



INDIAN MYNA CONTROL PROJECT HANDBOOK

Managing the invasion of
Indian Mynas in Northern NSW

CONTENTS



The Indian Myna Control Project	Pg 2
The Problem with Indian Mynas	Pg 3
Identification	Pg 4
Behaviour and Habits	Pg 6
Managing the Invasion	Pg 8
Trapping Program	Pg 9
Trapping Procedures	Pg 10
Trapping & Transporting Procedures	Pg 12
Euthanasing Procedures	Pg 13
Handling Native Birds	Pg 14
Reporting & Monitoring	Pg 16
Contacts	Inside back cover

Written and compiled by Tien Pham (Indian Myna Control Project Officer - Coffs Harbour, Bellingen and Nambucca Shires) and Joy van Son (Nambucca Valley Landcare).

Based on "Indian Myna Handbook" by Alana Parkins.

Contributions by Pamela Gray (Indian Myna Control Project Officer - Byron and Tweed Shires) & Cathy Eggert (Hastings Landcare).

The Indian Myna education pack was designed by Mira Design Studio.

Printed June 2009 on 100% Recycled Envirocare paper, made from 75% post consumer waste & 25% pre-consumer waste.





Indian Mynas were introduced into Australia in the late 1860s to control insects in market gardens. Originally wide spread in South Asia, they have now established over most of Eastern Australia and are spreading to other parts of the country including Darwin, Perth and Adelaide.

They have become a huge problem in cities and urban centres where they have been able to effectively adapt to a range of conditions and exploit a wide variety of different food types. Mynas also thrive in rural landscapes where agricultural activities provide them with a range of habitats and feeding options. They often congregate near cattle farms and dairies where feedlots are readily accessible. Racing stables and farms with poultry coops are also prime scavenging areas for Indian Mynas.



In addition to being a nuisance in these landscapes, their presence in ever-increasing numbers also threaten native birds and hollow-dwelling animals in the wild.

The Indian Myna Control Project provides education, coordination support and traps to local communities in northern NSW to help combat the Indian Myna Bird invasion.

This booklet will help you to:

- Identify the Indian Myna
- Understand the behaviour and habits of Indian Mynas
- Stop the invasion in your own backyard
- Use Myna traps
- Ensure humane handling of captured birds
- Monitor and report bird feeding and roost sites

Your local coordinator can help identify trapping sites, train volunteers to use the traps and organise the humane disposal of captured Indian Mynas.

If you would like to report large numbers of Indian Mynas or roost locations contact your local Area Coordinator or Indian Myna Action Group.

For more information on the Indian Myna Control Project in your local area refer to the "Contacts" section at the back of the Handbook.

Mynas can often be seen on power lines and in open grassy areas where they hunt for insects & worms.

Indian Mynas are a highly invasive species. They are opportunistic and eat almost anything. In cities and regional centres Mynas congregate in areas where food sources are regularly available usually near schools, shopping centres, parks and sports fields.

The Mynas scavenge for food scraps near picnic areas and rubbish bins. They will also take pet food and bird seed from backyards in residential areas. In rural areas they feed on stock feed, grain, pellets and compost. They foul on the backs of livestock and contaminate feed bins. They also leave an unsightly mess in sheds and stables where they roost.

Mynas can often be seen on power lines and in open grassy areas where they hunt for insects and worms. They congregate in large numbers in roost trees, making a loud chattering noise and leaving droppings everywhere. Apart from the reduced aesthetics, clean-up costs can be quite significant. Mynas can also impact on human health, as they are carriers of bird mite and may harbour avian diseases such as psittacosis and salmonellosis.



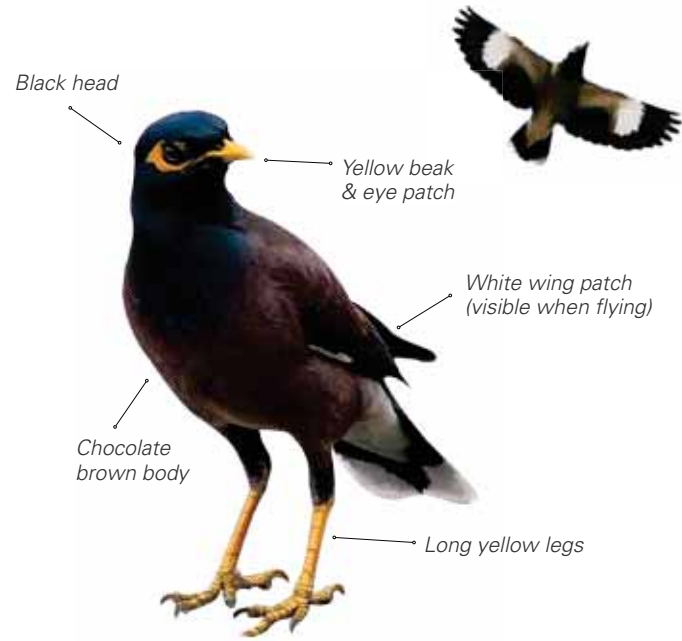
Indian Mynas are messy birds and nest in tree hollows, palms and under roofs in sheds and houses. They evict animals and birds from their nests, attack chicks of other species and breed in tree hollows rendering them unusable by other wildlife. This is of particular concern, as tree hollows have become an increasingly limited resource for many native animals.

