In the Adelaide Public Library is a pamphlet facsimile of this Report, except that the title page is headed with the date "1858". The words "presented to both houses of Parliament" etc. are omitted, as is the "No. 1." in bottom left-hand corner. It may be assumed that 1858 is a typographical error. The Librarian did not receive the Babbage collection until Jan. 1859 — they were sent to him on January 19 by the Hon. F. S. Dutton on board the ship "Havilah." [See letter in Archives of Adelaide Public Library].

1859.

VICTORIA.

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REPORT

ON THE PLANTS COLLECTED DURING

MR. BABBAGE'S EXPEDITION

INTO THE

NORTH-WESTERN INTERIOR OF SOUTH

AUSTRALIA IN 1858.

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GOVERNMENT BOTANIST FOR THE COLONY OF VICTORIA,

PRESENTED TO BOTH HOUSES OF PARLIAMENT BY HIS EXCELLENCY'S COMMAND.

By Authority:

JOHN FERRES, GOVERNMENT PRINTER, MELBOURNE.

No. 1.

REPORT.

THE botanical collections formed during Mr. Babbage's recent expedition into the N.W. interior of South Australia having been submitted by the Government to my examination, I deemed it desirable to furnish a complete list of all the species of plants which the herbarium contains; for although the number of the previously unknown genera comprised in the collection is limited to three, and that of the species to seventeen, there is still great interest attached to the remainder of the plants, either on account of their rarity, or in respect to the singular variations of form, which, in the arid tracts where they were gathered, some of the species assume.

Moreover, the complete index, it was thought, would convey a more comprehensive idea of the vegetation which clothes the barren interior of South Australia, than the sketches furnished of it on a former occasion.*

Glancing over the material thus placed at our disposal, we learn, that the peculiar vegetation which characterizes the country along the Lower Murray, the Lower Darling, Spencer's Gulf, and Lake Torrens, still received little alteration, and that but few plants indicate an approach either to the Brigalow vegetation, which extends from the River Burdekin to the Upper Darling, or to the Flora of the tropical interior, whilst the collection proves almost devoid of any S.W. Australian plants, except such as are widely diffused over the continent.

The south-western limits of the Brigalow vegetation† we may consider now as fixed; *Apophyllum*, *Strzeleckia*, *Eremophila Mitchellii*, certain species of *Capparis* and *Geijera*, and other prominent features of those shrubs, cease either near Mount Serle, or towards Mount Murchison, or already on Cooper's River.

Of exclusively or principally tropical genera, the following attain, in the regions lately explored, their southern limit, viz.:—*Polycarpæa*, *Trichodesma*, *Sarcostemma*, *Cynoctonum*, *Monenteles*, *Pluchea*, *Crotalaria*, *Rostellularia*, and *Glossogyne*.

Amongst the few Western Australian plants noticed towards Spencer's Gulf, although only in part obtained during the expedition, the following deserve notice:—*Templetonia retusa*, *Hibiscus hakeæfolius*, *Hibiscus multifidus*, *Anthocercis anisantha*.

As far as the material, gathered during the journey, admits of judging, it appears, that plants of the order *compositæ* maintain their supremacy over all others, a circumstance rather remarkable when contrasted with their paucity in the northern interior of the continent. *Salsolaceous* plants, which render so many parts of the desert available as sheep pasture, are perhaps in no part of the globe so rich in species than around Lake Torrens, and the *zygophyllaceous* and *cruciferous* orders of plants are likewise comparatively well

* See vegetation of the districts surrounding Lake Torrens, in Hooker Kew. Miscell. 1853, p. 105, seqq.

† See Botanical Report on the North Australian Expedition in the Proceedings of the Linnæan Society, 1858.

represented. On the other hand it is strikingly singular to notice the vast decrease in Proteaceæ, in the sophoraceous tribe of Papilionaceæ, in Myrtaceæ and Diosmeæ, all largely developed in most other parts of Australia beyond the tropical zone. Epacrideæ are perfectly wanting.

A leafless species of *Euphorbia*, seen near the Flinders Ranges, but in too imperfect a state to be described, introduces a new feature into the Australian vegetation. Of the Purslane, which cannot be overrated by travellers in its value as an antiscorbutic vegetable, and which was seen during Mr. Babbage's expedition for the first time within the boundaries of South Australia, it is worthy to record, that this plant, regarded generally as cosmopolitan, is evidently only by degrees spreading over this continent. Before the last few years it was never seen near Port Phillip, but it is extending now with rapidity around it, likewise invading Gipps Land from the Snowy River.

The Porcupine Grass (*Triodia pungens*) was last noticed at the southern side of of Lake Gairdner and is according to Mr. Gregory, excluded from any part of Western Australia except a few patches of the interior, whilst in North Australia it is replaced by different species.

The Quandang with bitter fruit (*Santalum persicarium*) is seemingly identical with the Sandaltree, which furnishes to the Western Australian colonists in its wood an article of export, and it deserves with the increasing facility for inland transit our attention, the tree or shrub being of universal occurrence in the deserts of Victoria and South Australia. Perhaps the most interesting and certainly the most ornamental portion of the vegetation in the territory lately explored is constituted by the numerous and gorgeous species of *Eremophila*. The additions to this genus now obtained induced me to review once more all the species with which I am acquainted, and to offer an arrangement somewhat different to that suggested some time since in the papers of the Royal Society of Tasmania.

The appended notes from the pen of Mr. Babbage, will briefly demonstrate the respective geological characters of the localities on which the enumerated plants were collected. The herbarium itself was compiled by Mr. David Hergolt, and does credit to his skill and industry.

The vegetation so far revealed to us, furnishes hardly any data for conjecture as to the probable nature of the country beyond the steppe explored last year. But if we are entitled to hazard an opinion, we might from analogy anticipate that not the dense scrub, which form such an impediment to travelling to Western Australia are likely to be encountered in a further advance from South Australia towards the N.W. coast, since peculiar lines of demarkation in a direction nearly from S.E. to N.W. are perceptible in the vegetation of Western Australia;* but that rather a gradual transit from the Flora of the southern desert to that of Arnhems Land may be expected.

* See Mr. Gregory's diagram in transactions Victoria Philosophical Institute II, 152.

DESCRIPTION OF THE LOCALITIES FROM WHICH SPECIMENS OF PLANTS
WERE OBTAINED DURING THE SOUTH AUSTRALIAN
NORTHERN EXPEDITION.

DEPÔT CREEK.

A gum creek running out of the western side of the Flinders Range, which consists at this place of limestone overlaid by a hard silicious sandstone. Sandy Shales form the top of the range.

S. Lat. 32-13. E. Long. 137-55.

WIRRA-WIRRALU.

Smith's Waterhole, situate in a creek running down a wide valley in Swinden's stony table-land. Sandstone rock and shales from low cliffs at the water holes.

S. Lat. 31-11. E. Long. 136-41.

THE ELIZABETH.

A creek in a considerable valley in the stony land. Scrubby sandridges occupy the eastern side of the valley, and the soil generally is very sandy. A calcareous conglomerate occurs at one or two places in the bed of the creek.

Lat. 31-10. Long. 137-11.

PERNATTY.

A creek running into a large salt lagoon. There are high sandhills on the southern side of the creek and lower ones upon the northern side, with small flooded plains between, in which the creek forms a chain of water holes, generally dry, and surrounded by large gum trees.

Lat. 21-29. Long. 137-20.

LAKE HART.

A large shallow salt lake amongst sand hills, with marl cliffs, containing much salt on the western side of the Lake.

Lat. 31-12. Long. 136-13.

BEDA.

A large creek with holes of salt water in it, running out of a range capped with very hard silicious sandstone, in nearly horizontal beds underlaid by shales, and at places salt marls. To the north of the creek is a considerable extent of sand hills and scrub, out of which rises Beda Hill, the remains of the stony table range.

Lat. 31-52. Long. 137-33.

FLINDERS RANGE.

Near Thompson's Station, country the same as at Depôt Creek.

Say Lat. 32-15. Long. 137-56.

N. E. < SOUTH PORTION LAKE GREGORY.

Lake Gregory is a large shallow salt lake with testitary limestone cliffs; the soil of the country in the neighborhood is for the most part a sandy marl.

Lat. 29-12. Long. 137-0.

YANDANDARRY. EMU SPRINGS.

A water hole in a creek near its entrance into a shallow salt lake. The creek at its upper end runs through a sandy valley, but lower down through sandstone gorges.

Lat. 30-57. Long. 136-42.

MAERTY.

A small valley with a clay pan in the bottom amongst sand hills and scrub.

Lat. 30-36. Long. 136-28.

STUART'S CREEK.

A large creek running into Lake Gregory, with water holes of fresh water in its upper portion, and salt water below. The cliffs bounding the valley of the creek are of tertiary limestone.

Lat. 29-41. Long. 136-56.

HORSE SHOE CAMP.

Amongst low sand hills and scrub. About one mile distant is a table-topped hill, with a cap of a rugged sandstone rock.

Lat. 29-52. Long. 136-56.

STONY LAND BETWEEN STUART'S CREEK AND THE MARGARET.

The soil is a sandy marl with numerous stones and gravel, chiefly of silicious sandstone.

Lat. 29-39. Long. 136-55.

ARKOONA.

In the bottom is a native well in a hollow formed in limestone rock.

Lat. 30-41. Long. 136-13.

CURDLAWIDNY.

A bamboo-grass swamp amongst sand hills. Dry in the summer.

Lat. 30-15. Long. 131-14.

BERULLA.

Open plains with belts of scrub. Sandy soil.

Lat. 30-51. Long. 136-29.

LAKE CAMPBELL.

A shallow fresh water lake, dry occasionally, amongst sand hills. Sandstone rock shows itself on one side and in the bottom of the lake.

Lat. 30-51. Long. 136-32.

WONNOMULLA.

A large water hole with dwarf gum trees by the side, in a sandy valley.

Lat. 30-11. Long. 136-9.

THE MARGARET.

A salt creek with limestone cliffs. The soil in the neighborhood a sandy marl.

WEELPIDERUNA.

A dry bamboo grass swamp amongst sandhills.

Lat. 30-5. Long. 136-30.

TEA-TREE CREEK.

A creek running out of a sandstone table land. Sand hills in the neighborhood.

Lat. 30-30. Long. 137-10.

YARRA-WURTA.

A creek running into Lake Torrens, a large shallow salt lake. Sandy soil with sandstone cliffs.

Lat. 30-12. Long. 137-2.

WEERINGELBUNNA.

A waterhole in a large plain. A sandy ridge upon one side of the waterhole.

Lat. 29-55. Long. 136-36.

ENUMERATION OF THE PLANTS COLLECTED

DURING

MR. BABBAGE'S EXPEDITION INTO THE NORTH-WESTERN INTERIOR OF SOUTH AUSTRALIA.

RANUNCULACEÆ.

- Ranunculus sessiliflorus*, R. Brown in Cand.
Regn. Veg. Syst. Natur. I, 302.
Var. *platycarpus*, carpels flat, compressed.
Wonnomulla.

CRUCIFERÆ.

- Blennodia canescens*, R. Brown in Sturt's
Central Austr. II, app. p. 67.
Elizabeth Creek and Stuart's Creek.
Flowers larger and fruit much longer, but
narrower than in *Blennodia lasiocarpa*.
Blennodia curvipes, Ferd. Mueller in Transact.
Phil. Soc. Victor. I, p. 100.
Wirrawirralu, Stuart's Creek.
Sisymbrium trisetum, Ferd. Mueller in Trans.
Vict. Instit. I, p. 114.
Margareth's, Stuart's, and Elizabeth's
Creek, Wirringelbunna, Wonnomulla.
Stenopetalum lineare, R. Brown in Cand.
Regn. Veg. Syst. Nat. II, 513.
Lake Gregory.
Lepidium hyssopifolium, Desvaux Journ. Bo-
tauiq. III, 164.
Elizabeth Creek.
Lepidium papillosum, Ferd. Mueller in Linnæa
1852, p. 370.
Wonnomulla, Stuart's Creek.

PITTOSPORÆ.

- Pittosporum acacioides*, All. Cunningham in Anu.
of Nat. Hist. IV, 109.
Margareth and Stuart's Creek, Emu
Springs.

SAPINDACEÆ.

