

Carpobrotus N. E. Brown FIG-MARIGOLD

Carpobrotus edulis (L.) N. E. Brown, HOTTENTOT FIG. Perennial herb, leaf-succulent, evergreen, fibrous-rooted, not rosetted, several-stemmed at base, trailing and mat-forming, prostrate to decumbent, < 35 cm tall; shoots to 300 cm long, leaves equal at each node, glabrous; with mucilaginous, watery tissues; adventitious roots forming at buried nodes. **Stems:** 2-ridged, to 15 mm diameter, with each ridge decurrent from outer angle of leaf base, sometimes with 1 or 2 rounded angles between ridges, covered with succulent leaf bases, tough, young internodes 20–70 mm long, green aging as a brown, nonsucculent, trailing axis covered with leathery, withered leaf bases forming several straight to slightly sinusoidal ridges. **Leaves:** opposite decussate, simple, sessile with succulent bases fused across node, notched at point of union and continuous, without stipules; blade ascending, 3-sided and fingerlike, 50–120 × 7–18 × 7–18 mm, the widest or thickest below midblade, straight or more commonly curved upward, sharply triangular in x-section, entire along angles but irregularly and minutely short-serrate on lower angle near tip from splitting and cracking of hardened, typically reddish margin, pyramidoid at tip. **Inflorescence:** flowers solitary, terminal, lacking bracts, glabrous; peduncle (pedicel) 10–40 mm long. **Flower:** bisexual, radial, 60–100 mm across, yellow, rose-magenta, or pinkish; **sepals** 5, succulent, at anthesis widespreading becoming erect to ascending (2) + arching over fruit (3), polymorphic, 3-sided typically having angle on lower side irregularly short-serrate like leaf, the outer 2 ± opposite, 30–65 mm long, leaflike but with thinner, expanded base, inner sepals helically alternate, 15–35 mm long, becoming progressively shorter and more compressed at tip, with winglike, membranous margins at expanded base; **petals** (including petaloid staminodes) 100–150+ in 2–4(–5) series, linear, 20–40 × 1.5–2.8 mm, mostly acute at tip but occasionally 2-lobed with 2 teeth or with 1 subterminal lobe, yellow to pinkish or rose-magenta; **stamens** 100s in 4–7 series, erect, unequal, the longest of outer whorl, becoming shorter inward; filaments 5–12 mm long, either yellow or light pink, with white bases, outer filaments glabrous or with a dense cluster of hairs at base, the hairs occur progressively higher up the filament from outer to inner whorl, inner filaments with dense hairs to midpoint; anthers dorsifixed, dithecal, linear to narrowly linear-ellipsoid, 1.8–2.2 mm long, light yellow, longitudinally dehiscent; pollen light yellow; **pistil** 1; ovary inferior, sunken into fleshy receptacle, typically 8–10-chambered, each chamber with > 125 ovules attached to outer wall; styles absent; stigmas = chamber number, tentaclelike, 12–13.5 mm long, ca. 1.7 mm wide at base, yellow, tapered to acute at tip (2-forked), conspicuously long-papillate. **Fruit:** berry, indehiscent, surrounded by succulent sepals with 2 erect to ascending and the others arching over fruit, typically > 1000-seeded, 20–35 mm long + sepals, with sepals 25–40 mm wide, yellowish green (especially sepals), 2-ridged (= long, ascending sepals), chambers filled with mucilage and seeds. **Seed:** elliptic-lenticular, ± 1.2 × 0.8 mm, red-brown, somewhat glossy even after mucilage removed, ± smooth with low convex patterns of cells. January–December.

Naturalized. Trailing, leaf-succulent perennial herb widely planted along sandy beach fronts and roadsides, and on slopes, as a ground cover and to stabilize the soil, but it has encroached on native vegetation and, in some places has become a monoculture and invasive. *Carpobrotus edulis* is the most familiar ice plant, having long, 3-sided, dark

green leaves. In the pure form, the large flowers are yellow, but Hottentot fig has hybridized repeatedly with *C. chilense*, which has magenta-rose flowers; the gene pool of *C. edulis* thus has been compromised, so that many plantings of *C. edulis* have both yellow and magenta-rose flowers without the other species being present. Somewhere in range one can find these ice plants in flower any day of the year, especially along the coastline; a flower is produced on the tip of a shoot, where the fruit matures several months later.

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