

INTRODUCTION

The African Black Oystercatcher (Oyks) only breed in South Africa and Namibia, therefore the global conservation of this species is our responsibility. They have intrinsic value, but also serve as an excellent indicator species of coastal change, both positive and negative, because it must meet all its needs within a relative small area. The coast of South Africa is under pressure from development and climate change which in turn threatens the future of Oyks. In the past, between 1998 and 2000, the FitzPatrick Institute spearheaded the Oystercatcher Conservation Programme (OCP) which resulted in better conditions for Oyks. Today, new conservation initiatives, such as the #ShareTheShores campaign run by the Nature's Valley Trust (NVT), must take over the reins to ensure that Oyks and other shorebirds survive and do well into the future. We, as individuals, must likewise take responsibility and act to help where we can. Thankfully, there are several things every individual can do, even if you never visit the beach.

VOCABULARY

Indicator Species: a species whose presence, absence, or how well they are doing in an environment, is a sign of how well the whole area is doing.

Intrinsic Value: the importance of something by itself without necessarily meaning something or being important to humans.

Climate Change: a long-term change in the earth's climate, especially an increase in the average atmospheric temperature, that results in e.g. more frequent, stronger and longer lasting storms, as well as rising sea levels. Human activities are causing climate to change unnaturally quicker.

Coastal Development: human activities that include construction of buildings and mining on the coast.

Conservation: protection of plants and animals and natural areas, especially from the damaging effects of human activity.

Demarcate: in this case, putting something visible (like tape) around breeding areas so that people won't walk over a nesting area.

Oystercatcher Conservation Programme (OCP): a programme spearheaded by the Fitzpatrick Institute involving government and non-government conservation bodies to research, monitor and develop awareness and conservation strategies that benefited Oyks.

#ShareTheShores campaign: an initiative run by the NVT to raise awareness and to protect shorebirds. The main aim is to educate the public of how they can share the shores with minimal impacts on the shorebirds they share it with.

Shorebirds: birds commonly found along sandy or rocky shorelines, mudflats, and shallow waters. In some regions, shorebirds are considered wading birds.

AIM AND PURPOSE OF LESSON

The aim of this lesson plan is to introduce students to the past and present conservation efforts for Oyks. The purpose is for students to learn about Oyck conservation and to consider for themselves how they can contribute towards the conservation of Oyks.

DURATION OF LESSON

Approximately 60 minutes

MATERIALS NEEDED

All material (except the videos) are downloadable from the BirdLife South Africa website: <http://www.birdlife.org.za/documents/bird-of-the-year>

The teacher will need:

1. Lesson Plan 3 – *Conservation Efforts of African Black Oystercatchers*.
2. A computer with internet connection to view the suggested videos.
3. Fact Sheet 3 – *History of African Black Oystercatcher Conservation*.
4. Fact Sheet 4 – *Current Conservation Efforts*.
5. Video: *50/50 Series: In die Spervuur – African Black Oystercatcher* (7:03 min) <https://youtu.be/XB0lwH37C9g>. This video is Afrikaans with subtitles. Depending on the reading ability of the students, the teacher might have to read the subtitles out loud with the sound off to help the non-Afrikaans speaking students understand.
6. OPTIONAL – projector and sound system to watch the videos.
7. Answer Sheets 1 Appendix A, found at the end of this lesson plan.
8. Questionnaire 1 Appendix B, found at the end of this lesson plan.
9. OPTIONAL – *Oyk Threats-and-Actions* card game.

The Students will need:

1. Fact Sheet 3 – *History of African Black Oystercatcher Conservation*.
2. Fact Sheet 4 – *Current Conservation Efforts*.
3. Questionnaire 1 in Appendix B (found at the end of this lesson plan).
4. OPTIONAL – *Oyk Threats-and-Actions* card game.
5. OPTIONAL - A2 size craft paper, paints and/or colour markers and/or colouring pencils, old magazines, glue and anything that can be used to design a poster.
6. Pen and paper.

