.
- Salicornia robusta*. F. v. M., Fragm. vi., 251; Gascoyne River, Polak.
- Salicornia arbuscula*. R. Br., Prodr., 411; Freycinet Harbor, F. v. M.

*Salicornia australis*. Solander in G. Forster, Prodr., 88; Freycinet Harbor, F. v. M.; Gaudichaud already noted, that a *Salicornia* was growing at Sharks Bay.

*Suaeda maritima*. Dumort, Fl. Belg., 22; Freycinet Harbor, F. v. M.

*Salsola Kali*. L. Gen. Pl., 67; Dirk Hartog Island and Peron Peninsula, Gaudichaud, Forrest, Bunbury; Freycinet Harbor, F. v. M.

#### Ficoideae.

*Mesembrianthemum aequilaterale*. Haw. Misc. Nat., 77; Freycinet Harbor, F. v. M.

*Mesembrianthemum australe*. Solander in G. Forster, Prodr., 90; Freycinet Harbor, F. v. M. Gaudichaud already mentions the occurrence of *Mesembrianthemum* at Sharks Bay.

*Tetragonia diptera*. F. v. M., Fragm. xi., 8; near Freycinet Harbor, F. v. M.

*Tetragonia implexicoma*. J. Hook. Fl. Tasm. i., 148; Freycinet Harbor, F. v. M.

*Zaleya decandra*. Burm. Fl. Ind. 110, t. 31; Gascoyne River, Polak.

*Trianthema pilosa*. F. v. M., Fragm. i., 174; Gascoyne River, J. Forrest.

*Trianthema crystallina*. Vahl. symb. i., 32; Gascoyne River, Bunbury; Menilyalya, J. Forrest.

*Trianthema turgidifolia*. F. v. M., Fragm. x., 83; Menilyalya, J. Forrest; Gascoyne River, Polak. Leaves varying from spatular to broad-linear. Pedicels attaining sometimes thrice the length of the calyx. Lobes of the calyx pink inside. Seeds sometimes only 2 maturing in a fruit, outside crystalline-papillular.

*Macarthuria apetala*. Harv. in Hook. Kew Misc. vii., 55; near Freycinet Harbor, F. v. M.

*Mollugo Ginus*. A. Rich. Tent. Fl. Abyss. i., 48; Gascoyne River, J. Forrest.

*Mollugo Cerviana*. Ser. in D.C. Prodr. i., 392; Gascoyne River, Bunbury.

#### Polygonaceae.

*Emex australis*. Steinh. in Ann. Scienc. Nat. Series 3, ix., 195, t. 7; Freycinet Harbor, F. v. M.

*Muehlenbeckia adpressa*. Meissn. Gen. Pl. Com., 227; Freycinet Harbor, F. v. M.

#### Phytolacceae.

*Gyrostemon ramulosus*. Desf. in Mem. Mus. v., 17, t. 6; Sharks Bay, Leschenault, Gaudichaud; Dirk Hartog Island, Milne; Gascoyne River, J. Forrest and Bunbury.

*Codonocarpus cotinifolius*. F. v. M., Plants Vict. i., 200; Sharks Bay, Gaudichaud, Milne; Gascoyne River, J. Forrest and Polak. Ordinary forms accompanied by one remarkable for lanceolate-linear leaves, sometimes narrowed to an eighth of an inch.

#### Nyctagineae.

*Boerhaavia diffusa*. L. Fl. Zeylan, 4; Peron Peninsula, Gaudichaud; Gascoyne River, J. Forrest, Bunbury. Varies with smooth fruits, though only rarely so.

*Boerhaavia repanda*. Willd. Sp. Pl. i., 22; Sharks Bay, Milne, Maitl. Brown; Freycinet Harbor, F. v. M.; Menilyalya, J. Forrest; Gascoyne River, Bunbury, J. Forrest.

#### Leguminosae.

*Isotropis Forrestii*. F. v. M., in Wing's South. Science Rec. Nov. 1882; Gascoyne River, J. Forrest.

*Mirbelia oxyclada*. F. v. M., Fragm. iv., 12; Gascoyne River, J. Forrest.

*Crotalaria Cunninghamsi*. R. Br., App. to Sturt's Centr. Austr., 8; Sharks Bay, Maitl. Brown; Menilyalya, J. Forrest.

*Lotus australis*. Andr. Bot. Rep. 624; Peron Peninsula and Dirk Hartog Island, Gaudichaud; Freycinet Harbor, F. v. M.; Gascoyne River, O. Jones, Polak; Menilyalya, J. Forrest.

- Psoralea pustulata*. F. v. M., in Transact. Viet. Inst. iii., 54; sources of the Menilyalya, J. Forrest. The plant shows there a denser vestiture and larger bracts; specimens from Nickol Bay have the leafstalks very abbreviated. Considering the great variability to which *P. patens* is subjected, it would seem that *P. lachnostachys* cannot be kept specifically separate from *P. pustulata*.
- Psoralea patens*. Lindl. in Mitch. Three Exped. ii., 9; Menilyalya, J. Forrest; Gascoyne River, Polak.
- Psoralea leucantha*. F. v. M., in Transact. Viet. Inst. iii., 54; Gascoyne River, J. Forrest.
- Tephrosia purpurea*. Pers. Syn. Pl. ii., 329; Menilyalya and Gascoyne River, J. Forrest.
- Indigofera monophylla*. D.C. Prodr. ii., 222; Gascoyne River, J. Forrest and Bunbury.
- Indigofera australis*. Willd. Spee. Pl. iii., 1235; var. minor; Gascoyne River, J. Forrest and Polak.
- Sesbania aculeata*. Persoon Syn. Pl. ii., 316; Jones' Creek and George River (south of Roebourne), J. Forrest and Polak.
- Clianthus Dampieri*. Cunningham in Trans. Hort. Soc. London 2nd ser. i., 522; near Sharks Bay, Capt. Dampier; Gascoyne River, J. Forrest and Polak.
- Swainsona occidentalis*. F. v. M., Fragm. iii., 46; Gascoyne River, J. Forrest and Polak. Collected also near Mount Hale, Carr; at Point Larrey, All. Hughan; between DeGrey River and Lagrange Bay, Al. Forrest and J. Carey; between Victoria Springs and Ullaring, E. Giles and J. Young. Lobes of the calyx often as long as the tube; specimens occur in Drummond's collection remarkably weak, almost proeumbent, with very small leaflets and also smaller fruits.
- Swainsona Maccullochiana*. F. v. M., Fragm. vii., 25; Gascoyne River and Menilyalya, J. Forrest. Occurs also on the Forteseue River. An only specimen cultivated died after the second year; the plant may therefore be biennial, though so tall.
- Aeschynomene Indica*. L. Spec. Pl., 713; Gascoyne River, O. Jones, J. Forrest.
- Kennedyia bracteata*. Gaudichaud in Freye. Voy. 286, t. 113; Dirk Hartog Island, and Peron Peninsula, Gaudichaud; Freycinet Harbor, F. v. M.
- Erythrina vespertilio*. Benth. in Mitch. Trop. Austr., 218; Gascoyne River, J. Forrest, Polak, Bunbury; Lyons River, J. Palmer.
- Canavalia obtusifolia*. D.C. Prodr. ii., 404; Cape Farquhar, Mr. Forrest, who adds the following note: Beans poisonous in their raw state, but after some cooking process they seem to be made use of for food by the natives. Some shipwrecked sailors were poisoned by this bean. Dampier gave a fair description already of this coast plant, as noticed by him on the Archipelagus bearing his name.
- Vigna lanceolata*. Benth. in Mitch. Trop. Austr., 350; Gascoyne River, J. Forrest.
- Rhynchosia minima*. D.C. Prodr. ii., 385; Menilyalya, J. Forrest; Gascoyne River, Bunbury.
- Cassia pleurocarpa*. F. v. M., Fragm. i., 223; Menilyalya, J. Forrest; Kennedy Ranges, Polak.
- Cassia Chatelainiana*. Gaud. in Freyc. Voy. 485, t. 111; Dirk Hartog Island and Peron Peninsula, Gaudichaud.
- Petalostylis labichoides*. R. Br., App. to Sturt's Centr. Austr., 17; Menilyalya, J. Forrest and Polak.
- Labichea cassioides*. Gaud. in D.C. Prodr. ii., 507; Sharks Bay, Gaudichaud.
- Acacia genistoides*. Cunn. in Benth. Flor. Austr. ii., 330; Dirk Hartog Island, Cunningham; Sharks Bay, Milne.
- Acacia idiomorpha*. Cunn. in Hook. Lond. Journ. i., 329; Dirk Hartog Island, Cunningham.
- Acacia spathulata*. F. v. M. in Benth. Flor. Austr. ii., 356; Dirk Hartog Island and Sharks Bay, Milne.

