1: *Drosera aberrans* (Lowrie & Carlquist) Lowrie & Conran

Telopea 12(2): 151 (2008).

Drosera whittakeri subsp. *aberrans* Lowrie & Carlquist, *Phytologia* 73(2): 98 (1992).
Drosera whitakeri F.Muell, *The Native Plants of Victoria Succinctly Defined* 53 (1879).

Type: SOUTH AUSTRALIA. In red loam soils in mallee scrub country west and east of Sherlock, 19 July 1991, *D. E. Murfet 1059* (*holo*: PERTH; *iso*: RSA).

A ***tuberous perennial herb***, colony-forming, stoloniferous, green, orange-yellow or red, with leafy rosette, 3–5 cm in diameter. ***Tuber*** pale orange, ± broadly obovoid, *ca.* 8 mm long, *ca.* 8 mm in diameter, enclosed in a number of black, papery sheaths at the end of a vertical, subterranean stem, 4–5 cm long. ***Leaves*** broadly spathulate, adpressed to soil surface, often turning red with age, with 8–12 leaves per rosette; *petiole* 8–15 mm long, 1–1.3 mm wide at base, dilated to 1.5–1.7 mm wide at base of lamina, longitudinally finely 3–5 ridged, margins entire, glabrous. ***Lamina*** obovate to broadly obovate, 5–11 mm long, 6–11 mm wide, length and width commonly variable within same rosette, lower margins entire, upper margins and apex dentate (more readily observed on abaxial surface), with glandular trichomes at the apex of each dentate marginal segment, insect-catching glands positioned on adaxial surface near margin of lamina, with slightly shorter glands within, trichomes green to translucent red with dark red glandular heads, abaxial lamina surface glabrous, veins branched towards apex (more readily observed in dried specimens). ***Inflorescence*** consisting of 1–4 (rarely up to 7) flowers arising from centre of rosette, each flower opening singly in succession; *peduncles* ± similar in colour to leaves, 1–4 cm long, sparsely covered with scattered sessile glands, decumbent in fruit. ***Sepals*** green to reddish, lanceolate, 4–5 mm long, 2–4 mm wide, margins entire, apex entire, abaxial surface dotted black (more easily observed in dried specimens) with a small number of scattered, minute sessile glands similar to those found on the peduncle, otherwise glabrous. ***Petals*** white, cuneate, margin entire, apex retuse, 8–12 mm long, 5–8 mm wide. ***Stamens*** 5, 4–4.5 mm long; *filaments* white; *anthers* yellow; *pollen* yellow. ***Ovary*** green, obovoid, 1.7–2 mm long, 1.6–1.9 mm in diameter. ***Style-stigmas*** 3, white, 1.6–1.8 mm long, each divided into many filiform branching segments, glabrous, stigmatic portion white, slightly dilated apically into a single, rounded, knob-like projection, papillose. ***Seed*** charcoal black, ovoid-cylindrical, 1–1.3 mm long, 1–1.3 mm in diameter, surface sculpture irregularly hexagonal with thickened anticlinal margins, funicle within indented basal pole, apical pole rounded. *Chromosome number* unknown. Figure 1.1.

Distribution. Widespread across the inland southern mallee regions of South Australia east of the Mount Lofty Ranges, southern and central Victoria to east of Wilson's Promontory. Two collections have been recorded from southern central New South Wales.

Habitat. Common in a wide range of soil types from sands to lateritic gravels and limestone-derived clays. Plants grow in full sun or partial shade in mallee woodlands, heaths and open, forested regions.

Flowering. July-September. Dormancy dry.

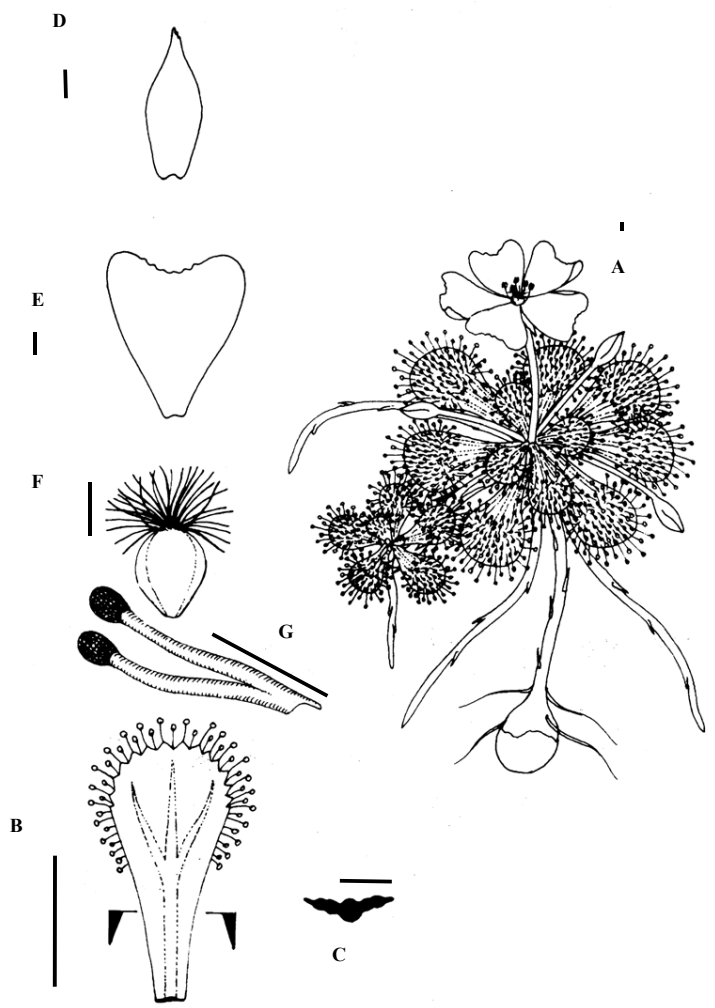
Etymology. The epithet is the Latin *aberrans* (departing), meaning a departure from the normal, in reference to this species' stoloniferous habit, by which manner it differs from its relative, *Drosera whittakeri*.

