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CONDUCTED BY

PRIDEAUX JOHN SELBY, Esq., F.L.S.,
CHARLES C. BABINGTON, Esq., M.A., F.R.S., F.L.S., F.G.S.,
JOHN EDWARD GRAY, Ph.D., F.R.S., F.L.S., V.P.Z.S. &c.,

AND

WILLIAM FRANCIS, Ph.D., F.L.S.



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XXIII.—*Some Account of the "Chaparro" of Fuerteventura, a new Species of Convolvulus.* By the Rev. R. T. LOWE, M.A.

DURING a few days' visit to Fuerteventura, with Mr. Wollaston, in our friend Mr. Gray's yacht the 'Miranda,' in January 1858, I received accounts of the existence in the island of a small shrubby spinous plant, called "Chaparro," the wood or root of which, like that of the "Leña Noel*" (*Convolvulus scoparius*, L. fil.) of Grand Canary, was reported to possess a fragrance rendering it an object of supposed commercial interest. The plant was said to grow chiefly, or perhaps solely, towards the south of the island, on the desolate and desert promontory of Jandia; and it was stated to have been occasionally collected and exported into France and Spain on account of its alleged perfume.

At the moment, I had unfortunately no opportunity of verifying this information on the spot by a visit to Jandia. But specimens of *Asparagus pastorianus*, Webb, collected in the neighbourhood of Agoa Bueyes and of Rio Palmas, were hastily affirmed by some of my informants to be the plant in question, though possessing evidently none of the properties, beyond the spinous shrubby habit, which had been ascribed to it.

Revisiting Fuerteventura in March 1859, with my friend Mr. Wollaston, I reapplied myself, during a few days' stay at Betancuria, to a more satisfactory solution of this problem. At that place I learned not only that the "Chaparro" was certainly not the above-named *Asparagus*, but that it was to be found within the distance of six or eight hours' ride in a southerly direction, at a place called the Plaga Biocho, along the west coast of the island, towards the neck or origin of the great promontory of Jandia.

* A corruption, doubtless, of *Lignum aloes*, the "lign aloes" of Scripture (Num. xxiv. 6, &c.), which is, however, the produce of quite a different plant, viz. *Aloexylon Agallochum*, Lour.

Furnished by the kind and princely hospitality of Don Pedro Manrique de Lara y Cabrera with horses, guides, provisions, and every appliance for the expedition, I set out from Betancuria at 8 A.M. on the 6th of April, 1859; and after a long and weary ride of eighteen or twenty miles parallel with the coast, in a south-westerly direction from Rio Palmas, across an apparently endless succession of arid, stony, pathless wastes and dry Barrancos, attained at last the object of my search. We had just crossed, a little way above its mouth, the bed of a dry Barranco, called the Barranco Gastey, two or three leagues beyond a place called Mésque; and weary and despairing of success, as we were now, at 2 P.M., entering upon another seemingly interminable, hot, barren, sandy waste, sloping westward down to the sea, without apparent trace of either animal or vegetable life, I was about to give the order to turn our horses' heads homewards, when all at once one of my guides exclaimed, "Mira, Señor, el Chaparro!" ("Look, sir, the Chaparro!"). On horseback I could perceive nothing but the usual loose grey stones that lie scattered everywhere on these sun-burnt, ever parched-up, dull, and dreary wastes; but jumping off, I found that some at least of what appeared such were really plants, and presently the discovery of flowering examples completed my surprise and satisfaction. Much of what had appeared so like round-headed stones covered with grey lichen, that on horseback it was scarcely possible to discern the difference, proved at once to be a plant, the object of my search, and a *Convolvulus*.

Although the day was so far spent, and we had at least some twenty miles to retrace our steps, I remained more than half an hour examining the locality and taking descriptive notes from the plants *in situ*. They were pretty thickly scattered on the spot, but did not extend far, occupying a space of perhaps half a mile in breadth, and ending as abruptly as they had begun. Whilst I was thus exploring their characters and the limits of their place of growth, my guides were occupied in rooting up a few plants for specimens,—a work of no small difficulty, owing to the excessive toughness and hardness of their stems and roots, though, warned of this peculiarity beforehand, we had brought a sort of pick-axe for the purpose.

I rode on about a mile further, crossing another dry Barranco, remarkable for being lined on each side near the sea with fine tamarisk trees or bushes—the only green thing that I had seen for miles. On the sloping plain beyond this ravine, called the Plaga Biocho, I found a still larger patch of finer Chaparros. This spot could not be more than two or three leagues in a north or north-west direction from Chilegua, and near the origin or neck of the Jandia promontory.

The flowers at once proclaimed the plant to be a true *Convolvulus*, alien otherwise in aspect as it is entirely from the majority of species of the genus. It belongs, however, to a remarkable group of species similar in habit and locality (*C. spinosus*, Desh., *hystrix*, Vahl, *Forskahlii*, Del., *sericeus*, Burm. &c.), found only in the desert plains or wastes of Syria, Persia, and Arabia. It is therefore a matter of considerable interest to find a representative of so peculiar a group in the Canaries, where it is, however, in some degree linked on to the more ordinary twining shrubby forms by the intervention of the scarcely less anomalous *C. scoparius*, L. fil.