*Acacia sclerosperma*. F. v. M. in Wing's South. Se. Rec. July, 1882; Gascoyne River, O. Jones. Flowers unknown.

*Acacia amblyphylla*. F. v. M. in Wing's South. Se. Rec. July, 1882; near Freycinet Harbor, F. v. M.

*Acacia salicina*. Lindley in Mitch. Three Expedit. ii., 20; Dirk Hartog Island, Cunningham; Sharks Bay, Milne; Freycinet Harbor, F. v. M. A phyllodinous Acacia, collected by Dampier, is noted and illustrated in Plukenet's Amaltheum, (1705). Among Mr. Polak's collection from the Gascoyne River an Acacia occurs with phyllodia very similar to those of *A. notabilis* but less contracted at the base; the specimens are, however, without either flower or fruit.

*Acacia pyrifolia*. D.C. Mem. Fam. Legum., 447; Sharks Bay, Leschenault; Gascoyne River, J. Forrest.

*Acacia bivenosa*. D.C. Prodr. ii., 452; Dirk Hartog Island, Cunningham; Sharks Bay, Milne.

*Acacia coriacea*. D.C. Mem. Fam. Legum., 446; Sharks Bay, Leschenault; Dirk Hartog Island, Milne.

*Acacia aneura*. F. v. M. in Linnaea xxvi., 627; Gascoyne River, J. Forrest.

*Acacia acuminata*. Benth. in Hook. Lond. Journ. i., 373; Gascoyne River, Bunbury.

*Acacia cibaria*. F. v. M. in Melb. Chem., July 1882; Gascoyne River, O. Jones. The species is as yet imperfectly known; it is the "Wonuy" of the natives, who use the seeds for food.

*Acacia Farnesiana*. Willd. Spec. Pl. iv., 1083; Gascoyne River, J. Forrest.

#### Rosaceae.

*Stylobasium spathulatum*. Desf. in Mem. Mus. v., 37, t. 2; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest and Polak.

#### Saxifrageae.

*Aphanopetalum occidentale*. F. v. M., Fragm. i., 228; near Freycinet Harbor, F. v. M.

#### Crassulaceae.

*Tillaea verticillata*. D.C. Prodr. iii., 382; near Freycinet Harbor, F. v. M.

#### Haloragaeae.

*Loudonia aurea*. Lindl. Bot. Reg. xxv., App. xlii.; Freycinet Harbor, F. v. M.

*Haloragis Gossei*. F. v. M., Fragm. viii., 161; near the Gascoyne River, J. Forrest. Sometimes as many as eight flowers from one axil.

#### Myrtaceae.

*Verticordia pennigera*. Endl. in Hueg. Ennm. Pl. Austro. occid., 46; Dirk Hartog Island, Dr. Martin.

*Verticordia Forrestii*. F. v. M., in Wing's South. Se. Rec., March, 1883; Gascoyne River, J. Forrest.

*Verticordia Samiesonii*. F. v. M., in Wing's South. Se. Rec., March, 1883; Gascoyne River, J. Forrest.

*Pileanthus filifolius*. Meissn. in Journal Linn. Soc. i, 45; Sharks Bay, Guadiehand.

*Calycothrix strigosa*. Cunningham in Bot. Mag. 3323; Sharks Bay and Dirk Hartog Island, Cunningham.

*Thryptomene baeckeacea*. F. v. M., Fragm. iv., 65; Sharks Bay, Leschenault.

*Baeckea pentagonantha*. F. v. M., Fragm. iv., 73; Sharks Bay, Capt. Denham; Dirk Hartog Island, Milne.

*Baeckea leptantha*. F. v. M., Syst. Cens., 54; Sharks Bay, Leschenault, Milne.

*Melaleuca cardiophylla*. F. v. M., Fragm. i., 225; Sharks Bay, Capt. Denham; Dirk Hartog Island, Milne.

*Melaleuca adnata*. Turcz. in Bull. St. Petersb., 425; Sharks Bay, Milne.

- Melaleuca holosericea*. Schauer in Lehm. Plant. Preiss. i., 139; Dirk Hartog Island, Martin.
- Melaleuca thyoides*. Turcz. in Bull. Soc. Mosc. xx., 167; Sharks Bay, Milne.
- Beaufortia Dampieri*. Cunningham in Bot. Mag., t. 3272; Sharks Bay, Leschenault, Denham; Dirk Hartog Island, Cunningham, Milne. Recognised by Allan Cunningham from Woodward's note and illustration in Dampier's work.
- Lamarchea hakeaefolia*. Gaudichaud in Freycinet Voy. 484, t. 110; Sharks Bay, Gaudichaud, Milne, Maitl. Brown.
- Eucalyptus rostrata*. Schlecht. Linnaea xx., 655; Gascoyne River, Polak.
- Eucalyptus terminalis*. F. v. M., in Journ. of the Linn. Soc. iii., 89; summit of Mount Augustus, J. Forrest. A variety with narrow leaves and short fruits.
- Eucalyptus eudesmioides*. F. v. M., Fragm. ii., 35; near Freycinet Harbor, F. v. M.; *Eucalyptus erythrocorys* may also reach Sharks Bay, but was not observed nearer than 20 miles south of Freycinet Harbor.

