EECs and threatened plants

An ecological community is a collection of plants and animals all living together in one place. Just as in a people community like a city or a town, all members of an *ecological* community depend on others in the community to survive. As in a city or a town, we have doctors, plumbers, police, shopkeepers, factory workers, in ecological communities we have plants and animals all doing things that other plants and animals depend on.

For example, plants not only provide food for many animals - leaves, fruit, sap, even wood, these are all eaten by one sort of animal or another - plants also provide places were animals can live. Think about the rough bark on trees in which insects can hide and breed and the hollows in old trees that birds and animals nest in. And when a tree dies and falls to the ground, it then becomes habitat for other species.

In ecological communities we have organisms that clean up the environment; - worms, bacteria and fungi feed on dead plants and animals and return the nutrients to the soil where they can be used by *other* plants for *their* growth.

These are just a few examples of how plants, animals and other organisms interact and depend on each other in ecological communities.

Some ecological communities are classed as endangered. Unless we do something to help, these communities may die out. One example is a community that we call Box-Gum Woodland.

Box-Gum Woodlands used to occur in a continuous band in NSW, from the Queensland to Victorian borders. This country is fertile and easily farmed.

Now, only small examples remain and we class this community as an *endangered ecological community*.

Box-Gum Woodlands in their natural state can be recognised by their widely spaced trees, which include Yellow Box, White Box and Red Gums. They have a grassy ground layer and many species of wildflowers grow amongst the grasses.

Many bird and mammal species depend on the resources that these woodlands provide. For example, big hollows for nesting, nectar in the flowers that is eaten by birds and insects and the nutritious foliage that supports many insects on which many birds feed.

Now, our Box-Gum Woodlands are reduced to small fragments. The best examples of Box-Gum Woodlands are in country cemeteries, council reserves, along roadsides and on travelling stock reserves. However some very good examples still occur on farms.

What are conservation scientists doing to help prevent the extinction of ecological communities such as Box-Gum Woodlands? The first is to find out where these communities still exist. Once we have found them, we can help their managers to change or improve their management and ensure that the communities are retained. For example we can help a council prepare a management plan for a country cemetery or council reserve.

Some organisations help by providing funds to farmers to enable them to put up fences around important sites of Box-Gum Woodland, so they can manage their farm animals. This enables the plants in the ecological community to set seeds and continue to grow.

We can set up special nature reserves to ensure that these communities are protected and be places where we can all enjoy them and, along with scientists that study them, learn more about them.

Scientists also work on education campaigns to highlight the importance of these communities. We have written books and magazines to help interested people to understand and manage these communities. We hold field days to gather people together so that we can learn from each other how to manage these communities better.

We are also learning how to re-establish these communities at sites were they have previously occurred.

Most people are aware that we have threatened animals. However, not only animals can be threatened, but plants too. Many plant species have been listed as endangered or vulnerable. Some of these include Button Wrinklewort, Tarengo Leek Orchid, Creeping Hopbush, Austral Toadflax and Aromatic Peppercress, just to name a few.

Most of these plant species are also threatened by the same sorts of threats that have affected the ecological communities in which they occur. For example some plant species have declined because of the destruction of their habitat as we build new houses and roads. Others have been severely affected by grazing by rabbits and domestic animals.

What can we do to prevent the extinction of these plants? Again, firstly we need to find new populations of the plants. Then we need to do research on them so we know all that we can about the species.

We can fence out populations of these plants to protect them from rabbits, sheep or cattle. We can collect seeds of endangered plants and try to establish populations at new sites. We can set up special nature reserves to protect populations of rare plants.

We can inform organisations, such as councils, of the locations of these plants so they can be managed and cared for properly.

This field of conservation science is a challenging one. What is the best solution for this species? Where do we start? Who is responsible for caring about this plant?

However, the work can also be a lot of fun as we spend a lot of time in the field and meet and work with people that are happy to help.