- Heterodendron oleifolium*, Desfontaines Mé-
moires du Muséum d'Histoire Nat. IV,
9, t. 3.
Wirrawirralu, Margareth Creek, Lake
Campbell, &c.
Seeds black, smooth, shining, half enclosed
in a bright red fleshy arillus, similar to
those of *Spanoghea nephelioides* and con-
nata, to which genus *Heterodendron* is
closely allied.
Dodonæa Preissii, Miquel in Lehm. Plant.
Preiss. I, p. 226.
Ancuna.
Dodonæa aspleniifolia, Rudge in Linn. Soc.
Transact. II, 297, t. 20.
Lake Gregory.
Dodonæa lobulata, Ferd. Mueller in Linnæa,
1852, p. 372.
Elizabeth Creek, Lake Gregory.
Dodonæa adenophora, Miquel in Linnæa 1845,
p. 95.
Lake Gregory. (Occurs likewise on the
Rivers Murray and Darling.)

ZYGOPHYLLÆ.

- Zygophyllum aurantiacum*, Ferd. Mueller in
Linnæa 1852, p. 376.
Beda, Wonnomulla, Elizabeth, Flinders
Ranges, Light River.

- Zygophyllum apiculatum*, Ferd. Mueller in
Linnæa 1852, p. 373.

Wonnomulla, Wirrawirralu. This species
extends to the sub-tropical latitudes of
Eastern Australia.

- Zygophyllum Billardieri*, Candolle prodrom. I,
705.

Var. *ammophilum*: the narrow-leaved
variety, peculiar to the desert.
Elizabeth Creek.

- Zygophyllum prismatothecum*, Ferd. Mueller in
Linnæa 1852, p. 375.
Lake Gregory.

- Tribulus Hystrix*, R. Brown in Sturt's Central
Australia II, app. p. 69, *T. lanatus*
Walp. Annal. Bot. System, II, 243.
Berulla, Lake Gregory.
Anthers whilst shedding the pollen cordate-
ovate.

RUTACEÆ.

- Eriostemon halmaturorum*, Ferd. Mueller in
Linnæa 1852, p. 376.
Wirrawirralu, stony land between Stuart's
Creek and Margareth Creek, Wonnomulla,
Lake Gregory. Found also by Mr. Dal-
lachy on Mount Murchison.

MALVACEÆ.

- Sida petrophila*, Ferd. Mueller in Linnæa 1852,
p. 381.
Elizabeth Creek, Margareth Creek.
Sida fibulifera, Lindley, in Mitchell's three
exped. II, 45.
Stuart's Creek.
Sida halophila, Ferd. Mueller in Linnæa 1852,
p. 381.
Arecona, Elizabeth Creek, Lake Gregory.
Sida tubulosa, All. Cunningham in Mitch. Trop.
Austr. p. 390.
Malva brachystachya, Ferd. Mueller in Linnæa
1852, p. 378.
Maërty, also on the Lower Darling River.
Lavatera plebeja, Sims' Bot. Magazine, t. 2269.
Pernatty Creek.
Hibiscus Krichauffianus.—Everywhere covered
with an ashy velvet-like indument; upper
leaves ovate or nearly orbicular, blunt,
crenate-toothed; stipules almost setaceous;
peduncles axillary and terminal, solitary,
one-flowered, as long as the petiole; invo-
lucre deeply divided into seven linear seg-
ments, which are of equal length with the
nerveless calyx; petals three times longer
than the calyx, blunt, oblong-cuneate,
notched, slightly ciliate otherwise glabrous;
styles and stamens glabrous; free parts of
filaments arising singly from the columnæ,
several times longer than the anthers.
Lake Gregory, Darling River.
The branches of the only small specimen
which the collection contains are terete,
slightly angular towards the summit.
Leaves longer than the petiole, measuring
about one inch. Calyx about five lines
long, with semilanceolate teeth. Petals
probably pink, in the dried state pale,

without spots, scarcely longer than one inch, blunt, not like in *Hibiscus multifidus* produced into an acute angle. Stamens half as long as the corolla, pale yellow. Pollen golden-yellow. Styles five, their free parts $1-1\frac{1}{2}$ line long, yellow. Stigmas depressed, bearded. Capsules unknown.

It differs from *Hibiscus Sturtii* in longer peduncles, larger flowers, deeply cleft involucre, longer stipules, and a more ashy and velvety covering.

I named this species after my university friend, Fr. Krichauff, Esq., who, as a late member of the Legislative Assembly, was one of the promoters of the South Australian expedition.

Hibiscus multifidus, Paxton's Magazine of Botany VII, 103.

H. Meisneri, Miquel in Lehm. pl. Preiss. I, 240.

Eyre's Depot Creek. It occurs on the Flinders Ranges frequently, also at Port Lincoln.

The segments of the involucre vary in number from ten to fifteen, the seeds in being hairy or glabrous.

GERANIACEÆ.

Erodium cygnorum, Nees in Lehm. pl. Preiss. I, 162.

Elizabeth Creek.

Erodium moschatum, Willd. sp. plant. III, 631.

Elizabeth Creek.

FRANKENIACEÆ.

Frankenia pauciflora, Candolle prodr. I, p. 350, Lake Campbell, Sturt's Creek, &c.

F. fruticulosa is, according to Candolle's diagnosis, not specifically distinct. The specimens from the above localities prove this to be a singularly variable plant. It is sometimes downy, and produces often leaves fully half an inch long.

CARYOPHYLLEÆ.

Scleranthus pungens, R. Brown prodr. p. 412.

Wonnomulla.

A desert species allied to the alpine *Scleranthus diander*.

Polycarpæa synandra. (Sect. Aylmeria.)

An annual herb, smooth, branched, erect; leaves linear, with slightly revolute margin, the radical ones spatulate; stipules lanceolate, setaceous, acuminate; flowers cymose, on short pedicels; bracts lanceolate-ovate, finely oae nerved; sepals lanceolate, acute, of unequal length, one-nerved, quite scarious, not much longer than the corolla, filaments in their whole length connate with the petals into a tube; apex of the petals at last bifid; filaments thread-like, their upper part gradually separating from the corolla; sterile stamens none; anthers oblong, yellow; styles united into one, not twisted; stigmas distinct; capsule sessile, ovate-conical, seeds forcelate, wrinkled, on funicles, shining, brown, ovate-kidney-shaped.

Wirrawirraloo. Also in Arnhem's Land, and in other parts of tropical Australia.

A span or less high. Leaves often less than an inch long, $\frac{1}{2}$ -1 line broad. Bracts scarcely exceeding one line. The longest of the sepals hardly more than two lines long. Corolla at the top pink, tender membranous as in the other species. The anther-cells divergent at the base and summit. Style thin, $\frac{2}{3}$ " long. Capsule $1\frac{1}{2}$ " long, with several seeds.

No description having been offered as yet of any Australian species belonging to this genus, I avail myself of so apt an opportu-

nity to characterise those contained in the Melbourne public collection, to which may be added *Polycarpæa corymbosa*, Lam., which is scattered over nearly the whole of tropical Australia.

Polycarpæa longiflora. (Sect. Aylmeria.)

Stem tall, erect, velvet-downy, simple; leaves linear, by the inflexed margins channelled, rarely lanceolate and flat, mucronulate, soon smooth; stipules linear-lanceolate, setaceous-acuminate, scantily ciliated; cymes densely corymbose, many-flowered; bracts lanceolate, one-nerved; sepals large, of unequal length, lanceolate, one-nerved, entirely scarious; petals a little longer than the linear filaments, with which in their whole length they are united into a tube, at last free to the middle; their apex with two or three teeth; anthers oblong-linear, yellow; styles united into a single one, bristle-like, not twisted; stigmas joined; capsule very short-stalked, broad-ovate; funicle partially long, seeds roundish-kidney-shaped, brownish, with a few series of minute pits at their back.

On grassy flats along the Victoria River and in other parts of Arnhem's Land.

A beautiful annual herb, varying in height from $\frac{1}{2}$ to 3 feet. The leaves rarely above 1 inch long, and 2 lines broad, frequently shorter and narrower. Peduncles and pedicels silky-velvety, grey. Bracts lanceolate-navicular, very acute, ciliate. Sepals white, brown-red, or dark-purple, 3-4 lines long. Corolla hyalinous, half as long as the calyx, by the accrescent capsule more or less deeply separated into its petals. Stamens none. Capsule stiff, $1\frac{1}{2}$ " long, with few or several seeds, which are opaque and about $\frac{1}{4}$ " long.

Far the largest at least of all the Australian species.

Polycarpæa spirostylis. (Sect. Aylmeria.)

An herb quite smooth, erect, with many branches; leaves narrow-linear, by the revolute margins filiform, mucronulate; stipules lanceolate-linear, setaceous-acuminate, entire; flowers crowded, cymose, on short pedicels; bracts lanceolate one-nerved; sepals somewhat unequal in length, white, quite scarious, narrow-lanceolate, gradually pointed, one-nerved; petals acute, shorter than the extremely thin filaments, with the lower portion of which they are joint conspicuously into a tube; anthers oval, bluish; styles connected in a single tripterous one, which is spirally twisted; capsule conspicuously stalked, narrow, long, gradually tapering into the apex; funicles short.

In tropical Australia.

An herb from a finger's to a span length.

Leaves 3-8" long, with a deciduous mucro. Bracts about 2" long. Sepals measuring 3-4 lines. Corolla reddish, scarcely reaching beyond the middle of the calyx. Stamens none. Capsules about $2\frac{1}{2}$ " long. Style of the same length. Ripe seeds not yet found.

Polycarpæa staminodina. (Sect. Kataxera.)

An annual herb, downy, branched, erect; inferior leaves linear-lanceolate, superior ones linear, all mucronulate, their margins scarcely revolute; stipules lanceolate-linear, setaceous-acuminate; cymes dense; sepals small, linear-lanceolate, gradually drawn out into a long acumen, nearly nerveless, quite scarious; petals lanceolate, entire, longer than the filaments, only towards the base connate with each other and with the stamens, at last free; anthers nearly

ovate, yellowish; *staminodia* 5, *elavate* or *subulate-linear*, very small; styles short, connate into a straight single one; stigmas jointed; capsule about three times shorter than the calyx, ovate, short-stalked, few-seeded; seeds kidney-shaped, on funicles.

Near the sources of the Victoria River, also on Hooker's Creek and Sturt's Creek.

Herb about $\frac{1}{2}$ " high. Leaves $\frac{1}{2}$ –2" broad, and (particularly the upper ones) less than 1" long. Bracts nearly of the form and size of the sepals. The latter whitish, with a slight yellow tinge, about $1\frac{1}{2}$ " long, of double the length of the corolla. Petals towards the top as well as the sterile stamens red. Filaments almost flat. Capsule $\frac{3}{4}$ line long.

Polycarpaea breviflora. (Sect. *Kataxera*.)

Glabrous, branched, erect; leaves narrow-linear, by the recurved margins filiform, awnless; stipules lanceolate, long-acuminate, somewhat lacerated; cymes lax; *sepals minute*, ovate, rather acute, quite scarious, nearly nerveless, of unequal length; petals from a broad base gradually drawn to a point, concrete with the stamens towards the base, longer than the stamens, at last bifid at the apex; sterile stamens wanting; styles short as well as the stigmas in coalition; *capsule somewhat longer than the calyx*, ovate, with attenuate apex, on a very short stalk; seeds few, very small, grey, shining, kidney-shaped; slightly wrinkled; funicles extremely short.

At the Gulf of Carpentaria.

Leaves 4–8" long, about $\frac{1}{2}$ " broad. Bracts nearly ovate, acute, denticulate, scarcely $\frac{1}{2}$ " long. Sepals about 1" long, considerably longer than the petals, slightly yellowish. Style comparatively thick. Capsule rigid.

A plant closely allied to this species, and possibly only a variety of it, occurs on Moreton Island. It differs in downy stems, more pointed sepals, less attenuated capsules, which are a little shorter than the calyx. The flowers are equally minute.

Polycarpaea involucreata. (Sect. *Kataxera*.)

Erect, floccose-downy, branched; leaves glabrescent, ciliolate, narrow-lanceolate, scarcely recurved at the margin, with a deciduous mucro; stipules lanceolate, setaceous-acuminate, scantily fimbriate; *flowers in sessile heads, which are disposed in cymes, and surrounded by leaves*; sepals white, narrow lanceolate, gradually drawn out into a very acute apex, quite scarious, with obliterated nerve, somewhat ciliolate, almost of equal length; petals narrow lanceolate, only at the base connected with the filaments and to each other, longer than the stamens; *staminodia* not developed; *style exceedingly short*; stigmas coadunate; capsule about three times shorter than the calyx, ovate, many-seeded, nearly sessile; *placenta long*; *seeds oblique ovate*, brown-yellow, scarcely wrinkled.

On Hooker's Creek, Sturt's Creek, and near the sources of the Victoria River.