#### Rhamnaceae.

- Cryptandra divaricata*. F. v. M., Syst. Census, 61; Dirk Hartog Island, Milne; Freycinet Harbor, F. v. M.
- Cryptandra complicata*. F. v. M., Syst. Census, 61; Dirk Hartog Island, Cunningham; Freycinet Harbor, F. v. M.
- Cryptandra tridentata*. Steud. in Lehm. Pl. Preiss. i., 186; towards Sharks Bay, F. v. M.

#### Araliaceae.

- Astrotricha Hamptoni*. F. v. M., Fragm. vi., 125; Gascoyne River, J. Forrest.

#### Umbelliferae.

- Didiscus setulosus*. F. v. M., in the proceedings of the Roy. Soc. of Tasm. iii., 238 (1857); Gascoyne River, J. Forrest and Polak. A glabrous variety with larger umbels. Also a dwarf variety (*fililoba*) with the segments of all the leaves very narrow; this may prove, when fruit shall be obtained, a distinct species.
- Didiscus pusillus*. F. v. M., Fragm. ix., 47; Sharks Bay, Dampier. Identified by Professor Lawson, and figured in Plukenet's *Amaltheum*, t. 454, f. 6.
- Daucus brachiatus*. Sieb. in D.C. Prodr. iv., 214. Near Freycinet Harbor, F. v. M.

#### Olacineae.

- Olax Benthamiana*. Miq. in Lehm. Pl. Preiss. i., 228; Peron Peninsula, Gaudichaud; Freycinet Harbor, F. v. M. Fruit, orange-colored.

#### Santalaceae.

- Santalum lanceolatum*. R. Br., Prodr., 356; Gascoyne River, J. Forrest, Polak, Bunbury.
- Santalum persicarium*. F. v. M., in Transact. Vict. Inst., 41; near Freycinet Harbor, F. v. M.
- Santalum acuminatum*. A. Cand. Prodr. xiv., 684; near Freycinet Harbor, F. v. M.
- Santalum cygnorum*. Miq. in Pl. Preiss. i., 615; Sharks Bay and Dirk Hartog Island, Milne.
- Anthobolus foveolatus*. F. v. M., Fragm. i., 212; Peron Peninsula, Gaudichaud; Freycinet Harbor, F. v. M.
- Exocarpos spartea*. R. Br., Prodr., 356; near Freycinet Harbor.
- Exocarpos aphylla*. R. Br., Prodr., 357; near Freycinet Harbor, F. v. M.; Gascoyne River, Polak.

#### Loranthaceae.

- Loranthus linearifolius*. Hook. in Mitch. Trop. Austr., 102; Sharks Bay, Capt. Denham.
- Loranthus Exocarpi*. Behr. in Linnaea xx., 624; Gascoyne River, J. Forrest.



*Loranthus linophyllus*. Fenzl in Hueg. Enum. 56; Sharks Bay, Cunningham; Dirk Hartog Island, Milne; Gascoyne River, Bunbury.

*Loranthus Quandang*. Lindl. in Mitch. Three Exped. ii., 69; Gascoyne River, Polak.

#### Proteaceae.

*Conospermum Stoechadis*. Endl. in Ann. Wien. Mus. ii., 208; near Freycinet Harbor, F. v. M.

*Grevillea pterosperma*. F. v. M., in Transact. Philos. Soc. Vict. i., 22; Gascoyne River, J. Forrest. Fruit not seen.

*Grevillea stenobotrya*. F. v. M., Fragm. ix., 3; Gascoyne River, J. Forrest. A variety with flowers outside more silky.

*Grevillea Chrysodendron*. R. Br., in Transact. Linn. Soc. x., 176; Menilyalya, J. Forrest.

*Grevillea annulifera*. F. v. M., Fragm. iv., 85; Freycinet Harbor, F. v. M.; Gascoyne River, O. Jones. Seed kernels a favorite food of the natives.

*Grevillea leucopteris*. Meissn. in Hook. Kew Misc. vii., 76; near Freycinet Harbor, F. v. M.

*Grevillea striata*. R. Br. in Transact. Linn. Soc. x., 177; Gascoyne River, Polak. Leaves showing only five nerves beneath.

*Grevillea deflexa*. F. v. M., in Melb. Chem. Jan. 1883; Gascoyne River, J. Forrest and Polak.

*Hakea Cunninghamsi*. R. Br., Prot. Nov. 26; Gascoyne River, J. Forrest and Polak. Fifteen feet high; also in Polak's collection a *Hakea* with very much shorter leaves, but without flowers and fruit. A *Hakea* with much divided leaves is to be met with near Freycinet Harbor.

#### Thymeleae.

*Pimelea microcephala*. R. Br., Prodr., 361; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest and Polak. Floral leaves larger than usual.

#### Rubiaceae.

*Oldenlandia galioides*. F. v. M., Syst. Census, 74; Gascoyne River, J. Forrest.

*Canthium latifolium*. F. v. M. in Benth. Flora Austr. iii., 421. Fifteen feet high and of pyramidal growth; Gascoyne River, Polak.

*Opercularia spermacoccea*. Labill. Nov. Holl. Plant. Spec. i., 35, t. 47; near Freycinet Harbor, F. v. M.

#### Cucurbitaceae.

*Cucumis trigonus*. Roxb. Flora Ind. iii., 722; Gascoyne River, J. Forrest and Polak.

*Melothria Maderaspatana*. Cogn. in D.C. Mon. Phan. iii., 623; Gascoyne River, Polak. The variety with hastate leaves at Menilyalya, J. Forrest.

#### Compositae.

*Brachycome pachyptera*. Turcz. in Bull. Mosc. xxiv., 175; near Freycinet Harbor, F. v. M.

*Brachycome iberidifolia*. Benth. in Hueg. enum. 59; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest. Corolla of discal flowers yellow or more or less dark-colored.

*Brachycome cheilocarpa*. F. v. M. in Wing's South. Sc. Rec., August, 1882; Gascoyne River, Bunbury.

*Brachycome latisquamea*. F. v. M., Fragm. xi., 16; near Freycinet Harbor, F. v. M.; Menilyalya, J. Forrest.

*Calotis plumulifera*. F. v. M. in Trans. Phil. Inst. Vict. iii., 57; Gascoyne River, J. Forrest, Polak, Bunbury.

*Aster axillaris*. F. v. M., Fragm. v., 64; Freycinet Harbor, F. v. M.; the variety linearifolia at Menilyalya, J. Forrest; Dirk Hartog Island, Leschenault. This plant was found by Cunningham in Dampier's Archipelagus, and noted and figured by Woodward in Dampier's voyage; Pl. 4, f. 3.