Notes. Drosera aberrans regularly multiplies asexually, producing axillary stolons that occur on the vertical subterranean stem just below the rosette of leaves, and frequently from the centre of the parent rosette. While some of these adventitious stolons develop additional tubers below the soil surface, a few stolons rise above the surface from under the parent plant to grow laterally outwards. These surface stolons often have small leaves, some with glands, scattered along them. Once these surface stolons are well clear of the parent plant, they turn downwards and grown back into the soil where additional tubers are produced.

This asexual method of producing additional tubers allows the parent plants to rapidly colonise new ground, albeit only at a short distance. However, armed with the ability to multiply itself seasonally over many generations, this species can form large numbers of individuals to safeguard against wholesale loss of a population in conditions of prolonged drought.

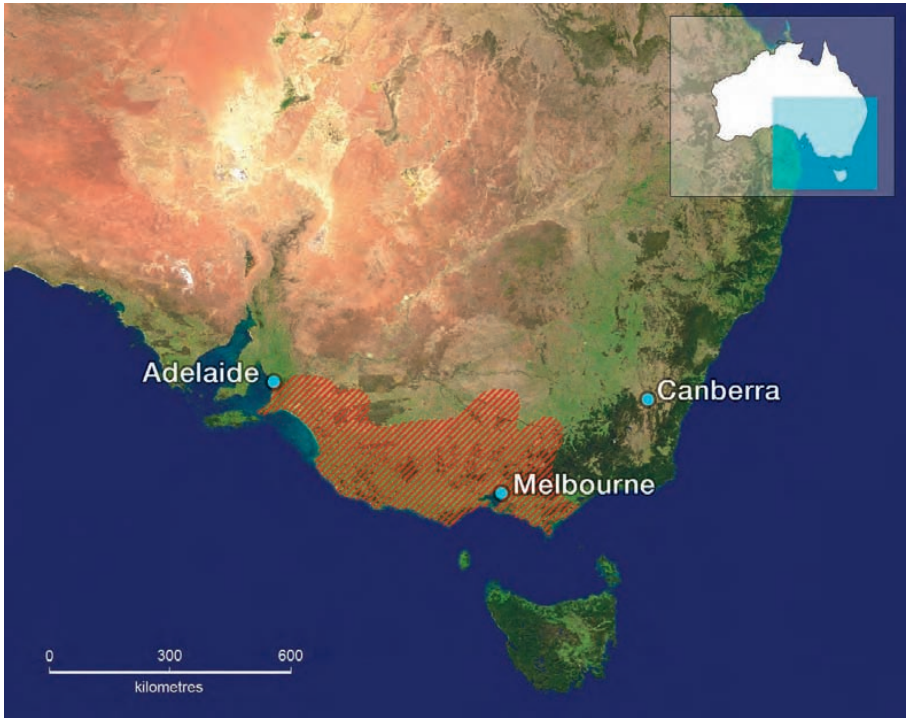
This method of stoloniferous propagation allows for the formation of large, mat-like, compact colonies of rosettes. Perhaps as a result of this, relatively few flowers are produced in most years, and a single colony of several hundred plants may often produce only a few flowers per season, and generally just 1–4 flowers per rosette. That said, plants on more fertile soils may produce more flowers, rarely up to seven per plant, with greater regularity. Flowers of *Drosera aberrans* open singly in succession on each peduncle.

The scent is fairly sweet and similar to that of *Drosera schmutzii*, but differs from that of *D. praefolia* and *D. whittakeri*. I have seen huge populations of different coloured *D. aberrans* at Monarto, in South Australia. Here, each of the compact colonies of rosettes maintains its own clonal foliage colouration. The foliage colour of these plants does not appear to be a function of exposure to sunlight, moisture levels, or even soil type, as they all grow in the same habitat under the same growing conditions. At this location, each compact colony is of either a green-, orange- or red-leaved form, and each uniformly coloured colony grows adjacently to its neighbours, which may be of a different colour entirely.



Drosera aberrans

Figure 1.1 A – plant; B – lamina; C – petiole section; D – sepal; E – petal; F – ovary-styles; G – style-stigmas; Scale bar for all parts = 1 mm. Drawn from live material from the type location by A. Lowrie 1989. Voucher *D. E. Murfet 1059*, 19 July 1991 (PERTH, RSA, *Herbarium Lowrieanum*).



A map demonstrating the known geographical range of *Drosera aberrans* in Victoria and South Australia.

Key to the images of *Drosera aberrans* (facing page)

A. A typical colony of *Drosera aberrans* (Photo: Allen Lowrie).

B. Plan view of a *Drosera aberrans* flower (Photo: Denzel Murfet).

C. A whole plant of *Drosera aberrans* in profile, showing the original parent tuber below and the adventitious stolons (with leaves) that will form separate, individual daughter tubers at their tips (Photo: Allen Lowrie).

D. A profile view of a developing seed capsule (Photo: Allen Lowrie).

E. A near profile view of *Dosera aberrans* showing mature plants, each with many additional tuber-forming adventitious stolons (Photo: Allen Lowrie).

Photographs taken at Monarto, South Australia. Specimen C from 20 km N of Naracoorte, South Australia.