

CNTD

Croizat, 1 - 1943
BOTANY DEPT.
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That Lewin could find material of *E. micromeris* in a parcel of dried "buttons" of *Lophophora* is not surprising. Under its vernacular name of Mulato, *E. micromeris* is well known for narcotic properties similar, if not identical to those of *L. Williamsii*. Writing of the Mulato, Ochoterena (Cact. Mexico 106. 1922; repeated by Bravo, Cact. Mexico 382. 1937) states: "Se cree que sirve para agrandar los ojos y poder ver a los hechiceros; para prolongar la vida, y dar velocidad a los que toman parte en las carreras." A native collector of *Jiculi* or *Peyote* aware of the properties of *E. micromeris* would gather this cactus as a matter of course. Hastily dug out, and dumped into a bag containing material of *Lophophora*, a "button" of *E. micromeris* might easily acquire the seed and the fruit credited to it by Hennings. Mistakes of the kind are by no means unknown in the history of classification. Classic is Pomet's error (Hist. Gén. Drogues 1:268 fig. 1694; Traité Gén. Drogues 1:268 fig. 1695) in compounding a figure of "Euphorbium" shaped like a plant of *Agave* by putting together dried, flattened out stems of *Euphorbia resinifera* Berg, and some graminaceous or liliaceous scape. The whole had reached Pomet's hands from the bottom of bags containing "Gum Euphorbium."

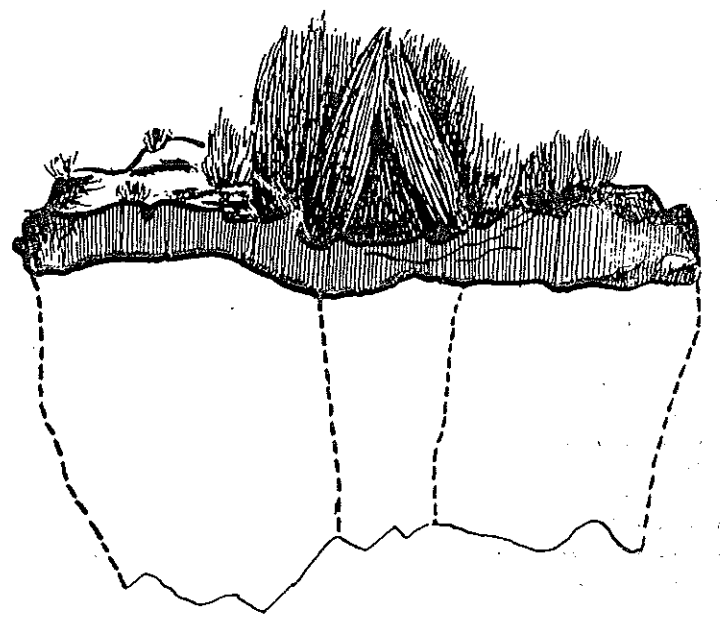


FIG. 2

MUSCAL BUTTON (*Lophophora Williamsii*)

(Redrawn by L. Croizat from the original Fig. 2 of Rusby, in Drugg. Bull. 2:194. 1888)

This is the early misapplication of the name *A. Lewinii*. Compare this figure with the classic illustration of *A. Lewinii*, and notice the absence of the top-cushion in Rusby's plant.

I HAVE LIVED YEARS WITH PLANTS

I have lived years with plants, and seen many of them. Were I to live ten times as long, and live to see a thousand times as many, I certainly would learn much which I do not know, see details hidden to the eye, forms and manners that are strange beyond words. I would gaze upon forests the like of which I have never contemplated before, and hold in my hands flowers with new perfumes and rare colors. I would dig deeper into things, and perhaps fill to overflowing my cravings for knowledge and understanding.

Yet, at the end of this long time I would not alter, I fancy, the belief that has been with me now for years. This is what I believe: the symphony that is Nature spins all its sounds around a core of few notes. Nature is monotonous and all these notes repeat themselves. They are hidden in a sprightly *allegretto*, they power the flights of a *scherzo* and uncoil their threads in the most solemn *largo*. No doubt, they are one and the same all over.

Poets in uncounted languages have raised their songs to the glory of Spring. Nightingales have filled the night for them, and roses have blossomed for the inspiration. Love everlasting has been their theme, and the rebirth of the fields and the dales their subject. Few among the poets have seen that every new Spring that comes brings into its fold nothing that is new, but the same flowers, the same songs and the same feelings. Pushkin greeted the Great Season with sadness: almost alone of our bards he pierced its veils and saw behind them the face of boredom, sorrow and death.

Such is Nature that it always does the same. It beats a rhythm as steady as that of a clock. We listen and meanwhile we go. But Nature remains, for Nature is the bosom of all things, their birth and their end.

I have learned that every one of the things which seem new and strange are hammered out of the same metal, and beaten into shape upon the same anvil. Live matter is so plastic that it takes no effort to mold it to any shape to suit the will of its maker. The more I have seen things that looked different, the more I have trained myself to discover the hidden bar that stamped them as one. In all, the same notes have played the same symphony and echoed the same song.

The thorns of *Ocotillo* are drawn out of the same metal and by the same skilled pliers that builds those of the common *Berberis*, and less than the breadth of a hair separates them from the spines of *Euphorbia*. It is the same matter which sharpened to extreme pungency dwells upon the body of a cactus. The hooked prickles of *Pereskia aculeata* stand shoulder to shoulder in the arsenal of Nature with the prickles of some Bittersweets. Men who live short lives spend long hours and days and months to figure out how the sepals of these structures differ and to show us why they do differ. Were these men to lead long lives, they would know better, for they would learn in time that differences are here, indeed, but that it is not so much the single note that counts as the whole of the song.