- Vittadinia australis*. A. Rich. Voy. Astrol., 251; Freycinet Harbor, F. v. M.; Gascoyne River, Polak.
- Podocoma cuneifolia*. R. Br., App. Sturt's Centr. Austr., 17; Menilyalya, J. Forrest.
- Pluchea Eyrea*. F. v. M., Rep. Babb. Exp. ii., 12; Gascoyne River, J. Forrest, Polak.
- Pterocaulon sphacelatus*. Benth. and J. Hook. Gen. Pl., ii., 94; Gascoyne River, Polak.
- Gnaphalium luteo-album*. L. Spec. Pl., 851; Gascoyne River, J. Forrest, Polak.
- Podosperma gnaphalioides*. F. v. M., Fragm. xii., 22; near Freycinet Harbor, F. v. M.
- Podosperma angustifolia*. Labill. Nov. Holl. Pl. Spec. ii., 35, t. 177; near Freycinet Harbor, F. v. M.
- Podosperma Polakii*. F. v. M., Fragm. xii., 21; Gascoyne River, J. Forrest.
- Podolepis rugata*. Labill. Nov. Holl. Plant. Spec. ii. 57, t. 208; var. *oxypholis*, Gascoyne River, Polak; Menilyalya, J. Forrest. Involucral bracts acuminate; lobes of central corollas longer, pappus-bristles usually smoother, more free at the base and not quite so numerous.
- Podolepis kendallii*. F. v. M. in Wing's S. Science Record, March, 1883; Gascoyne River, J. Forrest.
- Podolepis microcephala*. Benth. Fl. Austr. iii., 607; Sharks Bay, Milne; not rare in the southern country at Sharks Bay, F. v. M.; annual; involucral bracts often purplish on the summit; flowerheads up to  $\frac{1}{3}$ -inch broad; corolla bright yellow.
- Waitzia nivea*. Benth. Fl. Austr. iii., 636; near Freycinet Harbor, F. v. M.
- Waitzia steetziana*. Lehm. Pl. Preiss. i., 454; Gascoyne River, J. Forrest, Polak.
- Waitzia podolepis*. Steetz in Lehm. Pl. Preiss i., 450; Dirk Hartog Island and Peron Peninsula, Gaudichaud; Gascoyne River, Polak. Stems sometimes only with one flowerhead. Bracts margined by a pellucid membrane, ciliated; outer bracts pale yellowish; inner bracts with a lanceolar bright-yellow lamina of about  $\frac{1}{3}$ -inch length. Receptacle elongated-conical, short—and glandular—hairy,  $\frac{1}{3}$ — $\frac{1}{2}$ -inch high! Flowers at the pointed summit of the receptacle sterile. Pappus bristles yellowish, connate at the pale base. This plant represents evidently the genuine species, illustrated by Gaudichaud, though neither he nor any subsequent writer on this rare and pretty everlasting alludes to the remarkable elongation of the receptacle, which I find in all the specimens transmitted on this occasion. The plant named by Kunth and referred to by Sonder, belongs probably to another species.
- Helipterum roseum*. Benth. Fl. Austr. iii., 640; Gascoyne River, J. Forrest.
- Helipterum floribundum*. D.C. Prodr. vi., 217; Gascoyne River, J. Forrest and Polak.
- Helipterum Humboldtianum*. D.C. Prodr. vi., 216; Dirk Hartog Island and Peron Peninsula, Gaudichaud; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest and Polak.
- Helipterum strictum*. Benth. Fl. Austr. iii., 646; Gascoyne River, J. Forrest and Polak.
- Helipterum Frenchii*. F. v. M., in Wing's South. Sc. Rec., Feb., 1883; Menilyalya, J. Forrest.
- Helipterum tenellum*. Turcz. in Bull. Mosc. xxiv., 198; Freycinet Harbor, F. v. M.; Gascoyne River, Polak. The ordinary form accompanied by a variety with compact inflorescence.
- Helipterum sterilescens*. F. v. M. in Wing's South. Sc. Rec., Dec., 1882; Gascoyne River, Polak.
- Helipterum Forrestii*. F. v. M. in Wing's South. Sc. Rec., Dec., 1882; Gascoyne River, J. Forrest.
- Helipterum Charsleyae*. F. v. M., Fragm. viii., 168; Gascoyne River, Polak.
- Helichrysum Cassinianum*. Gaudich. in Freyc. Voy. Bot. 466, t. 87; Gascoyne River, Polak.
- Helichrysum Gilesii*. F. v. M., Fragm. x., 85; Gascoyne River, J. Forrest and Polak.

- Helichrysum apiculatum*. D.C. Prodr. vi., 195; Gascoyne River, J. Forrest.
- Millotia tenuifolia*. Cass. in Ann. des Sc. Nat. xvii., 416; near Freycinet Harbor, F. v. M.
- Myriocephalus Guerinae*. F. v. M., Fragm. viii., 169; Menilyalya, J. Forrest; Gascoyne River, Polak and J. Forrest. All the specimens seen are flowering from a thin slender and therefore perhaps always annual root; they are varying in height from 6 inches to 1 foot; radical leaves lanceolar or broadly linear, gradually narrowed into a petiole, attaining a length of two inches.
- Angianthus Milnei*. Benth. Fl. Austr. iii., 564; Dirk Hartog Island, Milne.
- Angianthus Cunninghamsi*. Benth. Fl. Austr. iii., 565; Sharks Bay and Dirk Hartog Island, Cunningham, Milne.
- Gnephosis skirrophora*. Benth. Fl. Austr. iii., 570; Dirk Hartog Island, Milne.
- Gnephosis tenuissima*. Cass. in Bull. Soc. Philom., 43; near Sharks Bay, Gaudichaud; Dirk Hartog Island, Cunningham.
- Calocephalus Brownii*. F. v. M., Rep. Babb. Exped., 13; Sharks Bay, Captain Denham.
- Cephalipterum Drummondii*. A. Gray in Hook. Kew Misc. iv., 272; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest.
- Gnaphalodes condensatum*. A. Gray in Hook. Kew Misc. iv., 228; near Freycinet Harbor, F. v. M. The inner bracts are closing over the fruits, and on being bent mechanically outwards eject the same by the elastic force of the pappus.
- Flaveria Australasica*. Hook. in Mitch. Trop. Austr., 118; Gascoyne River, J. Forrest and Polak.
- Centipeda Cunninghamsi*. F. v. M., Fragm. viii., 143; Gascoyne River, Polak.
- Senecio Gregorii*. F. v. M., Report on Babbage's Plants, 14; Gascoyne River, J. Forrest and Polak. Attains a height of fully  $1\frac{1}{2}$ -feet. Small specimens occur one-headed. Flowerheads sometimes much diminished in size. Involucre occasionally much slenderer. Ligules very variable in width, reduced not rarely to five.
- Senecio laurus*. Soland. in G. Forst. Prodr. 91; Gascoyne River, J. Forrest and Polak; Freycinet Harbor, F. v. M. The early occurrence of *Sonchus* at Sharks Bay was already noted by Gaudichaud. It may have spread since the visit of Baudin. Some other English or foreign plants have established themselves at Sharks Bay, among them *Madia sativa*.

