

## Teachers' Guide Atlas - Hide and Seek Game

**European Atlas of the Seas** 

**June 2025** 



#### Introduction to the Teachers' Guide of the Atlas Hide and Seek Game



This PowerPoint presentation is designed to guide teachers through the preparation and completion in the classroom of the Hide and Seek Game developed by the European Atlas of the Seas Team.

The presentation is divided into four parts, corresponding to the four parts of the game's instructions available in the Atlas Teachers' Corner on the Maritime Forum.

Part 1: Find the hidden images of marine species

Part 2: Complete the table with information about the marine species

Part 3: Learn about marine species in other sea basins Part 4: Discuss key measures to protect marine species

There are parts of the game where only one answer is correct (Part 1), while others can be answered in multiple ways (Part 2: "Fun fact about this species", Part 3 and Part 4). For parts where more than one answer can be given, this Teachers' Guide provides you with one way of addressing the question. It is completely up to you, as a teacher, to work with these answers or to let your creativity roam free! Sources of information are provided to support your classroom preparation process.

Have fun!



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• Instruction 1: The first image is located in the northern part of the Adriatic Sea, in Ravenna (Italy), on a starfish nearby the Natura 2000 site 'Adriatico settentrionale – Emilia-Romagna'

#### • Solution:







• Instruction 1: The first image is located in the northern part of the Adriatic Sea, in Ravenna (Italy), on a starfish nearby the Natura 2000 site 'Adriatico settentrionale – Emilia-Romagna'

#### Solution:





• Instruction 2: The second image is located in the Tyrrhenian Sea, along the coast of Tuscany in Italy, in the Natura 2000 site 'Tutela del Tursiops truncatus'

#### • Solution:







• Instruction 2: The second image is located in the Tyrrhenian Sea, along the coast of Tuscany in Italy, in the Natura 2000 site 'Tutela del Tursiops truncatus'

Solution:





• Instruction 3: The third image is located in the Balearic Sea along the coast of Spain, nearby the Natura 2000 site 'Canal de Menorca'

#### • Solution:





• Instruction 3: The third image is located in the Balearic Sea along the coast of Spain, nearby the Natura 2000 site 'Canal de Menorca'

#### Solution:



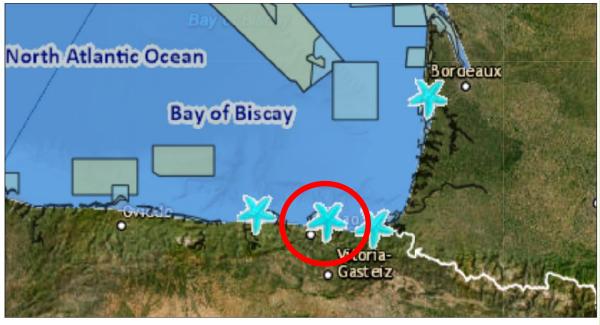




• Instruction 4: The fourth image is located in the north of Spain, on the coast of the Bay of Biscay

• Solution:

