FERAL ALERT

FERAL PIGS IN THE SOUTH WEST

Jordan Hampton

FERAL pigs have been seen as an important pest in eastern Australia for decades, but the problems they cause in Western Australia have remained relatively unknown until recent years. A big reason for the increase in public profile has been the recent 'explosion' in feral pig numbers and distribution in WA. Feral pigs are very destructive pests, and cause considerable damage for both conservation and farming, and a relatively small mob of pigs can wreak havoc in the bush or on the farm. Pigs will eat almost anything, but their habit of 'ploughing' through soil with their snouts in the search for food causes the most problems. Environmentally, pigs have been implicated in the spread of dieback, destruction of stands of rare flora, and the decline of rare fauna species such as the quokka. Their impacts on agriculture are equally severe, with damage to crops, dams and fences occurring, as well as transmission of important livestock diseases such as leptospirosis.

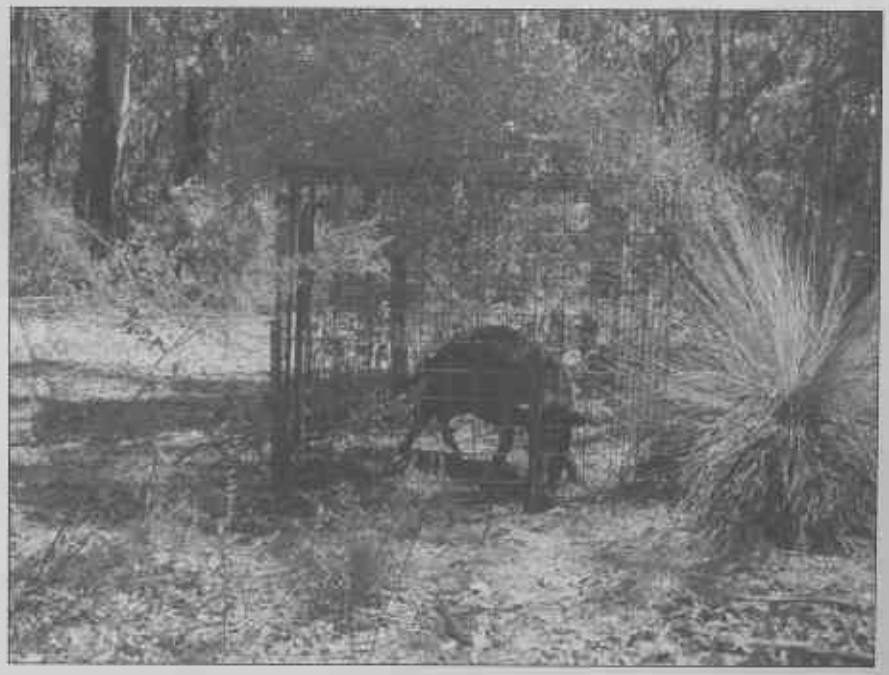
Feral pig populations were initially established as a result of escape or release from farms, and are now found right across the south-west, from the Darling Range around Mundaring through to the coastal swamps of the Denmark area. Large feral pig populations also exist in the state's mid-west and Kimberley regions, but pigs have a strict requirement for daily water, and consequently have not established in the state's interior. While pigs are now widespread across the south coast, these populations have only really established in the last decade. Deliberate transportation from established feral pig populations to uninfested areas by recreational hunters has been blamed for much of this recent expansion.

Feral pigs can be controlled via a number of methods, including poison baiting and shooting, but in the forests of WA's south west, trapping has long been considered the only practical method for control. While fairly intensive trapping programs have been in place in certain areas of the south-west for many years, feral pigs are notoriously difficult pests to control, and eradication, once a population has established, is thought to be close to impossible. Groups such as CALM and Water Corporation aim their control efforts at protecting small sensitive areas, such as endangered fauna habitat, or drinking water reservoirs. Despite removing many pigs through this approach, re-invasion of these sites has always been rapid, necessitating expensive ongoing control programs.

To help address this problem of re-invasion, I undertook a project in 2003, using the modern approach of population genetics to determine where these re-invading animals were coming from, and thus letting management agencies know how large an area they must control in order to protect their sensitive sites. Examining the genetics of a species at a population level also allows us to see whether populations are in decline, and how far individual animals are moving. A similar genetic approach has also been of great value in controlling the troublesome Australian brush-tailed possum in New Zealand.

This genetic study revealed that feral pigs in the south-west do not form a continuous belt, but rather a series of small, discrete populations, centred on major waterways, with very little movement of pigs between these populations. This is great news for feral pig control, as it will be possible to heavily control one small population at a time without pigs re-invading from neighbouring populations. The trick in long term control and eradication is to be able to divide a group of animals up into units such that migration can not occur between units. This enables a classic 'divide and conquer' approach. Genetics really just defines the natural existing boundaries to migration that would otherwise be difficult to 'see'.

In contrast to the south-west picture, areas 10 times larger would have to be controlled in the eastern states before rapid re-invasion could be avoided. This comparison shows that WA may have the best chance of permanently getting rid of our pigs, given that feral pigs in areas such as the Serpentine River and Denbarker are found in such small discrete pockets. Added to this is the fact that genetic results indicate that several south-west populations have



Feral pig in cage trap.

continued on page 7

Feral Pigs continued from page 6

suffered recent crashes in population size, due to intensive control programs. It seems a combination of rugged terrain for pigs to cross and well organised local control efforts has enabled us to get on top of the feral pig problem in the south-west. If feral pig eradication, even at a local scale, is at all possible, south-west WA may be the ideal place to attempt it.

Jordan Hampton completed an honours thesis in 2003 based on his feral pig research. He is currently completing a degree in veterinary science at Murdoch University. He can be contacted by email: j.hampton@student.murdoch.edu.au

Did you know?