

SOME NEW SPECIES OF *EUPHORBIA* FROM SOUTH AFRICA.

By R. MARLOTH, Ph.D., M.A., F.R.S.S.Afr.

Having recently visited the coast districts of Great Namaqualand, I found, that in the desert-belt, which extends about 50 to 60 km. inland, and which bears no trace of vegetation for miles, several shrubby species of *Euphorbia* form the most prominent features of the scanty vegetation, as it exists on the slopes of the hills of the region. On endeavouring to identify these plants I ascertained that three of them were undescribed. I take this opportunity of publishing a few other species, which I have had in cultivation for a number of years. The difficulty of identification is much increased by the incompleteness of the specimens, as they exist in European herbaria, and the defective descriptions based upon these specimens.

Two other species were found in the rocky belt near the coast, viz.: *E. brachiata* E. Mey and *E. stapelioides* Boiss. The former, a dichotomously branched, leafless shrub, generally about a foot high, is fairly common, often the only plant visible; the other one, a small succulent plant growing between rocks, is much rarer.

Euphorbia pulvinata spec. nov. (Sect. *Diacanthium*).

Caulis subterraneus, brevissimus, apice ampliatus, ramis brevibus simplicibus in pulvino depresso aggregatis, verticaliter 7-costatis, profunde inter costas sulcatis, pedunculis sterilibus longis spinæformibus pungentibus. Folia linearia decidua. Cyathia in apice ramorum sessilia aggregata. Involucrum 2-3 foliolis ovatis ciliatis suffultum, longe-campanulatum, lobis brevissimis retusis denticulatis, glandulis rubris erectis hemisphæricis margine repandis.

The plant spreads laterally by producing numerous branches of equal length, thus forming a slightly convex cushion-shaped mass, up to 50 cm. in diam. The length of the branches is 3-6 cm., their diam. (with ribs) 3-4 cm.; the number of ribs is mostly 7, sometimes 6 or 8, their edge is slightly crenate, their height and width 7-9 mm., the length of the spines 10-15 mm., the diam. of the cyathium, which is dark red, 4 mm.; leaves 5-10 mm.

Growing in rocky ground near Queenstown, flowering in Nov., Marloth No. 4372, also gathered by Mr. E. Galpin and Mr. E. Phillips. (See Fig. 1.)

E. gummifera Boissier (amended description).

Fruticosa, ramosa, tota minute albo-tuberculata, ramis rigidis erectis, ramulorum lateralium brevissimorum decurrentia subangulatis. Folia? Cyathia sessilia, glomerata, foliolo ovato-acuminato tomentoso suffulta; involucrem campanulatum hirsutum, lobis ovatis acutis integris, extus hirsutis, glandulis patentibus, transverse ovalibus.

A rounded shrub, similar in shape to *E. mauritanica* as growing in the karroo, but with ribbed, woody branches and a hard, whitish, finely tuberculated epidermis, which evidently forms an excellent protection against the drifting sand and grit of the desert plains and hills on which the plant thrives in spite of the sandstorms. The cyathia are crowded together on short lateral spurs of the branches, the bracts and involucres being thickly hirsute or tomentose. The shrubs are nearly egg-shaped or somewhat stouter at their base, 1-2 m. high; the final branches 6-8 mm. thick; the cyathia 3 mm. in diam.

On sandy plains and slopes of the desert Namib near Tschaukaib at an alt. of 800 m. and a distance from the coast of Angra Pequena of 60 km. Marloth No. 4636.

This is the first socially growing plant, which one meets in coming from the coast.

Boissier states (DC. prodr. vol. xv., 2. p. 97) that the plant resembles *E. cervicornis*, but this opinion is based on fragmentary herbarium specimens, as the two species are very different in habit. *E. cervicornis* is a much smaller plant with stout succulent branches and large leaves. It is eagerly eaten by goats and sheep, while *E. gummifera* is not only too woody to serve as food for the animals, but possesses a nauseous and irritating smell.

