

# Black Cockatoo Crisis: An Education Resource

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## Understanding Human Impacts on Biodiversity

### Curriculum (Year 11 ATAR Biology Unit 1):

Interpret a range of scientific and media texts, and evaluate processes, claims, and conclusions by considering the quality of available evidence; and use reasoning to construct scientific arguments.

Human activities that can affect biodiversity and can impact on the magnitude, duration and speed of ecosystem change. One example of this is habitat destruction, fragmentation or degradation.

Conservation strategies used to maintain biodiversity are:

- genetic strategies, including gene/seed banks and captive breeding programs
- environmental strategies, including revegetation and control of introduced species
- management strategies, including protected areas and restricted commercial and recreational access

### Objective:

Students will interpret scientific and media texts related to human activities that can affect biodiversity, evaluate processes, claims, and conclusions by considering the quality of evidence provided, and use reasoning to construct scientific arguments.

### Task/Assessment:

Students will examine a film documentary and a Government Policy focussed on the impact of habitat destruction on biodiversity. They will evaluate the evidence presented, identify key claims, and construct a scientific argument outlining the consequences of habitat destruction on ecosystem health.

### Key Points:

- Explanation of human activities affecting biodiversity, particularly habitat destruction, loss, and fragmentation.
- Example of habitat loss and fragmentation impact on an endangered species.
- Importance of considering evidence quality in scientific arguments

### Preparation:

- Watch the *Black Cockatoo Crisis* documentary film either as a school, in a preceding class or as homework. Access options include  
SBS On Demand <https://www.sbs.com.au/ondemand/movie/black-cockatoo-crisis/2295518787622>  
Clickview <https://launch.clickview.net/open?AppLink=video:79607552>  
Vimeo <https://vimeo.com/ondemand/blackcockatooecrisis>
- Highlight the part of the Year 11 ATAR syllabus this lesson contributes to.

### Introduction (Think-Pair-Share)

- Discuss with a partner: "*Why is biodiversity important for ecosystem stability?*".
- Consider the common belief that "*Habitat removal on a small scale does not significantly impact biodiversity*"
  - Do you think this statement is true or false?
  - Why? What is your reasoning?
  - Can you back up your belief with any evidence?

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## Theory Content:

- Work through slides 9 to 22. You can choose to either:
  - project the slides and move through with the class, or
  - ask students to work through the slides and make notes to your requirements.
  - ask student to read through then facilitate a discussion after a set of time.

## Guided Practice:

- Go through the case study (slides 23 to 31) and ask students to think about sources of scientific evidence for the information provided.
- Scaffold questioning to guide students from identifying impacts to evaluating evidence quality.
- Monitor student understanding through group discussions and individual responses.

## Independent Practice:

Provide students with a copy of the following questions from slide 32. They can either work individually or in small groups to produce answers to the questions.

1. What evidence was presented in the documentary relating to the current threats facing Black Cockatoos in Western Australia?
  - a. List the sources of evidence reported, and group them according to quality.
  - b. What criteria did you use to judge quality of evidence.
  - c. Which evidence would you be confident to use to form a scientific argument and draw a conclusion.
  - d. Does relative quality of evidence influence it's value or strength?
2. What solutions were suggested to prevent extinction of Black Cockatoo species?
  - a. What evidence was used to argue that those solutions would be effective?
  - b. What evidence will be required to indicate the solutions are having a positive impact?
3. How does [The Australian Government's Threatened Species Strategy 2021-2031](#) relate to the content of the film?
  - a. propose to address the Biodiversity Crisis?
  - b. What evidence will be required to assess if the strategy is effective?

## Conclusion:

- Ask students to share their conclusions with the class
- Summarize the key points discussed in the lesson
- Provide students with the 'Fill in the gaps & word find' worksheet to use as revision.

## Extension Activity:

- Create a poster illustrating the interconnectedness of different species in an ecosystem and how human activities can disrupt this balance
- Write a short paragraph reflecting on a personal experience where human activities had an impact on local biodiversity