

MONTEBELLO RENEWAL

A WESTERN SHIELD PROJECT

OVERVIEW OF WORK IN 1996

Montebello Renewal, part of the Department of Conservation and Land Management's major nature conservation initiative *Western Shield*, is a project aimed at ridding the Montebello Islands Conservation park of feral black rats and cats, and re-introducing and introducing threatened species.

The 1996 works program of Phase I of *Montebello Renewal* finished on 31 August when the West Australian Petroleum-chartered barge *Karawa 2* picked up equipment, empty fuel drums and rubbish from CALM's Hurricane Hill Hut, the Hermite Island base used by the project. The last volunteers had left on 26 August and the last staff left on 2 September.

The project got under way late in May. Phase I aims to eradicate Black Rats, which occurred on nearly every one of the more than 100 islands in the archipelago. Since then, 25 volunteers, most of whom were CALM staff, have worked with 'master-baiters' from CALM's WA Threatened Species and Communities Unit (WATSCU), Pilbara Region and Science & Information Division (SID) to lay and service rat bait stations throughout the islands. Trainee Wildlife Officers also worked on the project as part of their training in wildlife management.

The statistics of the project give some idea of its size and complexity. ACI Plastics Packaging, one of *Montebello Renewal's* sponsors, donated 13,800 plastic bottles with holes cut in the sides, which were used as bait stations. The bait station design was developed to prevent native birds (mainly Bar-shouldered Doves and Brown Quail) from feeding on the bait and to prevent it being affected by light rain.

About 11,000 bait stations were laid in a 50 m grid on about 20 islands. They were either pinned to the sand with wire pins (17,000 were used) or glued to rock with Selleys "All Clear", some of which was provided free by Selleys Chemical Company. Around 150 cartridges and 50 tubes of "All Clear" were used. Each bottle was partly filled with Talon G, a commercial rodenticide, supplied at a discount price by ICI Crop Care Australasia. Four to seven days later, each bait station was revisited to top up the bait as necessary. Sometimes, the bottle had to be replaced as the rats, in their eagerness to get at the bait, would chew large holes in the bottle! Then, another four to seven days later, each station would be visited and checked again. On some islands with particularly heavy rat infestations, the bottles had to be visited a fourth time, as it was necessary to eliminate most rats and leave full bottles of bait before declaring an island finished.

Over 80 small islets and rocks were 'bombed' three times from a helicopter and once from a boat with plastic bags containing Talon. Bait stations were un-necessary on islets as biological survey work has shown that they are not visited by granivorous birds. The whole project used three tonnes of Talon.

Volunteers were crucial for this project as it was labour intensive— all those bait stations had to be put in by foot. In all, the work crews walked an estimated 2,500 km. During their sojourn at the Montebellos the volunteers had to put up with sandflies, unseasonable heavy rain, cold salt water showers, rough terrain, strong winds (it's not called Hurricane Hill Hut for nothing!), flapping tents, good company and good food! And some people even managed to find time to catch a few squid and fish.

During the first four weeks of the project a chartered Bell Jet Ranger provided transport for the baiting of the outlying islands. During this time equipment dumps were installed on all the larger islands. The helicopter was in the air for 59 hours and used 5,800 litres of Jet A1 fuel. For the latter seven weeks CALM's vessel *Pseudorca II* carried the baiting crews to the islands being worked. It used 6,800 litres of petrol.

At any one time during the 11 weeks of the project, eight to ten people were housed at the Hurricane Hill Hut. Electricity was generated on site from 2,000 litres of diesel fuel. Fresh water was supplied by a reverse osmosis plant that used about 1.2 million litres of salt water (which had to be pumped about 130 m from a nearby channel) to produce 13,000 litres of fresh water. Fresh food was trucked and shipped

from Perth every two weeks by Apache Energy to their oil production base on Varanus Island, 12 nautical miles from Hermite Island, from where it was picked up by helicopter or boat.

All the fuel and equipment, and all the staff and volunteers, had to get to and from the Montebellos. This would not have been possible without the help of *Montebello Renewal's* major sponsor, West Australian Petroleum Pty Ltd, who supplied a barge that brought all the equipment and fuel needed at the start of the project and another barge to remove empty fuel drums, rubbish and equipment at end of the project. WAPET also flew all Perth- and south west-based staff and volunteers from Perth to Barrow Island.

Apache Energy flew Karratha-based staff from Karratha to Varanus Island and return as part of their sponsorship package. The crews were picked up from Barrow and Varanus islands in the CALM-chartered helicopter or by *Pseudorca II*. Apache Energy also flew personnel from Hermite to Barrow Island at the end of the project.

During the latter part of the project all islands in the archipelago were checked for rat activity. All indications were that that the project had been successful. However, the islands will need careful checking over the next few years before eradication can be assured. Should any rats remain, further baiting will take place as required.

The islands were also checked for native fauna. No deaths of native fauna could be attributed to the project— bar-shouldered doves were still abundant, ospreys were incubating eggs or raising young and reptiles, including sand goannas, were common. Spotted and marsh harriers, brahminy and black-shouldered kites and kestrels seemed as abundant as they had been before the project commenced. Early in the project, the baiters saw a pair of white-breasted sea-eagles on one island that were eating dying rats. However, they noted that only the flesh was being eaten, not the stomach and intestines that contained bait. Late in the project, this island was re-visited and the sea-eagles were still present and healthy. One dead brahminy kite was found on Trimouille Island and may have died from secondary poisoning, but it appeared to have been dead for some time and the cause of death could not be determined.

Phase II of *Montebello Renewal* commenced during August. This involved laying baits for the feral cats that occur on Hermite Island. The baits were designed and prepared in Perth by CALM's cat researchers and final preparation was carried out on Hermite Island before being laid by from a helicopter provided by Apache Energy.

Unfortunately, cat track counts before and after baiting suggested that few cats had taken the baits. This was probably due to the abundance of natural food on Hermite Island this year, which has seen exceptional rainfall.

Phase III of *Montebello Renewal* involves the re-introduction of locally extinct mammals and birds to Hermite Island and, subject to approvals, introductions of threatened species to some of the other islands in the group. Further cat control work and final eradication will be necessary before re-introductions of native species to Hermite Island can be contemplated. However, if the rat eradication proves successful, introductions of critically endangered mainland species to other islands may be able to go ahead within the next couple of years.