We can live in two patterns of thought. It is open to us to consider that after all everything is mortal, and that nothing really matters. Thus, we may not hate too much, love too strongly, hope too deeply and known too intimately, for everything in the long run is always the same, and the ultimate sum of our strivings is somehow bound to be naught. So thinking, we may barely dwell on generalities and principles, and live amid the things of life the like a fish floats down the waters of an overpowering stream. What can really matter with this fish, when, after all, its fate is to reach the sea, there to get lost?

It is open to us, on the other hand, to live in the present, and to make each day stand unto itself on the ledger of our born days. We may hate, and love, and hope, and know to the sweet or the bitter end. The sea will in time swallow us, but meanwhile, as we float downstream toward its final embrace, we know every nook of the river and live to record it. We shall perish indeed, for this is the fate that overtakes all but not too soon and with a full heart, anyway. In the word of a Latin poet, we will depart as a guest who has been well treated.

Some prefer to live by contemplation, others enjoy spending their days in action. The ideal of a full life is to live both ways at once, for the knowledge of one will make the other richer. But, to live thus man must be able at all times to look backward and forward, to balance the opposites without ever becoming confused in his mind.

Such, too, is the path of science because science is a manner of living the like is art. The realization that beyond the limits of our eyes stand new worlds, and that their purview is so wide as to deny the depth of the horizon to our guesses cannot blind us to petty problems of detail. It is good to dwell upon these problems when we know that something lies beyond.

The thorns and spines which are at bottom one, tell each a tale of supreme craftsmanship. The same pattern has been constantly redrawn in some detail, and offered as new, each time. True, the Ocotillo, the Berberis, the Euphorbia and the Cactus are monotonous, for they all are culled out of the same mold and cast of the same metal. However, the subtle manner in which everything is made to look new in Nature is amazing. Spring may be boring when it is conceived as the return without end of everything that was before, but Spring can be joy for the minute gifts which it brings within the folds of its mantle. The everlasting and the fleeting always meet, and the opposites both have their day. The detail is not an iota lesser than the whole. The symphony which uses a bar to create delight for us throughout an hour works the like does Nature. It is craftsmanship and through that lift a welter of forms and sounds out of the chaos. Nature is the supreme artist for its thought has matured throughout ages and uncounted shapes have been molded under its fingers.

I have lived with plants, and I have delighted at the tales they have spun before my eyes. Through them I have peered over expanses of life so broad that neither my own eyes nor those of other men alive could ever hope to reach beyond a mite of their immensity. Through them I have been presented with jewels of craftsmanship so perfect that no goldsmith in Florence ever was able to surpass in the days of Cellini. My own life has been at times so small that I have felt lost, with the confidence that I would be taken care of as fully as the blades of grasses of the meadow. My own life, at the very same time, has been made many times richer, for

I have been granted leave to stand by Nature, the supreme master of form and color.

A world is concealed within the bosom of each flower, and a mighty means to goad us into thinking is even the smallest of spines. We look at them, foreknowing that they will tell us no tale beyond the one that everything is the same. Yet this tale will be so garlanded with unexpected details that we shall await its unfolding each time with keen, renewed expectation.

NEW NAME

Joseph Ewan points out that I have misunderstood the International Rules and have thereby created another useless synonym. The San Gabriel cactus *Dudleya* becomes *Dudleya densiflora* (Rose) Moran comb. nov. [*Cotyledon nudicaule* Abrams, Bull. S. Cal. Acad. Sci. 2:42. 1903. (Non *C. nudicaule* Lam. 1786.) *Stylophyllum densiflorum* Rose. Bull. N.Y. Bot. Gard. 3:36. 1903. *Dudleya nudicaulis* (Abrams) Moran, Desert Plant Life 14:191. 1943.] The epithet "*nudicaulis*" is illegitimate from the beginning and hence cannot be used in *Dudleya*.

REID MORAN

HOUSE PLANTS

Aphis, Mealybugs and Scale Insects are the principal pests of house plants such as Begonias, Cacti, Ferns, etc. Regular spraying each month when feeding these plants is good practice. Potted plants may be laid on side and turned at various angles to insure wetting under leaf surfaces completed. In the case of large plants, suspend the pots upside down before spraying and allow to remain thus until dry. This prevents breakage of stems by the water load. Spray is sometimes applied to Cacti by using a tooth brush and carefully scrubbing all surfaces.

RED SPIDER

The pest known as Red Spider attacks many plants, both under glass and outside. Some species spin minute webs, others live openly on the leaf. The pest is really a mite, and they flourish, as do all mites, under hot, dry conditions. The creatures do not breathe through external breathing pores, but respire over the whole body surface. The control measures for Red Spider are: (1) Whenever possible, moist aerial conditions should be created instead of dry; (2) sulphur washes form good control, especially when used in conjunction with gelatine or flour paste; (3) soluble paraffin washes are 100 per cent effective in controlling the pest.

Are you plagued with "bugs," "slugs" and "mildew" in your garden? Then you'll want to learn about ways which other home gardeners have found helpful in protecting plants from these pests. In selecting and using plant protection materials consider the different products mentioned. Their proper use will eliminate the necessity of buying more than one remedy for the same purpose.

Sowbugs find bait more attractive after it becomes decomposed by molds like their natural food materials. For this reason broadcasting under low plants in shaded places, followed by liberal sprinkling with water is recommended.