Supporting community action against damaging established invasive pests

A submission to the Inquiry into Petition 17-23: Indian (Common) Myna Control

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About the Invasive Species Council

The Invasive Species Council was formed in 2002 to advocate for stronger laws, policies and programs to keep Australian biodiversity safe from weeds, feral animals, exotic pathogens and other invaders. It is a not-for-profit charitable organisation, funded predominantly by donations from supporters and philanthropic organisations.

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Inquiries

Invasive Species Council
Contact: Lyall Grieve, Conservation and Biosecurity Analyst
Address: PO Box 818, Katoomba NSW 2780, Australia
ABN: 27 101 522 829
Web: invasives.org.au
Email: contact@invasives.org.au

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Recommendations

1. **State and territory governments should support and enable activities by community action groups, saving money, effort and sharing biosecurity responsibility for positive environmental outcomes.**
2. **The ACT government should consider providing appropriate support (funding, advice and information) to groups including the Canberra Indian Myna Action Group, that are willing to perform invasive animal control and monitoring on behalf of the government.**
3. **Support for community invasive animal control should include animal welfare best practice requirements.**
4. **Fund much-needed scientific research in the ACT to fill in knowledge gaps and better understand the impacts of invasive species including the Common myna on ACT's biodiversity.**
5. **The ACT government should consider developing community extension and outreach programs, to shift to a more collaborative approach to biosecurity with community groups.**

Introduction

The Invasive Species Council was formed in 2002 to advocate for stronger laws, policies and programs to keep Australian biodiversity safe from weeds, feral animals, exotic pathogens and other invaders. It is a not-for-profit charitable organisation, funded predominantly by donations from supporters and philanthropic organisations. We are grateful for the opportunity to provide this submission to the ACT Legislative Assembly Inquiry into Petition 17-23: Indian (Common) Myna Control.

In this submission, we discuss the work of community action groups that are willing to perform biosecurity services, supporting the ACT government to achieve meaningful progress towards the goals articulated in strategies, and how to collaborate effectively to protect our biodiversity and enhance ecosystem resilience.

Importance of community action in biosecurity

As articulated in the National Biosecurity Strategy, the roles that government's play in the biosecurity system are changing. Australian governments through signing up to the strategy are embracing principles of:

- *"Shared biosecurity culture: we will enhance our culture of biosecurity action so that everyone understands its importance and plays their part.*
    - *Strengthen the involvement of environmental agencies and environmental and community groups*
    - *We will create a culture of action in which we all care about, contribute to and are responsible for, our biosecurity."*
- *"Stronger partnerships: We will strengthen and expand partnerships and networks between all stakeholders at local, regional, national and international levels."*
    - *Increase the use of citizen science, Indigenous knowledge and on the ground insights*
    - *Strengthen the involvement of environmental agencies and environmental and community groups to enhance biosecurity outcomes."*[1]

It is very positive to see these principles are already written in to the ACT's own biosecurity strategy, with the following:

- *"VISION: BIOSECURITY – A SHARED RESPONSIBILITY Our vision is that biosecurity is recognised as a shared responsibility of governments, industry and the community. We believe working toward this vision will enable the ACT to effectively meet the current and future challenges posed by biosecurity risks. The effective management of biosecurity risks, in close cooperation with NSW, will contribute to community wellbeing by supporting a strong local and regional economy and a healthy environment."*
- *And a broader goal is "effectively minimising the impacts of those pests and diseases that cannot be eradicated."*[2]

Finally, the following statement from the ACT's Biosecurity Strategy is particularly relevant to these principles and this submission:

"The ACT is a small jurisdiction which demands innovative solutions for meeting our biosecurity responsibilities. These will include:

- *taking a more strategic approach to the science that underpins biosecurity and the adoption of technology through stronger partnerships, particularly with our universities and the CSIRO, better linkages with the national industry groups based in Canberra and better extension with local industries*
- *increasing the awareness of biosecurity in government, industry and the community to get more people involved in managing biosecurity risks and help them understand the role they play*
- *building the capability of Canberrans to undertake biosecurity activities and deliver biosecurity services in partnership with Government"*[3]

These statements are very powerful and should be applied in decisions regarding whether or not to support community action groups such as the well established Canberra Indian Myna Action Group (CIMAG).

