

### Lesson Summary

Overfishing is emptying the ocean, with 90% of fisheries already overfished. Illegal fishing is increasing this. In this lesson we will look at some of the practices being used to protect the ocean and marine wildlife, and how IUU activity is being detected.

This lesson will take approx. 45 mins.



### Subjects relevant to

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

### Learning objectives

From this lesson students will:

- Understand and explain the practices being used to protect marine ecosystems.
- Understand the methods being used to detect illegal fishing activity.
- Evaluate the term sustainable fishing.
- Learn the difficulties in prosecuting illegal vessels.

### Preparation

- This lesson has been designed to provide a complete lesson, but can be stopped at any time and split over multiple lessons, should you wish to include your own discussion/questions or incorporate the lesson activities.
- Definitions of key terms have been provided at the end of the guide to assist with the learning process.
- Each lesson has case study options showing Sea Shepherd campaigns, including videos to provide students with a firsthand experience of ocean conservation in action.
- 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](http://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.



# ILLEGAL, UNREPORTED AND UNREGULATED (IUU) FISHING

## LESSON 2

TEACHERS GUIDE: PRIMARY SCHOOL (Age 8 – 11)

### Lesson plan

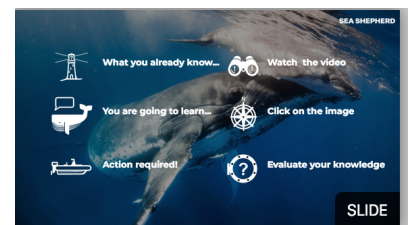
#### Slide 1 Introduction

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 and reduce by-catch.



#### Slide 2 Lesson action icons

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



#### Slide 3 Lesson summary

During this lesson we will further explore IUU fishing activity, by looking at some of the practices being used to protect the ocean and ways that law enforcement are using to detect illegal fishing activity.



#### Slide 4 Overfishing

This slide shows an emptying ocean. Explain to students that scientists estimate that by 2050 the ocean ecosystem will be on the verge of collapse, empty of fish and marine wildlife, unless urgent action is taken on the issues impacting on the oceans and marine wildlife.

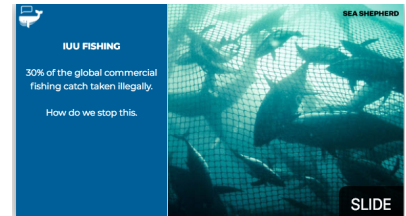


**INTERACTIVE JOIN** - ask students to go to [www.LessonUp.app](http://www.LessonUp.app)

### Slide 5 Last lesson summary

In the last lesson we discussed the meaning of IUU and the causes behind the increasing demand for fish. We also learned the extent of illegal fishing taking place, with around 30% of the global commercial fishing catch taken illegally.

Now we are going to look at some of the measures in place to stop IUU activity.



### Slide 6 Practices to protect marine wildlife

In many countries and regions there are laws and regulations in place to help regulate fishing and protect marine ecosystems. These regulations help to provide the framework for the legal fishing industry and the basis upon which law enforcement agencies can monitor and enforce fisheries crimes.



### Slide 7 International laws

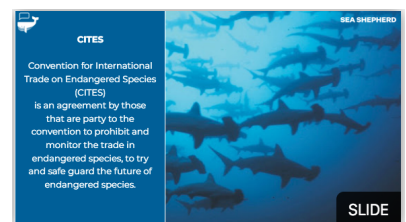
In international waters there are regulations in place, agreed to via the United Nations. These include regulations on restricting the use of driftnet fishing in international waters.



### Slide 8 CITES

The Convention for International Trade on Endangered Species (CITES) is an agreement by those that are party to the convention to prohibit and monitor the trade in endangered species, to try and safeguard the future of endangered species.

Countries that have signed up to CITES must prohibit any trade in fauna(animals) or flora(plant life) that are listed by CITES. There are over 180 parties to the convention, which covers around 35,000 species of animals and plants.



### Slide 9 Marine zones and sanctuaries

Each country that borders the ocean has territorial waters, referred to as an Exclusive Economic Zone (EEZ). The EEZ is included in the United Nations Law of the Sea, where coastal states assume control over this area and its marine resources.

Within the EEZ countries can establish marine sanctuaries providing protection in ecologically vital areas, such as areas where fish breed or where ecosystems that have been damaged

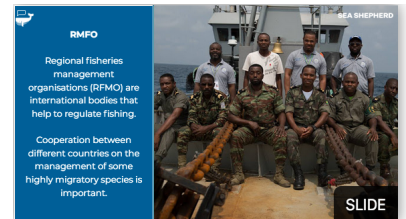




and need to recover. Within these zones fishing and other activities are strictly controlled or prohibited.