A dwarf herb, producing many stems from its seemingly annual root. Leaves 2–6" long, $\frac{3}{4}$ –1 $\frac{1}{2}$ " broad. Flowerheads in the forks and axils of the branches and terminal, with several, or only a few flowers. Sepals about 2" long, nearly three times longer than the corolla. Filaments linear-subulate. Anthers almost ovate. Stigmas concrete. Capsule 1"

No. 1, b.

long. Seeds measuring about $\frac{1}{8}$ ", occasionally approaching to a tetraëdrons form.

The leafy inflorescence gives to this species quite a singular appearance.

The principal characters on which, according to the widely different notes furnished of it by Martius and Fenzl, the genus *Aylmeria* is founded, consist in the coherence of petals and stamens into one tube, and in the presence of staminodia and funicles. How far on the simultaneous occurrence of these marks of distinction can be relied, will be observed by the perusal of the preceding pages. I had, therefore, in reviewing the new Australian species, no hesitation to combine *Aylmeria* with *Polycarpaea*, although I had no opportunity as yet of examining the two West Australian species, on which the former genus was established.

PORTULACÆ.

Gunnia.

Calyx deeply quadrifid, with semilanceolate lobes. Petals wanting. Filaments four, capillary, inserted to the calyx, alternate with its lobes. Anthers dorsifixed, two-celled, bursting longitudinally. Stigmata four, filiform, recurved. Capsule membranaceous, four-celled, four-valved, with septicidal dehiscence, its lower portion connate with the base of the calyx. Seeds numerous, affixed to the quadrangular-ovate columella, very small, ovate-pear-shaped, transparent. Embryo horseshoe-shaped, encircling partially the albumen.

I have dedicated this interesting genus to Ronald Gunn, Esq., F.R.S., M.L.C., the meritorious investigator of the Tasmanian plants. The orchideous genus, which bore my friend's name has been lately referred to *Sarcochilus*. (Conf. *Fragmenta Phytographiæ Australiæ* I, 4, p. 90.)

Gunnia septifraga.

Stuart's Creek.

Only a small specimen is contained in the collection. Seemingly an annual minute herb, glabrous, erect, with cymose ramification. Leaves linear-semiterete, at the base of the cyme quaternate, under the lateral flowers in single pairs, opposite, 2–3 lines long, blunt, slightly decurrent, none besides those at the nodes of the stem and branches. Calyx almost sessile or on a short peduncle, when in flower 2 lines, when in fruit $2\frac{1}{2}$ lines long. Filaments about 1 line long, glabrous. Anthers yellow. Stigmas very tender, half a line long. Styles none. Capsule, at the slightest touch of any humid substance, suddenly and completely bursting, the septa breaking entirely from the columella and each of them separating into two extremely tender membranous laminae, which form then an elegant serrated or crested wing inward around each valve. Seeds shining, pale fulvous.

The septicidal dehiscence of the capsule distinguishes at once this genus from all others of the order.

Sesuvium quadrifidum.

A perennial plant, in every part pale furfuraceous-papillose; branches dichotomous, equally cylindrical; leaves as long as or shorter than the internodes, linear-semiterete, fleshy, almost blunt, not membranous at the base; flowers polyandrous, tetragynous, in the axis of the branches or terminal, solitary; *calyx deeply four-cleft*, longer than the peduncles; its lobes ovate-lanceolate, acuminate, of unequal

length, the shorter ones with a very narrow membranous margin; ovary quadrangular, four-celled.

Stuart's Creek.

Probably a shrub. Color of the whole plant pale yellowish grey. Branches about $1\frac{1}{2}$ " long, branchlets $\frac{3}{4}$ –1" thick. Leaves 4–10" long, 1–1 $\frac{1}{2}$ " broad. Length of peduncles 2–4". Calyx 5" long, attenuated into a short turbinate tube, its shorter lobes with a fornicate acumen, the two longer ones neither acuminate nor provided with a membranous margin, all inside at least in a dried state sordidly yellow. Stamens numerous, inserted to the basilar ring of the calyx, approximated in four fascicles at the sinuses; filaments capillary, free, 2–2 $\frac{1}{2}$ " long. Anthers yellow, broad-ovate, dorsifixed, at the base and apex emarginate. Ovules appended along the central angles of the ovary by distinct funicles, numerous. Styles four, filiform, scarcely longer than one line, at first coherent. Germen acutely tetragonal. The capsule remains unknown and the generic position of this plant is therefore yet doubtful. In the shape of its ovary it comes near to *Aizoon*, a genus not yet found in any part of Australia. If rightly referred to *Sesuvium*, it will rank next to *S. Edmonstonii* (Jos. Hook. Transact. Linn. Soc. XX, 221) from Charles Island.

Portulaca oleracea, Linné spec. plant. 638.

Elizabeth Creek.

Calandrinia Balonnensis, Lindley in Mitch. Trop. Austr. p. 148.

Sand-hills near Arcoona.

A very rare species. The specimen in Mr. Babbage's collection accords fully with those collected by Sir Th. Mitchell. The leaves are variable in size, sometimes they are broad-linear and fully three inches long.

Tetragonia expansa, Ait. Hort. Kew. II, p. 178.

Stuart's Creek. Not frequent in the interior. *T. inermis* (Linnæa XXV, p. 384) is a variety, holding the same relation to *T. expansa* as *Spinacia inermis* to *S. spinosa*.

MESEMBRYANTHEMEE.

Mesembryanthemum australe, Ait. Hort. Kew. II, 187.

Not rare in the extratropical parts of the saline desert.

MALPIGHIACEE.

Nitraria Billardieri, Cand. prodr. III, 456.

Margareth Creek, Emu Springs, &c.

It varies with dark purple and yellow drupes.

HALORAGEE.

Myriophyllum verrucosum, Lindley in Mitch. Trop. Austr. 381.

Elizabeth Creek. Found also in the fresh and brackish inland waters from the Gulf of Carpentaria to Moreton Bay and in the Murray River and its tributaries. It varies with quaternate upper leaves, which are more or less divided, and with smooth carpels. The flowers are monœcious like in *Myriophyllum variifolium* and *M. elatnoides*, not diœcious as stated as regards the latter species in the Flora Tasmania.

Haloragis glauca, Lindley in Mitch. Trop. Austr. 91.

H. aspera, Lindley l. c. 306.

Between Stuart's Creek and Margareth Creek.

There exist no specific distinctions between the two above species. The plant is perennial.

EUPHORBIACEE.

Phyllanthus Fuernrohrii, Ferd. Mueller in Transact. Phil. Soc. Viet. I, p. 15.

Arcoona.

Euphorbia deserticola, Ferd. Mueller in Linnæa XXV, 440.

Lake Gregory.

Beyera ledifolia, Klotzsch in Lehm. plant. Preiss. I, 176 (sub Calyptröstigmate).

Eyre's Depot Creek.

The identical species has been found by the writer of this enumeration on the alpine summits of some mountains near the sources of the McAllister River, and as a common desert inhabitant in Easteru and South-Eastern Australia. *Beyera* Preissii, *B. oblongifolia* and *B. Backhousii* form varieties of *B. viscosa*.

STOCKHOUSIACEE.

Stockhousia viminea, Smith Transact. Linn. Soc. IV, 213.

S. nuda, Lindley Bot. Regist. 1917.

Stuart's Creek.

The flowers in the specimen from the above locality unusually large and partially solitary.

From all the other species of East, South, and North Australia easily distinguished by the greenish-yellow, small, slender, not cream-colored corolla. It is the only species which represents this order in the wide tract of tropical Australia explored during Mr. Gregory's expedition.

RHAMNACEE.

Cryptandra campanulata, Schlechtendal Linnæa XX, 639.

Horseshoe Creek.

MYRTACEE.

Melaleuca glomerata.

Leaves alternate, glabrescent, thickly coriaceous, linear, acute, flat, with an imperfect furrow beneath, the young ones velvety; capsules small, in globose heads; rachis velvety; valves enclosed.

Lake Gregory, Arcoona, Lake Campbell. Occurs also on Sturt's Creek in the interior of N. W. Australia.

Differs from *Melaleuca pentagona* (Labill. Nov. Holl. spec. t. 166) in producing narrower leaves, smaller capsules, and not exerted valves.

The leaves are occasionally tubercled.

Melaleuca curvifolia, Schlechtendal Linnæa XX, 654.

Stuart's Creek, Lake Gregory, &c.

Eucalyptus occidentalis, Endlicher in Hnegel enum. p. 49.

With the preceding plant.

UMBELLIFERE.

Daucus pusillus, Michaux Flora Bor. Americ. I, 164 (according to J. Hook. Fl. Tasm. I, 161).

Common throughout the whole of extra-tropical Australia.

LORANTHACEE.

Loranthus miraculosus, Miquel in Lehm. pl. Preiss. I, 281.

Lake Campbell.

Loranthus Preissii, Miquel l. c.

Stuart's Creek.

Loranthus Eriocarpi, Behr in Linnæa XX, 624.

Lake Gregory.

LEGUMINOSÆ.

Acacia sphacelata, Benthham in Hook. Lond. Journ. of Bot. I, 338.

Weeringelbunna, Elizabeth Creek, Maërty.

Acacia leptoneura, Benth. in Hook. Lond. Journ. I, p. 340.
Wirrawirraloo.

Acacia calamifolia, Sweet in Loddiges' Cab. 909.
Stuart's Creek, Lake Gregory.

Acacia Sentis, Ferd. Mueller Sec. Gen. Report, p. 11.
Lake Campbell, Margareth Creek.

Acacia salicina, Lindley in Mitch. three exped. II, 20.
Stuart's Creek, Maërty.

Acacia leiophylla, Benth. in Hook. Lond. Journ. I, 351.
Stuart's Creek.

Acacia homalophylla, All. Cunn. accord. to Benth. in Hook. Lond. Journal I, 365.
Lake Gregory, Stuart's Creek, Arcoona.
The Myall tree.

Acacia stenophylla, All. Cunn. l. c. 366.
Stuart's Creek.

Acacia ancura, Ferd. Mueller, accord. to Benth. in Linnæa XXVI, p. 627.
Stuart's Creek, Lake Campbell, Wirrawirraloo, Wirringelbunna; also on the River Darling.

Cassia desolata, Ferd. Mueller in Linnæa XXV, p. 389.
Stuart's Creek, Margareth Creek, Arcoona, Maërty.

Pod flat, curved-oblong, blunt, short-stalked, 2-3" long, $\frac{3}{4}$ -1" broad, with papery valves.

Cassia tectiuscula, Ferd. Mueller l. c.
Maërty, Arcoona.

Cassia eremophila, All. Cunningham accord. to R. Brown's Appendix to Sturt's Centr. Austr. II, p. 77.
Wonnomulla.

Daviesia egena, Ferd. Mueller in Transact. Vict. Inst. I, 118.
Lake Gregory; also in N. W. Australia, on Hooker's and Sturt's Creek.

Indigofera brevidens, Benth. in Mitch. Trop. Austr. 385.
Probably only a meagre desert form of *Indigofera Australis*, many other southern plants (for instance, *Goodenia pinnatifida*, *Zygophyllum Billardieri*, &c.) being equally reduced in the desert climate to a diminutive state.

Swainsona stipularis, Ferd. Mueller in Linnæa XXV, 393.
Lake Gregory, Stuart's Creek, &c.
Leaflets variable in breadth.

Swainsona phacoides, Benth. in Mitchell's Trop. Austr. 363.
Arcoona, Wonnomulla.

Psoralea patens, Lindley in Mitch. three exped. P. cinerea, Lindley l. c.
Wonnomulla, Lake Gregory, Stuart's Creek.

Crotalaria Cunninghami, R. Brown in Sturt's Central Australia II, app. 70.
Hook. icon. pl. tab. DCCCXXIX.
Berulla.

C. Sturtii differs according to R. Brown in a yellow not green corolla. This beautiful bush, singular for the blackish stripes of the corolla, is not unfrequent in N. W. Australia, growing principally near the banks of rivers.

Crotalaria cremaea, Ferd. Mueller enum. of Gregory's plants from Cooper's Creek.
Pentadynamis incana, R. Br. in Sturt's Centr. Austr. II, append. p. 76.
Stuart's Creek, Wonnomulla, Elizabeth Creek.

Pods stalked; drooping, livid, about $\frac{1}{2}$ " long; many-seeded, seemingly turgid. Occurs with almost glabrous leaves and calyces.

Clianthus Dampieri, All. Cunn. in Hortie. Soc. Transact. II ser. vol. I, p. 522.
On sandy plains before Arcoona, near Mount Arden, Mount Hopeless, Lake

Hart, Island Lagoon, between the Flinders Ranges and Stanley Ranges. Other habitats are enumerated by Robert Brown. This magnificent plant is truly a congener of *Clianthus puniceus* and *Clianthus carneus*, as finally proved by the examination of the fruit.

