

REMARKABLE RECOVERY OF *FUCHSIA PROCUMBENS* FROM NEAR-DEATH

TREVOR BLOGG

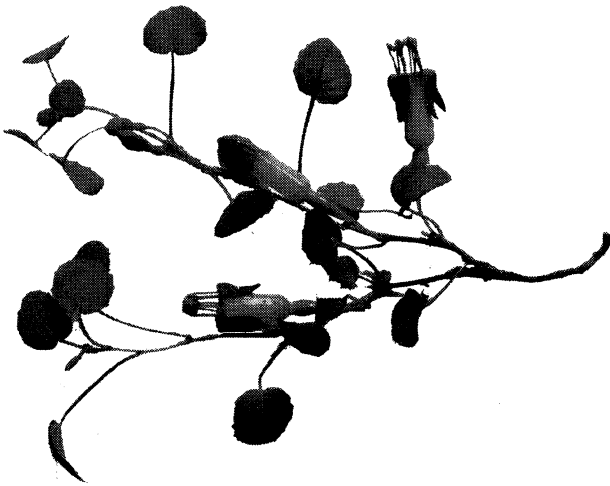
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In Volume 1 (1961) of the Flora of New Zealand, H. H. Allan notes that the distribution of *Fuchsia procumbens* includes “sites submerged by exceptionally high tides”. An accidental experiment reinforces my opinion that this species is highly evolved to take advantage of such sites. I have *F. procumbens* among my limited set of indoor plants and was faced with the problem of watering while absent on holiday in Tasmania for two weeks (the trusted neighbour was also intending to leave on holiday). I rigged up a drip feed to my shower bath and placed the house plants in this, reasoning that evapotranspiration would balance the incoming drip during my absence. This proved not to be the case, and on my return the shower bath was full to a depth of 27 cm, sufficient to “drown” several plants. After the plants were removed and the leaves lost their initial turgor, the *F. procumbens* quickly wilted and apparently died. I trimmed away the dead foliage, placed the pot and saucer on a cabinet in my bedroom, and forgot about it.

The potting mixture was loosely packed and therefore permeable to moisture, and occupied a volume of about 1 litre (an approximately 10 cm cube). The situation provided a relatively desiccating environment, thermostatically controlled to a 15°C minimum, with resulting low air humidity of ca. 55 % R H. For all but a few hours each afternoon, light level was low, usually <100 lux. (All environmental measurements were made after the “experiment”, with a Digi-tech QM-1580 meter – not highly precise, but indicative). After approximately eight weeks (early April to June, southern hemisphere autumn) of total neglect, and in by now quite dry potting mix, the plant sprouted new foliage, either from the roots or its thin, wiry stems. I may not have noticed the sprouting for several days, as the leaves were >5 mm across when I first saw them. The plant has since responded well to watering and is once again a healthy house plant. A *Lophomyrtus obcordata* simultaneously subjected to similar treatment has shown no signs of recovery !

Editor's note: Like other fuchsias, *F. procumbens* has thin bark underlain by thin, chlorophyll-containing cortex, that are likely to permit evaporation until the plant becomes completely air dry, as would seem to be the case in

this inadvertant experiment. Trevor's plant's ability to produce new leaves in its dehydrated state seems a remarkable case of cutting one's cloth to suit one's reduced circumstances. His report led me to think about plants that can become air-dry and resume normal life after being wetted. The leaves of filmy ferns can do this, as can the entire plant in many mosses and lichens. In most ferns and vascular plants, only dormant spores, seeds and bulbs have this capacity, but in a select few the whole plant has it – the so-called resurrection plants. Perhaps this is not a great feat among plants of moist, shaded habitats, that lose water until they are in equilibrium with the prevailing high atmospheric humidities, but some resurrection plants grow in full sunlight in hot, dry places, such as north-facing rock crevices. Most are reported from South Africa and Australia, and among the latter the ferns *Cheilanthes* spp. and *Pleurosorus rutifolius* also grow on our Port Hills.



Fuchsia procumbens in flower. Photo: P.E. Horn.