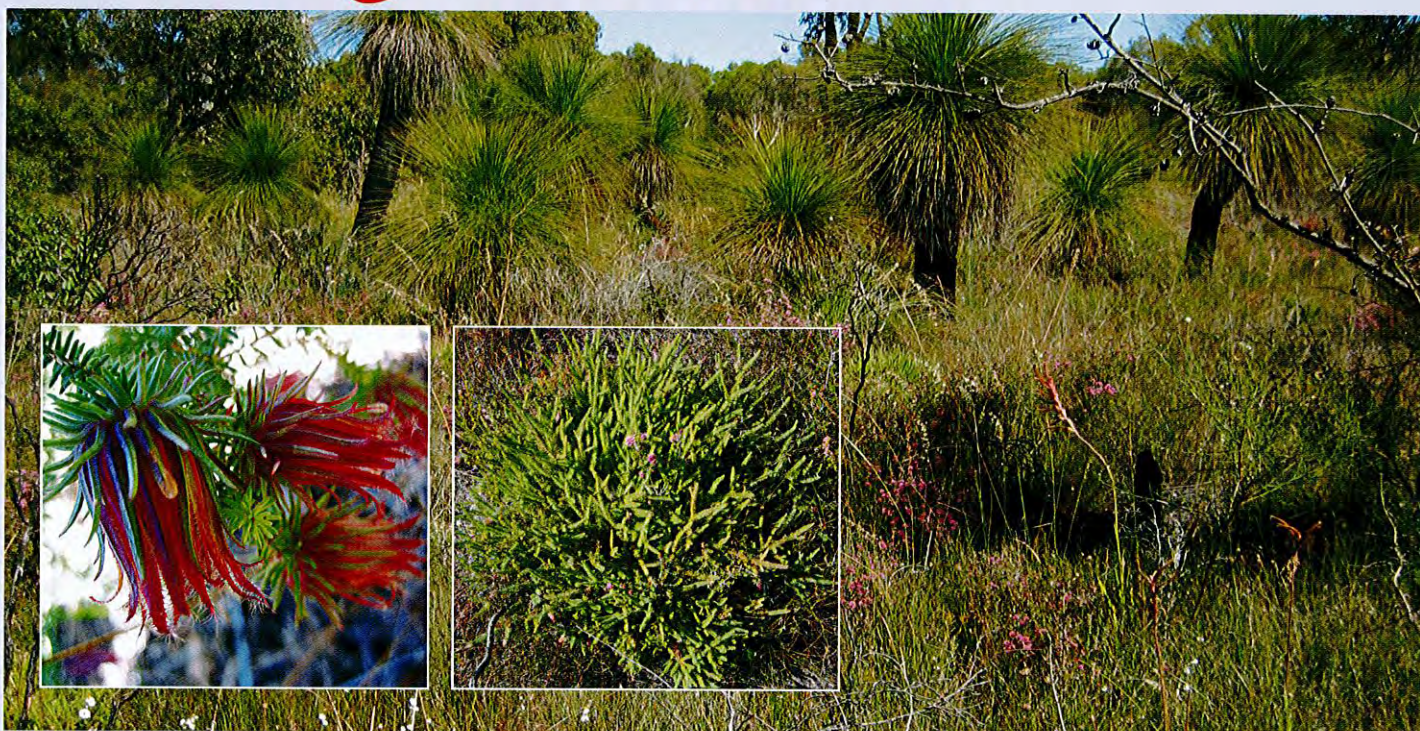


endangered

by Melanie Smith



Muceha bell

Commonly known as the Muceha bell, *Darwinia foetida* is an erect or spreading shrub up to 70 centimetres tall, with green hairless linear leaves that are triangular in section and crowded at the end of branches. Inflorescences of 12 to 15 flowers, that are enclosed by several rows of long, hairy, red-green leaf-like bracts, are found at the end of branches and are nodding or rarely erect in young plants. Flowering occurs in October to November and pollination is by birds. *Darwinia foetida* is named after the distinctive foetid (rotten) smell of the flowers.

The Muceha bell is known from only four populations restricted to grey-black sandy rises in winter-damp to wet clay flats in the Muceha area. Habitat is *Regelia-Kunzea* tall shrubland over white myrtle (*Hypocalymma angustifolium*) low shrubland or low *Melaleuca* shrubland. The species is also associated with the 'Shrubland and woodlands on Muceha limestone' threatened ecological community, which occurs on an unusual limestone soil type. More

than 90 per cent of this community type has been cleared for farming.

The Muceha bell was first collected in 1927. What was thought at the time to be a "newly discovered species of *Darwinia*" was recorded in Muceha in the early 1980s. Thereafter, several other collections of the species were recorded in the same area under different informal names. The species was consolidated under the phrase name *Darwinia* sp. Muceha (B.J. Keighery 2458) and was formally named *Darwinia foetida* in 2009.

Targeted surveys for the Muceha bell in the 1990s confirmed three populations within a five-kilometre radius with only part of one population found within a nature reserve. This resulted in *Darwinia foetida* being listed as declared rare flora (initially under its phrase name) in August 2001, giving it special protection under government legislation. It is currently ranked as endangered in Western Australia due to it being known from less than five locations, with continuing decline in area, extent and quality of habitat. A new population has recently been

found on private property, extending the number of populations to four. Current threats to this species include weeds, grazing by rabbits and too frequent fire.

The Muceha bell does not re-sprout after fire but instead regenerates from seed. It is thought that this species takes two years for seedlings to mature as the species has been noted flowering two years after summer fire. Part of one population was recently burnt and post-fire monitoring by Department of Environment and Conservation Swan Coastal District staff 12 months later recorded more than 400 healthy seedlings. If fire was to be introduced to this area before plants had matured and produced enough seed for future regeneration it could lead to the extinction of the population.

Recent recovery actions undertaken for the Muceha bell include mapping of weeds and dieback, weed control and fencing along the boundary of a nature reserve to protect one of the populations.

Photos by Melissa Okely/DEC

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