

Pest Bird Case Study: The Common Myna

BirdLife Australia is concerned with the conservation of native birds and their habitats. Often, our organisation is asked for guidance on matters related to the unwanted impacts of birds, including non-native birds. Introduced species such as the Common Myna *Acridotheres tristis* (also known as the Indian Myna), have a long history of cohabitation with humans and are well adapted to living in urban and rural areas. The Common Myna is considered a pest and often associated with real or perceived impacts in agricultural and urban areas, and bushland remnants, through competition with native birds for resources. As a result, it is the subject of a series of trapping and euthanizing programs run by local councils and community action groups and is viewed with contempt by some members of the public.

This case study should be read in conjunction with BirdLife Australia's Policy on the Management of Pest Birds.

Position Statement

1. The Common Myna is a species well adapted to urban and rural areas and is associated with human-dominated environments in eastern Australia.
2. There is little research on the social, economic and environmental impacts of the Common Myna in Australia and BirdLife Australia advocates more research into the potential impacts of the Common Myna on native bird populations.
3. BirdLife Australia supports efforts to limit the impacts on native biodiversity by the Common Myna in areas where this impact has been demonstrated. In so doing, BirdLife Australia advocates an evidence-based approach to defining and controlling the social, economic and environmental impacts of this pest species and supports research aimed at providing that evidence.
4. BirdLife Australia advocates that the public should discourage the Common Myna through habitat modification. See below.
5. If trapping occurs, there should be strategic planning of locations for trapping, which might include areas where Common Mynas are currently invading. Data should be gathered before and after trapping in order to critically analyse whether trapping is: (i) reducing Common Myna numbers in the planning location, (ii) an effective method of reducing the negative impact of Common Mynas and (iii) linked to changes in the native bird community at the location.
6. All management activities directed at Common Mynas must be undertaken humanely and within existing legislation in the relevant jurisdiction.

Policy Background

Distribution, habitat and ecology

The Common Myna is found along the east and south-eastern coasts of Australia. Introduced to Melbourne from South-east Asia between 1862 and 1872, it established quickly, with several other introductions occurring until the 1950s. It was introduced to the cane fields of north-eastern Queensland in 1883, to combat insect pests, particularly plague locusts and cane beetles. Failed introductions were made at Launceston, Tasmania in 1900 and later in 1955. It has continued to expand its range, particularly along coastal regions of Queensland, NSW and Victoria, and it is moving inland in these states. It is closely associated with human habitation, both urban and rural. While it does have the potential to occupy remnants of native vegetation, it is most abundant in built-up areas of the urban landscape.

The Common Myna is one of the most abundant birds recorded in urbanised areas of Queensland, NSW and Victoria. As with other urban-adapted plants and animals, as we continue to expand urban landscapes we are increasing their area of potential habitat. The species is omnivorous, foraging primarily on the ground, using selected trees for communal roosts and generally nesting in structures made by humans. It is aggressive towards and competes with native birds, particularly for nest hollows. Common Mynas form large communal roosts, which lead to complaints of noise and fouling. There are also suggestions that these birds may transfer disease. While there is little scientific evidence in Australia to quantify the impact of the Common Myna, the World Conservation Union has listed the Common Myna as one of the top 100 World's Worst Alien Invasive Species.

What impact is the Common Myna having?

At present, the impact of Common Mynas on native bird communities across Australia is uncertain and there are few empirical studies. In a study of 721 backyards in the Greater Sydney area (Parsons et al. 2006), seven small native bird species were negatively associated with the presence of the Noisy Miner and one small native birds species was negatively associated with the presence of the Pied Currawong. None of the species of small birds was negatively associated with the Common Myna. A study (Pell and Tidemann 1997) of two Nature Parks totalling 205 ha in the Canberra region provided circumstantial evidence that Common Mynas may adversely affect the breeding success of Crimson and Eastern Rosellas in savannah and woodland areas, particularly those close to urban centres. However, much more research is needed to improve our understanding of the possible impacts of the Common Myna and many other introduced species. Lowe et al. (2011) concluded that Common Mynas have little competitive impact on resource use by native bird species in urban Sydney. They contended that the results of all studies published in Australia, even when combined, do not provide sufficient information to conclude that competition from the Common Myna has a significant impact on native fauna.