Governments are increasingly shifting from a traditional culture of holding responsibilities and knowledge on biosecurity and pest management, to a more transparent and collaborative approach. The vast majority of invasive incursions have been found and reported by members of the public. Citizen science is rapidly becoming a recognised opportunity to feed significant amounts of data and surveillance capacity into biodiversity

[1] (Commonwealth of Australia 2022)
[2] (ACT Government 2016)
[3] (ACT Government 2016)

monitoring, and pest and disease response and control. With the development of phone apps, and AI diagnostic algorithms, this has become even more effective in recent years with projects such as apps and databases including Naturemapr, iNaturalist, Pestsmart, and many others.

The role of citizen science and community action is also an ideal solution to the challenges faced by governments as biosecurity risks increase in number, threat to biodiversity, and established invasive species continue to drive our extinction crisis. Communities across Australia are very enthusiastic to participate in these activities. It has been difficult for the general public to contribute to biosecurity activities, for a number of reasons. These include:

- Many activities occur pre-border or at arrival
- Feral animal control requires difficult actions - lethal control is not easily performed without significant animal welfare guidance and training, and is not desirable for most Australians.
- Surveillance for biosecurity usually involves finding zeros - a challenge to motivate and retain interest.

When there is an opportunity to overcome these challenges, communities and the general public leap at the chance to participate in our biosecurity system.

The ideal scenario for the ACT government is to therefore find ways to foster and encourage citizen science and community participation, as long the outcomes are aligned with legislative frameworks, animal ethics, and have measurable outcomes for the environment, human health, agriculture, and public amenity. By doing this, the principles written into the strategies above can be achieved with considerably less investment and effort by governments.

For a small investment, supporting community action groups such as CIMAG provide a very high return, requiring less funding, resourcing and administration for the same outcome. Supporting community action can provide the community with a practical way to be involved in the maintenance of native bird populations, along with probable reductions in negative impacts by reducing the numbers of common mynas.

Impact of common mynas

The common or Indian Myna bird (*Acridotheres tristis*) is only one of three bird species on the World Conservation Union's list of 100 most invasive species. It is widely recognised as an undesirable pest species, with environmental, human health, and agricultural impacts. Population control efforts are regularly undertaken internationally, and by Local Land Services and Councils in other jurisdictions in Australia. Scientific research on the direct impacts to native species is remarkably limited, however what research has been done indicates that this species has a significant localised effect on nesting birds and small mammals.

The ACT government correctly states on their website that "*Despite their abundance, current evidence does not indicate that Common myna have a significant negative impact on endangered native bird species or agricultural production in the ACT.*" However, this position,

like many in invasive species management, is based on a lack of data, rather than an understanding of the range of impacts from an invasive species such as the common myna. Introduced and invasive species impacts are difficult to assess for three main reasons. 1. There is often a lack of temporal data before, during and after an invasion; 2. Environmental changes occur alongside introductions, confounding interactions such as land clearing, other invasives, and climate change; and 3. Lack of data on mechanisms of impact (e.g. competition, predation, disease, etc.)[4]

This is also a uniquely specific position compared to that of other Australian jurisdictions, and while there may not be direct evidence of impacts to specific endangered bird species, the interactions and combined threats driving Australian biodiversity loss and reduced resilience in populations should not be disregarded. It also does not consider landscape scale impacts by multiple combining threats and pressures, or the scientific data on disease vectoring by common mynas that does exist internationally. There is a significant body of research demonstrating the negative impact that common mynas have on nesting parrots and small birds generally across all habitats and regions, as well as in the ACT.[5]

Additionally, there is also evidence indicating common myna's impact on small arboreal marsupial and bat species. Unfortunately this is another case of limited data and research - and is a gap that should be addressed in order to make decisions on threat management for biodiversity protection.