OBJECTIVES AND OUTPUTS

The student will:

- Discuss what they already know about Oyk conservation.
- Watch the video about Oyk conservation.
- Read up on Oyk conservation in the Fact Sheets.
- Discuss what they have learned from the videos and reading material in their allocated groups.
- Learn more about Oyk conservation and what they can do to help while playing the *Oyk Threats-and-Actions* card game.
- Report back to the teacher in their allocated groups.
- Have a better understanding of Oyk Conservation.
- **OPTIONAL - Compete in the poster competition. Design a poster in their allocated groups or as individuals, that showcase possible original conservation solutions and ways the individual can help to ensure that Oyks are protected. Posters should be sent**

to NVT by June 2018. Simply take a good quality photo of the poster and send it via email at info@naresvalleytrust.com. There are wonderful prizes to be won including a cash prize to the school.

PROCEDURE

1. [Duration 4 min] The teacher should read through the introduction of this lesson plan (Lesson Plan 3) to prepare for the lesson. [OPTIONAL] The teacher (or students) can also choose to read the introduction to the class, but this is not necessary.
2. [Duration 5 min] Begin the lesson with an entry task where students must think and discuss what they know about Oyk conservation. Ask the following questions to the whole class and give them a few opportunities to raise their hands and answer the questions (it is not important that they get the answers right at this stage):
 - a. What is conservation?
 - b. Why do we need to conserve Oyks?
 - c. What Oyk conservation initiatives are there that you know of?
 - d. Can you think of ways that you can help protect Oyks?
7. [Duration 10 min] Divide the students into discussion groups and hand out to each group Fact Sheet 3: *History of African Black Oystercatcher Conservation*; and Fact Sheet 4: *Current Conservation Efforts*. Allow them 10 minutes to read through the Fact Sheets and discuss it amongst themselves.
8. [Duration 7 min] Set up the projector / TV / Computer and watch Video 1: *50/50 Series: In die Spervuur – African Black Oystercatcher*. As they watch, ask them to focus on the following, keeping in mind what they have learned from the Fact Sheets:
 - a. Try to remember all the threats, natural and man-made, mentioned in this video.
 - b. What projects and efforts were made to counter these threats?
 - c. Try to remember the names of the people in this video and who they work for.
 - d. At the end of the video, they mention what volunteers (you) can do to help. What is it?
3. [Duration 5 min] In their groups, allow the students 5 minutes to discuss what they have learned and remembered from the video. Ask them to write down what they remembered and discussed.
4. [Duration 15 min] Use Answer Sheet 1 to ask the students specific questions based on the video or hand out Questionnaire 1 and give them 15 minutes to answer the questions individually or in their groups.
5. OPTIONAL [Duration 20 min] Play the *Oyk Threats-and-Actions* card game. The game helps the students to explore the possible solutions to the threats Oyks face and the actions they can take to help.
6. [Duration 5 min] Allow the students to go back to their seats and end the lesson by asking the same questions that were asked in the beginning of the lesson (possible answers in blue):
 - a. What is conservation? *The protection of plants and animals and natural areas, in this case Oyks and their habitat, especially from the negative and damaging effects resulting from human activity.*
 - b. Why do we need to conserve Oyks? *Oyks are vulnerable to human activity and have a limited range of where they can go. They are also a good indicator*

species of when the natural environment is doing well or getting worse. There are only a few thousand Oyks left and it is our responsibility to conserve them.

- c. What Oyk conservation initiatives are there that you know of? In the past, there was the OCP, today there are initiatives such as #ShareTheShores. Some bird clubs and conservancies also informally monitor the birds and help to set out areas where they can safely breed.
 - d. Can you think of ways that you can help protect Oyks? Keep dogs on a leash. Walk close to the water's edge and not in the dunes. Heed beach nesting signs. Throw away your rubbish and fishing line in a proper manner. Tell others what you have learned about Oyks and how they can help. Join a bird club and become a beach ambassador for the species.
7. OPTIONAL [Duration depends on teacher] Poster Competition: This can be an individual or group activity. Allow the students enough time (or they can do it at home) to design a poster showcasing the possible conservation actions THEY can take to help conserve Oyks. They should try and think of everything they have learned thus far (all the other Lesson Plans and Fact Sheets included).