Leptocyanus clandestinus, Benth. in Transact. Linn. Soc. XVIII, 209.

Wirrawirraloo, Elizabeth Creek.

Trigonella suavissima, Lindley in Mitchell's three exped. I, 255; and II, 65.

T. tenuissima Walpers' Report. II. 849.

Sturt's Creek, Arcoona; seen by the author in 1851, near the Flinders and Elders Ranges.

Sir Thom. Mitchell's spinage plant, from the Rivers Murray and Darling.

Lotus Australis, Andrew's Botan. Repos. 624.

Lake Gregory, Wonnomulla, Lake Campbell.

The collection contains the small flowering and the downy variety.

COMPOSITÆ.

Vittadinia cuneata, Candolle prodr. V, 281, var. *angustifolia*.

Eyre's Depot Creek.

Therogeron tenuifolius, Sonder in Linnæa 1852, p. 467.

Elizabeth Creek, Maërty.

Therogeron integerrimus, Candolle prodr. V, 283.

Elizabeth Creek, Wonnomulla, also on the Murray and many of its tributaries.

Male flowers central, four or less, seemingly at times not developed, with eight inner pappus-bristles, which are considerably thicker towards the apex than those of the female flowers; the outer pappus-bristles very short, more or less concrete. Ray white, rarer blue.

Therogeron may be best regarded as a sub-genus of *Erigeron*.

Minuria asteroides, Sonder in Linnæa 1852, p. 467.

Maërty, Wonnomulla, Wirringelbunna, Lake Gregory.

Calotis cymbacantha, Ferd. Mueller in Linnæa 1852, p. 400.

Stuart's Creek.

Calotis erinacea, Steetz in Lehmanu plant. Preiss. I, 424.

Elizabeth Creek, Stuart's Creek, Arcoona, Margareth Creek.

Flowerheads smaller than in the general forms of this plant, only two aristæ rising from a common cymbiform base.

Brachycome pachyptera, Turczaninow in Bulletin de la Soc. Impér. des Natural. de Moscow XXIII, p. 75.

Arcoona.

The achenia linear-cunate in Mr. Babbage's specimens, ciliated only towards the base, much narrower than in other South Australian and Victorian specimens; they are always remarkably persistent.

Pluchea Eyrea. (Sect. *Stylimnus*.)

Eyrea rubelliflora, Ferd. Mueller in Linnæa 1852, p. 403.

Glabrous, sometimes glandulously downy and hispid; leaves linear or narrow-lanceolate, acute, minutely or pinnately toothed, sessile, often narrowly decurrent; flowerheads in corymbose panicles; involucre-scales narrowly lanceolate-linear, very acute or recurved acuminate; achenes at last smooth; bristles of the pappus capillary, 7-16, slightly scabrous towards the summit, three times longer than the achenium.

Emu Springs, Stuart's Creek, Lake Gregory. Observed by myself throughout the greater

part of tropical Australia, particularly in more arid localities.

In habit it resembles *Therogeron integriramus* and some *Erigerons*. Fertile achenium brown, smaller than the livid sterile ones.

Another Australian species belonging to the section *Stylimus* may be characterised as follows:—

Pluchea tetranthora.

Shrubby, velvety, rarely smooth: leaves ovate or linear-lanceolate, sometimes rhomboid, with cuneate base tapering into the petiole, entire or remotely toothed; *flower-head almost dioecious*, disposed in a corymbose leafy panicle; outer involucre scales ovate, inner ones linear-lanceolate; *hermaphrodite flowers four-toothed, with 4 stamens*; female ones tubulous to the 3 toothed apex; bristles of the pappus capillary, 20–25, white, three times longer than the glabrescent achenium.

Throughout the greater portion of the tropical interior of Australia.

A shrub 4' or less high. Leaves $\frac{1}{2}$ –1 $\frac{1}{2}$ " long. Flowerheads about 4" long; the female ones containing only 1–4 hermaphrodite flowers in the centre; the male ones producing 16–22 discal hermaphrodite flowers and a few female ones in the periphery. The female flowers only fertile. Corollas purple. Anthers with short tails. Fertile achenes brown, with appressed hair.

Pluchea Eyrea.

Eyrea rubelliflora. Ferd. Mueller in *Linnaea* 1852, p. 403.

Emu Springs, Stuart's Creek, Lake Gregory, &c. Observed by myself throughout the greater part of tropical Australia, particularly in more arid localities.

Pluchea ligulata.

Sect. *Rhodanthemum*: flowers all fertile; scales of the involucre lanceolate.

Suffrutescent, beset with short crisp articulated hair; leaves ovate, or more frequently lanceolate-cuneate, with a few sharp teeth, tapering into the petiole; capitules large, terminal, solitary; hermaphrodite flowers five-toothed, as long as the involucre; *ligules conspicuous, exserted*; anthers enclosed; achenes silky, twice or three times shorter than the pappus; *bristles of the pappus* 30–40, above the middle ciliate, *at the apex attenuated*.

Elizabeth Creek, Lake Gregory, Woomulla Blanchewater, G. Hawker, Esq.; also in Arnhem's Land, and in other less fertile parts of Australia within the tropics.

A few inches to a foot high, erect, scented, glandulous. Leaves about 1 inch long. Flowerheads $\frac{3}{4}$ inch long, campanulate, many-flowered, some diminutive leaves forming bracts at its base. Scales of the involucre forming 3–4 rows, lanceolate, acute or acuminate, at the apex ciliate. Flowers all purple. Lamina of the female flowers 2 lines long, with 2–3 teeth. Pappus white, yellowish at the base; the longest bristles measuring 3 lines, below the middle scabrous. Achenes cylindrical, with attenuate base and truncate summit.

The following species of *Pluchea* belonging likewise to the section *Rhodanthemum* remained hitherto unpublished.

Pluchea macrocephala.

Spreading, perennial, clammy; leaves oblong or cuneate-lanceolate, toothed, scabrous or smooth, often ciliate; female flowers tubulous to the apex, 4–5 toothed; *bristles of the pappus* 40–50, slightly yellow,

scabrous, *thicker towards the apex*; achenes silky.

On barren plains near the Rivers Fitzmaurice, Nicholson, and Flinders.

A very odorous plant. Leaves measuring between $\frac{3}{4}$ and 1 $\frac{1}{2}$ ". Involucre 7–9" long. Peripheral flowers forming 2–3 rows, sometimes longer than the involucre, white or red. Discal flowers red at the apex. Anthers occasionally quite exerted, pink, with short tails. Pappus about 4" long, the silk at the top of the truncate achenium forming a spurious outer pappus.

Pluchea odora.

Erect, perennial, covered with crisp glandulous hair, rarely glabrous; leaves linear, lanceolate, or ovate, entire or toothed; female flowers as long as the involucre, 3–4 toothed, and often lipped; *bristles of the pappus* 30–40, *yellowish, serrate-ciliate*; achenes hairy-silky.

On the sandstone table-land at the Victoria River, and near its tributaries.

From a few inches to 1' high. Leaves $\frac{1}{2}$ –2" long, 1"–8" broad. Flowerheads scarcely $\frac{1}{2}$ " long. Pappus about twice as long as the truncate achenium.

Pluchea basiflora.

Procumbent or spreading, covered with articulate woolly hair; leaves sessile, lanceolate or linear-lanceolate, serrate, their cuneate base entire; *flowerheads axillary, generally many together, crowded towards the base of the stems*; female flowers cylindrical to the minutely three-toothed apex, scarcely reaching to the summit of the rigid involucre; hermaphrodite flowers four toothed; *achenes* nearly smooth, *with rounded apex*, clavate-cylindrical; *pappus stiff, white, shorter than the achenium*, flat towards the base; *bristles* 7–12, *unequal, smooth*.

On the sandy banks of the Rivers Nicholson and Yappar.

A perennial odorous herb. 1' and less long. Leaves $\frac{3}{4}$ –1 $\frac{1}{2}$ ". Flowerheads about 3" long. Flowers greenish, with white apex; hermaphrodite ones 3–9 in number. Achenes hardly 1" long, livid, streaked, long persistent.

Of that section of *Pluchea*, designated by De Candolle as *Blumea*, are six species observed in tropical Australia. Besides these I noticed a species perhaps distinct from *Pluchea ligulata*, in having scarcely any or very minute ligules, in smaller flowerheads, more branched stems, 16–20 almost smooth bristles of the pappus, which are not much longer than the achenium.

This plant is to be found in East Australia within the tropics.

Blumea may be subjugated to this genus; notwithstanding the priority of *Pluchea* the Abyssinian plants have been arranged by Achilles Richard in a reversed combination.

Monteales globiferus, Candolle prodr. V, 455.

M. intermedius, Cand. l. c.

Emu Springs. To be met with also from Arnhem's Land to Moreton Bay.

Probably a mere variety of the New Caledonian *M. sphacelatus*.

Epattes Australis, Candolle prodr. V, 462.

Stuart's Creek.

Myriogyne Cunninghami, Candolle prodr. V, 139.

Stuart's Creek.

Kippistia.

Capitulum hemispherical, with numerous flowers; the outer ones in many rows, female, with a very short ligule; the central ones fewer, male, four-toothed. Anthers with a hastate not caudate base.

Involucre-seales linear-lanceolate, in two rows of nearly equal length, slightly scarious at the margin, as long as the corollas. Receptacle hardly convex, alveolate, destitute of paleæ. Achenes of the female flowers cylindrical, glabrous, not rostrate. Pappus of these consisting of 7-10 linear paleæ, which are connate towards the base into a long tube. Pappus of the male flowers tubulous, short, jagged, producing 1 or 2 laciniae.

A glabrous, glaucous shrub of the desert interior of Southern Australia, with leafy branches, with alternate semiterete decurrent leaves, pointed and recurved at the apex, with small solitary sessile or short pedunculate yellowish flowerheads at the summit of the branchlets.

This genus, nearer approaching to Myriogyne than to Nidorella, I wished should bear the name of my obliging friend, Rich. Kippist, Esq., the librarian of the London Linnæan Society, who, by his indefatigable zeal in the cause of Botany, and by his profound knowledge of Australian plants, highly merits this slight tribute of science.

Kippistia suædifolia.

Stuart's Creek.

Only a small fragment occurs amongst the plants of the expedition. Leaves 3 to 5 lines long, $\frac{2}{3}$ line broad, from the middle, not from the edges of the base, decurrent. Scales of the involucre about 25, rather acute, ciliolate 1 line long. Receptacle $1\frac{1}{2}$ line broad. Corolla of the female flowers not much longer than the pappus, with a very small oval lamina. Pappus white, its paleæ acute, fine serrulate, probably in an advanced state less concrete. Perfectly ripe achenia yet to be discovered.

Angianthus brachypappus, Ferd. Mueller in Transact. Phil. Soc. I, 44.

Stuart's Creek; also on the Darling and Murray.

Eriochlamys Behrii, Sonder and Mueller in Linnæa 1852, 488.

Stuart's Creek.

Chrysocoryne angianthoides, Ferd. Mueller in Linnæa 1852, 404.

Arcoona, Margareth Creek. Also on the Murray and its tributaries.

Trichanthodium skirrhophorum, Sonder and Mueller in Linnæa 1852, 490.

Stuart's Creek.

Calocephalus Brownii, Ferd. Mueller Second Gen. Report, p. 12.

Leucophyta Brownii, Lessing synopsis. 271.

Arcoona.

Calocephalus Sonderi, Ferd. Mueller, l. c. Leucophyta citrea, Sonder in Linnæa 1852, 490. Elizabeth Creek.

This species combines fully the genera Calocephalus and Leucophyta, and is not quite easily to be distinguished from Calocephalus citreus.

Polycalymma Stuartii, Sonder and Mueller in Linnæa XXV, 494.

Wirrawirraloo, Elizabeth Creek.

Craspedia pleiocephala, Ferd. Mueller in Linnæa 1852, 404.

Stuart's Creek.

Monenyanthes gnaphaloides, Asa Gray in Hook. Lond. Journ. of Bot. 1852, 520.

Stuart's Creek, Margareth Creek, Elizabeth Creek.

Cassinia levis, R. Brown in Transact. Linn. Soc. vol. XII, 127.

C. rosmarinifolia, All. Cunningham in Cand. prodr. VI, 156.

Eyre's Depot Creek.

No. 1, c.

Ozothamnus spicatus. (Sect. Euozothamnus.)

