

BOTANICAL NOTES.

BY L. RODWAY.

In his great work, "Flora Tasmaniae," Hooker describes and figures *Pilitis milligani*. Unfortunately, his specimens were devoid of corolla, except the persistent bases, and in order to make the plate complete, corollas were provided from imagination. Unfortunately, imagination was in error, for, unlike its immediate relatives, *Pilitis milligani* has a fairly persistent corolla with conspicuous lobes. In those days it was the custom to separate the small group of plants to which this belongs into three genera:—*Richea*, with deciduous bracts and hypogynous scales; *Pilitis*, with persistent bracts and hypogynous scales; and *Cystanthe*, with persistent bracts and no hypogynous scales. All forms possessed a peculiar feature, the corolla lobes were minute, and the essential organs were exposed by a circumciss of the corolla near the base, and its falling off immediately on maturity. Both Mueller and Bentham considered it desirable to reduce these genera to one. They are all referable now to the genus *Richea*.

Last December I had the opportunity of examining *R. milligani* in quantity, and in all stages of inflorescence, and found this condition of the corolla considerably modified. The corolla is tubular, and about 1.5 c.m. long, the lobes about 2 m.m. and free. The long stamens and style pass through, and usually split the corolla down on one side. The flower appears pronouncedly protandrous, and the corolla fades, and turns brown with the stamens, usually remaining as a cast-off or persistent brown sheath round the faded stamens or style. In a few instances the corolla appears to drop early, but even then it is first split on one side, and not carried off as a calyptra.

I sent specimens to Kew, with the suggestion that the old name *Pilitis* should be revived, but it did not meet with their approval. This partial persistence of the corolla is most interesting, demonstrating the connecting line between *Richea* and *Dracophyllum*.

Eucalyptus acervula, Sieb.—Unfortunately, in the course of his well-intentioned efforts to elucidate the complex mass of organisms included in the genus *Eucalyptus*, our late Master, Baron von Mueller, was not always free from adding to the confusion. This species I wish to allude to was one of the unfortunates. Originally described by Sieber, it was included by Hooker in his *Flora*, where *E. gunnii* was also figured and described. *E. acervula* is a very common Tasmanian gum, and though in some respects nearly related to *E. gunnii*, is consistently distinct. Its habit and bark, its thinner undulate leaves, and numerous flowers, its peculiar turbinate fruit, with protruding valves, make it very distinct, yet Mueller not only combines it in his *Eucalyptographia* with *E. gunnii*, but rejects the type established by Hooker of that species, and replaces it with a plate of the typical *E. acervula*, Sieb. In spite of my respect for his genius, I do not see how this can be maintained. There is one other source of confusion here. Mueller, in Bentham's "*Flora Australiensis*," describes *E. acervula*, Sieb., under the name *E. stuartiana*. He describes and figures in his *Eucalyptographia* a form closely allied to the many flowered forms of *E. viminalis*, Lab., under this name taking exception to his own description in the *Flora*, and all this in spite of the fact that the name *E. stuartiana* had long previously been appropriated for a form of *E. gunnii*, H., by Miguel.

There is one interesting feature about *E. acervula*, Sieb., worth recording—it develops an outer operculum to its flowers, that is shed at an early stage. I believe *E. globulus*, Lab., is the only other species in which this member has been observed.

Eucalyptus vernicosa H.—This interesting eucalypt on Mount La Perouse attains a height of 20ft. The leaves are all opposite, and the flowers solitary in the axils. These features I found constant for the whole country, from the Hartz through Adamson to Perouse, a distance of about 30 miles.

On the West Coast the smaller forms retain the opposite leaves, but the flowers are three together on short ped-

uncles. On Mount Geikie, the taller plants bear larger alternate leaves, but with similar flowers. Here occurs also a small form of *E. muelleri*, T. B. Moore, only 15-20ft. high, which, though very similar in general appearance to *E. vernicosa*, still maintains its distinctness in its crenulated leaves with less oblique venation and flattened operculum. I would record also that during my trip throughout the Perouse I searched diligently for a plant answering to the description of *Diplarrhena latifolia*, B., and though, according to Oldfield and Stuart, it occurs from one-third to the summit of La Perouse, I found nothing of it. *Diplarrhena moræa*, Lab., throughout the whole district, as well as on some other Southern mountains is exceptionally luxuriant, the leaves are broad and the flowers large, and I have little doubt that this robust form is responsible for the name.

On the hills adjoining La Perouse the rare *Ranunculus gunnianus*, H. occurs. Here the flowers are all yellow.

Hibbertia hirsuta B., which chooses for its habitat pastures in open situations, our Domain being a favourite locality, indulges in the interesting habit of producing cleistogamic flowers. In the spring, a copious supply of buds are formed. The calyx does not spread, the petals remain minute, and cover in the stamens; pollen is shed, and self-fertilisation takes place, the bud only bursting with the growth of the fruit. It is easy to understand the advantage this is to the plant. The flowering that takes place in the warmer months is liable, owing to the dry locality the plant lives in, to be seriously interfered with. The spring flowers, on the other hand, are too early to gain the attention from insects necessary for cross-fertilisation. The difficulty is got over in the above manner.