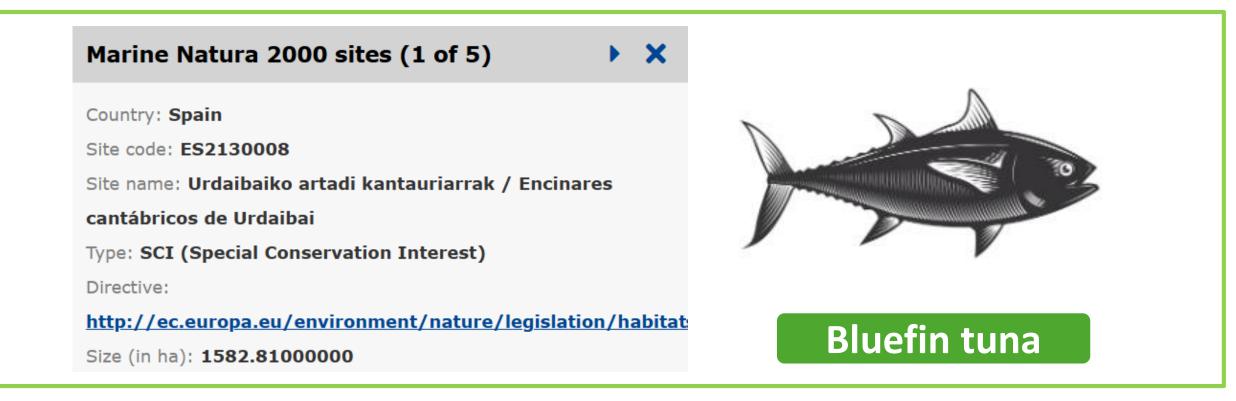






• Instruction 4: The fourth image is located in the north of Spain, on the coast of the Bay of Biscay

Solution:





• Instruction 5: The fifth image is located in the North Atlantic Ocean, along the coast of Africa, in Tenerife

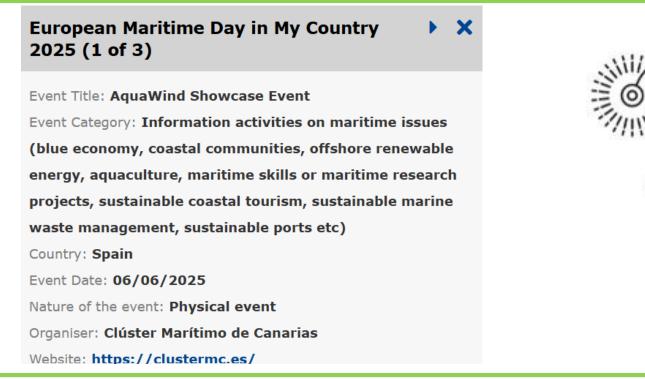
• Solution:

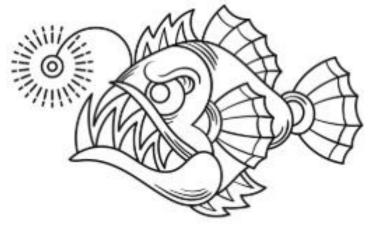




• Instruction 5: The fifth image is located in the North Atlantic Ocean, along the coast of Africa, in Tenerife