### Slide 10 RFMO

Regional fisheries management organisations (RFMO) are international bodies that help to regulate fishing. Cooperation between different countries on the management of some species that migratory between countries.



### Slide 11 Fishing permits

Along with RFMO's countries can set up licensing systems to issue permits for fishing. Permits give the fishermen permission to catch certain types of fish species and the amount they can catch. They may also set restrictions on the size of the fish they can catch, so as to avoid taking immature fish. Both commercial and recreational fishermen can be subjected to restrictions via the permit system, limiting the location for fishing, the species allowed to be caught, restrictions on size and catch limits.



If appropriate discuss local laws around recreational fishing.

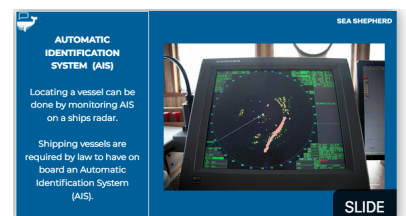
### Slide 12 Detecting and stopping illegal fishing

One way to reduce overfishing is by detecting and detaining illegal fishing operations and monitoring the catches of legal fishing vessels. With around 30% of the global fishing catch taken illegally this can have a huge impact.



### Slide 13 Automatic Identification System (AIS)

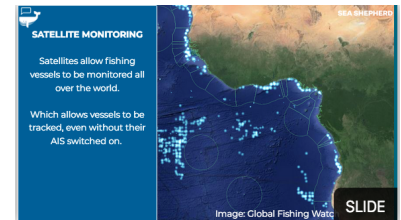
Locating a vessel can be done by monitoring AIS on a ships radar. Shipping vessels are required by law to have on board an Automatic Identification System (AIS), which shows the location and the identification details of the vessel. By monitoring the position of vessels, authorities can detect illegal activity in protected areas, such as marine reserves.





### Slide 14 Satellite monitoring

Satellites allow fishing vessels to be monitored all over the world. Which allows vessels to be tracked, even without their AIS switched on. Satellite monitoring also allows law enforcement vessels patrolling for illegal activity to find the location of potential illegal activity.



### Slide 15 Patrol vessels

The best way to deter illegal activity is to patrol the ocean. In areas where illegal poachers are heavily operating the only option is to patrol the waters. Using a patrol vessel that is faster than the fishing vessels allows law enforcement to chase down poachers and board their vessels for inspection. Inspection means taking a look at their log books, checking their registration documents, fishing license and what catch is in the ships hold.



Some countries don't have the resources to undertake these patrols, this is where Sea Shepherd has been able to help by providing ships and crew to assist in law enforcement activities.

Show the video (4.36 min) from Sea Shepherd's Operation Jodari in Tanzania. This shows some of the illegal activities taking place and the impact patrolling the EEZ.

<https://www.youtube.com/watch?v=i9Q00iciLuc&list=PLx1pnhQVtbbDkZfN2nz9qqd8bVVLOGkkl>

### Law enforcement agencies

Each country has its own authorities, such as fisheries agencies, coast guard, navy or marines that monitor fishing activities and tackle the issue of IUU activity.

### Slide 16 Regional cooperation

To combat IUU fishing activities, which span whole regions, countries are starting to work together to form taskforces that coordinate responses against illegal activities, including fishing. In south east Africa eight countries have formed FISH- I Africa to tackle these issues; Comoros, Kenya, Madagascar, Mauritius, Mozambique, Seychelles, Somalia and Tanzania.



### Slide 17 Question

Ask students to respond via [www.LessonUp.app](http://www.LessonUp.app) or discuss in classroom.

“Why do you think international cooperation on fishing is important?”



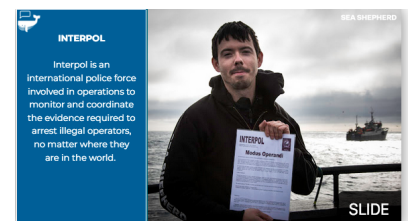
### Slide 18 INTERPOL

Interpol is an international police force involved in operations to monitor and coordinate the evidence required to arrest illegal operators, no matter where they are in the world.

Vessels that break the law and fish illegally can be blacklisted by countries or RMFO's. If they return they will be arrested.

Where evidence has been gathered against an illegal operator, with the aim to prosecute, Interpol can issue what is called a Purple Notice against them. A purple notices requires participating countries to detain the vessel once it enters their waters.