Impacts overseas

The World Conservation Union has listed the Common Myna as one of the top 100 World's Worst Alien Invasive Species.

In French Polynesia for example, they are reported to predate on the Critically Endangered Marquesan Kingfisher and represent a major threat to the Critically Endangered Tahiti Monarch (Blanvillain et al., 2003).

On Ascension Island (Saint Helena), Hughes Martin and Reynolds (2008) found Common Mynas to be a major predator of sooty tern eggs, directly causing 25% of egg losses. Similarly, Byrd (1979) found the

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pest species to be significant consumers of the eggs of wedge-tailed shearwaters (*Puffinus pacificus*) in the Hawaiian Islands. In a study on Kauai the author found that 23% of shearwater eggs were destroyed by the Common Myna (Lever 1987). On Rarotonga it is likely to reduce the nesting success of the vulnerable Cook Islands fruit dove (*Ptilinopus rarotongensis*) in horticultural and village areas but not in heavily forested areas, which it does not penetrate (BirdLife International 2008d).

During Myna control undertaken on Moturoa Island, Bay of Islands, New Zealand, Tindall (1996) documented increases in the numbers of many small indigenous birds including tui (*Prosthemadera novaeseelandiae*), fantail (*Rhipidura fuliginosa*), grey warbler (*Gerygone igata*), silvereye (*Zosterops lateralis*), and welcome swallow (*Hirundo neoxena*), along with introduced species such as blackbird (*Turdus merula*), and chaffinch (*Fringilla coelebs*).

Anecdotal evidence and observations of impact in Australia

Anecdotal evidence and observations also suggest the common myna could negatively affect a range of native parrots, rosellas, lorikeets, kookaburras, dollarbirds and treecreepers in Australia. Reports include incidences of mynas killing chicks of native birds, attacking and killing adult birds on nests, destroying eggs and aggressively defending nest hollows. Bird clubs and members of the public frequently report the displacement effect of mynas on native birds in backyards.

Current Control Methods

Culling by catching individual birds is generally both labour- and cost-intensive and the success of such control efforts is unknown. Some councils and community groups have established trapping programs in an effort to reduce Common Myna populations.

Community groups such as the Canberra Indian Myna Action Group (CIMAG) for example reportedly undertake these activities at relatively low cost because of the high number of people and traps involved. In Canberra, a regional Garden Bird Survey indicated that since CIMAG commenced in 2006, Myna numbers were reduced from the 3rd most common bird to the 14th in three years.

Yet, Tideman (2010) argued that only careful monitoring and evaluation of outcomes will resolve whether or not community-based trapping programs are reducing the impact of mynas, and that record keeping by community groups involved in trapping has been notoriously poor to date.

In any case, all programs need to specify the impact that Common Mynas are having in a defined area, the acceptable thresholds to which these impacts might be reduced and the monitoring component for Common Mynas and the impact of concern so that the effectiveness of the program can be assessed.

Habitat manipulation may be a more effective, long-term method of controlling the impacts of the Common Myna in both native vegetation remnants and in urban areas. Lowe et al. (2011) found that the abundance of the common myna increased significantly with the degree of habitat modification in urban Sydney. Common Mynas are ground foragers in open habitats. Therefore, modifying vegetation structure, such as ensuring the presence of understorey shrubs and reducing the amount of short grass cover will reduce the amount of foraging habitat for the species. The Common Myna should be denied access to food sources by limiting scavenging opportunities at rubbish bins, from discarded food scraps and by removing uneaten pet food from outdoor areas. Nesting can be discouraged, for example through blocking access to nest locations around suburban yards and buildings.

Further research is required to look at the efficacy of habitat manipulation at reducing the impact of Common Mynas, as Lowe et al. (2011) conclude, if the purpose of Myna control is to enhance urban bird diversity, resources currently directed towards culling could be better directed improving the quality of natural habitat.

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