#### Campanulaceae.

- Lobelia heterophylla*. Labill. Nov. Holl. Pl. Spec. i., 52, t. 74; Menilyalya and Gascoyne River, J. Forrest.
- Wahlenbergia gracilis*. A. Cand. Mon. Camp., 142; Gascoyne River, J. Forrest and Polak.

#### Goodeniaceae.

- Brunonia australis*. Sm. in Trans. Linn. Soc. x., 367, t. 28; Gascoyne River, J. Forrest and Polak.
- Dampiera incana*. R. Br., Prodr., 588; Sharks Bay and Dirk Hartog Island, Leschenault, Gaudichaud, Cunningham; Freycinet Harbor, F. v. M. Professor Lawson quotes for this plant the "*Leucojum maritimum Novo-Hollandicum folio parvo incano, flore amplo caeruleo*" illustrated in Plukenet's *Amaltheum*, append. t. 452, f. 4, and in Dampier's voyage t. 3, f. 2.
- Leschenaultia linarioides*. D.C. Prodr. vii., 519; Sharks Bay, Gaudichaud; Dirk Hartog Island, Milne.
- Scaevola spinescens*. R. Br., Prodr., 586; Freycinet Harbor, F. v. M.; Gascoyne River, Polak; Menilyalya, J. Forrest. The very succulent fruit turns blackish when ripe.

- Scaevola tomentosa*. Gaudichaud in Freyc. Voy. Bot. 460, t. 81; Sharks Bay, Gaudichaud, Maitl. Brown.
- Scaevola porocarya*. F. v. M., Fragm. ii., 19; near Freycinet Harbor, F. v. M.
- Scaevola crassifolia*. Labill. Nov. Holl. Pl. Sp. i., 56, t. 79; Peron Peninsula, Gaudichaud; Freycinet Harbor, F. v. M.
- Scaevola thesioides*. Benth. in Hueg. enum., 68; near Freycinet Harbor, F. v. M.
- Scaevola sericophylla*. F. v. M. in Benth. Flora Austr. iv., 102; near Freycinet Harbor, F. v. M.
- Scaevola canescens*. Benth. in Hueg. enum., 69; Peron Peninsula, Gaudichaud; near Freycinet Harbor, F. v. M.
- Calogyne Berardiana*. F. v. M., Fragm. vi., 7; Sharks Bay, Gaudichaud; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest.
- Goodenia coerulea*. R. Br., Prodr., 578; near Freycinet Harbor, F. v. M.
- Vellea macropectra*. F. v. M., Fragm. xii., 22; Gascoyne River, J. Forrest.
- Vellea paradoxa*. R. Br., Prodr., 580; Gascoyne River, J. Forrest. Radical leaves deeper lobed than usual. The spur-like appendage of the corolla in this instance very short.

#### Gentianeae.

- Erythraea australis*. R. Br., Prodr., 451; near Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest.

#### Plantagineae.

- Plantago varia*. R. Br., Prodr., 424; Freycinet Harbor, F. v. M.; Gascoyne River, Polak.

#### Primulaceae.

- Samolus repens*. Pers. Syn. Pl. i., 171; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest and Polak.

#### Jasmineae.

- Jasminum calcareum*. F. v. M., Fragm. i., 212; near Freycinet Harbor, F. v. M.
- Jasminum lineare*. R. Br., Prodr., 521; Sharks Bay, Milne; Freycinet Harbor, F. v. M.

#### Apocynae.

- Alyxia buxifolia*. R. Br., Prodr., 470; Sharks Bay, Milne; Freycinet Harbor, F. v. M.

#### Asclepiadeae.

- Gymnauthera nitida*. R. Br., Prodr., 464; Gascoyne River, J. Forrest and Polak.
- Cynanchum floribundum*. R. Br., Prodr., 463; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest and Polak.
- Sarcostemma australe*. R. Br., Prodr., 463; Peron Peninsula, Gaudichaud; Freycinet Harbor, F. v. M.
- Daemia linearis*. F. v. M., Syst. Census, 94; Menilyalya, J. Forrest.
- Marsdenia Leichhardtiana*. F. v. M., Fragm. v., 160; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest.

#### Convolvulaceae.

- Ipomoea pes-caprae*. Roth Nov. Spec. Pl., 109; Cape Farquhar, J. Forrest.
- Ipomoea reptans*. Poir. Encyc. Meth. Sup. Pl. iii., 460; Gascoyne River, J. Forrest.
- Ipomoea Muelleri*. Benth. Flor. Austr. iv., 423; Gascoyne River, Bunbury.
- Convolvulus erubescens*. Sims, Bot. Mag., t. 1067; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest.
- Convolvulus sepium*. L. Spec. Plant, 153; Dirk Hartog Island and Peron Peninsula, Gaudichaud.

*Porana sericea*. F. v. M., Fragm. vi., 100; Peron Peninsula, Gaudichaud; Freycinet Harbor, F. v. M.

*Wilsonia humilis*. R. Br., Prodr., 490; near Freycinet Harbor, F. v. M.

*Evolvulus linifolius*. L. Sp. Pl. ed. sec. 392; Gascoyne River, Polak.

*Cuscuta australis*. R. Br., Prodr., 491; Gascoyne River, J. Forrest. The Dodder-plant from this region may deserve specific distinction, and has been marked by me as a variety under the name *reducta*, because the lobes of the calyx and corolla are reduced to 3 or 4, and therefore the stamens also to that number; moreover the styles are exceedingly short and the capsule enlarges to an unusual width, particularly when all four of its turgid divisions are developed. As, however, it has been shown by Dr. Engelmann (Transactions of the Academy of Science of St. Louis I, 491-494, anno 1859) that *Cuscuta australis* extends widely through America, also to Africa, Asia, and South Europe, and produces sometimes tetramerous flowers and broader fruits, I am led to take Mr. Forrest's plant as an extreme form of *C. australis*. I have it also from Lady Charlotte's Water (C. Giles), from the Finke River (Kempe), and from Cashmere, North Queensland (Armit). It occurs, so far as I have seen, on *Indigofera monophylla*, *Vigna lanceolata* and *Tribulus terrestris*.

#### Solanaceae.

*Solanum orbiculatum*. Dunal in Poir. Encycl. Meth. xiii., 762; Sharks Bay, Dampier, as identified in the Transact. of the Bot. Soc. of Edinburgh vii., 481; from Dampier's work, Pl. 2, f. 4; Peron Peninsula, Gaudichaud; Gascoyne River, J. Forrest and Bunbury.

*Solanum lasiophyllum*. Dunal in Poir. Encycl. Meth. xiii., 764; Peron Peninsula, Gaudichaud; Sharks Bay, Milne; Gascoyne River, J. Forrest.

*Datura Leichhardtii*. F. v. M., in Transact. Phil. Soc. Vict. i., 20; Gascoyne River, Polak; Menilyalya, J. Forrest. Mr. Polak observes, that the plant occasionally attains the size of *D. Stramonium*.

*Nicotiana suaveolens*. Lehmann. Gen. Nicot. Hist., 43; Peron Peninsula, Gaudichaud; Gascoyne River, J. Forrest and Polak.