I could not discover in the plant itself, either on the spot or subsequently, any confirmation of the notion of its being available as a perfume. Both root and wood, leaves and flowers, were equally devoid of fragrance fresh or dry; nor was there any trace of resin, or essential oil, or glandular exudation perceptible in any part of the plant.

My attention was directed, however, by my guides to its property of catching fire instantly, and burning readily, whilst green, or even growing,—which would seem to indicate the existence of some inflammable essential oil or principle. This property I verified upon the spot; and it seemed to be the only character which gave it any value in the estimation of the few country people in the neighbourhood who were at all acquainted with the plant.

Convolvulus caput-Medusæ.

C. dumosus humilis nanus pulvinato-cæspitosus ramosissimus durissimus spinosus cinereus; ramulis abbreviatis lignosis densissime glomerato-intertextis, novellis strictis rigidis acutis spinescentibus; foliis parvis lineari-oblongis v. anguste spatulatis obtusis crassiusculis sericeo-cinereis; floribus axillaribus solitariis breviter pedicellatis parvis extus sericeis, antheris (purpureo-lilacinis) in fauce apparentibus subexsertis; stylis 2 distinctis filiformibus antheras paulo excedentibus.

Hab. in sterilibus arenosis saxosisque aridis apricis regionis submaritimæ oræ occidentalis Insulæ Fuerteventuræ, Promontorium Jandiæ versus, ad alt. 200–500 fere ped.—Florentem die 6^{to} Aprilis 1859 inveni.

A most remarkable and (for its genus) paradoxical species, so excessively dwarfed down and stunted that it has more the appearance, when growing, of a rounded convex stone, covered with a grey Lichen, or of some Madreporiform mass, such as the Brain-coral (*Meandrina*, Lamk.), than of a phænogamous plant; though, when torn up by the root, it presents rather the form and aspect of some enormous grey fungus (*Boletus*), being a stipitate, pulvinate, often hemispherical or turbinated, hard, woody, spinous mass of densely interwoven, rigid branches,

with quite small and inconspicuous leaves and flowers in proportion to its size, like some closely-browsed or clipped-down thorny bush, and of the shape exactly of a miniature Stone-Pine (*Pinus Pinea*, L.). Root woody, very hard and stiff, nearly or quite simple and tap-shaped, covered with a rugged, longitudinally-striated, brown bark, and from the thickness of the little finger to that of the thumb at the crown, where it immediately divides into a dense mass of very short, stiff, woody, closely interlacing and entangled branches, forming a very hard, rigid, spinous, cushion-like, grey, flattened head, convex in the centre, from 3 or 4 to 18 inches in diameter, and from 1 to 6 inches thick in the middle; so hard, compact, and woody, that it will often bear the weight of a man standing or even stamping on it, without yielding or sensible disfigurement. Young shoots originating chiefly from within or beneath the roof-like cushion or *pileus* formed by the older, outwardly-knobbed, spurred and stunted, interlacing branches; straight, hard, stiff, rigid, spine-like, seldom more than 1 or 2 inches long, round, terete, sharp, and hard-pointed, finely and evenly striate longitudinally, very finely and minutely cinereo-puberulous. Leaves 2 to 5 or 6 lines long, and $\frac{1}{2}$ –1 line broad, thickish in substance, subconduplicate, clothed with adpressed silky-grey hairs, linear-oblong, subspathulate, obtuse. Flowers pretty, but small and rather inconspicuous, solitary, axillary, subsessile in the axils of the leaves on the young shoots, light rose-pink or purple, much resembling those of *C. arvensis*, L., but very much smaller, being only 4 or 5 lines in diameter. Calyx bracteolate; sepals and the adpressed bractlets oblong, short, one-third or one-fourth the length of the corolla, silky grey. Corolla 5 or 6 lines in diameter, three or four times the length of the bracts and sepals, funnel-shaped, 5-angular, and outwardly silky-pubescent in five longitudinal rays or narrow acuminate stripes.

The flowers continued to expand successively for several weeks after the plants had been deposited in a basket kept in a dry place,—deriving probably, whilst growing in those arid wastes, their chief supply of moisture from the air, and depending only secondarily upon the soil. Indeed, at this moment, though more than a year and a half has elapsed since they were rooted up, they look very much the same as when actually growing.

I was informed by a Spanish gentleman in the house of my kind and hospitable friend Don Ramon Paez, at Puerto de Cabras, in Fuerteventura, that in Spain the name “Chaparro” designates some species of dwarf shrubby oak.

Specimens of entire plants of *Convolvulus caput-Medusæ* have been placed in the Banksian and Hookerian herbaria.

Lea Rectory, Aug. 6, 1860.