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BOTANICAL NOTES IN QUEENSLAND.—No. III.

BY THE REV. J. E. TENISON-WOODS, VICE-PRESIDENT, &c.

In this paper I intend to give the result of my collections on the Mulgrave River, about which I believe no botanical notes have hitherto been published. I must premise that the river in question is broad and shallow, taking its rise in the Herberton Ranges, and issuing into the sea at a short distance south of Cape Palmer, or 20 miles south of Cape Grafton, in about Lat. 17:40 S. The river during the whole of its short course, runs through some of the most abrupt and precipitous mountain gorges in Australia. In no part does it ever flow through a broad alluvial valley, but the mountains rise abruptly from the waters, seldom leaving even a narrow terrace between their precipitous sides and the water. The consequence is that the stream is liable to extraordinary inundations. Flood marks are found 70 and 80 feet above the bed, and on these high watermarks enormous trees are stranded. In the more open places the sand and alluvial accumulations form considerable ridges. The formations of rock on the banks vary between granite, paleozoic slates and newer volcanic rock. These occasionally make falls and rapids in the stream. The steep banks are usually volcanic.

As a rule the banks are clothed with dense tropical forest, formed of lofty trees and a dense undergrowth of palms and ferns, amongst which are Calamis australis, Alpinia cœrulia, Pteris marginata, P. tremula, Aspidium confluens, Alsophila Leichhardtiana, and Blechnum cartalagineum. It will be observed that in this list but few of the forest trees are mentioned. The reason of this being, that I was making a hurried journey, and unless I was able to recognize the species at a distance, I had no opportunity or time to collect flowers or fruits for identification. The country is very little explored and the natives are extremely savage and fierce. But there are a few places where cedar getters have cut down some of the timber and the trees in falling have given a facility for gathering both flowers and fruits, which would otherwise be out of reach. It is remarkable, that on the banks of the Mulgrave, or rather on the slopes rising from the banks, there are many forests almost made up of pine-Araucaria Cunninghami, and though the Myrtacea are well represented the Eucalypts almost entirely disappear. In the following list the localities where the plants were gathered, were along the banks of the stream from Alley's crossing, on the road between Cairns and Herberton and the township of the Lower Mulgrave diggings, a distance of about 12 miles. The land is all alluvial and volcanic, until the township is reached, where the surface deposit of trap disappears and vertical paleozoic slates with quartz reef take its place. The vegetation is rich, and the forest in places almost unpenetrable.

Abroma fastuosa, R. Br. Abroma sp. Hibiscus manehot, Linn. H. sp. Thespizia populnea, Corr. Abutilon graveolens, Willd. A. muticum, R. Br. Urena lobata, Linn. Bombax malabaricum, DC. Turræa pubescens, Hellen. Ionidium suffruticosum, Ging. Cupania anacardioides, A. Rich. Alphitonia excelsa, Reissek. Geijera salicifolia, Schott. Hypericum gramineum, Forst. Pomaderris sp. Colubrina asiatica, Brongn. Stackhousia viminea, Sm. Acacia pachystachyia? A. binervata, DC. A. aulicocarpa, A. Cunn. Acacia, two sp.*

A. Solandri, Benth., or leptostachya. A. julifera, Benth. Albizzia sp. Pithecolobium pruinosum, Benth. Flemingea lineata, Roxb. Vigna lutea, Gray. Cæsalpinia nuga, Ait. Derris uliginosa, Benth. Crotalaria striata, DeC. Drosera indica, Linn. Eucalyptus tereticornis, Sm. E. corymbosa? Eucalyptus, three sp. Loranthus dictyophlebus, F.v.M. L. longiflorus, Desv. Randia densiflora, Benth. Dentella repens, Forst. Ludwidgia parviflora, Roxb. Melothria Cunninghami, F.v.M. Melaleuca leucodendron Linn. M. genistifolia?

^{*}In this and similar cases where the specific name is not given, the flowers or seeds, or both were not to be obtained, and the other characters were such as could not be referred to any known species.

Helichrysum sp. Conyza ægyptiaca, Ait. Pterocaulon (Monenteles) spacelatus, Labil. Polymeria ambigua, R. Br. Ipomea sp. Bucknera urticifolia, R. Br. Jasminum æmulum, R. Br. Tournfortia sarmentosa, Lam. Notolæa sp. Goodenia grandiflora.

