

Don't be fooled – that Oxalis may be native

By Greg and Bronwen Keighery

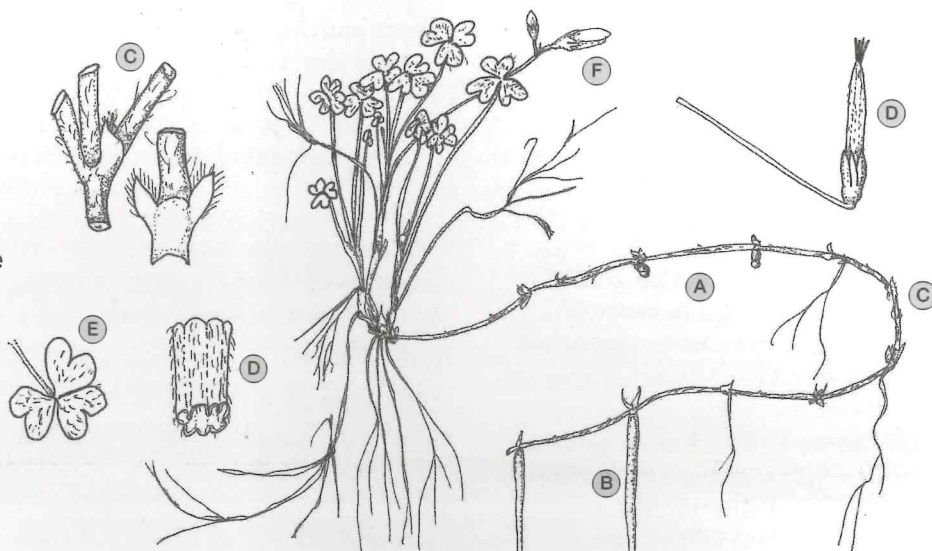
****Oxalis corniculata* has been considered a widespread bushland weed in southern Western Australia. Recent studies of **O. corniculata* from the WA Herbarium collection have revealed some plants included in this species complex are native and the weed is relatively uncommon.**

At least 23 species of *Oxalis* are naturalised in Australia, with 14 recorded as weeds in WA. Introduced for their colourful flowers, many *Oxalis* are now weeds of gardens, agriculture and bushland. Perhaps the best known weed is soursob (**O. pes-caprae*), or wet the bed, whose slightly acid stems and succulent leaves containing oxalic acid have been chewed by generations of children.

The *O. corniculata* group has been considered either as a variable species containing both native and naturalised forms, or as a series of closely related species of more restricted ranges. In eastern Australia, members of the group have been intensively reviewed to reveal six Australian native species (*O. perennans*, *O. rubens*, *O. exilis*, *O. thompsoniae*, *O. chnoodes*, *O. radicosa*) and the weedy **O. corniculata*. They are all variable species that are difficult to identify without very good material or being separated on combinations of characters of the rootstock, fruit hairs, fruit length and width and stipule shape. While not ideal, using this approach to herbarium collections aggregated under the weedy **O. corniculata* in WA, we have separated many of our records as natives not weeds.

Three native species

Most collections previously listed under **Oxalis corniculata* have now been allocated to *Oxalis exilis* A. Cunn., a spreading soft-wooded herb easily distinguishable by its thin white to brown carrot shaped tuberous rhizome, and large yellow flowers with long styles (produced beyond the anthers). Producing tubers along the rhizome each growing season, the plant dies back in summer and re-sprouts after winter rains. They are self-fertile and plants we have cultivated set copious seed. We have never encountered seedlings of this species in the bush, of which the tubers and plants are favoured rabbit food! This native species is a



Characteristics of *Oxalis exilis* include (A) long rhizome, (B) slender tubers (2mm wide x 50 mm long), (C) rhizome covered by loose brown bark and last years growth still attached, (D) short fruits (20 mm long) with downward pointing hairs and only sparsely hairy, (E) leaf, (F) flower. Illustration – Greg Keighery



Native *Oxalis exilis* is a common component of woodlands throughout the higher rainfall areas of WA's south-west. Photo – Kate Brown

common component of native woodlands throughout the higher rainfall areas of the south-west.

Inland from this species is *O. perennans* Haw., which is similar to *O. exilis*, but has long slender fruits and a stout brown tuberous taproot rather than a creeping rhizome. This species occurs in the Wheatbelt, Goldfields and southern Nullarbor and eastern Australia.

We have segregated collections of an apparent unnamed native *Oxalis* as *Oxalis* sp. Pilbara. This rarely recorded, apparently annual herb is confined to rocky hills in the Pilbara. The Pilbara populations require further genetic, ecological and taxonomic study.

Weedy **O. corniculata*

**Oxalis corniculata* L. is now considered a spreading annual herb, usually very hairy on young stems, with small yellow

flowers with the style at the same level as the anthers. It is normally only found in gardens, lawns and wasteland in towns and not, or very rarely, in bushland. Another indication that this is a weed is that there are no early collections of this species in any Australian herbarium we have searched.

Weedy Oxalis to control

Weedy *Oxalis* species in WA can be readily distinguished by the presence of round tubers and normally a rosette of succulent leaves (**Oxalis compressa*, **O. flava* and **O. pes-caprae*) or flower colour (pink or white – **Oxalis bowiei*, **O. caprina*, **O. corymbosa*, **O. depressa*, **O. glabra*, **O. hirta*, **O. incarnata*, **O. polyphylla*, **O. purpurea* and **O. violacea*). Of these, the worst weeds appear to be **O. depressa* – invading dune vegetation at Busselton; **O. incarnata* – karri and creek-line vegetation in high rainfall areas; **O. purpurea* and **O. glabra* – urban remnants; and **O. pes-caprae* – Wheatbelt woodlands.

Further information

Soursob, Fingerleaf and Four O'clock – *Oxalis pes-caprae*, *O. glabra* & *O. purpurea*. Environmental Weeds Action Network brochure series 'Managing Weeds in Bushland'. Available from www.environmentalweedsactionnetwork.org.au/oxalis.html.