# SEA SHEPHERD CASE STUDY: OPERATION SISO

CASE STUDY GUIDE: PRIMARY SCHOOL (Age 8 – 11)

## Case Study Summary

This Case Study connects with our Lesson Plans: Illegal, Unreported and Unregulated (IUU) Fishing 1-3. It focuses on our campaign Operation SISO working in the Italian Aeolian Archipelago.

This Case Study takes 20 minutes to complete.




## Subjects relevant to

English, Geography, History, Math, Science and Social Science.

## Learning objectives

- Understand IUU fishing activity.
- Determine the impacts it is having on marine species in the region.
- Understand how this contributes to overfishing.
- Learn about Fish Aggregating Devices.

## Preparation

- This case study has been designed to supplement our main lessons. It can be stopped at any time should you wish to include your own discussion/questions or incorporate the lesson activities.
- Depending on whether students are working in a classroom or remotely, you can choose to discuss questions in the class or use the online learning app.
- This digital lesson has an interactive option called student devices. If you choose this option ask the students to bring their mobile phones or tablets to the lesson.
- Should you choose the interactive option, it will run a quiz during the lesson. Recommendation: only use this interactive option in classes of up to 30 students.
- Students can sign up on their mobile device to the www.LessonUp.app. They will be asked for a PIN code (this will appear automatically on slide 3 and will also show at the bottom of the screen). Students who sign up under a false name may be removed by the teacher.
- Students who do not have a mobile device can join the quiz with another student.
- If student devices is turned ON, you can opt to turn the sound and the share screen ON or OFF. Further on you can choose if you want to 'show ranking after each quiz' question. Doing so will create a competitive element, but it can be distracting. Recommendation: turn the 'show ranking after each quiz' OFF.
- The abovementioned options will also show if you click on the PIN code at the bottom of the screen.

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## Lesson plan

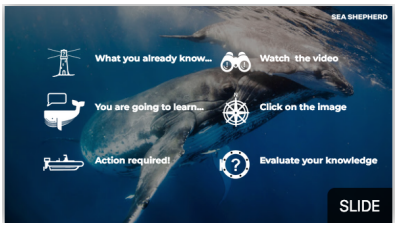
### Slide 1 Introduction

This lesson is provided by Sea Shepherd. Sea Shepherd was founded in 1977 and is a marine conservation organisation working to protect the oceans and marine wildlife. Sea Shepherd works globally on a range of issues impacting the oceans, running numerous direct action campaigns each year. IUU is one area Sea Shepherd is working on to help stop illegal fishing.




### Slide 2 Lesson action icons

During the lesson we will use these icons to identify the learning actions.




### Slide 3 Operation SISO

Protecting the waters of Italy's Aeolian Islands.

In September 2018, Sea Shepherd launched Operation Siso in partnership with Italian authorities and support from the Aeolian Islands Preservation Fund and Smile Wave to tackle Illegal, Unreported, and Unregulated (IUU) fishing in the Aeolian Archipelago.




### Slide 4 Aeolian Archipelago

The map shows the location of the Aeolian Archipelago.




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## Slide 5 Operation SISO

On the first campaign, Sea Shepherd's vessel Sam Simon together with Lipari's Coast Guard, Milazzo's Revenue and Customs Authorities, and with the collaboration of local fishermen, confiscated 52 fads (Fishing Aggregating Devices) and 100 kilometers of polypropylene line in the Aeolian Islands in 178 hours.




## Slide 6 Targeting illegal driftnets

In June 2019 Sea Shepherd returned to the Mediterranean Sea to focus on the use of illegal driftnets and other deadly fishing gear off the west coast of Italy.

This was carried out with the help of the Aeolian Islands Preservation Fund and Smile Wave in collaboration with Lipari and Salina's artisanal fishermen.




## Slide 7 Tackling plastic pollution

Sea Shepherd is also fighting against the plastic pollution caused by illegal fishing gear, which has long been the biggest cause of plastic pollution destroying the Mediterranean seabed, its ecosystem, and its coral reefs.

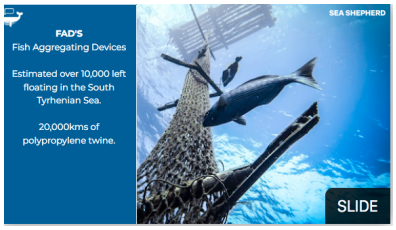
Moreover, the millions of bottles and plastic tanks abandoned at sea continue to pollute and as they deteriorate over time, producing huge amounts of microplastics. Once their anchoring gets severed, FADs become death traps made of floating twine nets that entangle and kill seabirds, sea turtles, whales and fish.




