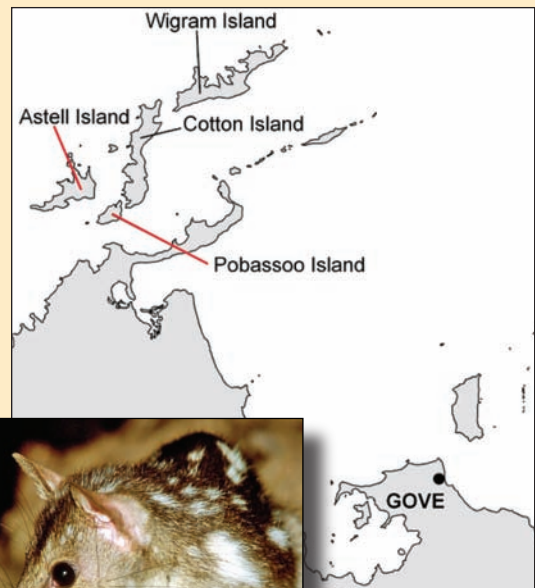


Quolls make comeback on offshore islands

Martin Armstrong, NT Parks & Wildlife, during the original release in 2003. From the original population of 64 quolls, numbers have grown to more than 5000.

Right, Map shows Pobassoo and Astell Islands off Arnhem Land, where the quolls were released.

Photos: Ian Morris



Above, map of Astell and Pobassoo Islands off Arnhem Land. Right, the northern quoll

In 2003, 64 northern quolls (*Dasyurus hallucatus*), taken from sites across the Northern Territory were released on two islands in the English Company group off north-east Arnhem Land (see map above right). This translocation aimed to save these small carnivorous animals from the threat of cane toads which, through poisoning quolls that tried to eat them, were having a catastrophic impact on mainland quoll populations.

Recent monitoring of these island quolls has shown there are now between 5600 and 6200 adult females—a remarkable increase in numbers. This appears to be good news for the quolls and raises some questions: why are they doing so well? Are these populations sustainable?

The translocation and release of the quolls was carried out by the Gumurr Marthakal Rangers, the Traditional Owners of the islands, Traditional Owners from where the quolls were sourced, scientists from the NT Department of Natural Resources and the Arts, the Territory Wildlife Park and Parks Australia North.

Nineteen quolls were released on Pobassoo Island and 45 on Astell Island in February and March 2003.

These islands were selected because they had rocky sandstone habitats favoured by quolls, no human settlements and a low risk of invasion by toads. Also, there were no other animal species that the introduced quolls would likely have significant negative impacts on.

Astell and Pobassoo islands were also thought to be large enough for quoll populations to survive for at least 30 years—long enough, hopefully, to have worked out solutions to the threat posed by cane toads to quolls.

Working out how many quolls are now on the islands is not that easy; you can't count each one, so a small sample needed to be trapped and then the total population estimated.

Depending on the likely 'catchment area' of each trap, the population estimates in December 2007 varied from around 4800 to 5300 quolls on the larger Astell Island and from around 820 to 900 quolls on the smaller Pobassoo Island.

These numbers (from December, 2007) refer only to adult female quolls as after an exhausting mating in the dry season, virtually all the males die, while the young remain in the den for around 4–5 months, so total numbers of quolls would be more than these figures suggest.

It is thought the quolls are doing well for a couple of reasons, the first one being that there are no toads around to poison quolls that try to eat them.

But these populations are higher than those measured for mainland quolls even before the toad invasion, and a major reason for the success of the translocation is suspected to be the lack of predators such as feral cats.

Interestingly, shortly after the translocation, much of Astell Island was burnt by fire and in 2005 the vegetation of both islands took a pounding from Cyclone Ingrid.

These quoll population densities will presumably level out or drop as they are larger than any known natural population density, but there is no sign yet that the crowded conditions are having any ill-effects on the animals. The trapped quolls were in good condition, the populations had healthy genetics and breeding success continues to be good. — Peter Jacklyn.

Read the final report: *Island translocation of the northern quoll *Dasyurus hallucatus* as a conservation response to the spread of the cane toad *Chaunus [Bufo] marinus* in the Northern Territory, Australia.*
<www.nt.gov.au/nreta/wildlife/programs/quoll/index.html>

'Island refuge gives quolls chance at survival', *Savanna Links*, Issue 26, July–October, 2003, <www.savanna.cdu.edu.au/publications/savanna_links_issue26.html?tid=36153>