A clammy shrub, with terete branches; leaves linear, sessile, blunt, with revolute margins, beneath as well as the branchlets thinly grey-tomentose, above glabrescent; flowerheads in the axes of the upper leaves, few-flowered, ovate-cylindrical, solitary, on very short peduncles, forming a leafy spike; scales of the involucre in a few rows, yellowish; the exterior ones ovate and roundish; the interior ones oblong, blunt; the innermost lanceolate and connivent; all nearly glabrous, ciliolate at the apex; bristles of the pappus equally scabrous.

Wirrawirraloo.

Leaves crowded, 3-8 lin. long, $\frac{1}{2}$ -1 lin. broad.

Flowerheads about $2\frac{1}{2}$ lin. long, its scales green towards the apex. The ripe fruit is wanting.

Ixiolana tomentosa, Sonder and Mueller in Linnæa 1852, 504.

Elizabeth Creek, Emu Springs, Woomulla.

Podolepis affinis, Sonder in Linnæa 1852, 507.

Woomulla.

Waitzia acuminata, Steetz in Lehm. plant. Preiss. I, 453.

Wirrawirraloo.

Helichrysum podolepidium. (Sect. Blepharolepis.)

Perennial, woolly-tomentose; stems herbaceous, simple, ascendent, leafy towards the base, naked towards the apex, terminated by a solitary flowerhead; leaves spatulate, or cuneate-lanceolate, flat, mucronulate; flowerheads nearly globose, homogamous, without bracts; all involucre-scales provided with a slender glandulous and woolly stalk, livid-yellow, lanceolate-linear, acuminate, quite entire; receptacle flat; corollas slender, hardly widened upwards; the long terminal appendages of the anthers and the divisions of the style, which are capitellate at the apex, exserted; achenes papillose, with no rostrum; bristles of the pappus white, 11-13, free, equally serrate-scabrous.

Wirrawirraloo.

The only specimen in the collections is fingerlong. Leaves 1-1 $\frac{1}{2}$ in. long, about $\frac{1}{2}$ in. broad, long and gradually tapering to the base. The peduncle terminates the branches or stems, and is provided with one or two minute narrow bracts. Flowerheads about one inch across. Involucre scales $1\frac{1}{2}$ -2 lin. long, the outer ones on a short stalk, the inner ones long-stipitate, the innermost diminutive. The stalks of the latter scantily woolly, and often concrete; those of the former more slender, webbed together by their intricate wool. Corollas very slender, $\frac{1}{4}$ in. long, glabrous, of the length of the pappus. Anthers, at least in the immature state, pallid.

A species well marked, by having, even to the outer scales of the involucre, a stipes, by which character it forms a link between Waitzia and Helichrysum, and approaches nearest to Helichrysum oxylepis (Fragm. Pythograph. Austral. I, 2, 35), differing, however, widely in its indument, the color and shape of its involucre, the papillose achenes, the longer corollas and pappus, the less numerous bristles of the latter, &c. From H. scopioides, to which it bears, otherwise, affinity, it may be distinguished by the leafless upper portion of the stems or branches, by the color of the narrower stalked involucre-scales, of which the outer ones are not sessile, by the fewer and longer pappus

bristles, by neither a corolla upwards conspicuously widened nor lævigata achenes.

Helichrysum apiculatum, Cand. prodr. VI, 195.
Chrysocephalum apiculatum et flavissimum, Steetz in Lehmann plant. Preiss. I, 474.
 Arcoona, &c.

Several other plants of the section *Chrysocephalum* seem referable to this species, which like *H. semipapposum* varies in the extreme.

Helichrysum pterochaetum.

Chrysocephalum pterochaetum, Ferd. Mueller in Linnæa 1852, p. 416.

Stuart's Creek, Lake Gregory.

Helichrysum semiferile.

Pteropogon ramosissimus, Ferd. Mueller in Linnæa XXV, 412.

Var. *xanthoglossum*. Radiating laminae of involucre sulphur-yellow.

Wonnomulla, Elizabeth Creek.

In habit this plant resembles *Hyalosperma* variable. It is one of the many plants which vacillate between *Helichrysum* and *Helipterum*, genera which might well be reunited. By simplifying the number of genera their characteristics will not only be less burdensome to the memory, but also the determination of the plants belonging to extensive families would be greatly facilitated, inasmuch as their generic limits can be firmer circumscribed, whilst, at the same time, all the advantage which possibly can be gained from augmenting their number is by the establishment of subgenera fully attained.

Helipterum chionolepis, Ferd. Mueller l. c. 416.

Arcoona, Stuart's Creek, also on the Murray and the mountains between Western Port and Gipps Land.

Helipterum incanum, Candolle prodr. VI, 215.

H. albicans et bicolor, Candolle l. c.

H. brachyrrhynchum, Sond. in Linnæa XXV, 517.

Lake Gregory.

The numerous forms of this remarkably variable species may be arranged in the following manner:—

Var. *purpureo-album*, inner involucre scales white, outer ones purple or brown.

Tasmania. Maneroo, Snowy River, Grampians, Glenelg River, Bathurst, &c.

Var. *tricolor*: Cand. l. c., outer involucre scales purple, middle ones yellow, inner ones white.

Tasmania and Australia Felix.

Var. *alpinum*: stems procumbent, more woody, leaves ovate or lanceolate.

Australian Alps.

Var. *flaviceps*: all involucre-scales pale sulphur-colored.

Snowy River.

Var. *auriceps*: Involucre scales lanceolate, golden-yellow. In many of the arid plains and mountains of Australia Felix and in the northern parts of South Australia. Common on many of the quartz ridges at our gold fields.

Var. *brachylepis*: scales of the involucre golden-yellow, short, partially cordate. Flinders Ranges, &c.

Var. *filifolium*: stems branched, leaves narrow-linear.

Station Peak, &c.

Over many wide tracts of the country only one of these varieties occurs; in others, for instance along the Snowy River, they grow promiscuously and their endless play of colors may be observed in a limited locality.

Helipterum polygalifolium, Cand. prodr. VI, 216.

Pteropogon platyphyllus, Ferd. Mueller in Linnæa 1852, 413.

Wirrawirraloo, Wonnomulla, Elizabeth Creek; also in the Murray and Darling desert.

The radiating laminae of the involucre vary not only in size, but also in white and yellow color. If the genus *Pteropogon*, which I unite on this occasion with *Helipterum*, is to be retained, then this plant, as explained in the Linnæa, will be sectionally distinguished.

Helipterum pygmaeum.

Pteropogon pygmaeus, Candolle prodr. VI, 245.

Stuart's Creek.

Siemsenia capillaris, Steetz in Lehm. plant. Preiss. I, 467.

Margareth Creek, Wonnomulla.

Gnaphalium luteo-album, Linné spec. plantar. 1196.

Stuart's Creek, &c. Throughout the whole of Australia.

Millotia tenuifolia, Cassini in Annal. Scien. Nat 1829, 31.

Elizabeth, &c. Common in most parts of extra-tropical Australia.

Senecio Gregorii, Ferd. Mueller enumer. of Greg. plants from Cooper's River.

Wonnomulla, Maërtty, Elizabeth Creek; also lately found by His Royal Highness Prince Paul William of Württemberg, on the Murray River. An annual species, generally a span high, variable in size of leaves and flowers; the capitulum rather large in proportion to the size of the plant. Achenes in the Wonnomulla specimen white-silky.

Senecio laetus, Forst. prodr. 538.

Stuart's Creek, &c. Almost everywhere in extra-tropical Australia.

Senecio odoratus, Hornemann hort. Hafniens. II, 809.

Var. *laciniatus*:

Leaves jagged, not coriaceous, less veined, tapering into a cuneate base, not clasping; flowerheads longer than general; bracts considerably elongated.

Wirrawirraloo.

A tall shrub, assuming endless forms; nearest in its affinity to *S. Australis*, although rayless.

Sonchus asper, Villars delph. III, 158.

Lake Gregory, &c.

Microseris Forsteri, J. Hooker Flora Novæ Zealandiæ I, 151.

Maërtty.

Generally distributed over the greater portion of Australia out of the tropics, from the summits of the Alps, where the plant particularly luxuriates, to the meadows and deserts of the low country.

GOODENIACEÆ.

Goodenia pinatifida, Schlecht. Linnæa XXI, 450.

Wirringelbuana. Common near the Flinders ranges and in many other parts of South Australia.

Goodenia glauca, Ferd. Mueller in Transact. Vict. Inst. I, 40.

Maërtty, Wirrawirraloo, Wonnomulla.

Scævola spinescens, R. Brown, prodr. 586.

S. oleoides Cand. prodr. VII, 512.

Indument, length of pedicels, shape of thorns, size of bracteoles, which tardily drop in all the varieties, differ considerably according to locality.

Margareth Creek, Stuart's Creek, Emu Springs, Maërtty. Also on Sturt's Creek in N.W. Australia, and doubtless therefore through the whole of Central Australia.

Scavola microcarpa, Cavan. Icon. VI, 509.

Woonomulla.

Singularly enough, the plant, at least in its normal form, has not yet been noticed in Australia Felix, although it grows in East Australia, and even abounds in many parts of the South Australian Colony.

The drupe is either one-celled, with one biconvex seed, or two-celled, with two plane-convex seeds.

Scavola collaris. (Sect. *Gymnostegia*.)

Glabrous; upper part of the branches angular; leaves thick, elongate, broad-linear, acute, quite entire, sessile, nerveless, narrowed towards the base, and there somewhat channelled; pedicels axillary, solitary, twin or ternate, with minute semi-lanceolate-cymbiform bracteoles at their base, a little shorter than the calyx; tube of the calyx gradually tapering into the pedicel and into a long narrow neck; teeth of the calyx ovate-lanceolate, short, acute; corolla yellowish, one-lipped, glabrous, inward with very minute papils; its lobes lanceolate-linear, acute, winged; style pubescent; indusium pale, glabrous, without cilia; anthers linear-oblong, blunt; *drupe* dry, woody, ovate, furrowed, 8-ribbed, two-celled, *terminated by a long neck*.

On sand ridges near Woonomulla.

Of this highly interesting plant occurs only a fragment in the collection. It seems shrubby or at least suffrutescent. Branches below terete, with slightly bearded axils. Leaves alternate or fasciculate, generally 2-3 inches long, $1\frac{1}{2}$ - $2\frac{1}{2}$ " broad. Pedicels flower-bearing $1\frac{1}{2}$ -2" long, fruit-bearing 3-4" long, angular, at last upwards thickened. Bracteoles and teeth of the calyx about $\frac{3}{8}$ " long. Corolla about 5" in length, scarcely to the middle 5-lobed, with entire wings. Filaments glabrous, linear, as well as the style scarcely $1\frac{1}{2}$ " long. Pollen-grains yellow, spherical, 3-porose. Style with short white down. Fruit almost spindle-shaped, its turgid portion about $\frac{1}{3}$ " long, its neck measuring fully 2". Pericarp dry, only laxly covering the furrows between the ribs of the thick mesocarp, leaving therefore longitudinal cavities beneath. Seeds solitary in each cell, albuminous, oblong-semi-cylindrical, about 2" long.

The curious form of the fruit offers a striking mark of distinction in this species, and an unexpected approach to the genus *Lechenanthia*.

CAMPANULACEÆ.

Wahlenbergia gracilis, Alph. Candolle monogr. Camp. 142.

In every part of Australia.

ASCLEPIADEÆ.

Cynoctonum floribundum, Decaisne in Cand. prodr. VIII, 529.

Flinders Ranges.

Leichhardtia Australis, R. Brown in Sturt's Central Australia II, append. p. 81.

Eyre's Depot Creek; also on Hooker's Creek, and Sturt's Creek in N.W. Australia, extending probably over the Central tracts of the Continent. This and

the preceding plant form in a raw state a vegetable to the natives.

Sarcostemma Australe, R. Brown prodr. 463.

Eyre's Depot Creek.

Noticed by the author on the Flinders Ranges and rather frequently in tropical Australia.

CONVOLVULACEÆ.

Convolvulus erubescens, Sims' Bot. Mag. t. 1067.

C. angustissimus, R. Brown pr. 482.

C. remotus, R. Br. l. c.

C. acaulis, Choisy in D. C. prodr. VIII, 406.

C. Preissii, *C. Hnegelii*, *C. adscendens*, and

C. subpinnatifidus, Vriese in Lehm. pl. Preiss. I, 346 and 347.

Common in extratropical Australia, but absent from Northern and N. Western Australia.

GENTIANEÆ.

Erythraea Australis, R. Br. pr. 451.

Dispersed over the whole of Australia.

ASTERIFOLIE.

Heliotropium Curassavicum, Linné spec. plant. 188.

Berulla; also on the River Murray and on some of its tributaries.

Heliotropium glandulosum, R. Br. pr. 493.

Lake Gregory.