Management decisions and funding for control programs must be based on science and demonstrate a positive outcome for biodiversity and species survival. However a lack of evidence should not exclude further investigation, or a precautionary and strategic approach to ecosystem resilience and recovery. This view is reflected (to varying degrees) in other Australian jurisdictions on the common myna and other similar established invasive species. According to the NSW Department of Primary Industries, common mynas are “a direct threat” to the Regent parrot (*Polytelis anthopeplus*), Coxen’s double-eyed fig parrot (*Cyclopsitta diophthalma coxeni*), Turquoise parrot (*Neophema pulchella*), Glossy black cockatoo (*Calyptorhynchus lathami*), Little tern (*Sterna albifrons*), Hooded plover (*Thinornis rubricollis*) Flesh-footed shearwater (*Puffinus carneipes*), White tern (*Gygis alba*), and Sooty tern (S*terna fuscata*) [6]

As examples of this in other jurisdictions, Queensland assessed the common myna as an “extreme” threat to Australian birds and small mammals[7].

The Western Australian Department of Primary Industries and Regional Development prepared an assessment that was endorsed by the national Invasive Plants and Animals Committee. This scientific risk assessment concluded that the common myna poses an “extreme threat (the highest of four categories)” to Australia[8]. Part of the assessment showed that the climates of the common myna’s overseas range and Australia are very similar.

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[4] (Grarock, Tidemann, and Lindenmayer 2012)
[5] (Grarock, Tidemann, and Lindenmayer 2012)
[6] (NSW Department of Primary Industries, n.d.)
[7] (Department of Agriculture and Fisheries Biosecurity Queensland 2016)
[8] (WA Department of Primary Industries and Regional Development 2021)

Some examples of negative impacts verified internationally[9]:

- Seychelles - common mynas reduce breeding success of the endangered magpie robin (*Copsychus sechellarum*) (Komdeur, 1996)
- Tahiti - common mynas reduce breeding success of the critically endangered Tahiti flycatcher (*Pomarea nigra*), (Blanvillain et al. 2003)
- Fiji - common mynas compete with native seabirds for food, carry owl flies, lice, threadworms and roundworms that are transmitted to native birds, predate upon eggs and young of terns (*Sterna spp.)* and noddies (*Anous spp.*) (ISSG, 2006)
- Hawaii - common mynas disperse invasive plants such as *Lantana camara* (ISSG, 2006) and carry avian malaria (Caughley & Sinclair, 1994)

Negative impacts of the common myna are not limited to the aggressive nest stealing and destruction of eggs and chicks of native birds. It is also an effective vector of avian pathogens, including avian malaria, and parasites such as nest mites and roundworms.[10]

Research data on the impacts of avian malaria is lacking in the Australian context. However, in New Zealand, observed reductions in populations are believed to be caused by the pathogen, spread by common mynas and other invasive birds. In Hawaii, the disease has been found to directly cause the declines in several forest bird species. Invasive birds are far more effective hosts and vectors than indigenous species, with measured infection rates approximately 14.1% in invasive birds, and 1.7% in native species.[11]

With the imminent arrival of the potentially nationally catastrophic High Pathogenic Avian Influenza, common myna populations will play an extremely efficient role in spreading the deadly disease through nesting sites in the ACT. Taking the precautionary principle requires consideration of government preparedness actions to reduce this potential vector before the disease arrives in Australia.[12] This should be considered including common mynas and all bird species found within ACT.

Common mynas also play a significant role in spreading invasive weeds, such as lantana, further causing indirect environmental damage. Reducing common myna numbers would slow down the rate of spread and allow weed control programs to be more efficient and successful in the long term.[13] The combined effect of many small scale actions while in themselves may not be significant, together can achieve very real outcomes.