E. lignosa spec. nov. (Sect. *Lyciopsis*).

Frutex ramosissimus, compactus, 1-2 pedalis, ramulis crassis rigidis acutis subviridibus. Cyathia terminalia solitaria vel terna; involucrem campanulatum lobis brevissimis retusis subdenticulatis, glandulis infundibuliformibus, sub-bilabiatis, labio exteriori 3-4 palmatifido. Capsula globosa punctata pilosa, 4 mm. diam.

A much-branched very rigid shrub with sharp-pointed branches, forming a nearly hemispherical compact mass up to 1 m. in diam. Leaves, on young shoots only, linear-oblong, 10-15 mm. Flowers probably in winter, as only a few old flowers could be found in November. The species does not readily fit into any of the sections

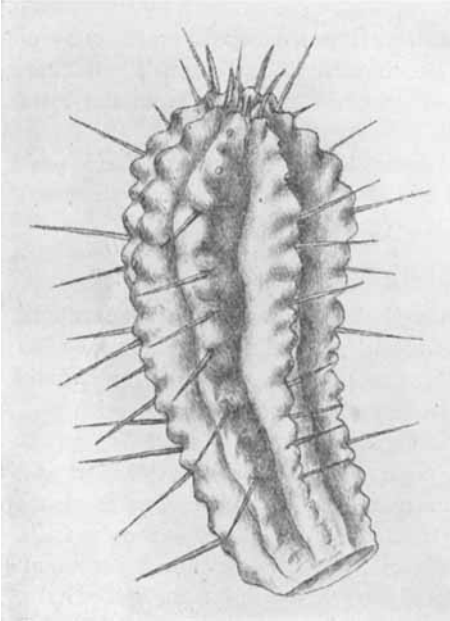


Fig. 1.—*EUPHORBIA PULVINATA*.
A single branch, *nat. size*.

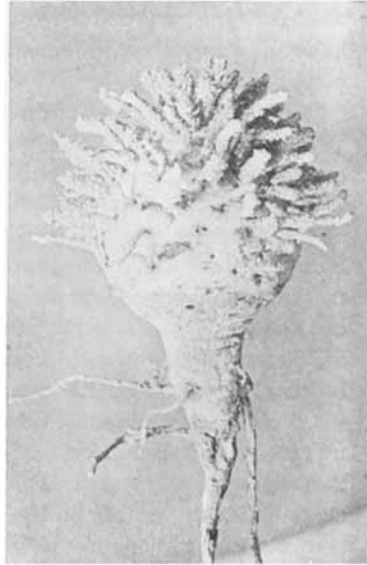


Fig. 3.—*E. NAMIBENSIS*.
A young plant, reduced to $\frac{1}{8}$.

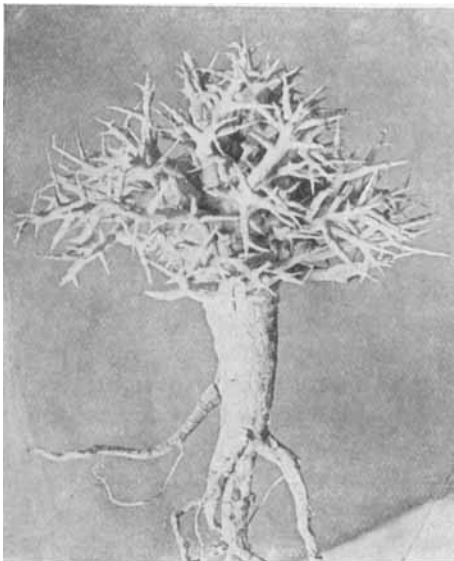


Fig. 2.—*E. LIGNOSA*.
A medium-sized plant, reduced to $\frac{1}{6}$.



Fig. 4.—*CRASSIPES*.
The flowering top of a branch, *nat. size*,
with gland and perianth segment.

established by Boissier. It is placed here into *Lyciopsis* on account of its habit, but, as pointed out by Bentham in the *Genera Plantarum*, habit does not always coincide with the characters taken from the form of the glands.