## Slide 8 FADs

The estimated number of illegal Fish Aggregating Devices (FADs) is beyond imagination:

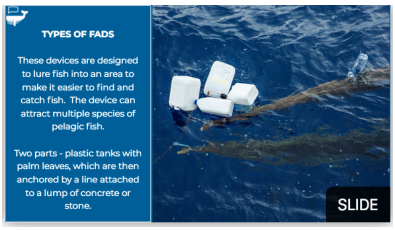
- 10,000 illegal FADs in the South Tyrrhenian Sea with an estimated 20,000 kilometres of polypropylene twine and hundreds of plastic bottles and tanks.
- According to a scientific paper published on the Journal of Environmental Management combining research from Sicily, Malta and Tunisia between 1961 to 2017, 1.6 million FADs and 5.4 million plastic bottles and tanks have been dumped in the Mediterranean Sea (reference).




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## Slide 9 FADs

Artisanal fishing gear internationally known as Fish Aggregating Devices (FADs), locally called “caponare” or “canizzi”, are illegal in the waters of the Aeolian Islands.




FADs are comprised of 2 parts: a floating part made of plastic tanks and palm leaves, and an anchored part, usually made by a long polypropylene twine tied around a weight of concrete or stones that anchors the device deeply to the seabed.

The target of this device is mainly the dolphinfish (“mahi mahi” in USA, “capone” in Sicily), a pelagic fish that swims through the Tyrrhenian Sea in large numbers from the end of summer to the end of the year.

## Slide 10 Retrieving FADs and lines

After departing from Portorosa, Sicily, the team followed a course through waters known for having a high concentration of illegal FADs. The vessels were equipped with a system of winches specifically designed to retrieve every part of the deeply anchored FADs, to effectively retrieve all of the polypropylene twine and plastic tanks from the sea.




In the following weeks of constant work, 77 illegal FADS with 150 kilometers of polypropylene twine and hundreds of tanks with dangerous and highly polluting residues were retrieved, confiscated and delivered to the Lipari Coast Guard.

Show this video (2.22min) which shows crew at work removing some of the lines and FAD’s.
https://www.youtube.com/watch?v=IrZ_g3ny0wM

## Slide 11 IUU

Illegal, unreported, and unregulated (IUU) fishing kills millions of different species illegally, making criminals richer and seriously damaging legal artisanal fishing.




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### Slide 12 Mediterranean Sea

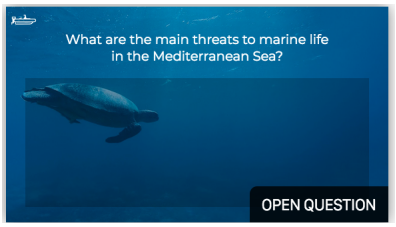
Show this video (4.50min) which explains the species in the Mediterranean Sea, the extent of overfishing in this area, the threat of IUU and Sea Shepherd's campaign to help protect the area.
https://www.youtube.com/watch?v=50ypT007Wuo&t=199s




### Slide 13 Question

Ask students to complete their answers to the following question using the www.LessonUp.app or discuss in classroom.

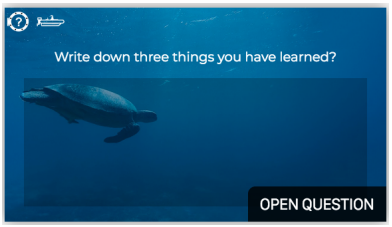
"What are the main threats to marine life in the Mediterranean Sea?"




### Slide 14 What did you learn?

Ask students to answer the following question using www.LessonUp.app or discuss in the classroom.

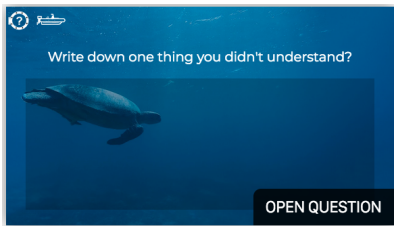
"Write down three things you have learned?"




### Slide 15 What don't you understand?

Ask students to answer the following question using www.LessonUp.app or discuss in the classroom.

"Write down one thing you didn't understand?"




### Slide 16 Close




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## YOUR FEEDBACK

We value your feedback and would be pleased to hear your thoughts about this lesson and activities. Any comments, suggestions or requests for further information can be sent to education@seashepherdglobal.org.

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