

BEHIND THE FEATHERS

SUBJECT

Cape Rockjumper, Bird of the Year 2021.

AIM

To discover more about Cape Rockjumpers: their life history, biology and conservation.

LESSON OBJECTIVES

- Know how to identify a Cape Rockjumper.
- Learn about how they breed and behave.
- Understand why they are threatened and how we can help conserve the species.

RESOURCES REQUIRED

- Fact file 1 (biology)
- Colouring equipment (pencils, coloured pencils or paint, rubber, pencil sharpener)
- Plain paper
- Computer/projector/printer to show images
- Image 1, 2 and 3 (links and images provided at the end of this document)
- Question Sheet 1 (1 per student) (Appendix A in this lesson plan)
- Answer Sheet 1 (Appendix B in this lesson plan)

INTRODUCTION

The Cape Rockjumper is a medium-sized passerine bird which is endemic to the Fynbos Biome in South Africa. As their name suggests, they rarely fly but rather run and jump. They are monogamous and cooperative breeders, living in groups of 2-5 individuals within exclusive territories. Their diet mainly consists of insects, but they occasionally also consume small invertebrates. They have been classified by the International Union for Conservation of Nature (IUCN) as 'Near Threatened' as their population numbers are decreasing. This is due to a number of threats including habitat loss and climate change.

KEY WORDS	
ENDEMIC	Native to a specific place and exclusively found there.
PASSERINE	Birds which have 3 toes pointing forward and one backwards, sometimes referred to as perching birds.
MONOGAMOUS	A breeding pair with only one male and one female, as opposed to a male with several females or a female with several males.
CO-OPERATIVE BREEDING	Where the breeding pair has other non-breeding individuals to help with raising young and defending territories.

LESSON PLAN**(Approx. 60 minutes)**

Activity	Description	Estimated Time (minutes)
1. Lesson Introduction	Introduce the Cape Rockjumper as the Bird of the Year and their conservation status (Near Threatened).	5
	Ask pupils to raise a hand if they have seen one before. If so, ask where. Explain that they are endemic and where they are found (Fynbos Biome).	5
2. Drawing Challenge	Hand out blank sheets of paper. Ask students to draw what they think the bird would look like by your description - get them to focus on unique identifying features.	15
	Example: <ul style="list-style-type: none"> - Medium-sized passerine bird. - Beak shape adapted to catch insects. - Grey and white head with a black moustache. - Black wings and tail with white tips. - Legs adapted to run and jump. - A chestnut-coloured belly. - A red eye. 	
	Show the students the image (1) of the Cape Rockjumper and get them to compare the features they drew.	
	Show image (2) a female, and image (3) of a juvenile and explain the identification differences.	
3. Worksheets	Get students to read the species fact files and then answer the questions.	25
4. Evaluation	Read the answer sheet out loud and get them to peer mark each other - writing correct answers where necessary.	10
	Ask each student what their favourite thing about the Cape Rockjumper is.	

BIRD OF THE YEAR 2021- CAPE ROCKJUMPER

1. Where are Cape Rockjumpers found and why does this make them unique? (3 points)

2. Describe how you would identify a Cape Rockjumper and whether it is a male, female or juvenile. (4 points)

3. Explain the social structure of a group of Cape Rockjumpers. (3 points)

4. What are some of the benefits of being co-operative breeders? (2 points)

5. Where do Cape Rockjumpers make their nests and how might this make them vulnerable to predation by snakes? (2 points)

6. Cape Rockjumpers have exclusive territories. They defend these territories more intensely in the breeding season; why might this be? (1 point)

7. Cape Rockjumpers lay more than one egg. Suggest one potential pro and con of this strategy. (2 points)

8. What does the diet of a Cape Rockjumper consist of? (1 point)

9. What is the characteristic movement of a Cape Rockjumper? How might they be adapted for this? (2 points)

/20 points

BIRD OF THE YEAR 2021- CAPE ROCKJUMPER

1. Where are Cape Rockjumpers found and why does this make them unique? (3 points)

- Western and Eastern Cape of South Africa.
- Fynbos environment.
- They are endemic and only found here.

2. Describe how you would identify a Cape Rockjumper and if it is a male, female or juvenile. (4 points)

- Grey and black head. White moustache and eyebrow. Black wings with white tip. Chestnut rump and chest. Black legs. Red eyes in adults.
- Females are duller in colour and have a striped chest.
- Juveniles are also duller in colour and have a dark eye.

3. Explain the social structure of a group of Cape Rockjumpers. (3 points)

- Groups of 2-5.
- One breeding pair.
- Previous years offspring.

4. What are some of the benefits of being co-operative breeders? (2 points)

- Greater protection of nests/ increased chick survival.
- Shared collection of resources.
- Less time/energy per adult spent on raising chicks.

5. Where do Cape Rockjumpers make their nests and how might this make them vulnerable to predation by snakes? (2 points)

- Cape rockjumpers make their nests on the ground. This makes them accessible for snakes to find.

6. Cape Rockjumpers have exclusive territories. They defend these territories more intensely in the breeding season; why might this be? (1 point)

- To protect chicks and eggs.

7. Cape Rockjumpers lay more than one egg. Suggest one potential pro and con of this strategy. (2 points)

- PRO: more likely for a chick from the clutch to make it to adulthood (insurance chicks). Multiple offspring carrying genes. More potential helpers to join the group.
- CONS: require more resources to raise. Competition for resources.

8. What does the diet of a Cape Rockjumper consist of? (1 point)

- Insects and sometimes small invertebrates.

9. What is the characteristic movement of a Cape Rockjumper? How might they be adapted for this? (2 points)

- Rockjumpers rarely fly, instead they run and jump. They have strong legs which support them. They also have an anisodactyl foot arrangement which helps them to grip the floor. They have small wings.

Image 1. Adult male Cape Rockjumper



Image 2. Adult female Cape Rockjumper



Image 3. Juvenile Cape Rockjumper



Image credits: Krista Oswald