Mynas are well adapted to Australian conditions and breed quickly.





INDIAN MYNA (*Acridotheres tristis*)
Introduced pest



- Indian Mynas are predominantly chocolate brown with a black head. In flight, white wing patches are clearly visible.
- Both birds have yellow beaks and a yellow patch around their eyes.
- The key difference between the two birds is that the Indian Myna has a chocolate brown coloured body, whilst the Noisy Miner is mottled grey and white.
- Mynas spend much of their time foraging on the ground, where they can often be observed moving about with a distinctive 'hopping gait'.

NOISY MINER (*Manorina melanocephala*)
Native bird



- Noisy Miners are a protected species, and must be released if captured.
- The native Noisy Miner is a honeyeater with a much more limited diet. It forages for nectar and small insects.
- Apart from the physical similarities, both birds appear to share common behavioural traits which can often lead to incorrect identification. The Noisy Miner also breeds rapidly, forming family groups which move around in search of food. They can exhibit aggressive and territorial behaviour, chirping boisterously and working together to chase other birds away.



The Myna's behaviour is seasonal. They form pairs for breeding from September to March and go in search of a protected nesting site. They are prolific breeders and can raise multiple clutches per year, with 4-5 chicks per clutch. The fledgling period lasts for 20-30 days and when the juveniles are ready to fly they travel in small family groups.

After March, the Mynas join larger groups and move to communal roosts where they can number in the hundreds. They split up in the mornings, going off in different directions to find food in small groups. By September, the Mynas form pairs and prepare to nest again.

Hundreds of Mynas can roost in a single tree or building, especially near a regular food source like a racecourse. When the Myna numbers get so great, food becomes scarce and a new colony is established.

Indian Mynas are sedentary, non-migratory birds, however resident populations display some local movement. They have been observed regularly moving between roost sites and foraging grounds, with additional seasonal movements between known habitats.



Image – Exotic trees forming a typical Indian Myna roost site.

Rural areas

Mynas prefer open woodland and grassland to forested areas. They particularly favour open grazing country and freshly slashed or ploughed fields. Mynas follow major roads and arterial routes to spread into new areas, especially in places where the natural landscape has been modified. Indian Mynas are commensal with humans. They thrive in areas of human settlement, often occupying disturbed habitats.

Indian Mynas are attracted to animal food, especially horse, goat and pig feed, chicken pellets, and fruit. They will also feed on animal manure. Mynas will nest in out-buildings, house roofs, nest boxes and tree hollows in paddocks and on the edge of bushland. Shooting scares them off but they will return if food is available.

Residential areas

Mynas are well adapted to urban areas where feeding sites are plentiful. They are often seen resting on power lines, prowling schools, picnic areas and sports fields for food scraps. They nest in gaps in city buildings, petrol stations, air conditioners, and in house roofs and gutters. In backyard gardens Mynas invade nest boxes and displace native birds and animals. They feed on nectar and seed put out to attract native birds and particularly favour left-over pet food.

*The Indian Myna belongs to the Starling family; a group of birds which includes other invasive species such as the Common Starling (*Sturnus vulgaris*) and the Metallic Starling (*Aplonis metallica*) which is native to tropical Queensland.*



MANAGING THE INVASION

Planting a wide range of local native plant species in your garden will provide a diversity of habitats for native birds.

Trapping alone will not keep the Indian Mynas under control. Mynas thrive where there is easy access to food. You can reduce their available food source in the following ways:

- Leaving out seed and other food for native birds will attract Indian Mynas and they will quickly dominate your garden. Mynas will totally exclude all other birds and in the long term you may be left with a garden full of Indian Mynas. If you see Mynas at your bird feeder or in your garden refrain from putting out bird seed until Mynas have left the area.
- Planting a wide range of local native plant species in your garden will provide a diversity of habitats for native birds. Indian Mynas prefer foraging in areas with a clear understorey. Gardens with a reduced lawn area containing a mixture of native trees, shrubs and herbs, especially with a dense understorey, will attract a variety of birdlife without providing suitable habitats for Mynas.

