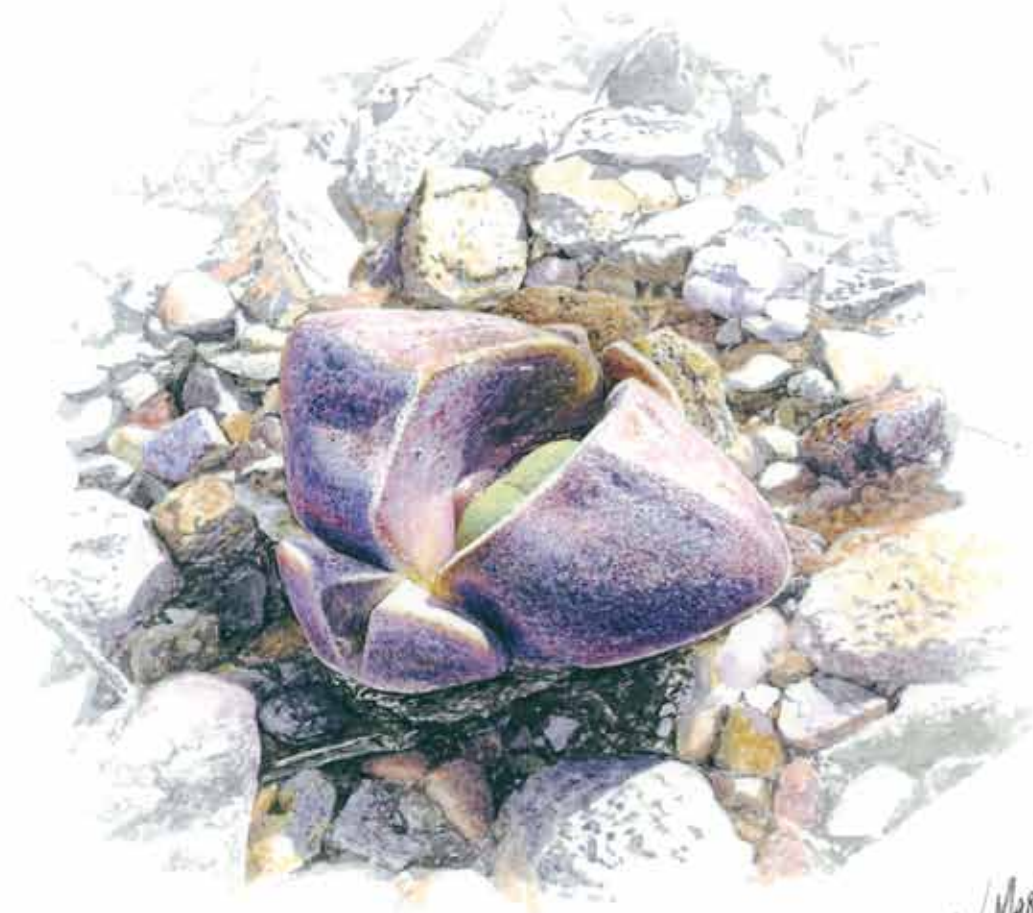


Didymaotus



Gerhard Marx
1/11

The remarkable monotype, *Didymaotus lapidiformis*, is easily recognized by its unique mode of flowering: from a thick, basally fused leaf pair, twinned bracts arise, one pair on either side of the fissure zone and perpendicular to it. These long-lasting bracts look exactly like the leaves, radically miniaturized. Bergen and McCarthy play their ordained roles annually—Edgar is reborn, Charlie perishes. Even out of flower the plants have a unique look: humped, thickset, sharply keeled, and coated with a scruffy whitish wax. Depending on the season, the leaf pair is solitary or is accompanied by its fat or depleted predecessors. One pair is on the way out, the other is in, but for several months their chlorophyll layers wax simultaneously. The genus was named for its twinned flowers (both elements come from the Greek).

Didymaotus would be impossible to sink under a non-hypertrophic genus, and it is very unlikely to acquire a satellite. Schwantes suggested that it was close to *Gibbaeum*, even drawing an analogy between its slow-flowering mode and that of *G. dispar*. But *G. dispar* takes two or three months to flower, not six or seven, and builds nothing so fancy as an externalized launching pad. A better analogue to the bracts and petals—in shape, not in speed—can be found in *Antegibbaeum fissoides*, with which *D. lapidiformis* will reluctantly cross, artificially. It will also cross with *Gibbaeum heathii*, giving weak and distorted plants. But from the fruitarian point of view, *Titanopsis* comes much closer.

Didymaotus lapidiformis at Perdekraal

Didymaotus lapidiformis

Long-lived perennial, unbranched, about 40 mm (or rarely clustering to 80 mm) in diameter, always humble; roots relatively thick, very long, tending toward horizontality; internodes exceptionally short and perennially hidden by the leaves; leaves remaining active for a year, rhombic, slightly unequal, basally fused, strongly keeled, margins entire, to 30 mm stem to stern × 20 mm × 20 mm, leaf surfaces dull gray-green to gray-blue or, in high summer, brownish green to grayed purple, never shiny, smooth, with a thick flaking white waxy cover that obscures the minute and evenly dispersed spotting; central pustules transparent and lip-like when active.

Flowers appearing in spring after half a year's preparation, opening around 14:00, closing at dusk, scented; pedicel long and slender; bracts leaf-like, twinned, sometimes reused continuously (in hort); sepals six or seven, petals in 1–3 rows, to 20 mm long × 2 mm broad, slightly drooping when fully expanded, white, rose pink, or white with a purple suffusion; filaments white below, pink above, forming a loose tuft, basally papillate; nectaries numerous, continuous; stigmas 6–8; capsules persistent, flat above; seeds 0.8 mm long, globose, pale tan.