Leptospermum flavescens, Sm.

Leucopogon sp. This occurred on open granite flats above the banks of the river. The Epacrideæ are very poorly represented in this part of Australia, and none are found except on poor open sandy soil.

Melichrus rotatus, R. Br., on soil derived from granite only Tabernamontana pubescens, R. B.

Hoya australis, R. Br. In the crevices of granite rocks, far from river scrubs.

Justicia procumbens, Linn. Mitrasacme polymorpha, R. Br. Solanum nemophilum, F.v.M. Solanum, two sp. Decringia altissima, F.v.M. Grevillea chrysodendron, R. Br. G. gibbosa, Br. G. sp.

Buckinghamia sp.? Plectranthus parviflorus, Willd. Anisomeles salvifolia, R. Br. Pisonia aculeata, Linn. Amaranthus sp. Bolbophyllum Prenticei, F.v.M. Poranthera microphylla, Brongn Caladenia carnea, R. Br. Dendrobium speciosum, variety fusiforme, F.v.M. D. undulatum, R. Br. Oberonia palmicola, F.v.M. Diuris maculata, Sm.

Petalostiqma quadriloculare, F.v.M.

Macaranga tanarius, Muell. Arg. Euphorbia eremophila, A. Cunn. E. Macqillivrayi, Boiss. Vallisneria spiralis, Linn. Colocasia antiquorum, Schott.

Pandanus aquaticus, F.v.M. P. pedunculata, Br.

Potamogeton tenuicaulis, F.v.M.

Rhaphidophora quinata, Schott. Very abundant with simple and pinnate leaves, in all the dense jungle, where it climbs the stems of the highest trees by stems two inches in diameter and throwing out leaves one and two feet long. It is called here the "Climbing Fern."

Pothos Loureiri, Hook. This is also a very abundant climber on the stems of all the high trees, but not so conspicuous as the last named, as the leaves seldom exceed four inches in diameter and the stem is seldom over half an inch in diameter. It is however a very graceful plant, extends through all the forests up to 3,000 feet above the sea. Dianella lævis, R. Br. Eurycles Amboinensis, Loudon. Eustrephus angustifolius, R. Br. Flagellaria indica, Linn. Cordyline terminalis, Kun. Dracana angustifolia, Roxb. Commelyna cyanca, R. Br. C. ensifolia, R. Br. Pollia macrophylla. Bur. Tricoryne anceps, R. Br. Hæmodorum coccineum, R. Br. Lepturus repens, R. Br. Ischæmum triticeum, R. Br. Selaria glauca, Beauv. Eriochloa punctata, Hamilt. Anthistiria ciliata, Linn. Andropogon sericeus, R. Br. Xerotes longifolia, R. Br. Phragmitis communis, Kin. Cyperus exaltatus, Retz.

FILICES.

L. lanuginosa, Wall. L. flabellulata, Dry. Angiopteris evecta, Hoffm. Grammatis Muelleri, Hook. Adiantum hispidulum, Sw. A. athiopicum, Linn. Davallia elegans, Sw. D. speluncæ, Baker. Aspidium confluens, Metten. A. molle, Sw. A. unitum, Sw. A. ramosum, Blume. Pteris quadriaurita, Retz. P. ensiformis, Burm. P. marginata, Bory. P. tremula, R. Br. P. aquilina, v. esculenta, Forst. Schizæa dichotoma, Sw. Hymenophyllum javanicum, Sp. Cheilanthes tenuifolia, Sw. C. nudiuscula, R. Br. Gleichenia dichotoma, Hook. G. flabellata, Br. Lugodium japonicum, Sw. L. scandens, Sw. Hypolopis tenuifolia, Benth. Acrostichum aureum, Linn. A. scandens, Sm. A. repandum, Bl. Trichomanes pyvidifera, Linn. Doodia caudata, Cor. Polypodium rigidulum, Sw. P. quercifolium, Linn. Marattia fraxinea, Sm. Lindsæa ensifolia v. heterophylla,

Asplenium? sylvaticum, Prest.

Asplenium simplicifrons, F.v.M.

A. Rebeccæ, F. Muell.

LYCOPODIACEÆ.

Selaginella flabellata, Spring.

Alsophila Leichhardtiana, F.v.M. S. concinna, Spring.

Lycopodium phlegmaria, Linn.