- Feed pets inside, or if that is not possible, put pet food inside during the day.
- Ensure chicken and duck pens are Myna proof. Feed poultry inside a secured area.
- When feeding goats or horses, it is best to stay with the animals while they are feeding and clean up spilled or leftover pellets or grain. Also bag manure around stables and cover compost heaps.

Mynas nest in tree hollows, roofs, exotic trees and the dead fronds of palms. You can reduce their available habitat in the following ways:

- Block holes in roofs and eaves.
- Keep palms well trimmed. Avoid planting clumps of exotic species such as Cocos Palm (*Cocos plumosa*), Slash Pine (*Pinus elliotii*), Radiata Pine (*Pinus radiata*) and Umbrella Tree (*Schefflera actinophylla*), as these are all preferred Indian Myna roosting trees.
- Bird mite infestations can cause severe itching and rashes – if you have a Myna nest in your roof, gutters, a backyard tree or a bird box in your garden, you should destroy it before the eggs hatch. Put the nest in a garbage bag in your garbage bin.
- Wear gloves when handling Myna Birds and their nests.



TRAPPING PROGRAM



The aim of trapping is to reduce the Indian Myna population, thereby reducing the threat to native birds and animals. Reducing the existing Indian Myna population by trapping requires the humane handling of all captured birds. Everyone who participates in trapping must adopt the animal welfare protocol.

PeeGee's Myna Trap

Traps are designed to exploit Myna behaviour. One example is The PeeGee's Myna Trap, a double-chambered wire trap which is suitable for use in backyards and gardens. It has proved to be successful in Indian Myna trapping programs across NSW.

Talk to your local Project Coordinator for information on borrowing a trap, or to obtain the PeeGee's Trap construction plan. The step by step instructions are easy to follow and the materials required to build your own trap are inexpensive.

One-way Walk in Tunnels

Mynas walk about looking for food, therefore, all Myna traps have walk in one-way tunnels. Most traps have two tunnels but some experimental traps are circular and have four or five tunnels.



Image – One-way walk in tunnel

Vertical Tunnel

Once inside the entrance chamber, the Mynas will go up the vertical tunnel into the holding chamber where there is no chance of escaping.



Image – Vertical tunnel leading to holding chamber



Ensure that the birds you are aiming to trap are Indian Mynas or Starlings and not native Noisy Miners.

A Guide to using PeeGee's Indian Myna and Common Starling Trap

- No bird is to be treated cruelly or subjected to harsh conditions: please observe the requirements of the NSW Prevention of Cruelty to Animals Act 1979. Your Area Coordinator will inform you if there are requirements to sign an animal welfare protocols agreement.
- Indian Mynas and Starlings are very intelligent and wary birds. For your trapping to be successful you will need to follow the trapping process consistently and methodically. You will need patience and persistence for your trapping to be successful.
- Ensure that the birds you are aiming to trap are Indian Mynas or Starlings and not native Noisy Miners. Noisy Miners are protected by law and it is illegal to trap them without a licence.
- This trap is intended to trap Indian Mynas and Starlings where they are known to come down onto the ground and feed on a regular basis (at least 3 times a week). If you have not yet had these birds feeding on the ground at your site, trapping with PeeGee's trap is unlikely to be successful.



- Do not approach the trap during daylight hours. Even if you can't see the Indian Mynas they can see you. If un-trapped Indian Mynas see you handling a trap, particularly once you have a trapped bird, they will avoid entering the trap.
- Traps are on loan to volunteers and should not be modified or changed in any way.
- Only ever set up the trap when you are able to check it morning and evening. Ensure that the trap is stored away safely at night, and any other time that it is not in use, as this will prevent accidental trapping of non-target animals. This will also prevent vermin from eating your bait.
- Keep pets and children away from the trap as Indian Mynas and Starlings are extremely wary birds and are sensitive to disturbance. Pets may also eat the bait intended for the birds.
- If you trap any non-target species, you must release them through the door hatches.



- Provide shade, food and fresh water in the larger chamber (holding chamber) at all times for captured birds.
- If Ibis start to hang around the trap, put your trap away until they have been absent from the site for a couple of days. These birds can get a taste for the bait and stake out the trap even if they can't reach the bait and consequently ruin your trapping effort if not discouraged in the first instance.

Trapping Process

To maximise trapping results make sure that you have completed each step before moving to the next. Duration of trapping can vary widely from site to site and can take anywhere from a few days to a few weeks.