*Anthotroche Walcottii*. F. v. M., Fragm. i., 123; Dirk Hartog Island, Milne.

#### Scrophularinae.

*Stemodia Morgania*. F. v. M., Fragm. x., 89; Gascoyne River, J. Forrest and Polak.

*Stemodia viscosa*. Roxb. Pl. Corom. ii., 33, t. 163; Gascoyne River, Polak; Menilyalya, J. Forrest. The large flowered variety. Occasionally 4 or 5 leaves in a whorl. From the same locality *Stemodia grossa*, with a corolla sometimes fully an inch long; but whether that be only a sessile flowered variety of *S. viscosa* remains to be ascertained.

*Peplidium Muelleri*. Benth. Flor. Austr. iv., 500; Gascoyne River, J. Forrest; found also between the Finke River and Lake Eyre, by Mr. E. Giles.

*Buechnera parviflora*. R. Br., Prodr., 438; Gascoyne River, Polak. Seeds very minute, cuneate-ovate, truncated. The plant seems perennial.

#### Orobancheae.

*Orobanche Australiana*. F. v. M., Syst. Census, 98; Peron Peninsula, Gaudichaud. (Voyage de l'Uranie et Physicienne, Botan. p. 36). Professor Caruel concurs in my opinion, that the Australian *Orobanche* is not absolutely identical with *O. cernua*, the exact characteristics of which he had ample opportunities to study in the South of Europe.

#### Acanthaceae.

*Dicladantha Forrestii*. F. v. M., Fragm. xii., 23; Menilyalya, J. Forrest.

#### Asperifoliae.

*Helitropium Curassavicum*. L. Sp. Pl. 130; Gascoyne River, J. Forrest.

*Helitropium undulatum*. Vahl. Symb. Bot. i., 13; Menilyalya, J. Forrest.

- Halgania litoralis*. Gaud. in Freyc. Voy. Bot., 449, t. 59; Peron Peninsula, Gaudichaud; Dirk Hartog Island, Cunningham; Sharks Bay, Captain Denham.  
*Pollichia Zeylanica*. F. v. M., Systematic Census, 100; Peron Peninsula, Gaudichaud; Dirk Hartog Island, Milne; Gascoyne River, J. Forrest and Polak.

#### Labiatae.

- Prostanthera Campbells*. F. v. M. in Wing's South. Sc. Rec. Nov. 1882; Gascoyne River, J. Forrest.  
*Hemigenia macrantha*. F. v. M., Fragm. i., 210; near Freycinet Harbor, F. v. M.  
*Hemigenia leiantha*. F. v. M., Fragm. xi., 20; near Freycinet Harbor, F. v. M.  
*Westringia rigida*. R. Br., Prodr., 501; Sharks Bay, Milne.  
*Teucrium racemosum*. R. Br., Prodr., 504; Gascoyne River, Polak.

#### Verbenaceae.

- Spartothamnus teucriifolius*. F. v. M. in Wing's South. Sc. Rec. ii., 55; near Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest and Polak. Fruit, outside black, according to specimens sent from the vicinity of the Finke River by the Rev. H. Kempe.  
*Dicrastyles fulva*. Drumm. and Harv. in Kew Misc. vii., 56; Dirk Hartog Island, Martin.  
*Chloanthes hemigenoides*. F. v. M., Fragm. vi., 156; Dirk Hartog Island, Milne.  
*Chloanthes cuneata*. F. v. M., Systematic Census, 103; Dirk Hartog Island and Peron Peninsula, Gaudichaud; Sharks Bay, Milne.  
*Chloanthes atriplicina*. F. v. M., Fragm. i., 235; Sharks Bay, Maitl. Brown.  
*Chloanthes paniculata*. F. v. M., Fragm. iv., 80; Sharks Bay, Maitl. Brown; Menilyalya River, J. Forrest; Gascoyne River, Polak; seen by me, also, near Freycinet Harbor. Leaves towards the base of the branches oblong-cuneate, attenuated to the base, sometimes ternate, thinly velvety and almost quite green on both sides, 1 to 1½ inches long. Calyxes assuming sometimes a pink color. *C. cuneata*, obtained during Captain Freycinet's naval expedition at Sharks Bay, possesses a thicker vestiture, broader and more denticulated leaves with almost clasping base, larger floral leaves and mostly shorter peduncles, which characteristics impress a feature on that plant different to that of *C. paniculata*.  
*Clerodendron lanceolatum*. F. v. M., Fragm. iii., 145; Gascoyne River, J. Forrest; also in Dampier's collection according to Prof. Lawson, and figured vol. iii., Pl. 1, f. 3.  
*Avicennia officinalis*. L. Spec. Pl., 110; Freycinet Harbor, F. v. M.

#### Myoporinae.

- Myoporum montanum*. R. Br., Prodr., 515; Gascoyne River, Polak; occurs, according to a note from Professor Lawson, also in Dampier's collection. The specific name is not appropriately chosen, as this is essentially a low-lands plant.  
*Myoporum serratum*. R. Br., Prodr., 516; Dirk Hartog Island, Cunningham, Milne.  
*Eremophila Mackinlayi*. F. v. M., Fragm. iv., 80; Gascoyne River, Maitl. Brown, Polak. A variety with whitish or ash-colored vestiture, with spatulate-lanceolar leaves, with linear segments of the calyx, and with the lobes of the corolla more pointed, the lowest of them not broader than long.  
*Eremophila leucophylla*. Benth. Flor. Austr. v., 18; Sharks Bay, Milne.  
*Eremophila Maitlandi*. F. v. M. in Benth. Flor. Austr. v., 19; Sharks Bay, Milne, Maitl. Brown; Gascoyne River, J. Forrest, Polak. Corolla about one inch long, outside slightly downy; lips nearly half as long as the tube, all the lobes rounded in front, the middle one much larger than the others, and above somewhat pubescent; tube of the corolla ample, woolly-bearded near the base or the stamens; filaments not exerted. Style glabrous. Fruit conical-ovate, singularly marked by several prominent longitudinal angles, thus furrowed, about ⅓-inch long. In affinity near *E. Latrobei*.

*Eremophila oppositifolia*. R. Br., Prodr., 518; Gascoyne River, J. Forrest.

*Eremophila exilifolia*. F. v. M., Fragm. x., 88; Gascoyne River, J. Forrest. When the plant was first described in the work above quoted, only one imperfect flower and no fruit was available for dissection. The ampler material, furnished by Mr. Forrest, affords the opportunity to improve on the original description. The plant is generally short-hairy. Leaves sometimes nearly oblong. Pedicels soon longer than the flowers, very spreading, at the summit incurved. Segments of the calyx very overlapping, the outer often ovate, all but slightly enlarged in age and not becoming distinctly scarious. Tube of the corolla at least twice as long as the calyx, also conspicuously longer than the lobes, comparatively ample, woolly-downy at the insertion of the stamens; upper lip almost semiovate and so far as now seen not cleft into lobes, but only notched, woolly-bearded towards the base; middle lobe of the lower lip roundish, lateral lobes semiovate and apiculate. Fruit dry, globular-ovate, slightly compressed, hardly  $\frac{1}{4}$ -inch long, almost 4-celled and ripening generally 4 seeds.

