FAUNA

MOUSE CONTROL IN CROPS - A NATURAL ALTERNATIVE (SOMEBODY SHOULD GIVE A HOOT!)

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In southwest Western Australia there are four species of owl (Boobook *Ninox novaeseelandiae*, Barking owl *Ninox connivens*, Barn owl *Tyto alba* and Masked owl *Tyto novaehollandiae*). The Boobook and Barn owl are still fairly common in many parts, but the Barking and Masked owl are very rare these days.

Boobook owls eat very small birds, small mammals (in particular house mice) and large night-flying beetles, moths and locusts when they are available. They inhabit a wide range of habitats from forest to desert. Barking owls inhabit forest and woodland and feed on mammals (in particular rabbits, rats, mice and small marsupials up to the size of possums). They also feed on birds and larger invertebrates.

Barn owls are found all over the State from forest through open wooded country to grassy plains. In southern Australia the house mouse has become the Barn owl's chief food source, but they will also take other rodents, small marsupials, small birds, lizards and geckoes and night-flying insects.

The Masked owl usually keeps to heavier forested areas, never more than 300km from the coast. They feed on small terrestrial mammals up to the size of rabbits, with occasional possums and medium-sized birds such as magpies and kookaburras.

Alterations to the landscape associated with farming and cropping have meant that the opportunities for these four owl species to hunt across all of the landscape have been reduced. The reduction in hunting opportunities is not just strictly limited to those areas cleared for farming. Barn and

Boobook owl.
Photo: Christine Freegard

Boobook owls have benefited greatly from the increased abundance of house mice that are intimately linked to cereal crops and pasture, but with the loss of hollow-bearing trees and perches within those croplands they are often restricted to edges of paddocks, roadsides and vegetation corridors.

Research conducted in New South Wales in the late 1980s indicated that when additional perches were provided in croplands, the population density of owls (and day-flying birds of prey such as kestrels and kites) increased significantly. The perches used in these experiments were simple structures 2-3m high with a solid wood cross piece 0.5-1.0m in length fixed at the top. The perches were spaced at 200m intervals across paddocks, and if they followed drainage channels or were located in rock piles, they did not disrupt any machine operations during cropping or spraying.

The reason these perches are so important to owls is that they have limited stamina for hovering and most of the prey they capture is first located by the sounds it makes (e.g. rustling in grass or squeaking). Once the owl has pinpointed the source of the sound if flies towards the sound and pounces on the prey. If it can't see its prey or the vegetation is too thick, the owl must rely entirely on it's hearing to pinpoint the prey.

So, if you think that some biological control of rodents and invertebrates in and around crops or orchards would be a good thing, you might want to erect a few perches. It is a simple enough process to check on how welcome these hunting platforms are to raptors. Either drive by the perches during the day or night and watch for the kestrels, kites and owls or look for the tell-tale droppings and regurgitated pellets (containing the indigestible parts of prey such as bone, teeth, insect exoskeleton and the fur) that are left beneath the perches. Remember if you are planning to use a spotlight to locate owls at night make sure you use a 55W globe instead of the normal 100W and direct the beam to one side of the birds so as not to cause distress to their light-sensitive eyes.

The other advantage of providing artificial perches in paddocks is that it gives birds of prey an opportunity to hunt away from roadsides where they are at risk of being involved in collisions with motor vehicles.

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WW 5/1, Jan 2001, contains further info on owls, including 'Owls in the South West of WA' and 'Owl Survey – A Community Group First in WA'. Contact LFW on (08) 9334 0427 if you would like a copy.