

8. Local indigenous plant identification

Discussion topics and information

The parts of a plant most used in plant identification by the inexperienced plant observer (non-botanist) are the size, shape, buds, flowers, fruit, bark and leaves of a plant. The usefulness of these attributes for identification depends greatly on the plant being identified. The key to becoming good at identifying different plants is working out which attributes of the plant vary the most between different plants. For example, one of the most defining features of the different local *Acacia* (wattle) species is the size and shape of the leaves. For *Eucalyptus*, the fruits (gum nuts) will often vary greatly between different species, making this the most useful tool for identification. For many of the smaller shrubs and ground layer plants, it is the flowers which tend to be the most noticeable and varied feature. Despite these distinctions, it is often necessary to look at a combination of plant attributes to make a positive identification. Even then it can still be very challenging, especially if there are many species of the same genus in a particular area.

Thankfully, there are many excellent plant identification resources to aid with plant identification. Many of the plant identification resources available for use base their defining techniques on one or more plant properties. For example Ann Prescott's *It's Blue with Five Petals* uses flower colour as its defining feature.

Many of the resources tend to cover whole of South-eastern Australia, South Australia or the whole of the Mt Lofty Ranges. Opening a book of Australian *Eucalypts*, to discover that there are more than 500 species, can be quite daunting. Convenient for us there are only about 90 which are indigenous to South Australia and from these only about twelve which are indigenous to the Onkaparinga catchment area. For this reason it is better to have the most local resources possible to reduce the pool of possibilities.

See the recommended resources for some names of good local publications. Note that all of the referrals to vegetation in that activity is really only relevant to patches of remnant vegetation most often located on roadsides and in reserves. Many, if not most of the Australian natives historically used in amenity plantings in streetscapes and gardens are not local, but most often indigenous to Western Australia or the East Coast of Australia. Attempting to find a Western Australian native in a book about South Australian plants can be very frustrating! Stick to remnant patches for plant identification activities.

A good starting point for plant identification is to try to identify to genus level, as this is often very distinctive. Once students can confidently identify an *Acacia*, *Eucalyptus*, *Hakea* or *Banksia*, etc, identifying the species within that genus will seem a lot simpler.

Lesson ideas

- Split the class into four or five groups and have each group prepare an information card or poster on a local genus of plant. Choose a genus off the plant posters or from a book on South Australian plants. Ask groups to report back to the rest of the class on their findings and show the class actual cuttings from different species within their genus. Ask them to draw one of the species of their plant. The illustration should include some of the typical features of that genus, eg the shape and colour of the fruits and flowers, and the shape of the leaves.
- The worksheet and identification chart included with this activity will show students the structure and function of the vital parts of the *Eucalyptus* genus necessary for positive identification to the species level. Read through the worksheet with the students. Design a quiz based on the information on the worksheet.

Lesson ideas, cont

- Collect fruits, or take students outside to show the local indigenous Eucalypt species appearing on *The Eucalypts of Our Local Area* fruit identification chart included with this activity.
- Encourage students to closely observe the fruits and match them to the picture of the species on the poster.
- Ask students to provide a detailed verbal description of the characteristics of the different *Eucalyptus* species to see how they differ from one another.

Recommended resources

Nicolle Dean (1997), *The Eucalypts of South Australia*. Lane Print Group