*Eremophila Clarkei*. F. v. M., Fragm. i., 208; Sharks Bay, Maitl. Brown.

*Eremophila Latrobei*. F. v. M. in Proceed. Roy. Soc. Tasm. iii., 294; Gascoyne River and Menilyalya, J. Forrest and Polak.

*Eremophila longifolia*. F. v. M. in Proceed. Roy. Soc. Tasm. iii., 295; Gascoyne River, J. Forrest, Polak, Bunbury; Menilyalya, J. Forrest. This species finds its place more readily in the section *Stenochilus* than in that of *Platytilus*.

*Eremophila Hughesii*. F. v. M., Fragm. viii., 228; Gascoyne River, Polak. Leaves sometimes fully 2 inches long, becoming also somewhat wider and more channelled, by their twist rendering the margin to appear revolute. Calyx while young very glandular-viscid and beset with spreading soft hairs, which partially wear off in advancing growth of the plant. Sometimes 3 flower stalks from one axil. Fruit calyx attaining a length of nearly half an inch, the margin of the somewhat enlarged segments then partially over-reaching each other.

*Eremophila Freehugii*. F. v. M., in Proceed. Roy. Soc. Tasm. iii., 295; Gascoyne River, Polak. Flowerstalks extending to the length of half-an-inch.

*Eremophila Fraseri*. F. v. M. Fragm. xi., 51; Gascoyne River, E. Giles, J. Forrest, Polak. Mr. Polak observes that this shrub occurs in stony ground, that it is of dwarf and compact growth, and that the flowers are of pink and magenta color; reminding (perhaps on account of the large reddish calyx) of *Azalea*. I find the leaves to be sometimes ovate-lanceolar, occasionally two flowerstalks to arise from the same axilla, the upper segments of the calyx to assume not rarely an ovate form, and the lower hardly to be wedgeshaped-contracted. From the same region specimens are sent by Mr. Polak of a plant, which seems to constitute a variety of *E. Fraseri*. The leaves are much smaller and therefore short-stalked, only  $\frac{1}{3}$  to  $\frac{1}{2}$ -inch long, obovate, or cuneate-obovate in form, minutely apiculated; the flowers are withered, their stalks are very short, but the fruit-bearing calyx accords with that of *E. Fraseri*. The variety may be named after the finder.

*Eremophila Willsii*. F. v. M., Fragm. iii., 21, t. 20, near Freycinet Harbor, F. v. M.

*Eremophila platycalyx*. F. v. M. Fragm. v., 109; Sharks Bay, Maitl. Brown; Gascoyne River, Polak. A variety with broader and shorter occasionally blunt leaves, and with narrower calyx-segments, cuneate towards the base, and thus not overlapping. The typical form was brought from Lake Barlee by Mr. Forrest, and from the North-west interior of South Australia by J. M. Stuart.

*Eremophila Brownii*. F. v. M. in Proceed. Roy. Soc. Tasm. iii., 297; Sharks Bay, Milne, Maitl. Brown; Freycinet Harbor, F. v. M.

*Eremophila maculata*. F. v. M. in Proceed. Roy. Soc. Tas. iii., 297; Gascoyne River, J. Forrest and Polak.

*Eremophila latifolia*. F. v. M. in Linnaea xxv., 428; Gascoyne River, J. Forrest.

*Eremophila Pantoni*. F. v. M. in Wing's South. Sc. Rec., Novbr., 1882; Gascoyne River, Polak.

*Eremophila Youngii*. F. v. M., Fragm. x., 16; Mount Hale, Carr; Gascoyne River, Polak; Menilyalya, J. Forrest. The specimens are well in flower, but bear no fruit. They seem to belong to this species, though the leaves are scattered, and the calyx-segments somewhat broader. Style, downy towards the base; ovules, two pairs in each of the two ovary-cells.

#### **Irideae.**

*Patersonia graminea*. Benth. Flora Austr. vi., 408; to near the southern part of Sharks Bay, F. v. M.

#### **Dioscorideae.**

*Dioscorea hastifolia*. Nees in Lehm. Plant. Preiss. ii., 33; near Freycinet Harbor, F. v. M.

#### **Amaryllideae.**

*Anigozanthos Manglesi*. D. Don, in Sweet Brit. Flor. Gard. ser. 2, t. 265; Freycinet Harbor, F. v. M. The variety with outside vestiture of the calyx fulvous, except the yellowish base.

#### **Liliaceae.**

*Dianella revoluta*. R. Br., Prodr., 280; Peron Peninsula and Dirk Hartog Island, Gaudichaud; Freycinet Harbor, F. v. M.

*Wurmbea dioica*. F. v. M., Fragm. x., 119; Gascoyne River, J. Forrest.

*Bulbine semibarbata*. Haw. Rev. Plant Succ., 33; Gascoyne River, J. Forrest.

*Thysanotus Patersoni*. R. Br., Prodr., 284; Freycinet Harbor, F. v. M.; Gascoyne River, J. Forrest.

*Thysanotus dichotomus*. R. Br., Prodr., 284; near Freycinet Harbor, F. v. M. The genus Chamysporum has at least by one year priority over Thysanotus, and should in strict justice be restored.

*Corynotheca dichotoma*. F. v. M., Fragm. vii., 68; near Freycinet Harbor, F. v. M.

*Corynotheca acanthoclada*. F. v. M., Fragm. vii., 68; near Freycinet Harbor, F. v. M.

*Tricoryne elatior*. R. Br., Prodr., 278; Peron Peninsula and Dirk Hartog Island, Gaudichaud; Freycinet Harbor, F. v. M.

*Acanthocarpus Preissii*. Lehm. Plant. Preiss. ii., 274; Sharks Bay, Gaudichaud; Dirk Hartog Island, Cunningham; Freycinet Harbor, F. v. M., in widely spreading tufts to the edge of the shores. Gaudichaud, in Freycinet's Voyage Botanique, p. 36, mentions this as *Xerotes Peronii*, and at p. 420 describes it as *X. mucronata*.

#### **Fluviales.**

*Triglochin mucronata*. R. Br., Prodr., 343; near Freycinet Harbor, F. v. M.

*Potamogeton natans*. L. Spec. Plant, 126; Gascoyne River, J. Forrest.

*Cymodocea zosterifolia*. F. v. M., Systematic Census, 121; Peron Peninsula and Dirk Hartog Island, Gaudichaud.

#### **Restiaceae.**

*Lyginia tenax*. F. v. M. (*L. barbata*, R. Br., Prodr., 248; *Schoenodum tenax*, Labill. Nov. Holl. Plant. Spec. ii., t. 229, f. 1.) Not far south of Freycinet Harbor, F. v. M. The unbearded variety, which is not rare in other parts of Western Australia; hence the original specific name is restored now.