It is acknowledged that to date, common mynas have not been demonstrated to impact directly on endangered species in the ACT. However this situation may be very temporary - as other pressures on native species increase, and ecosystem resilience is reduced. However, with the significant body of knowledge demonstrating the potential to be a direct threat, and the demonstrated impacts on nesting success and disease spread, it is somewhat shortsighted to assume the current balance will remain static. With very little

[9] (Department of Agriculture and Fisheries Biosecurity Queensland 2016)
[10] (Pestmart (CISS) 2008)
[11] (Niebuhr, Poulin, and Tompkins 2016)
[12] (Wildlife Health Australia 2024)
[13] (Pestmart (CISS) 2008)

funding, considerable positive impact mitigation on the overall health of bird species in the ACT can be achieved by reducing common myna pressures across the territory.

Positive outcomes from common myna control

Research performed by the ANU with data from CIMAG shows that concerted, local population reduction can be effective. This research demonstrates an association between the trapping performed in Canberra, with a measurable increase in native Australian bird numbers in the urban environment[14]. The community is deeply concerned about biodiversity and bird species, and most citizens in Canberra would support the reduction and control of invasives such as common mynas. This is a highly visible pest species, seen by all Canberrans, and CIMAG receive a great deal of inquiries by members of the community frustrated and angry about the situation - along with distress observing Eastern rosella chicks being killed and removed from nests, and nest sites being taken over in gardens and reserves.

Canberra and the ACT have the potential to play a leadership role in making decisions that directly include and benefit the interests of the community, while also lowering pest pressure on our native species. With a small geographic scale, applying a strategic, regional approach to establish pests and weeds can make highly visible positive changes, but requires both inclusion of the role community groups can play, and applying more broad scale approaches beyond the traditional species specific approaches.

Animal welfare and social licence

Deciding to employ lethal control of animals can be difficult. However lethal control is justifiable if the benefits are measurable and is carried out as humanely as possible. Unfortunately, invasive species management often requires lethal control as the only effective method of reducing negative impacts on biodiversity and ecosystems. Any lethal control of a vertebrate species requires the utmost adherence to best practice animal welfare, with regular monitoring and review of methods employed to ensure that practitioners are well informed and adequately trained. We support the advice published by the RSPCA that recommends the adherence of strict SOPs and monitoring of lethal control activities.[15]

There are risks associated with the lethal control of established invasive species, and this must be a priority that community action groups should take on. Sadly, there are numerous reports of mistaken identity when community groups perform lethal control without the above guidance and support. Cane toad ‘busts’ are notorious for accidental deaths of native Australian burrowing and tree frogs by well-meaning members of the public, a measure that has questionable benefit to cane toad control. In the context of the ACT, many people remain unsure of the difference between common mynas and native Noisy Miners (*Manorina melanocephala*). Additionally, many people are uneducated about euthanasia, and hold on to out-dated ideas and practices that were employed in the past that have been deemed inappropriate since. This highlights the importance of collaboration between government and communities to support them doing any kind of invasive species control. Unfortunately, when

[14] (Grarock et al. 2013)
[15] (RSPCA 2017)

governments are unwilling to either provide funding, or collaborate, these incidents will continue to occur.

Lethal control activities by community groups can also pose a risk to ongoing social licence for these practices, even when best practice and most humane methods are strictly adhered to. There could be another role the ACT government could play to support community action groups, but providing guidance and regulation on how visible traps can be, and where they can be placed. This role would be far more influential with a funding agreement, tying compliance with animal welfare requirements to the provision of funding.

Conclusion

Australia is facing an extinction crisis, and the importance of invasive species as the primary driver is becoming more widely recognised along with the interactions with climate change and habitat loss. Governments in Australia are shifting their focus away from being the sole practitioners of biosecurity for environmental outcomes, embracing principles of community participation and sharing the responsibility with all stakeholders. In a difficult fiscal environment, decisions on funding are difficult and often end up being made with a very narrow perspective. While the measurable benefits specifically from common myna control are lacking in evidence, it is a situation that the community can play a role in maintaining native birds in their environment. This constitutes social, as well as probable environmental benefit. More research is required to fully understand the negative impacts of mynas and benefits of control efforts. Supporting community action groups to help participate in biosecurity, pest animal control and biodiversity recovery is broadly supported and often called for by the general public. With very little investment, visible positive change can be achieved. At the very least, engaging with community groups as allies and opportunities is a far more productive and beneficial approach.

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