HISTORY, DISTRIBUTION, ECOLOGY

This was one of Rudolph Marloth's happiest discoveries. He took a particular interest in mimics (see page 131) and with this species found a perfect example of plants which practice self-concealment. Marloth published the species as *Mesembryanthemum lapidiforme* in 1914. The genus was published in 1925, by which time Brown had had time to study the fruits, not only of *Didymaotus* but also of the entire family as he knew it.

Marloth visited the plants repeatedly, collecting examples for Brown and then for Schwantes. The latter received plants complete with a chunk of native soil. One site was visited by a Mrs Wrentmore in 1917 (NBG 999/17) and a dozen years later by Harold Compton, who answered Bolus's main question about the plants: Do they increase much in height? (No, they do not.) Since the 1930s the sites have been visited by practically everyone with an interest in succulents, from Hans Herre on down. The area is just close enough to Cape Town for convenience but alien enough to suggest another world (see map page 115).

Populations occur in the flats, which flank the hills north and northeast of Karoopoort. Plants are abundant at four sites known to me; nearby, many similar and seemingly suitable places are devoid, though more populations may well exist. The favored rocks are shale, ironstone, and sandstone, arranged in full flat pavement mode. In summer the rocks are uncomfortably hot to the touch. It surprises me that the plants' tissues don't cook, but the bodies do retreat into the loam and flatten themselves as far as possible.

At all times there is a likeness in shape and coloration to the rocks that surround the plants. In summer there is also a nice similarity to *Tanquana prismatica*, which grows along with the diddies and turns equally ruddy, as does *Lithops comptonii*, the third famous mesemb in this well-roasted community. The tanquanas and lithops occur both with and without the didymaotus. Reports of the area's aridity are partly exaggerated; frequent dewfall soothes roots.

Some local variation has been observed. Flowers can be pure white, as at Perdekraal, or pale shimmering purple, or both. Marloth specified white petals, and though this has been ritually questioned, white meant white.



Didymaotus, patron saint of the Gemini, planted this weedless patch near Matjiesfontein some 200,000 years ago—or so goes modern mythology. This eastern form and the western, Beukesfontein, form have not appreciably diverged in character despite lack of recent contact. I have only noticed a greater tendency toward pure white petals in the former, this example notwithstanding. These plants are quite young, hence the untwinned flowers.

Marloth in his 'Stone Plants' refers to *Didymaotus lapidiformis* as being a good example of the extent to which these plants resemble their surroundings. My own experience is that once one has seen a specimen of *Didymaotus* in the field, it can be recognised at a distance of 16 yards, and that is a fairly big distance when it is remembered that the plant itself is only about an inch or two in diameter and not more than half an inch in height above the soil level.

—Gert Nel, *Lithops*, 1947

In 1977, at the beginning of my mesemb career, I raised a pair of rabbit kittens optimistically named Diddy Mae and Otis. When Diddy turned out to be aggressive and male he was renamed Attila the Hun. Also in the 1970s one could still see field-collected *Didymaotus* plants for sale in California and England. The fashion for this sort of slavery seems to have died out, partly because the seed market has been so well supplied, and partly because mesemb lovers realized that homegrown plants are stronger and more nearly innocent.

CULTIVATION

Easy in a sunny dry climate, didymaotus are touchy elsewhere and can be quite hard to flower even in southern California. The bracts emerge along with the new leaves and slowly migrate outwards as the older leaves turn slack. Strong autumn and winter light is needed to sustain the buds over their long haul. Since the flowers are particularly elegant, their rarity in cultivation is a real loss. I try to encourage their arrival with frequent mistings. The roots are quite shallow and highly responsive, so a little mist goes a long way. But beware: complete drought renders the toughest specimens surprisingly vulnerable to burning.

Schwantes tells a charming story of the rapid growth of his sole seedling in the summer of 1922. In the course of a few months the plantlet nearly rivaled its wild-caught mother in size! I used to think that Schwantes was inflating his tale, but under ideal conditions even slow and supposedly delicate mesembs are capable of rapid expansion, especially when given an accelerated start. Apart from which Schwantes didn't spread tales, though he was a highly imaginative man.

Under my mild conditions seedlings are unpromisingly skinny for the first two years. Settled maturity and the full force of gravity and sun take about four years to show their effects. Novices will usually produce just one flower; full adulthood, and twinning, occur one or two years later. The reinforced bracts of some very mature plants will produce a succession of flowers, even following this orgy with new and multiple(!) leaf pairs. Eventually the bracts die of sheer exhaustion, like the frenzied dancer in Stravinsky's Rite of Spring. I don't know if this aberrant branching mode has any parallel in habitat, though a few wild plants are highly caespitose. How this is accomplished remains unclear to me; perhaps it also involves recycled, functionally transformed bracts?



CLOCKWISE FROM LEFT The western *Didymaotus*, raised from seeds collected near Beukesfontein (Brack and Hammer 627). This plant is spinning out of floral control: four flowers at once is highly abnormal for a didymaotus and presumably results from overindulgence. It soon expired.

SB 627 flushed purple in the New Mexican winter (!) sun, January 1994.

Didymaotus lapidiformis at Perdekraal, northwest of Matjiesfontein. This famous population has weathered a good deal of foot traffic over the years. The rate of recruitment and the number of mature plants per square meter seems radically low compared to, for example, *Gibbaeum heathii* thirty kilometers to the southeast.

Didymaotus lapidiformis ex Hammer 390, seeds collected between Beukesfontein and Skitterykloof. A seven-year-old virgin's very first flower. The slow rate of floral development in the genus (six months!) is extraordinary.