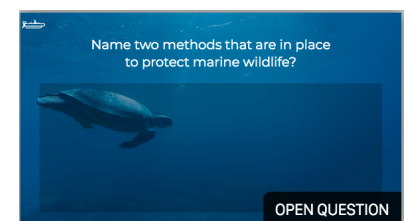
A Purple Notice is for the provision of information on procedures, objects, devices or hiding places used by criminals. Which means that Interpol are looking for information on the ships activities and evidence against them, such as fishing gear that has been used to fish illegal.



### Slide 19 Question

Ask students to answer using the [www.LessonUp.app](http://www.LessonUp.app)

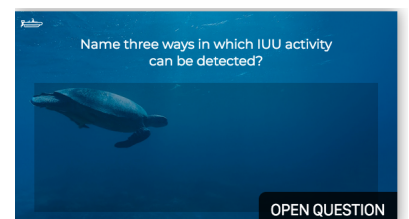
“Name two methods that are in place to protect marine wildlife?”



### Slide 20 Question

Ask students to answer using the [www.LessonUp.app](http://www.LessonUp.app)

“Name three ways in which IUU activity can be detected?”





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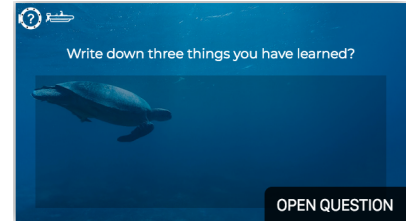
## LESSON 2

TEACHERS GUIDE: PRIMARY SCHOOL (Age 8 – 11)

### Slide 21 What did you learn?

Ask students to answer the following question using [www.LessonUp.app](http://www.LessonUp.app) or discuss in the classroom.

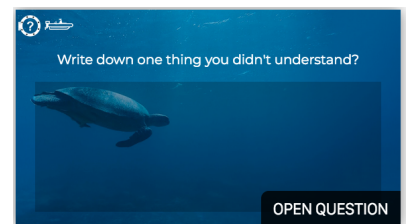
“Write down three things you have learned?”



### Slide 22 What don't you understand?

Ask students to answer the following question using [www.LessonUp.app](http://www.LessonUp.app) or discuss in the classroom.

“Write down one thing you didn't understand?”



### Slide 23 Next lesson

Next lesson we will discuss the issue of by-catch and the fishing methods that are being used and their impacts.



### Slide 24 Close







# ILLEGAL, UNREPORTED AND UNREGULATED (IUU) FISHING

## LESSON 2

TEACHERS GUIDE: PRIMARY SCHOOL (Age 8 – 11)

### Case Study Options

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Case Study – Operation Albacore  
Case Study – Operation By-catch  
Case Study – Operation Driftnet  
Case Study – Galapagos Island  
Case Study – Operation Icefish  
Case Study – Operation Milagro  
Case Study – Operation Siso  
Case Study – Operation Sola Stella



# ILLEGAL, UNREPORTED AND UNREGULATED (IUU) FISHING

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### Key Definitions

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IUU – Illegal, Unreported and Unregulated Fishing.

Illegal fishing - means that the fishermen enter the territorial waters of a country or regulated marine zone without permission or without a license for the fish they intend to catch.

Unreported - means that a fishing vessel may have a license with an allocated quota for fishing a particular species, such as tuna, but then catches more than their quota states and without reporting the extra catch.

Unregulated - refers to areas where there may not be a quota or any regulations in place, either in that location or for the type of species.

AIS – Automatic Identification System.

By-catch - is basically anything that is caught in fishing nets or on lines that the fishermen don't want or are not allowed to legally sell.

CITES – Convention for International Trade on Endangered Species.

Ecologically - in a way that concerns the relation of living organisms to one another and to their physical surroundings.

Ecosystem - a biological community of interacting organisms and their physical environment.

Extinction - the state or process of being or becoming extinct. No longer in existence.

EEZ – Economic Exclusion Zone.

Migratory – an animal or bird that moves from one region or habitat to another according to the season.

Overfishing - depletion of fish numbers by excessive fishing.

Overfished populations - depleted the numbers of fish in specific area) by excessive fishing. Even though these numbers could still be considered sustainable, they could ultimately lead to the collapse of fisheries.

Poaching - illegally hunt or catch (marine mammals or fish) that is not one's own or in contravention of official protection.

Regulate – control using laws or rules.

RFMO - Regional fisheries management organisation.

### 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](mailto:education@seashepherdglobal.org).