A rare plant, allied to *H. asperum*, which is likewise a desert inhabitant of South Australia, and has larger flowers. It remains unusually green in drying.

Trichodesma Zeylanicum, R. Br. pr. 496.

T. sericeum, Lindley in Mitch. Trop. Austr. 258.

Lake Gregory, Wirrawirraloo, Flinders Ranges.

Halimolobos strigosa, Schlechtendal in Linnæa XX, 640.

H. tuberculosa, Schlechtendal l. c.

Wirrawirraloo, Margareth Creek, Maërtty.

LABIATÆ.

Prostanthera striatistylis, Ferd. Mueller in Linnæa XXV, 376.

Maërtty, Margareth Creek, Lake Campbell. Blanche Waters, G. Hawker, Esq.; obtained lately also on Mount Murchison, by Mr. Dallachy.

Teucrium racemosum, R. Br. prodr. 504.

In many parts of South Australia and Australia Felix.

Mentha Australis, R. Brown prodr. 506.

Woonomulla, Stuart's Creek.

Frequent in South Australia, Australia Felix, and New South Wales, but seemingly not occurring in the western and northern portion of the Continent.

VERBENACEÆ.

Myoporum platycarpum, R. Brown prodr. 516.

Lake Campbell. Also on Spencer's and St. Vincent's Gulf, and on the Murray River. The stems of this tree exude a saccharine substance.

Myoporum humile, R. Brown prodr. 516.

M. parvifolium, Schlecht. Linnæa 1847, p. 612.

Lake Gregory. Not rare in Australia Felix and South Australia.

Myoporum rugulosum, Ferd. Mueller in Linnæa XXV, 427.

Lake Gregory, Margareth Creek.

Possibly only a variety of *M. dulce*.

Myoporum Cunninghamii, Benth. in Hnegel enumer. p. 78.

Lake Campbell, Lake Gregory. Also on the Murray and its tributaries.

Eremophila.

Eremophila, *Stenochilus* and *Pholidia*, R. Br. prodr. 517, 518. *Eremodendron*, Cand. prodr. XI, 712. *Pholidiopsis*, Ferd. Mueller in *Linnaea* XXV, 429. *Duttonia*, Ferd. Mueller in Hook. Kew Miscell. 1856.

Calyx to the middle or to the base five-cleft, rarely four-cleft. Corolla gaping, two-lipped, the upper lip emarginate, bifid or bidentate, or by conerescence with the lateral lobes of the lower lip four-toothed or four-lobed; the lower lip unequally three-lobed, or by the remoteness of its lateral lobes from the middle one apparently undivided. Stamens four, didynamous, inserted to the tube of the corolla. Style filiform. Stigma undivided. Ovary two-celled, each cell completely or imperfectly subdivided into two. Ovules in the sub-cells solitary, pendulous. Drupe dry, completely or incompletely four-celled, four-seeded, generally subglobose, rarely oblong and compressed, sometimes rostrate.

Desert-shrubs of Continental Australia, with alternate or opposite mostly entire leaves, with axillary generally solitary pedicels, and with white purplish or red, less frequently yellow or blue flowers.

Sect. I. Stenochilus, R. Br. prodr. 373.

Upper lip of the corolla acutely four-toothed; lower one undivided. Fruit-bearing calyx neither scarious nor membranaceous.

Eremophila Brownii, Ferd. Mueller in paper of the Royal Tasman. Soc. 1858.

Stenochilus glaber, R. Brown prodrom. p. 373.

S. incanus, Lindl. Bot. Reg. 1839, misc. n. 116.

S. albicans, Bartling in Lehm. pl. Preiss. I, 351.

S. canescens, Bartl. l. c.

S. viscosus, Graham in Edinb. Phil. Journ. 1829, 385.

Maërtly, Elizabeth Creek, Stuart's Creek. Around Lake Torrens. In the Deserts of Western and Eastern Australia and Australia Felix.

This plant is never glabrous, as its first name would imply. Bartling's descriptions are here quoted not without hesitation, no Western Australian specimens of this genus existing in our herbarium for comparison. Calyx small in proportion to the corolla, which is purplish or turning somewhat yellow or brownish red.

Eremophila Duttonii.

Clammy-downy; branchlets cicatricose; leaves alternate, flat, narrow-lanceolate, sessile; calyx longer than the pedicels, deeply five-cleft; supreme lobe roundish, short, the others ovate acuminate, rarely round, of unequal length; corolla orange red, outside clammy and nearly glabrous; lower lip oblong, rarely ovate, blunt; faux scantily woolly; stamens at last exserted; style and ovary glabrous, viscid.

Elizabeth Creek; between Stuart's Creek and the Margaret Creek, Arcoona; Woomomulla. Leaves 8-16" long, 2-3" broad. Calyx rather less than $\frac{1}{2}$ " long, with imbricate lobes: the uppermost generally much the shortest; the rest half as long as long as the corolla-tube. Corolla fully an inch long, of a color betwixt orange and dark red; sometimes outward puberulous. Lateral lobes of the lower lip less connate with the middle lobe than with the upper lip; the lobes

sometimes greenish at the margin. Fruit unknown.

I noticed a curious aberration from the normal form with a six-lobed corolla and five stamens.

By the shape of the corolla the species approaches to the preceding one, by the form of calyx rather to *Eremophila Freelingii*.

This magnificent plant bears the name of the Honorable Francis Staker Dutton, the Minister under whom the South Australian Exploring Expedition was fitted out, a gentleman to whom the author for manifold kindness and the interest in his researches is under deep obligation.

Eremophila maculata, Ferd. Mueller in papers of the Royal Soc. of Tasm. 1858.

Stenochilus maculatus, Ker Bot. Reg. 647.

S. racemosus, Endlicher Annal. Wien. Mus. II, 202.

S. curvipes, Benth. in Mitch. Trop. Austr. 221.

From Sturt's Creek and the interior of Arnhem's Land and the Gulf of Carpentaria through Central Australia to the south-western, southern, and eastern deserts of the Continent.

The variety with pure yellow flowers occurs in Mr. Babbage's collection, and has been found likewise on the Murray River.

Sect. II. Scariosepala.

Upper lip of the corolla four-toothed; lower one undivided. Fruit-bearing calyx scarious.

Eremophila latifolia, Ferd. Mueller in *Linnaea* XXV, p. 428.

Stenochilus serrulatus All. Cunn. in D. C. prodr. XI, 715, probably belongs to this plant.

Lake Gregory, Arcoona, Elizabeth Creek, Flinders Ranges.

It varies with orbicular and oblong leaves, and with exserted stamens.

Eremophila alternifolia, R. Br. pr. 517.

Wirrawirraloo, Lake Campbell, Lake Torrens, Flinders Ranges, Murray, Darling, Lachlan River, Spencer's Gulf.

A tall shrub, sometimes a small tree, forming, wherever it occurs, with its splendid red spotted flowers, a real ornament in the desert. The flower stalks are almost sigmoid-declinate, like in the two preceding species.

Sect. III. Eremocosmos, Ferd. Mueller in *Linnaea* XXV, p. 428.

Upper lip of the corolla emarginate or two-toothed, or two-lobed, lower one three-lobed. Fruit-bearing calyx membranous or scarious.

Eremophila oppositifolia, R. Br. pr. 518.

E. arborescens, All. Cunn. in Cand. prodr. XI, 712.

Eremodendron Cunninghamii Cand. prodr. XI, 713.

Spencer's Gulf (R. Brown), Elder's and Flinders Ranges, Murray River and Murrumbidgee (F. Mueller), Barrier Range and Stanley Range (Sturt), Lachlan River (A. Cunningham), Darling River (Dallachy), Wirralu, Elizabeth Creek, Lake Gregory, Lake Hart, Lake Campbell (Babbage's Expedition).

Prevailingly the leaves are opposite or nearly so, but they are at times also alternate, particularly in age. I searched in vain for any other mark to distinguish the two species here united. The size of leaves and flowers are subject to considerable variation. Corolla yellowish-white.

Eremophila Sturtii, R. Br. in Sturt's Central Australia II, append. p. 85.

Viscous; branchlets thin and leaves glabrous, not tubercled; leaves narrow-linear, somewhat channelled, alternate, with a recurved acumen; pedicels about as long as the calyx; sepals membranous, glabrous, blunt; the terminal ovate, the others oblong, of more than half the length of the corolla-tube; the latter white, outside slightly downy; upper lip with two short blunt lobes; lateral lobes of the lower lip semi-ovate, the middle lobe longer obcordate or ovate above densely woolly-tomentose, stamens not exerted; ovary woolly.

On the Rivers Murray and Darling. Rev. Mr. Goodwin. Mr. Dallachy.

Leaves 1-1½ inches long. ½-1" broad, narrower towards the base. Calyx 2-3 lines, corolla 4-6 lines long.

Eremophila Paisleyi.

Somewhat viscid; branchlets tubercled, as well as the leaves glabrous; the latter alternate, almost semi-terete, somewhat channelled, with a recurved acumen; pedicels solitary, twine or ternate, scarcely as long as the calyx; sepals clammy, spatulate oblong, membranous, nearly equal, ciliated towards the base; corolla small, white, outside thinly pubescent; its tube less than twice the length of the calyx; upper lip with short and blunt lobes; lateral lobes of the lower lip ovate, middle lobe slightly pubescent, orbicular-obcordate; faux somewhat cobwebbed; stamens scarcely exerted, glabrous; style hairy at the base; ovary imperfectly four-celled, thinly tomentose.

Maërtly.

Leaves 8-16 lines long, scarcely 1" broad. Calyx 2" long. Corolla 4" long, spotted.

This species I wish to distinguish with the name of Mr. Paisley, the learned Private Secretary to the Governor of South Australia, a gentleman greatly devoted to Botany.

It is intermediate between the preceding and the following species.

Eremophila Mitchellii. Benth. in Mitch. Trop. Australia p. 31.

Arborescent; branchlets furrowed, scarcely tubercled; leaves alternate, narrower linear-lanceolate, flat, recurved-acuminate; pedicels scarcely as long as the calyx; sepals oblong-cuneate; corolla white, outside slightly downy; lobes of the upper lip semi-ovate; middle lobe of the lower lip longer than the lateral ones, nearly ovate, above white bearded; stamens enclosed; ovary tomentose.

In the Brigalow Scrubs from the Gilbert River to the Upper Darling.

Bark black. Leaves ¾-1½" long, opaque. Calyx 3-4". corolla about ½" long; throat of the latter with brown-yellow dots. Young fruit ovate.

Eremophila viscosa, Endl. in Annal. Wien. Mus. II, 203.

Interior of South Western Australia (Roë).

Eremophila Latrobei, Ferd. Mueller in papers of the Royal Soc. of Tasm. 1858, and in enumeration of Gregory's plants from Cooper's River, Lake Gregory, Pernatty Creek, Arcoona, (Babbage's Expedition). Sturt's Creek, Newcastle Range, mountains on the Sntter-Burdekin and Mackenzie Rivers, (Ferd. Mueller). Darling, (Dallachy).

Thompson River (A. C. Gregory).

A noble species, well worthy of bearing the name of the excellent Charl. Jos. La Trobe, a great patron of Botany, and to No. 1, d.

whose love for science the botanical department under my administration owes its origin.

The shrub attains the height of 10'. Leaves ½-1½" long, ½-2" broad, rather thick, shining, unless velvety. Calyx often fully half an inch long, finely net-veined, clothed at the margins and inside at the apex of the lobes more or less with a starry whitish tomentum. Corolla about an inch long, spotted, sometimes inside glabrous. Genitalia smooth. Drupe ovate, 2" long, in age separable into its two main partitions.

This *Eremophila* forms the transit to the following section:—

Sect. IV. Platychilus, Benth. in Mitchell's Trop. Australia, 386.

Upper lip of the corolla emarginate or two-toothed or two-lobed, lower one three-lobed. Lobes of the fruit-bearing calyx neither membranous nor scarious.

Eremophila polyelada, Ferd. Mueller in papers of the Roy. Soc. of Tasm. 1858.

From the Burdekin to the Darling and Murray. Lobes of the calyx remarkably small compared with the large corolla. Drupe four-celled, acuminate.

Eremophila Freelingii, Ferd. Mueller in papers of the Royal Soc. of Tasm. 1858.

First detected on McDonnell Creek by the Hon. G. Hawker, during Captain Freeling's journey to Lake Torrens; afterwards during Mr. Babbage's exploration on the sand ridges near Arcoona.

Eremophila longifolia, Ferd. Mueller in papers of the Royal Soc. of Tasm. 1858.

Lake Hart, Maërtly, Lake Gregory. Rather general in the deserts of New South Wales, Australia Felix, and South Australia, and extending to the Gulf of Carpentaria and Arnhem's Land.

