

More welcome news while *Hemigenia exilis* populations increase

SINCE the Lake Darlot find last year of the presumed extinct *Hemigenia exilis*, the number of populations found has now increased to 23, comprising almost 4,000 plants, and spread over a wide area of the State.

Anaconda funding

Some of the known populations are located on the mining company Anaconda Nickel's lease, east of Leonora, where the company has provided funding to survey for this purple-flowered mint bush.

Eleanor Bennett, the botanist conducting the surveys, has provided the Threatened Flora Seed Centre (TFSC) at CALM's WA Herbarium with more than 50 bags of seed of the hemigenia, for testing and storage.

Labour intensive

The tiny seeds were mixed in with old fruit casings and dead vegetative material, so initial attempts to clean and count the seed proved laborious, with one bag taking approximately one-and-a-half hours to process.

We estimated the total time to process all 50 bags would involve more than

by Anne
Cochrane

two weeks.

After a busy season collecting seed of rare and critically endangered plants from the South-West, we were 'up to our eyeballs' in unprocessed material.

So Anaconda Nickel came to the rescue and provided funding for the employment of a consultant to clean the seed.

The consultant, Nicky Robinson, did a sterling job (a most boring job we would have to admit!).

The cleaning and counting was not quite as simple as first expected and a reduced surface tension flotation method was required to separate the 'good' seed from the 'bad'.

The theory behind this method is that 'good' seed is heavier, having a healthy endosperm, and 'bad' seed is light, often being empty.

Nicky then did a random cut test on a selected number of both the sinking and floating seed.

The results have shown that these two methods work very successfully, with 94 per cent of the floating seed having

shrivelled or having no endosperm, therefore 'bad', and 98 per cent of the sunken seeds having a healthy endosperm, therefore 'good'.

More than 33,000 seeds were given to us originally, but only about 31 per cent were healthy.

We've since put down a number of seed samples for germination testing, and eagerly await the results, (particularly Nicky, considering the time and painstaking effort she has spent processing them).

We're not holding our breath, however, as the plants are known to sucker when disturbed, indicating that they may not rely heavily on seed for regeneration.

By having seed in a 'gene bank' we are ensuring that the species is not lost.

Management of the populations in the wild, however, is the most important way to conserve the plant.

Efforts enhanced

Ultimately, with increasing knowledge of the hemigenia's habitat, and our experience in the propagation of the plant, Anaconda Nickel's efforts to protect the species will be considerably enhanced.