Step 1 – Get your bait. You will need to use suitable bait. The bait that is most attractive seems to be 'Lucky Dog Minis – Minced Beef, Vegetable and Pasta Flavour'. Do not use grain-based foods (birdseed and bread etc) as this attracts non-target birds such as crested pigeons and parrots.

Step 2 – Choose a spot at which to undertake trapping. This should be a site that you have seen the Indian Mynas come down on to the ground. If possible, the site should be flat and open with short grass, however volunteers have had success trapping in various other settings including on the roof of carports, or on verandahs. Keep children and pets away from the trap.

Step 3 – Restrict access to food sources as you need the birds to be hungry to lure them into a trap. Make sure that any food the Mynas have been accessing at your place (scraps, pet food, chicken feed etc) is no longer available to them. If the birds are feeding at a neighbours place, it may be worth approaching them and asking if they would mind restricting available food for the time in which you are trapping.





Step 4 – ‘Free-feed’ the birds at the site you have chosen. This is done in order to teach the Indian Mynas that there is a safe and regular source of food at this site. Place a flat white plate or plastic container lid at your site and keep this topped up with bait. Avoid going near the plate when there are Mynas around. Other birds such as magpies and Pee Wees, may steal some of the bait, but do not chase them away as Indian Mynas will learn to eat from the plate by watching these less wary birds. Make sure you actually sight the Mynas eating the bait off the plate before moving to the next step.

Step 5 – Put the trap next to the plate.

By placing the trap near the plate of food Mynas will perceive the trap as being a harmless object.

Step 6 – Bait the trap and take away the ‘free-feeding’ plate. Place a small white plate inside the smaller (entrance) chamber of the trap. Put a handful of bait on the plate. Ensure the birds can see the feed in the entrance chamber from the tunnel, but will not be able to reach it until they have entered the trap. Additionally, put a small amount of bait inside and around the tunnel entrances of the small chamber to attract the Mynas. Ensure that only small amounts of bait are used in this manner as excess bait will deter them from entering the trap.

Once you have trapped Indian Mynas or Starlings

- If Mynas are to be gassed, captured birds can be left in the holding chamber with the entrance chamber removed for ease of transport. A towel should be placed over the holding chamber to keep birds calm during transportation.
- Alternatively the birds can be placed in a pillow case with the end secured. The birds can be kept inside the pillow case during the gassing process.
- If needed, the birds can also be transferred to a smaller bird cage by placing the holding chamber and cage alongside each other, with door openings aligned. Birds can then be coaxed from the chamber to the cage, without the need for direct handling of the birds.
- Use gloves when handling live or dead birds as wild birds may carry disease. When removing the birds through the trap door be careful of the sharp edges. Mynas are easy birds to handle. If you pin the wings to their bodies and grasp firmly they will not peck or fight.
- Clean the trap. You may need to hose it down, or if badly fouled, use some vinegar and scrub it down. Indian Mynas will not enter a dirty or smelly trap. Relocate the trap if the area becomes soiled from captured birds. They like to be clean and will avoid being around their own excrement.

The Mynas are placed in a container or large plastic bag and are put to sleep with a small dose of CO₂.



Euthanasing procedures

The aim of euthanasia is to minimise or eliminate the stress the birds will experience prior to becoming unconscious. Trap operators must be willing to accept that humane killing of trapped birds is an important responsibility. Your area coordinator can assist you to arrange for Mynas to be humanely euthanased by experienced volunteers.

The preferred options for euthanasing Mynas are:

- **Cervical dislocation (breaking neck)**
If you use cervical dislocation (breaking neck) or decapitation, you must be able to kill the Myna instantly.



- **Inhalation of carbon dioxide (CO₂)**
Euthanasia of Mynas by carbon dioxide (CO₂) must be arranged beforehand with your Area Coordinator. The birds must be delivered for gassing in a sealed pillow case, bag or in the covered holding cage of the trap.

The Mynas are placed in a container and put to sleep with a small dose of CO₂. The container is sealed for three minutes to retain the gas and the Mynas die quickly without stress.

The NSW Department of Primary Industries does not consider it humane to euthanase birds with exhaust gas from a car. This can vary in other states, so it is best to check your local rules.

- **Injection of a barbiturate**
This is least preferred out of the three recommended methods, as it requires the expertise of a qualified vet and can be expensive.

Wrap dead Mynas in newspaper and place them in your household garbage bin or dispose of them in your compost to decompose.





Handling of Native Birds

Whilst traps are designed specifically to target Indian Mynas, some native birds may also be caught.

