Successful re-establishment of matchstick banksia

CO-OPERATION between a team of concerned landholders, community groups and government agency staff, including CALM Narrogin District staff, has resulted in the successful re-establishment of the rare matchstick banksia (*Banksia cuneata*) into Wheatbelt remnants.

by Jackie Nichol

Known as the Banksia Cuneata Recovery Team, the group has successfully established 75 new seedlings of this attractive banksia since 1995.

CALM's Narrogin District operations officer Greg Durell said that this was a considerable achievement, being about 15 per cent of the total matchstick banksia population surviving in the region.

"Currently, there are about 580 individual plants found in the Wheatbelt, and until recently, the species had proved difficult to establish in the wild, because it grows only in deep yellow sands, and the plants are susceptible to dehydration after planting and during a drought," said Greg.

Matchstick banksia in flower. Photo by Greg Durell.

"The first aim of the re-establishment work by the Recovery Team involves growing seed collected from the field in the CALM Narrogin Nursery.

"Next comes the planting of the seedlings back into populations where they were first collected, and where they'll enhance and increase the total number of plants surviving and growing in natural populations.

"The second aim of the project is to replace older plants as seed stock, and allow for natural germination to prevent the population from declining further.

"So far, the whole team is confident the management strategies have been successful," said Greg.

Of 54 seedlings planted back into natural populations in 1995, 34 have survived and are growing strongly, despite two drought summers.

The first translocation in 1996 saw the extension of a roadside population of the seedlings onto adjacent private property, with a neighbouring landholder donating an area of deep yellow sand for their re-establishment.

The area was fenced, weeds controlled and seedlings planted on the site.

Local native tree species were also planted, specifically to support the species' key pollinators such as nectar-feeding birds, bees and ants.

Seedlings established

"This was the first time nursery-grown seedlings were established back into natural habitat populations, and it's hoped this technique will continue to be as successful in the future, said Greg.

"Additional plantings will ensure that healthy matchstick banksia populations are found in the Wheatbelt for many years to come.

The Recovery Team, in conjunction with CALM Narrogin staff, have also been busy examining the effects of fire on the matchstick banksia.

Studies on the effects of fire are being undertaken over the next few years, following a fire in 1996, which destroyed a large adult population of the banksia.

The results of a 1986 study revealed that burning weedy, exposed sites of the matchstick banksia generally decreases regermination success.

"This is because dense, faster growing weeds quickly reinvade the burnt areas and seedlings can't compete with them or survive for long in a summer drought," Greg said.

"It's hoped the studies will reveal information relating to seedling growth and weed invasion, as well as successful banksia regermination following fire.

"This is vital information for the banksia's future management."

The Recovery Team is also undertaking a population census to determine survival, population fluctuations and health of all known individual banksia in the Wheatbelt.

Results of this survey will help in applying suitable management strategies for the recovery of the banksia.

A study on the pollination biology of matchstick banksia is currently being undertaken to determine types and number of pollinators visiting the trees, as well as the sites at which they prefer to feed.

This information will lead to the formation of other experiments comparing differences in small populations, roadside populations and populations in larger remnants.

These and other studies will go a long way towards improving the Recovery Team's current knowledge of the ecology of this rare and unique banksia.