*Loxocarya flexuosa*. Benth. Flora Austr. vii., 243; Dirk Hartog Island, Milne; Freycinet Harbor, F. v. M. Another co-ordinal plant, neither in flower nor fruit, was found by me in the same locality, which appears to be *L. cinerea*.

*Centrolepis Drummondii*. Hieron. in den Abh. der Nat. Ges. Zee. Halle xii., 98; near Freycinet Harbor, F. v. M. Involucrating bracts finally spreading; clasping petioles sometimes broadly scarious.

#### **Cyperaceae.**

*Cyperus difformis*. L. Amoen. Acad. iv., 302; Gascoyne River, Polak.

*Cyperus vaginatus*. R. Br., Prodr., 213; Gascoyne River, J. Forrest.



- Cyperus fulvus*. R. Br., Prodr., 215; Gaseoyne River, Polak.  
*Schoenus grandiflorus*. F. v. M., Fragm. ix., 30; not far from Freyeinet Harbor, F. v. M.  
*Schoenus stygius*. Poir. Encyl. Meth. Suppl. ii., 251; Freyeinet Harbor, F. v. M. Both outer bracts foliaceous-elongated, the inner nearly as long as the outer, or not much shorter.  
*Scirpus riparius*. Spreng. Syst. i., 208; Freycinet Harbor, F. v. M. The minute form only.  
*Lepidosperma scabrum*. Nees in Lehm. Pl. Preiss. ii., 92; near Freyeinet Harbor, F. v. M. Leaves somewhat exceeding the length of the stem.

### Gramineae.

- Panicum gracile*. R. Br., Prodr., 190; Gascoyne River, Polak. A form with numerous rather long spikes, also a dwarf form with depauperated inflorescence.  
*Panicum decompositum*. R. Br., Prodr., 191; Gascoyne River, Polak.  
*Setaria glauca*. Palis. Agrost., 51, t. 13; Gascoyne River, J. Forrest.  
*Setaria macrostachya*. Humb., Bonpl. and Kunth Nov. Gen. et Spec. i., 110; Gascoyne River, Polak,  
*Setaria verticillata*. Palis. Agrost., 51; Gascoyne River, Polak.  
*Spinifex longifolius*. R. Br., Prodr., 198; Peron Peninsula and Dirk Hartog Island, Gaudichaud; Sharks Bay, Milne.  
*Tragus racemosus*. Haller Stirp. Helv. n. 1413; Gascoyne River, Polak.  
*Erianthus fulvus*. Kunth Gram. i., 160; Freyeinet Harbor, F. v. M.; Gascoyne River, Bunbury and Polak.  
*Andropogon procerus*. R. Br., Prodr., 202; rocky banks of the Upper Gascoyne River, not plentiful. A nicely scented grass, Polak.  
*Andropogon bombycinus*. R. Br., Prodr., 202; near Freycinet Harbor, F. v. M.  
*Andropogon Gryllus*. L. Amoen. Acad. iv., 332; Gascoyne River, Polak.  
*Anthistiria ciliata*. L. Fil. Gram. Gen., 35; Gascoyne River, Polak.  
*Anthistiria avenacea*. F. v. M., Fragm. v., 206; Gascoyne River, Polak.  
*Anthistiria membranacea*. Lindl. in Mitch. Trop. Austr., 88; Gascoyne River, Polak.  
*Aristida arenaria*. Gaud. in Freye. Voy. Bot., 407; Peron Peninsula and Dirk Hartog Island, Gaudichaud; Freyeinet Harbor, F. v. M.; Menilyalya, J. Forrest.  
*Stipa elegantissima*. Labill. Nov. Holl. Pl. Spec. i., 23, t. 29; Peron Peninsula and Dirk Hartog Island, Gaudichaud; near Freycinet Harbor, F. v. M.  
*Stipa crinita*. Gaud. in Frey. Voy. Bot., 407; Dirk Hartog Island and Peron Peninsula, Gaudichaud.  
*Sporobolus Virginicus*. Humb. and Kunth. Gram. i., 67; Sharks Bay, Milne; Freyeinet Harbor, F. v. M. To the synonyms of this plant belongs *S. Matrella*, Nees in Lehm. Plant. Preiss. ii., 97.  
*Pappophorum commune*. F. v. M., Pl. of Gregory's Exp. 10; Peron Peninsula and Dirk Hartog Island, Gaudichaud; Gascoyne River, Polak.  
*Eriachne aristidea*. F. v. M., Fragm. v., 205; Gascoyne River, Polak.  
*Eriachne ovata*. Nees in Hook. Lond. Jour. ii., 418; Gascoyne River, Polak; Menilyalya, J. Forrest.  
*Eriachne obtusa*. R. Br., Prodr., 184; Gascoyne River, J. Forrest, Bunbury; a form with the outer bracts glabrous.  
*Danthonia penicillata*. F. v. M., Fragm. viii., 135; Peron Peninsula and Dirk Hartog Island, Gaudichaud; Freyeinet Harbor, F. v. M.  
*Chloris acicularis*. Lindl. in Mitch. Trop. Austr., 33; Gascoyne River, Polak.  
*Eleusine Aegyptiaca*. Pers. Syn. i., 82; Gascoyne River, Polak.  
*Eleusine digitata*. Spreng. Syst. Veg. Cur. Post., 36; Gascoyne River, Polak.

- Poa lepida*. F. v. M., *Fragm.* viii., 130; Freycinet Harbor, F. v. M.  
*Diplachne fusca*. Palis. *Agrost.*, 163; Gascoyne River, Polak.  
*Bromus arenarius*. Labill. *Nov. Holl. Pl. Spec.* i., 23, t. 28; near Freycinet Harbor, F. v. M.  
*Eragrostis tenella*. Palis. in Roem. and Schult. *Syst. Veg.* ii., 576; Gascoyne River, J. Forrest. Sometimes only three inches high, when fully in flower. Spikelets attaining a length of two lines and a width of fully one line with sometimes as many as seven florets.  
*Eragrostis pilosa*. Palis. *Agrost.*, 71; Gascoyne River, Polak.  
*Eragrostis Brownii*. Nees in Stend. *Nom. Botan.*, i., 562; Gascoyne River, J. Forrest. A variety with short and clustered spikelets.  
*Eragrostis falcata*. Gaud. in Freyc. *Voy. Bot.* 408, t. 25; Sharks Bay, Gaudichaud; Gascoyne River, Polak.  
*Arundo Roxburghii*. F. v. M., *Systematic Census*, 135; Gascoyne River, J. Forrest.

#### **Rhizospermae.**

- Marsilea quadrifolia*. L. *Spec. Pl.* 1100; a slightly hairy variety; Gascoyne River, J. Forrest.

#### **Filices.**

- Cheilanthes tenuifolia*. Sw. *Syn. Fil.* 126; Gascoyne River, J. Forrest and Polak. Should anyone scatter fern-spores on moist shaded rocks at the Gascoyne River, then doubtless a fern-flora would also arise there, which naturally is almost denied to the whole district, although many spots there would afford the condition for the growth of these kinds of plants.