In the past, volunteers have observed that some of the most common non-target native species trapped are Pee Wees (*Grallina cyanoleuca*) and Satin Bower birds (*Ptilonorhynchus violaceus*). If these birds are common in your area try setting the trap with a live Myna bird which will help to deter native birds, whilst attracting other Indian Mynas to the trap. Your local Area Coordinator can also advise on other ways to minimise trapping native birds.

Ensure the trap's holding chamber contains plenty of food and clean water for all trapped birds. If you find a native bird in the trap open the appropriate door provided to release it. Do not handle native birds unless they are injured. If they are dehydrated or lethargic, keep them in a box in a dark and quiet place to allow them to recover. Do not force food or water into the beak of an injured or stressed bird.

Volunteers in the past have also encountered juvenile natives such as Crimson Rosella chicks, which have been evicted from their nest hollows by Indian Mynas. If chicks are still alive, carefully place them in a cardboard box lined with leaf litter or cloth and place the box in a dark, quiet spot. If chicks are unfeathered, provide immediate warmth by placing a hot water bottle wrapped in a towel inside the box. Immediately contact your nearest wildlife rescue organisation for further care instructions.

Refer to the "Contacts" list in the back of the Handbook for your nearest wildlife rescue/ welfare organisation.



Noisy Miners are used by other bird species as "sentries". They have a distinctive alarm call to indicate when a bird of prey is nearby. When the alarm call is heard, other birds will leave the area.





Reporting and monitoring of Indian Mynas enables us to track where the birds are and helps us to gather information about the effectiveness of trapping.

Reporting

Roost Sites

Report property locations, type of tree or building the Mynas occupy and estimate the size of the colony. The roost site will be mapped and monitored. In some areas, strategic shooting programs to control Indian Mynas at their nesting and roost sites have been implemented. Speak to your local Area Coordinator for more information.

Feeding sites

Report property location, number of Mynas seen regularly, and preferred food source.

Trapping

We need feedback from all trappers. Please contact your Area Coordinator for data record sheets, and for more information on data recording procedures. Any trapping issues or unusual Indian Myna behaviour should also be reported.



Monitoring

Volunteers can keep track of a particular population by doing regular Myna counts at roost sites and observing details on aspects such as communal behaviour and flock movements. Speak to your local Area Coordinator about being an active volunteer in the reporting and monitoring process.





Supported by the following organisations:



CONTACTS



For assistance with Indian Myna Control

Tweed and Byron Local Government Areas

Tweed and Byron Shire Councils
Indian Myna Control Officer

Telephone: (02) 6670 2778

Email: indianmyna@tweed.nsw.gov.au

Tenterfield and surrounds (extends to Mingoola and Stanthorpe)

Granite Borders Landcare

Telephone: (02) 6736 3500

Ballina Local Government Area

Ballina Shire Council

Telephone: (02) 6686 4444

Lismore Local Government Area

Lismore City Council

Telephone: (02) 6625 0500

Clarence Valley Local Government Area

Clarence Valley Council

Telephone: (02) 6643 0200

Coffs, Bellingen & Nambucca Local Government Area

Telephone: 0438 218 261

Kyogle and surrounds

Northern Landcare Support Services

Telephone: (02) 6632 3722

Email: careland@bigpond.net.au

Richmond Valley Local Government Area

Richmond Valley Council

Telephone: (02) 6660 0236

Richmond LandCare Inc.

Telephone: 0427 485 910

Email: info@richmondlandcare.org

Wildlife Rescue organisations

Northern Rivers Wildlife Carers

Telephone: (02) 6628 1866

Tweed Valley Wildlife Carers

24 hour Hotline (02) 6672 4789

Wires Northern Rivers

Emergency Hotline (02) 6628 1898

Northern Tablelands Wildlife Carers

Telephone: 1800 008 290

Tenterfield Volunteer Wildlife Carers

(02) 6736 2462 and (02) 6736 2228

Websites

Indian Myna Control Project
www.indianmyna.org

Birds in Backyards
www.birdsinbackyards.net

Canberra Indian Myna Action Group
www.indianmynaaction.org.au

Central Coast Indian Myna Action Group
www.ccimag.asn.au

Mid North Coast Indian Myna Project
(Bellingen, Nambucca & Coffs Harbour)
www.indianmynaproject.com.au

Photo credits

Thankyou to Joanne Ireland
for the image of the Native
Noisy Miner on page 15

Thankyou to Jacqui Stol for the
images of the Indian Mynas in
PeeGee's trap on page 10 & 16

WANT TO KNOW MORE?

Contact the Indian Myna Project
Coordinator in your local area for
more information on the trapping
program, or to report sightings of
large numbers of Myna birds.

