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Selection for resistance to *Phytophthora cinnamomi* in threatened native plants

This project aims to demonstrate whether there are significant differences in resistance to *Phytophthora cinnamomi* (the organism that causes dieback disease) in the scarlet banksia (*Banksia coccinea*). This species, while not yet threatened, is declining dramatically because of deaths from dieback disease and canker.

CALM scientists have shown that selection for resistance to dieback is possible in both jarrah (*Eucalyptus marginata*) and radiata pine (*Pinus radiata*). Scarlet banksia is highly susceptible to dieback; however, occasional plants survive in dieback infested areas, suggesting that some individuals may be resistant. Scarlet banksia seed will be collected during 1996, and the seedlings raised will be tested for resistance to *Phytophthora*. If this long-term project is successful, it will allow further experimentation with plants that are threatened by dieback.

Protection of microbialite communities in the Leeuwin-Naturaliste National Park

Although not as well known as stromatolites and similar structures built by microbial communities at Shark Bay and Lake Clifton, the threatened microbial communities on a small patch of coastline near Cape Leeuwin occur nowhere else, are quite varied and have considerable visual appeal. However, the communities are fragile and are starting to suffer from increasing foot traffic. A grant from the BankWest LANDSCOPE Conservation Visa Card Trust Fund will allow structures to be built to re-direct people around the fragile area. As well, a brochure will be produced about the microbial communities and will be available to people visiting the Park.

Threatened flora of the Geraldton District

There are many threatened plants in CALM's Geraldton District and a project already under way will result in the preparation of a District Threatened Flora Management Program. During the project, some threatened plants were identified that require additional survey work to search for new populations to enable clarification of their conservation status. A grant from the BankWest LANDSCOPE Conservation Visa Card Trust Fund will allow additional searches during spring 1996 for five possibly critically endangered plant species.

Threatened plant communities of the Swan Coastal Plain

Over the past few years surveys of plant communities of the Swan Coastal Plain have shown that there are many assemblages unique to the area and that many of these are very rare and/or are threatened with total destruction. Many efforts to conserve these communities are under way by CALM, local Government authorities and private land owners, but there is a pressing need to publicise the beauty, uniqueness and endangered status of these vegetation types to help in the promotion of their conservation.

An article about the conservation of these communities appeared in LANDSCOPE Spring 1996 issue (*Threatened Communities of the Swan Coastal Plain*). A grant from the BankWest LANDSCOPE Conservation Visa Card Trust Fund will allow several thousand reprints of the article to be produced and distributed via local Government, landcare district committees, government agencies and local Friends and naturalist groups.

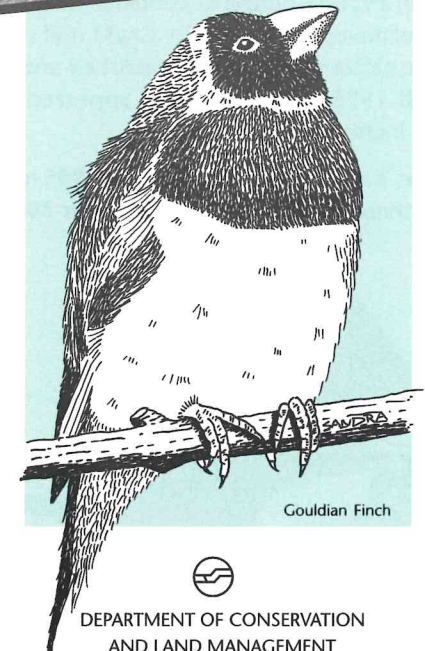
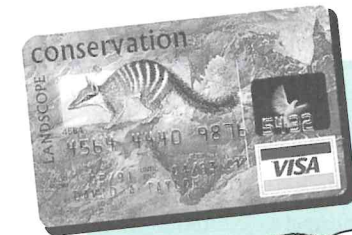


DEPARTMENT OF CONSERVATION AND LAND MANAGEMENT
50 HAYMAN ROAD, COMO WA 6152
TELEPHONE (09) 334 0333

Giving Nature a Helping Hand

The BankWest LANDSCOPE Conservation Visa Card

Progress Report—October 1996



DEPARTMENT OF CONSERVATION
AND LAND MANAGEMENT

Since its successful launch in June 1993, the BankWest *LANDSCOPE* Conservation Visa Card has provided funding for several important nature conservation projects in Western Australia. Thanks to your continued support the following new projects have benefited.

WOPILKARA TRANSLOCATION

Once widespread across southern Australia, the wopilkara, or greater stick-nest rat, became extinct on the mainland by the 1920s. Only a single population remained, on Franklin Island off South Australia. The Recovery Plan for the species prescribed several recovery actions, including a translocation to Salutation Island in Shark Bay, Western Australia. Forty-one wopilkara were taken from a captive breeding colony at Monarto, South Australia, and transported to Salutation Island in July 1990. Follow-up monitoring by CALM staff showed that the native rodents had established and bred. Up until 1995, the population appeared to be steadily increasing in numbers.

However, a monitoring visit in August 1995 resulted in only three animals being captured for 800 trap-



Greater stick-nest rat

nights (0.4 per cent trap success), compared to 15.2 per cent trap success in October 1994. Concern for the well-being of the population increased when a Denham resident reported seeing 12 dead rats on the island.

A grant from the BankWest *LANDSCOPE* Conservation Visa Card Trust Fund allowed an urgent additional monitoring trip to take place in November 1995. During this trip, 16 animals were trapped (seven per cent trap success). Two of the six females trapped were pregnant and the others had developed teats. A count of the amazing stick nests that wopilkara construct showed a total of 41 for the island, including two constructed since October 1994. Some dead bodies were found, but none were fresh, and the CALM scientists conducting the survey concluded that the mortality was within the natural range. This trip reassured everyone concerned with this species that the Salutation Island colony was doing well.

PUMPKIN SPRING REHABILITATION

Pumpkin Spring is about 30 kilometres west of Kununurra. At the end of the dry season it contains water and is used by the Gouldian finch, an endangered species, as a watering place. As well, other birds, including other species of native finches, use the water. Pumpkin Spring has been assessed as a very important water source for the wildlife of the area.

Introduced grazing animals, especially cattle and donkeys, have been adversely affecting the quantity and quality of the surface water. A grant from the BankWest *LANDSCOPE* Conservation Visa Card Trust Fund enabled CALM to construct a stock-proof fence in October 1995. A pedestrian access gate will allow continued visits by birdwatchers and reserve management staff.

The pool has been cleaned out and will be maintained as necessary. Monitoring of the water in the pool and the surrounding vegetation will take place to allow the success of the fence to be evaluated.

Gouldian finches are believed only to use particular types of pools for drinking. In particular, a small area of bank should be devoid of vegetation, but should be close to protective shrubs, so that the birds can reach shelter quickly if danger threatens. In order to provide such an environment, a length of conveyer-belt rubber will be placed adjacent to the water and covered with sand. CALM staff will monitor the success of this experiment.

OTHER PROJECTS APPROVED

Funding for other projects has been approved and information on them will be provided to card holders once they are complete. Recently approved projects include:

Boullanger Island dunnart genetics

A population of dunnarts (mouse-sized marsupial carnivores) is restricted to the 34-hectare Boullanger Island in Jurien Bay. Concern has been expressed for the future of the dunnart, as recent trapping suggests that very few animals remain. A grant from the BankWest *LANDSCOPE* Conservation Visa Card Trust Fund will allow genetics studies to determine whether the dunnarts on Boullanger Island are a distinct species or subspecies.



Dunnart