A tall shrub or small tree, called "Juniper tree" by the settlers, in allusion to the strongly scented fruit. Corolla large, of a sordid purple. Calyx small. Drupe perfectly four-celled, about 4" long, globose, with a thin fleshy dark pericarp.

Eremophila bignoniiflora, Ferd. Mueller in papers of the Roy. Soc. of Tasm. 1858.

Sturt's Creek, interior of N. W. Australia; from the Burdekin to the Darling.

A large bush, with the habit of *Pittosporum acacioides*. Flowers white with purple dots, as well as the drupe large. The latter perfectly four-celled, ovate globose, somewhat pointed.

Eremophila santalina, Ferd. Mueller l. c. Flinders Ranges.

Eremophila Goodwinii.

Glandulously downy; leaves alternate, sometimes partially opposite, sessile, lanceolate-linear, flat, entire or towards the apex serrulate; pedicels and calyx hirsute, equal in length; sepals at least half as long as the corolla-tube, uppermost ovate-lanceolate, acuminate, covering the lateral ones, which are linear-lanceolate; corolla purple or blue, spotted, outside downy, lateral lobes of the lower lip lanceolate, acute; the middle one cuneate or lanceolate-oval; faux tomentose; stamens enclosed, somewhat woolly; style pubescent; ovary silky-villous.

Mount Murchison. J. Dallachy.

Shrub, a few feet high. Branches glandulous. Leaves ¾-1½" long, 1-1½" broad, at least in the dry state often folded, less crowded than in many other species. Pedicels slender, clothed with spreading articulate hair and with stalked glands.

Calyx rather tender, about 4" long. Sepals imbricate; the lower ones lanceolate, acute. Corolla scarcely 1" long.

This plant, which I named in acknowledgement of the assistance which its discoverer received from the Rev. Mr. Goodwin, whilst on his journey to Mount Murchison, is closely allied to the following species; it differs however totally in its calyx. Having seen no fruit specimens either of the two, they may possibly be referable to the preceding section.

Eremophila Macdonnellii.

Clothed with floccous downs and scattered articulate hair; leaves alternate, crowded, flat, oblong or narrow-lanceolate, acute, sessile, calyx considerably longer than the pedicel, only to the middle 5-cleft, covered with short gland-bearing downs and with branched and simple hair; its lobes almost equal, semilanceolate, gradually acuminate; corolla blue, outside glabrous, lower lip somewhat ciliate; its lateral lobes oblique broad-ovate; middle one orbicular-spathulate; faux tomentose; anthers enclosed; style and ovary pubescent.

Lake Gregory, Horseshoe Creek, Wirrawirraloo, Yandandary.

Leaves $\frac{3}{4}$ -1" long, $1\frac{1}{2}$ -2 $\frac{1}{2}$ " broad. Calyx 4-5" long, inside glandulously downy. Corolla 1" long, or somewhat shorter, spotted; its limb cyan-blue, at least before full expansion, seemingly at times white. Its upper lip half ovate, often at the base with a callus, which perhaps indicates an obliterated stamen. Filaments downy. Style enclosed. Ovary conical, not rarely blunt at the apex, four-celled, surrounded at the base with a narrow ring. Fruit as yet unknown.

To this species, the most ornamental discovered during Mr. Babbage's expedition, has been attached the name of Sir Rich. McDonnell, in perpetual scientific commemoration of His Excellency's desire to open the unknown interior of his colony to civilization.

Eremophila Behrii, Ferd. Mueller in papers of the Roy. Soc. Tasm. 1858.

Branchlets downy; leaves small, tubercled, ciliate, otherwise glabrous, alternate, obovate or rhomboid, cuneate at the base, nearly sessile, above the middle toothed; calyx on a very short stalk; its lobes narrow-lanceolate, ciliate, very acute almost subulate at the apex, stretching nearly to the limb of the corolla; the latter small, blue, outside glabrous, lateral lobes of the lower lip narrow-lanceolate, acute; middle one obovate or bicular, above bearded; stamens scarcely exerted.

Scrub near the Gawler River (H. Behr, M.D.), Tumby Bay (C. Wilhelmi).

In habit resembling *Pseudopholidia brevifolia*. The fruit is yet unknown, for which reason the generic position of this plant requires yet confirmation.

Eremophila crassifolia, Ferd. Mueller in papers of the Roy. Soc. Tasm. 1858.

Spencer's Gulf (C. Wilhelmi). Drupe completely four-celled.

Eremophila resinosa, Ferd. Mueller, in papers Roy. Soc. Tasm. 1858.

Interior of South Western Australia (Roe).

Sect. V. Duttonia, Ferd. Mueller in Hook. Kew Miscell. 1856, with plate.

Leaves small, very tuberculate. Segments of the calyx almost subulate. Drupe thin, oblong, compressed.

Eremophila gibbosifolia.

Mount Barker Creek, L. Fischer.

Sect. VI. Pholidia, R. Brown prodr. 517.

Leaves narrow, opposite, lepidote; drupe rostrate, completely four-celled.

Eremophila scoparia, Ferd. Mueller in papers Roy. Soc. Tasm. 1858.

Wirrawirraloo, Spencer's and St. Vincent's Gulf, Flinders Ranges, Murray and Darling River.

The sectional name is applicable to none but this species.

Sect. VII. Sentis, Ferd. Mueller in Transact. Phil. Soc. Vict. I, 47.

Calyx deeply four-cleft. Drupe rostrate, incompletely four-celled. Branches spinose.

Eremophila diraricata, Ferd. Mueller in papers of the Roy. Soc. of Tasmania, 1858.

Murray, Darling, Murrumbidgee.

In the preceding pages I endeavored to sketch out a new arrangement of the species of what may be considered the most beautiful and universal genus in the desert-flora of Australia. The reasons which induced me to unite the genera *Eremophila*, *Stenochilus*, and *Philodea*, are explained in the Journal of the Royal Society of Tasmania.

SOLANEE.

Nicotiana suaveolens, Lehmann Histor. Nicot. p. 43.

Lake Gregory.

Solanum lithophilum, Ferd. Mueller in Linnæa XXV, 334.

Emu Springs.

Berries spherical, half enclosed in the calyx.

Lycium Australe, Ferd. Mueller Fragm. Phytogr. Austr. I, 4, 83.

Wirrawirraloo, Lake Hart.

SCROPHULARINÆ.

Anthocercis anisantha, Endlicher Stirp. Austr. decad. p. 13.

Wirrawirraloo. Found also on the islands near Port Lincoln by Mr. Wilhelmi.

Morgania floribunda, Bentham in Mitchell's Trop. Austr. 384.

M. glabra et *M. pubescens*, R. Br. prodr. 441.

Stuart's Creek. The most southern known locality of this plant is Port Adelaide. It abounds in the more sterile tracts of tropical Australia.

To become fully acquainted with the varieties of this plant, it is necessary to study their forms in nature. After bush fires have devastated the country, a glandulously-pubescent variety is springing up on ground which previously bore the glabrous form of this plant.

ACANTHACEÆ.

Rostellularia procumbens, Nees in Wallich. Plant. Asiat. rarior. III, 101.

Lake Gregory, Pernatty.

PLANTAGINÆÆ.

Plantago varia, R. Brown prodr. p. 424.

Common in extra tropical Australia, it inhabits the most different localities, and produces therefore endless varieties.

PROTRACEÆ.

Grevillea aspera, R. Brown prodr. 377.

Tea-tree Creek.

Grevillea Sturtii, R. Brown in Sturt's Centr. Austr. II, append. p. 86.

Stuart's Creek, Lake Campbell, Wonnomulla, Weeringelbunna.

Hakea stricta, Ferd. Mueller accord. to Meisn. in Linnæa 1853, p. 360.

Lake Gregory, Weelpeederoona. Not rare on the Darling, Murray, and Lake Torrens.

This is one of the trees which yields from its roots water to the natives, although in less abundance than the Mallee Eucalyptus.

Hakea cycloptera, R. Brown prodr. 383. Elizabeth Creek.

THYMELEÆ.

Pimelea microcephala, R. Brown prodr. 361.

Stuart's Creek, Elizabeth Creek, Lake Gregory, &c., extending from Lake Torrens, Spencer's Gulf, and St. Vincent's Gulf, to the Rivers Murray and Darling.

A desert species allied in habit and characters closely to *Pimelea pauciflora*, a common valley plant of Tasmania and Gipps Land. The drupe of both ovate, succulent, of the former yellow, of the latter dark purple or sordid red.

POLYGONÆ.

Polygonum Cunninghami, Meisner in Linnæa 1853, p. 364.

Stuart's Creek. Common on clayey river banks and other argillaceous localities subject to inundation throughout the greater portion of the interior.

A curious variety with numerous short divaricate spinescent branchlets and with smaller almost octædrous fruit occurs in the collection.

Rumex Brownii, Campdera Monogr. du genre Rumex, p. 64.

Common in South Australia, Australia Felix, and New South Wales.

AMARANTHACEÆ.

Alternanthera denticulata, R. Brown prodr. 417.

A. nodiflora, R. Br. l. c.

One of the most abundant plants of Australia.

Trichinium nobile, Lindley in Mitch. three exped. II., p. 22. Elizabeth Creek.

Trichinium variabile, Ferd. Mueller in Linnæa 1852, p. 436.

Lake Gregory, Stuart's Creek.

Sepals of the specimens from the above locality, only three or four times longer than the bracteoles; the inner ones tomentose at the back, and blunt at the apex.

This species is perhaps to be united with *T. atriplicifolium*, A. Cunn. in Caud. prodr. XIII. 286.

Trichinium parvifolium.

Branches very numerous, spreading, and leaves glabrous; leaves very minute, ovate acute, the upper ones mucronate; flower-heads nearly globose, terminal, solitary; calyx rather small, three times longer than the bracteoles, towards the top pink, densely clothed with remotely articulate villi; bracteoles hyalinous, one-nerved, round, with a mucronulate acumen, towards the base villose-tomentose; filaments very narrow, linear and style glabrous; anthers oval.

Stuart's Creek.

The plant, to judge from the fragment in the Expedition-herbarium, seems shrubby. Branchlets thin, streaked. Leaves only $-1\frac{1}{2}$ long, more distant in the upper part of the branchlets. Sepals scarcely $\frac{1}{2}$ long, all acute. Rachis tomentose. Villi extremely tender. Style hardly as long as the sepals, longer than the stamens. Similar as regards flowers to *T. roseum*.

Villi less rigid, not quite as much spreading, nor reaching nearly to the summit of the sepals. In regard to its ramification and the minuteness of its leaves from every other species widely distinct, unless it should prove to be one of those remarkable abnormalities, which plants after the accidental loss of their leading stem sometimes produce by prolific growth.

Trichinium alopecuroideum, Lindley in Mitch. three exped. I, p. 13.

T. Preissii, Nees in Lehm. Plant. Preiss. I, 629.

Lake Gregory and common on sand ridges of the Murray desert, and near Spencer's and St. Vincent's Gulf.

T. pachycephalum seems to me a variety of *T. angustifolium*, which inhabits the basaltic plains from Newcastle Range (lat. 18° S.) to the Southern Glenelg River (lat. 38° S.)

In all the numerous species of this genus which I had an opportunity of examining I observed constantly one or more of the stamens sterile, the same observation having been previously made positively on *T. mucronatum* and indirectly on *T. sericostachyum* and *T. villosum* by Nees, and also indirectly on *T. erubescens* by Schlechtendal. (Linnæa XX, 575). These staminodia produce in some species barren anthers, in others not, and it appears that from this character and the length of their filaments good marks of discrimination between the different species can be derived. Even in *Trichinium spathulatum* I noticed the dissimilarity of the stamens, although the beautiful plate of this plant, in J. Hooker's Flora Tasmania, furnishes a contradiction to this statement, so that the above character may possibly be subject to exceptions. It is however now sufficiently evident that *Hemisteirus* (Linnæa XXV, 435) stands in close relationship to *Trichinium*.

SALSOLACEÆ.

Rhagodia spinescens, R. Br. pr. 408.

Var. *deltophylla*: Leaves grey, deltoid.

Lake Campbell.

Not rare in the desert, from Lake Torrens and Spencer's Gulf to the Darling and the Murray.

Branches more or less spinescent, leaves oblong, obovate, hastate or deltoid. Berries yellow or red.

Atriplex holocarpum. (Sect. *Spongiocarpus*.)

Herbaceous, monœcious, diffuse, pulverulent lepidote; leaves stalked, alternate, rhomboid-deltoid, blunt, tender, grossly crenodentate; glomerules axillary; fruit cuneate obovate, with a short acumen, rounded at the apex, densely net-veined, valveless, at last spongy, inflated, and pear-shaped, without appendages.

