

FLOWERS OF WESTERN AUSTRALIA.

No. XXI.—“Byblis.”

(*Byblis gigantea*, Lindley.)

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This month I have selected a flower which will not be known to the majority of inland readers, for it is only found in areas near to the coast, where in places it is quite common. *Byblis* is a plant which inhabits sandy areas close to swamps, or sandy-gravelly soils where winter and spring seepages occur. It is found as far south as Pinjarra, and as far north as the Murchison River; but is perhaps most plentiful around Mogumber, Cannington and Watheroo. When not in flower it is a type of plant which one might mistake for a grass affected with some disease; but when in flower it decorates the places wherein it occurs with its delicate violet blossoms which, in some places, are larger than florins. I have seen, in the hills at Mogumber, flowers twice as large as the specimen illustrated in Fig. C. They cover areas of ground with shades ranging from rose-purple to brilliant violet, presenting a most charming contrast to the “dew-sprinkled” reddish leaves and stems of the plants. To see them in all their glory one has to rise early, when the flowers are opening to the day, for it is then that rainbow hues are refracted from the tiny dewdrops on the hairs of the stems and leaves. The plant is one which should be better known and seen more frequently in cultivation, because few of our flowers possess such delightful lustre.

Byblis belongs to a family which contains this genus, and one from South Africa (*Roridula*). It bears some relationship to the Sundews, but in structure is more closely related to the *Pittosporum* family. There are only two species—one which occurs in Kimberley and the

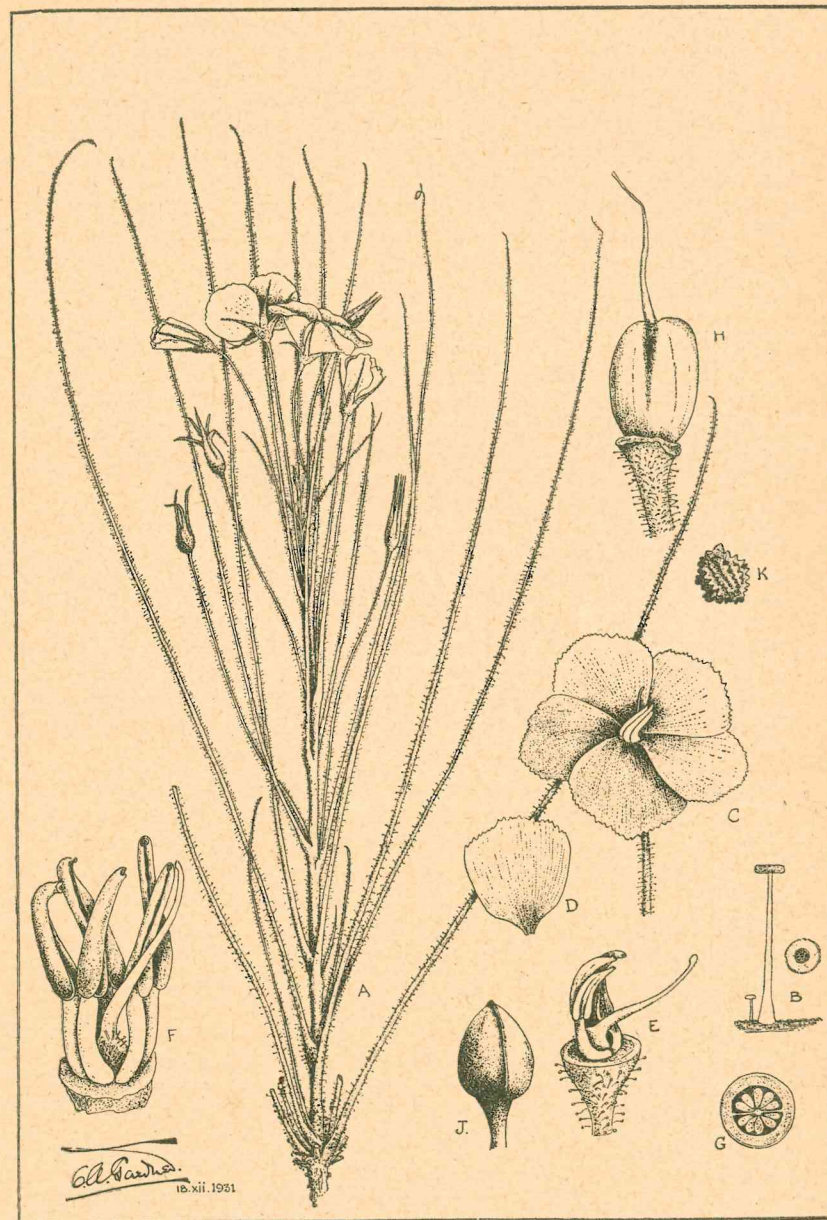
Northern Territory, and our own local species confined to the South-West. The northern plant is found growing in swamps and pools, and is a trailing plant with very much smaller flowers than the southern type. *Byblis gigantea*, on the other hand, is a stiff, erect plant with a long and vigorous tap-root, so deeply anchored in the soil that it can withstand dry soils throughout the summer. Towards the end of the dry weather, however, it loses much of its rigidity. The uppermost parts then die back, and such leaves as do survive assume a vertical position, and the plant becomes grass-like in appearance. The flowers fall off and the seeds are liberated long before the end of January, leaving the dejected plants to languish through the late summer months. They do not make a quick response to improved weather conditions, but awaken late in the winter. Then they frequently indulge in an orgy of flowering, which continues until the end of December, when, after the last seeds have fallen, the period of uneasy rest again sets in.