On stony ground or rocks in the desert of Great Namaqualand, near Tschaukaib, at an alt. of 900 m. and a distance of 60 km. from the coast of Angra Pequena. Marloth No. 4637. (See Fig. 2.)

E. namibensis spec. nov. (Sect. Medusea).

Caulis crassus globosus vel breve-cylindricus; rami breves succulenti podariis elongatis conicis, foliis linearibus deciduis. Involucra sessilia campanulata basi bifoliolata, lobis brevissimis obtusis ciliatis, glandulis bilabiatis; labio superiori brevi mutico vel subemarginato, inferiori in 3-4 lacinias subulatas partito; stylis haud divisis.

The stem is whitish, club-shaped, nearly globose or somewhat elongate, up to 15 cm. in diam. and 15-20 cm. high. The cylindrical branches are 2-4 cm. long and 1 cm. in diam.; the leaves, which appear only for a short time after rain, are 10-15 mm. long; diam. of cyathium, 8-10 mm.

Growing in the stony plains of the desert "Namib," near Tschaukaib, at an altitude of 800 m. and a distance of 50 km. from the coast of Angra Pequena. Marloth No. 4635. (See Fig. 3.)

This is the plant figured in Schultze* as *E. Marlothii* Pax, and although the name is given on the authority of Prof. Pax, it is obviously an error. *Euphorbia Marlothii* belongs to another section, being very different in appearance and systematic characters. A fairly good figure of the true *E. Marlothii* is given by Berger in "Sukkulente Euphorbien," p. 117.

E. crassipes spec. nov. (Sect. Dactylanthes).

Caulis brevis globoso-cylindricus, ramis crassis numerosis brevibus cylindricis. Cyathia in apicibus ramorum stipitata, basin 3-5 foliolis spathulatis ciliatis suffulta. Involucrum campanulatum lobis ovatis lacerato-ciliatis, glandulis patentibus, concavo-bilabiatis, labio superiori brevi, emarginato, labio inferiori breviter 3-4 dentato. Pedunculi deflorati persistentes inermes. Styli inferne coaliti apice sub-bilobi.

The stem is 10-15 cm. thick and high, flattened at the apex, and bearing numerous short fleshy branches, the lower ones gradually shrivelling up and exposing the bare stem. Sometimes the stem remains quite short and buried in the ground, the branches forming a rosette 15-20 cm. in diam. Length of branches 4-6 cm., their diam. 10-15 mm.; length of persistent peduncles (floriferous branchlets) 15-20 mm., they are woody but not sharp pointed. Diam. of cyathium 4 mm., without the teeth of the glands, fig. 4.

* Schultze, L., Aus Namaland und Kalahari, Jena 1907, p. 88.

Growing in stony ground of the karroo, near Prince Albert and Beaufort West. Marloth No. 4397.

This is nearly allied to *E. anacantha* Boissier, but easily distinguished by the persistent stalks of the inflorescences.

E. esculenta Marloth (Sect. *Pseudomedusea* Berger).

(See figure in : Marloth, *Das Kapland* Jena, 1908, p. 247.)

Planta succulenta, habitu *E. Caput Medusæ*, sed cyathiis differens. Involucrum campanulatum lobis brevibus conniventibus, valde albo-fimbriatis ; glandulis minimis calliformibus brunneis verticaliter adpressis.

The stem is obconical or club-shaped, buried in the ground, flat at the apex, 10–20 cm. in diam., bearing numerous thick branches arranged in a rosette of half a meter in diam., each branch being from 5–15 cm. long and 15–20 mm. thick. The flowers are aggregated at the ends of the branches, white, sweet-scented like violets.

Klipplaat in the Eastern karroo, flowering in spring. Marloth No. 4162.

This plant is very common in the karroo of Graaff Reinet, Aberdeen, and Jansenville, and forms a very nutritious food for the stock in times of drought. Formerly it was also occasionally roasted in the ashes for human use. Owing to its resemblance to *E. Caput Medusæ*, it has been often quoted under this name. The latter, however, is not edible, and possesses flowers of quite a different structure.