Eyre's Depot Creek.

Plant a span high seemingly with an annual root. Leaves about 1" long and broad. Fruit $\frac{1}{3}$ long, with no discernible sutures, to indicate a valvate structure. Seeds brown, shining. Radicle superior.

Closely allied to *A. inflatum*.

The leaves more tender and broad; fruit not appendiculate, but in a similar manner spongy and reticulate. This and several other species with valveless spongy fruit deserve perhaps to be transferred under the sectional name into a separate genus.

Atriplex inflatum, Ferd. Mueller in Transact. Phil. Inst. Vict. II, 75.

Elizabeth Creek.

- Atriplex spongiosum*, Ferd. Meuller l. c. 74.
Lake Gregory.
- Atriplex incrassatum*. (Sect. Obione.)
Shrubby; leaves grey, lepidote, ovate-lanceolate, nearly sessile, entire or indistinctly toothed; female flowers glomerate; *fruit-bearing calyx enlarged, orbicular-reniform*, entire, without appendages; its upper portion coriaceous, valvate; its lower portion turgid, solid.
Emu Springs.
A seemingly dioecious plant; male flowers unknown; fruit $\frac{1}{2}$ " broad; its base, although swelling is not of the spongy texture which characterises that of *Atriplex inflatum*, *spongiosum* and *holocarpum*.
- Atriplex nummularium*, Lindl. in Mitch. Trop. Austr. p. 64.
Elizabeth Creek.
- Atriplex paludosum*, R. Br. p. 406.
Pernatty. In various parts of South Australia and Anstralia Felix.
- Atriplex reniforme*, R. Brown prodr. 406.
Beda, Elizabeth Creek. From Spencer's and St. Vincent's Gulf to the Murray and Darling. Leaves sometimes ovate.
- Atriplex reticulatum*. (Sect. Teutliopsis.)
Monœcious; pale *furfuraceous tomentose*; leaves alternate, herbaceous, rhomboid, nearly sessile, dentate-sinuous; glomerules axillary or in short terminal interrupted spikes; *fruit-bearing calyx rhomboid-deltoid, herbaceous, terminating gradually in an entire acumen*, with a few acute teeth below the middle, almost nerveless, scarcely appendiculate; its valves connate towards the base; seeds brown; radicle lateral.
Stuart's Creek.
Resembling in leaves and in many other respects the following species:—
- Atriplex roseum*, Linné sp. 1493
Var. *stipitatum*; fruit small, tapering into a thick pedicel, which is $\frac{1}{2}$ –1" long.
Emu Springs.
- Atriplex Lindleyi*, Moquin in Cand. prodr. XIII, 2, 100.
Elizabeth Creek.
- Anisacantha tricuspis*, Ferd. Mueller in Transact. Vict. Inst. I, 133.
Elizabeth Creek.
- Sclerolena paradoxa*, R. Br. pr. p. 410.
Stuart's Creek, Depot Creek; also from Spencer's Gulf and the Flinders Ranges to the Murray and Darling desert.
- Dissocarpus biflorus*, Ferd. Mueller in Transact. Phil. Inst. II, 75.
Stony land between Stuart's Creek and the Margareth Creek.
- Euchylæna tomentosa*, R. Br. pr. 408.
Frequent in the barren interior.
- Osteocarpum saluginosum*, Ferd. Mueller in Transact. Vict. Inst. II, 77.
Elizabeth Creek.
- Sclerochlamys brachyptera*, Ferd. Mueller in Transact. Vict. Inst. II, 76.
Lake Gregory, Arcoona, Weelpideroona.
- Kochia ciliata*.
Stems adscendent; branches weak, woolly, tomentose; leaves linear-lanceolate, acute, rather flat, silky-tomentose; the lower ones distant; flowers axillary, solitary, woolly-villose; stigmas 2; *calyx wingless, fringed with woolly-villose hair*; its teeth deltoid; *fruit-bearing calyx flat-depressed, orbicular, without ribs*.
Wonnomulla, Emu Springs, between Stuart's Creek and Margareth Creek.
Leaves 2–6" long, 1" and less broad.
Flowers in the lower part of the branches

remote, in the upper part forming a leafy interrupted spike. Anthers oval, brown-red. Fruit calyx barely $1\frac{1}{2}$ " in diameter, somewhat crustaceous, not explete by the fulvous seeds, by which means an acute margin seems to encircle the fruit.

Amongst Kochias, it shows the greatest affinity to *K. lanosa*; but it exhibits likewise a transit to the genus *Sclerochlamys*, from which chiefly the want of ribs expanding into very small vertical wings distinguishes it. Thus,—"*natura non saltus faciente*,"—these novel forms of Kochia are clearly linked together. If the absence of the fruit-wings in *K. ciliata* is deemed a sufficient reason for the removal of this species to a separate genus, it might then be generically designated "*Apteranthæ*."

Kochia eriantha.

Branchlets velvety; leaves alternate, grey-silky, crowded, trigonous, acute, somewhat channelled, in age more flat; flowers forming below the summits of the branches a leafy spike, digynous, as well as the *fruits enveloped in a long dense white silky wool*; calyx-teeth semiovate or semilanceolate; *wings foliaceous, semiorbicular, concealed by the villose indument*.
Elizabeth Creek, Emu Springs.

Leaves 2–6" long, 1–1 $\frac{1}{2}$ " broad. Spikes 1–1 $\frac{1}{2}$ " long.

The following species, to which *Kochia eriantha* ranks nearest, differs in long linear-subulate lobes of the calyx, in generally trigynous flowers, in somewhat scarious fruit-wings, which are more or less concrete and covered with short downs, and in less fleshy and more distant and tomentose leaves.

Kochia lanosa, Lindley in Mitchell's Trop. Austr. p. 88.

Lake Gregory, Margareth and Elizabeth Creek. Wings concrete or disjoint.

Kochia sedifolia, Ferd. Mueller in Transact. Vict. Inst. I, 134.

Stuart's Creek, Maërty, Elizabeth Creek.

Kochia tomentosa, Ferd. Mueller enum. of Gregory's plants from Cooper's Creek.

Grey velvety tomentose; stems shrubby, erect, with numerous spreading branches; leaves linear-semiterete, acute, often glabrous, sometimes hirsute; flowers generally solitary; *fruit-bearing calyx turbinate, smooth, surrounded by a glabrous scarious margin*, formed by the concrecence of the wings.

Elizabeth Creek, Margareth Creek, and in many other desert localities within and beyond the tropics.

Leaves most variable in size, 1–6" long, styles 3 rarely 2. Fruitwings rarely free, forming a circular limb $\frac{1}{2}$ –2 $\frac{1}{2}$ " broad around the calyx.

In Mr. Babbage's collection exists also an imperfect specimen of a *Kochia*, which possibly unites *Kochia tomentosa* with *K. aphylla*, the latter being moreover known as a desert inhabitant of the environs of Lake Torrens. This specimen has a few leaves in long intervals, scattered along its branches, whilst the latter become in part spinescent. If those plants, as it would appear, should prove varieties of the same species, then the name applied by R. Brown to a certain leafless more glabrous and pungent state, and by myself to a tomentose form of it, can hardly be regarded tenable, and the appellation of the species might be altered to *Kochia Brownii*.

Babbagia.

Flowers hermaphrodite, without bracteoles. Calyx minute; its tube at last cartilaginous, circumscribed at the base, terminated by two, rarely three, horns of unequal length, each of which bearing at its extremity a vertical renate scarious wing. Anthers two-celled. Style short. Stigmas 2, capillary. Caryopsis depressed, lodged in the upper part of the calyx-tube. Pericarp membranous, distinct. Seeds horizontal, depressed with a membranous testa. Embryo peripheral, almost annular. Radicle centrifugal, adscendent. Albumen scanty, central, mealy.

In naming this genus I intended to establish a lasting scientific record of the services rendered to South Australia by B. Herschel Babbage, and likewise to express my veneration for the philosopher whose celebrated name the South Australian explorer inherits.

The genus *Babbagia* differs from *Kochia*, to which it approaches nearest, in the number and direction of the fruit-wings. The presence of the latter distinguishes it from *Kentropsis*.

Babbagia dipterocarpa.

Stuart's Creek, Elizabeth Creek, Weelpeeroona.

A perennial, probably shrubby plant, almost or entirely glabrous, sometimes with bearded axils of leaves and flowers. Leaves narrow or lanceolate semicylindrical, alternate, sessile, $1\frac{1}{2}$ – $2\frac{1}{2}$ " long. Flowers, axillary, solitary, crowded in terminal spikes. Calyx bearded at its vertex, the tube separating transversely from its almost orbicular or patellar base, and from its short somewhat conical axis, 1" long, glabrous, constricted and perfectly closed in the middle, concealing the caryopsis in its upper division. Base and axis of calyx persistent. One of the calyx horns very short or even obliterated, the other more elongated, about $\frac{1}{2}$ " long and including the radicle. Wing-like appendages vertically surrounding the calyx, of equal size unless the third one should be diminutive, glabrous, pale or pink, membranous, transparent, affixed in its sinus, not much longer than 1", with numerous radiating veins. Style somewhat woolly towards the stigmas. Testa glabrous, yellow-brown.

Halocnemum Australasicum, Moquin Chenop. enum. 110.

Common in saline localities.

Arthrocnemum Arbuscula, Moquin Chenop. enum. 113.

With the preceding one throughout Australia.

Salsola Australis, R. Brown pr. 411.

S. macrophylla, R. Br. l. c.

On saline principally sandy ground, at Emu Springs, &c.

SANTALACEÆ.

Exocarpus aphylla, R. Br. pr. 357.

Depot Creek; Stuart's Creek. Thence extending to the Murray and its desert tributaries.

Santalum Preissianum, Miq. in Lehm. pl. Preiss. I, p. 615.

The Quandang, Lake Gregory, &c.

Santalum persicarium, Ferd. Mueller Transact. Vict. Instit. I, p. 41; Fragm. Phytogr. Austr. I, 4, 86.

Lake Gregory, &c.

CONIFERÆ.

Frenela crassivalvis, Miquel. stirp. Nov. Holl.

p. 1

Eyre's Depot Creek. Beda.

The Murray Pine or Cypress.

LILIACEÆ.

Bulbine semibarbata, Haworth revis. 33.

Lake Gregory.

MELANTHACEÆ.

Anguillaria dioica, R. Br. pr. 273.

One of the most common plants of South Australia.

There occur also in the collection some incomplete specimens, which appear referable to *A. biglandulosa* and *A. monantha*. But unless more satisfactory marks of distinction between these species are discovered, we may safely regard them as playforms of *A. dioica*.

GRAMINEÆ.

Agrostis amula, R. Br. pr. 172.

A. Billardieri, R. Br. l. c.

Lake Gregory.

Aristida calycina, R. Br. pr. 173.

Elizabeth Creek.

Stipa crinita, Gaud. in Freye. Voy. 407.

Stuart's Creek, Elizabeth Creek, Wonnomulla.

Bromus arcasius, Labillardière.

Nov. Holl., plant. specim. I, 23.

Frequent in extratropical Australia.

Poa ramigera, Ferd. Mueller in Transact. Vict. Inst. I, 45.

Wonnomulla, Elizabeth Creek, Margaret Creek, Weeringelbunna.

The Bamboo Grass.

Poa Brownii, Kunth Gram. I, 112.

Wonnomulla, Stuart's Creek.

Poa diandra, R. Br. pr. 180.

Stuart's Creek.

Panicum decompositum, R. Br. pr. 191.

Elizabeth Creek.

Neurachne paradoxa, R. Br. in Sturt's Central Austr. II, app. 89.

Stony Plains near Stuart's Creek.

Phragmites communis, Trinius fundam. 134.

Margareth Creek.

Pappophorum commune, Ferd. Mueller's enumerat. of Gregory's plants from Cooper's Creek.

Stuart's Creek.

Anthistiria Australis, R. Brown prodr. 200.

An universal Australian plant.

Erianthus fulvus, Kunth Gram. I, 160.

Margareth Creek, Stuart's Creek.

Not further south observed than the Murray; common in tropical Australia.

Alopecurus geniculatus, Linné spec. plant. 89.

Stuart's Creek.

CYPERACEÆ.

Cyperus lucidus, R. Br. pr. 218.

Stuart's Creek.

Cyperus vaginatus, R. Br. pr. 213.

Stuart's Creek.

FILICES.

Nothochlæna vellea, R. Br. pr. 146.

Wonnomulla, Elizabeth Creek.

LICHENES.

Parmelia conspersa, Acharius Method. Lichen. 205.