If we look at the plant more closely we shall see first of all that it is a herb with erect stems and more or less erect leaves covered with fine pin-like glandular hairs. These hairs may serve a purpose, since they are much the same in structure as those which characterize the insectivorous Sundews. The leaves are long and narrow, and much the same as the stems, but are widened at the base, and narrowed at the extremities into hair-like points. They are never green in colour, but vary from a reddish tint to yellow-green. As they develop it will be noticed that they are curled inwards, but later on straighten themselves. The flower-stalks (peduncles) are long and slender, and arise from the axils of the leaves. Each bear one flower only, and this varies considerably in size. Generally the largest flowers are seen on the largest plants, and plants in the wetter localities bear the largest flowers. There are five long-pointed glandular sepals, and five jagged petals which, in the bud stage, are contorted. The stamens are unusual in that they are slightly unequal and curved to one side of the pistil. Figure E shows their true arrangement, but only three are visible. They had to be disarranged in the preparation of Fig. F. The large yellow anthers might at first glance appear to open in the normal manner (*i.e.*, longitudinally for the whole length), but on close examination it will be seen that they shed their pollen by two minute holes at the tip. This is exhibited in Fig. F. Some of the filaments are usually joined to the petals at the base. The superior ovary is two-celled, and has a bent style which curves in an opposite direction to that of the stamens. The ovary itself is two-celled with numerous ovules attached to the axis. It is covered externally with minute glandular hairs, but the style is devoid of these. The terminal stigma is slightly oblique.

The fruit is a capsule which is more or less heart-shaped with the point uppermost. It opens by means of two valves which open at right angles to the partition of the ovary, liberating the black, rough, and minute seeds.

The flowering season embraces the actively growing season of the plant, *i.e.*, it extends from July to December. The delicate flowers appear to last for one day only, opening in the morning sun, and withering in the heat of the afternoon. The petals are of extremely thin texture, quite devoid of hairs, and longitudinally veined; they vary in colour from a rose-purple to deep violet (never blue), and make a fine contrast with the bright yellow anthers and white filaments and style.

The accompanying plate gives other details. Note the curious disc-like form of the glands, which resemble elongated mushrooms. One is shown in plan alongside the enlarged hair.



Byblis. (*Byblis gigantea*, Lindley.)

A Habit (half natural size). B Glandular hair from leaf (magnified 45 times). C Flower (natural size). D Petal (natural size). E Stamens and pistil (3 times natural size). F The same (five times natural size). G Section of ovary (5 times natural size). H Immature fruit (4 times natural size). J Capsule (nearly 4 times natural size). K Seed (12 times natural size). Cannington, W.A., 16th December, 1931. *Icon. Origin.*