Posters should be sent to NVT by June 2018. Simply take a good quality photo of the poster and send it via email to info@naturesvalleytrust.com. There are wonderful prizes to be won including a cash prize for the school.

APPENDIX A

ANSWER SHEET 1: CONSERVATION EFFORTS FOR AFRICAN BLACK OYSTERCATCHERS

1. **How many breeding pairs were there in the 1980s? Choose the right answer.**
 - a) 100
 - b) 500
 - c) 1 000
 - d) 2 000

2. **Why did Oyks mostly breed on islands?**

There are less human disturbances and less mammalian predators on the islands than on the mainland.

3. **Why are Oyks vulnerable to human activities? Clue – it's something to do with their nests and when they breed.**

They are vulnerable to human activities because they tend to breed during the busy holiday season when there are many people around and they build their nests on open sand and rock where they can easily be trampled.

4. **Prof Phil Hockey played a pivotal role in the conservation of Oyks and he managed to turn a conservation crisis into one of South Africa's greatest conservation success stories. How did he go about doing this? What did he do first?**

He first established the Oyk population number along the whole of the coastline where they were known to occur. He then determined what threats were the root cause for the decline in numbers and suggested changes to reduce the threats.

5. **What did Phil find was the root cause?**

He found that human activities were the major problem. Vehicles, horse riding, dog walking, even just walking around key nesting sites can have a huge impact – they step on eggs or chicks or pick up eggs thinking they are abandoned.

6. **Name two things that made a major difference in the breeding success of Oyks?**

Protecting key nesting areas as well as the ban of vehicles on beaches from 2002 have made a big difference.

7. **What natural threats are there to Oyks?**

Spring tide floods nests, increase in temperatures cause heat stress to eggs and chicks, and land, sea and aerial predators destroy eggs and kill chicks.

8. **The alien Mediterranean mussel has displaced the natural occurring Brown and Black mussel on our shores which has had many negative impacts on the coastal ecosystem. What has this mussel meant for Oyks specifically?**

Even though it poses an environmental problem to the ecosystem balance, the Mediterranean mussel has helped Oyks by providing plentiful food to feed their chicks.

9. The increase in food supply and the implementation of protective measures have helped raise Oyk population numbers. How many are there at the time of this video?
7000
10. Where do the juveniles fly to find partners during their gap year?
Angola, Namibia and Mozambique.
11. How do volunteers and scientists track the birds?
Amateur birders and volunteers monitor and protect nests (put up nesting signs and demarcate areas where they breed) and colour ring the chicks.
12. Over the past decade SAFRING has ringed thousands of birds. How can you help them track these birds? When you get close enough to a bird what should you note and send to their website www.safring.adu.org.za?
Keep a lookout for rings and report on the website the ring number, the ring colour and where you saw the bird.

APPENDIX B

QUESTIONNAIRE 1: CONSERVATION EFFORTS FOR AFRICAN BLACK OYSTERCATCHERS

1. How many breeding pairs were there in the 1980s? Choose the right answer.
 - e) 100
 - f) 500
 - g) 1 000
 - h) 2 000
2. Why did they mostly breed on islands?
3. Why are Oyks vulnerable to human activities? Clue – it's something to do with their nests and when they breed.
4. Prof Phil Hockey played a pivotal role in the conservation of Oyks and he managed to turn a conservation crisis into one of South Africa's greatest conservation success stories. How did he go about doing this? What did he first do?
5. What did Phil find was the root cause?
6. Name two things that made a major difference in the breeding success of Oyks?
7. What natural threats are there to Oyks?
8. The alien Mediterranean mussel has displaced the natural occurring Brown and Black mussel on our shores which has had many negative impacts on the coastal ecosystem. What has this mussel meant for Oyks specifically?

9. The increase in food supply and the implementation of protective measures have helped raise Oyk population numbers. How many are there at the time of this video?

10. Where do the juveniles fly to find partners during their gap year?

11. How do volunteers and scientists track the birds?

12. Over the past decade SAFRING has ringed thousands of birds. How can you help them track these birds? When you get close enough to a bird what should you note and send to their website www.safring.adu.org.za?