

➤ WHERE ARE THE MYNAS?

Target Group: **Year 7**

Australian Curriculum Reference: **Science**

- + Use scientific knowledge and findings from investigations to evaluate claims (AC SIS132).
- + Communicate ideas, findings and solutions to problems using scientific language and representations using digital technologies as appropriate (AC SIS133).

LESSON SUMMARY

Students learn about a common introduced bird species and decide whether they believe the bird is a pest in Australia.

Students will record sightings of the bird over a number of weeks and present their findings in a scientific format using Excel charts and graphs.

LESSON CONTENT AND METHODOLOGY

- + Students view the following two videos. After viewing the videos, teacher leads discussions about whether the class thinks the Indian myna bird is a pest based on what they have seen.
 - + *Indian myna pest control in Canberra (A Current Affair)*: www.youtube.com/watch?v=1FJUs4UHifs
 - + *Morning Talk with my Mynah "Kaleo"*: www.youtube.com/watch?v=bMEccNLXcQc
- + Students read the RSPCA article (Worksheet 1): *What should be done about common (Indian) myna birds?* Teacher discusses with the class whether their views have changed as a result of reading the article.
- + Students are directed to the Common Indian myna website (ANU): fennerschool-associated.anu.edu.au/myna/

Students are asked to choose and read one article from this website to further their understanding about myna birds. Students will then describe in two paragraphs what they now believe about myna birds after watching the videos and reading the articles, and why they have formed that opinion.
- + Teacher shows the following videos.
 - + *Citizen "Scientists" Track Birds in Oil Zone*: www.youtube.com/watch?v=D8ueN8rhGsw
 - + *Citizen Scientists Assemble! It's Time for the Great Big Backyard Bird Count*: www.youtube.com/watch?v=05Z_zPUZiNI

Teacher discusses the notion of citizen science volunteers with the students.

- + Students are instructed that over the next four weeks they will be acting as citizen science volunteers, using fieldwork observation techniques to collect data about myna birds that will further assist them to determine whether they are a pest. This task will include the following activities.
- + As a class, students will determine the categories of activity they will record during the field observations. This might include whether the birds were alone or in a group, whether they were observed attacking any other creature, where they were located and how close students were able to get to the birds.
- + Students will collect the data during class lessons and at least four times over the period in a location close to their homes.
- + Students will graph the results of their observation using Excel bar and/or line graphs.
- + Students will draw conclusions about whether they believe Indian myna birds are a pest based on all the forms of data they have collected and propose further field work that could test their conclusions.

ASSESSMENT

Student assessment will be based on the quality of the argument drawn in their two paragraphs, and their conclusions and proposed future actions.

RESOURCES

- + *Indian myna pest control in Canberra (A Current Affair)*: www.youtube.com/watch?v=1FJU4UHifs
- + *Morning Talk with my Mynah "Kaleo"*: www.youtube.com/watch?v=bMEccNLXcQc
- + Common myna: www.birdsinbackyards.net/species/Sturnus-tristis
- + Common Indian myna website (ANU): fennerschool-associated.anu.edu.au/myna/
- + *Citizen "Scientists" Track Birds in Oil Zone*: www.youtube.com/watch?v=D8ueN8rhGsw
- + *Citizen Scientists Assemble! It's Time for the Great Big Backyard Bird Count*: www.youtube.com/watch?v=05Z_zPUZiNI
- + Worksheet 1: What should be done about common (Indian) myna birds?

WORKSHEET 1

What should be done about common (Indian) myna birds?

The common myna (also called Indian myna) is an introduced bird species that is now well established in many cities and towns in Eastern Australia. There is concern that common mynas have a negative impact on native birds through competition for food, nesting sites and territories and because of this concern, community groups and local councils conduct myna trapping and killing programs.

Despite being considered a highly invasive species, there has been surprisingly little research on the negative impacts of common mynas on native plants and animals. Although recent research using long-term observations of bird abundance in Canberra has suggested that the common myna has a negative impact on the long-term abundance of some native bird species, the significance of this impact has been questioned, as has the methodology used for the research. Furthermore, since the impact of common mynas is not clearly understood, it is yet to be determined if killing mynas has any effect other than reducing local myna populations.

There is agreement that invasion of common mynas is likely due to the alteration of habitat that occurs with human urbanisation. Common mynas prefer to nest in the highly modified habitats and artificial structures found in residential and commercial areas rather than in vegetation, which is the opposite of what native birds prefer. Thus, restoring habitat (by planting trees for example) and also making urban areas less suitable for mynas may be a more useful approach to their management.

RSPCA Australia recognises that in certain circumstances it is necessary to control populations of pest animals in order to reduce their adverse impact on the environment. However, in the case of common mynas there is not general agreement about the need for culling. We believe that—based on current knowledge about the impact and preferred habitat of common mynas—trapping and killing by community groups should not be encouraged. Rather, in agreement with a number of experts on this issue, efforts to enhance bird diversity in urbanised areas would be better directed to improving the quality of natural habitat. If, however, trapping and killing is to be conducted, the RSPCA believes that it should only be carried out as part of a government-supervised control program, which includes clear guidelines on humane procedures. We would also encourage that monitoring and assessment of any control programs be undertaken to provide information on any effects of culling on myna bird impacts, not just on myna bird numbers.

(From: www.kb.rspca.org.au/What-should-be-done-about-common-%28Indian%29-myna-birds_140.html)

References

Garrock K, Tidemann CR, Wood J, & Lindenmayer DB (2012) Is it benign or is it a pariah? Empirical evidence for the impact of the common myna (*Acridotheres tristis*) on Australian birds. PLoS ONE, 7(7), e40622. Available at: www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0040622

See also related comment thread from A.Taylor: www.plosone.org/annotation/listThread.action?root=53629

Lowe KA, Taylor CE, & Major RE (2011) Do Common Mynas significantly compete with native birds in urban environments? Journal of Ornithology, 152(4), 909.