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Keeping starlings out of W.A

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Starlings keeping out of W.A.

In Europe and North America huge flocks of starlings cause millions of dollars worth of damage to grain and fruit crops each year and large sums of money are spent trying to control them.

Starlings were introduced into Australia in the late 1890s when more than 200 birds were released near Melbourne. They are now well established over much of eastern Australia, ranging from central Queensland, south to Tasmania and along the Great Australian Bight to the South Australian-Western Australian border, occasionally crossing it and sometimes moving as far west as the Esperance region on the south coast.

Some people believe the few starlings that enter the State won't do much harm, but in favourable circumstances these birds can breed into huge hungry flocks. The State's agricultural areas would provide ideal breeding grounds, so the Agriculture Protection Board is determined to control the starlings' migration any further west from the border. Fortunately the known main concentrations are still to the east of this area.

Agriculture Protection Board Officer, **J. L. Long,** *discusses the reasons for keeping starlings out of the State.*

Colonisation of Western Australia

The colonisation of Western Australia by starlings is not a new problem, but recently it has taken place at a much faster rate. Starlings first featured in discussions about 90 years ago when a proposal was made to introduce them to Western Australia to combat pest insects. Fortunately the government of the day disagreed.

Some starlings may have reached Albany about 1917; the records are not clear and the specimens were lost. However, the first starling definitely recorded in the State was shot at Gingin in 1936. From 1936 until 1970 there are no further records of starlings entering the State, but since 1970 they have been appearing regularly along the coastal area near the Western Australian-South Australian border.

The shooting of a single starling a few kilometres north of Esperance township in 1970 marked the beginning of what has become a continuous effort to keep the species from settling permanently in Western Australia

Shortly after this event, two small well-established colonies of starlings were found breeding about 65 km east of Esperance. These were exterminated, as were other colonies in the same area in 1974 and 1976.

In 1982, two major concentrations of starlings were discovered. One of about 120 starlings was found at Merivale, east of Esperance and near the earlier sites. The other on the Nullarbor Plain was made up of flocks at Eucla, Madura and Mundrabilla and probably totalled more than 700 birds. At least 500 starlings have now been destroyed in these areas. In November 1983 it was estimated about nine birds were still present and efforts are being made to eliminate them.

Migratory habits

In Europe the starling is both a sedentary and a migratory species. Birds in the more northern habitats tend to migrate southwards to avoid the severe winters and to take advantage of more readily available food.

Until recently the starling in Australia appears to have been sedentary. This situation is changing, at least on the southern coast of eastern Australia where there is now a considerable north-south movement with the seasons.

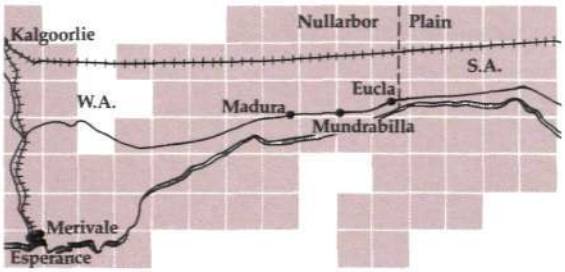
From studies since the introduction of starlings in North America, and research on birds banded in their native European range, we know there are also considerable movements in both an easterly and westerly direction. About 35 million continental starlings move regularly across the North Sea into Great Britain each winter. In North America flocks of starlings began appearing in California in winter for several years before they finally became established.

Some of the starling's movements are correlated with seasonal migration. Others may be related to the dispersal of flocks away from areas where larger populations share breeding sites and food. It has been suggested that young starlings have an innate tendency to disperse from parental flocks each year.

In the past 150 years starlings have extended their breeding range in Europe. This change is thought to have been influenced by an increase in the area of land used for agriculture and by an improvement in climate. A warmer climate allows starlings to breed earlier in the year and this has resulted in greater breeding success and the likelihood that successive clutches will be produced and reared successfully.

For many years people thought the Nullarbor Plain offered a substantial barrier to the

■ A few starlings can soon breed up to become major pests.



■ The vast Nullarbor Plain has not prevented starlings migrating west from the eastern States.

colonisation of Western Australia by introduced species from eastern Australia. It has not proved a total barrier to starlings and probably will not deter other introduced pest species.

The recent starling invasions of Western Australia suggest the establishment of starling colonies at Esperance follow "good" seasons on the Nullarbor Plain. Starlings, however, may not always need to wait for a good season as they are capable of flying long distances.

Within 40 years of their introduction to New Zealand starlings began appearing on off-shore islands up to 880 km away. Starlings have also reached and become established on at least one of the south-east islands of the Fijian group. The nearest other established colony is on the Kermadecs some 1 224 km to the south.

What havoc will the starling cause?

In favourable circumstances a few starlings are capable of breeding into huge hungry flocks. Cultivated areas where food crops are grown and stock are grazed provide the ideal habitat for starlings. In these environments their population expands to exploit the food and breeding spaces available.

Fruit crops such as cherries, grapes, olives, pears, plums, peaches and strawberries are particularly vulnerable to attacks. In one cherry growing area in Europe flocks of up to 200,000 starlings ate an estimated 400 tonnes or 20 per cent of one year's crop.

Starlings prosper in areas of intensive livestock farming where animals are kept in feedlots. Their consumption of crushed grain and pelleted stock foods causes considerable economic loss. In one intensively stocked area in California more than nine million starlings which fed from cattle troughs were killed in a three-year control period.

Starling pest situations of this magnitude have not yet developed in Australia, but they may not be far away. There are already records of severe losses to soft fruits and stock feed. In the Mildura district 143 tonnes of grapes valued at $20,000 were destroyed in one year by starlings. In one poultry house in Victoria they were responsible for the wastage of 11 tonnes of poultry feed in one year. Starlings can damage sprouting cereal crops and help spread disease through contamination of feed stuffs.

They are aggressive hole-nesting birds which would compete with native hole-nesters for breeding sites. Although there is not a lot of research on competition between native and introduced birds in Australia, it seems that many of the introduced birds have become established to the detriment of native species. The starling is no exception. Together with the house sparrow, tree sparrow and blackbird, it is one of the dominant species in many of the larger towns and cities in eastern Australia.

If starlings become established in Western Australia they are certain to become an economic pest to grain growers, orchardists, poultry farmers and other primary producers. They will become a nuisance in cities and towns and will probably have an adverse effect on native birds.

It is essential that a major effort is made to prevent them becoming established here. The cost of keeping the State free of starlings is likely to amount to only a small fraction of the economic damage they would cause to a wide range of primary production.