#### Solution:











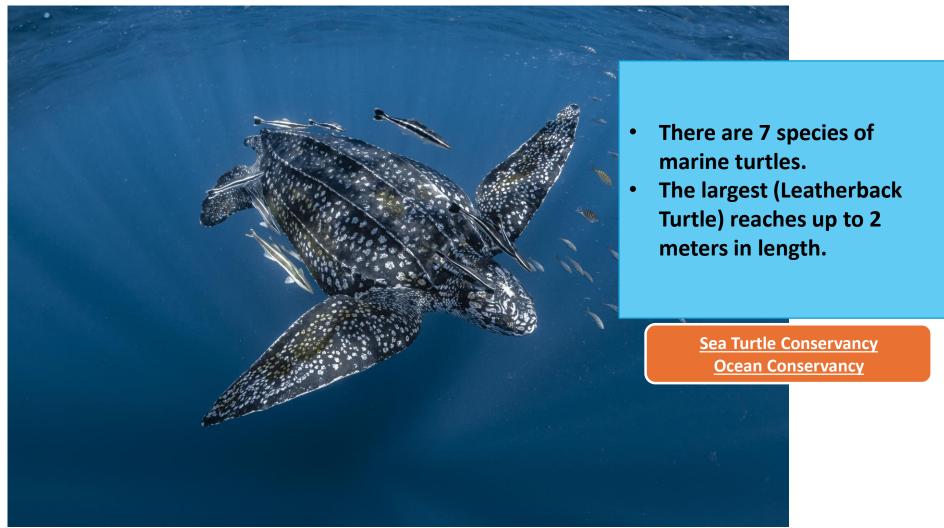


Name of the species	Class of vertebrates	In which sea was this species hidden	Where does this species live	What does this species eat	Fun fact about this species
Turtle	Reptile	Adriatic Sea	Marine turtles live in tropical and subtropical waters all around the world. But some are pickier and stay around one place (Kemps Ridley Sea Turtle and Flatback Sea Turtle).	Some feed on seagrass (Green Turtle), others enjoy a jellyfish meal (Leatherback Turtle) or crustaceans and molluscs (e.g. Loggerhead Turtle).	They lay eggs on the beach where they once hatched. How do they find it? A common hypothesis is that they use the Earth's magnetic field! The sex (male or female) of hatchlings depends on the temperature!

Some sources

<u>Sea Turtle Conservancy</u>, - <u>World Wide Fund for Nature</u> - <u>Ocean</u> <u>Conservancy</u> - <u>Innoceana</u> - <u>Blue World Institute</u> - <u>Archipelagos</u> - <u>National Oceanic and Atmospheric Administration</u>





Credit: Emilie Ledwidge / Ocean Image Bank



Name of the species	Class of vertebrates	In which sea was this species hidden	Where does this species live	What does this species eat	Fun fact about this species
Dolphin	Mammals	Tyrrhenian Sea	Most dolphins live in the ocean or in coastal waters, but there is a few swimming in rivers (the South Asian River Dolphin and the Amazon River Dolphin)!	Dolphins feed mainly on fish and squid.	They use echolocation to find their prey! By making clicking sounds, they send a sound out in the water. When the sound bounces back, they can find out the location, size and even shape of the prey!

National Geographic - National Geographic Kids - Blue World Institute
- Archipelagos



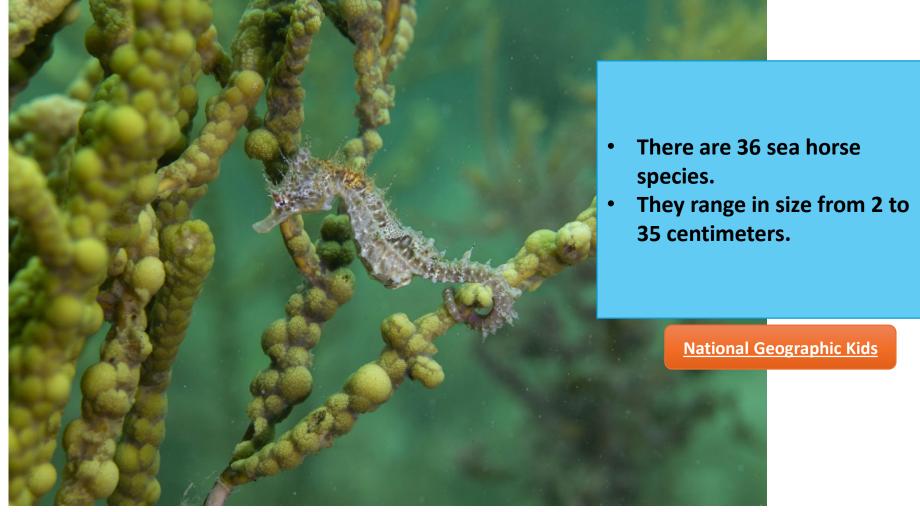


Credit: Vincent Kneefel / Ocean Image Bank



Name of the species	Class of vertebrates	In which sea was this species hidden	Where does this species live	What does this species eat	Fun fact about this species
Sea Horse	Fish	Balearic Sea	These creatures prefer coastal waters. They live in tropical and temperate regions around the world where the temperature doesn't drop too much!	Their menu consists of small crustaceans. They don't chase and hunt! Instead, they wait for prey to pass by.	The dad carries the eggs! The female lays her eggs in a pouch of the male, who then carries the eggs until ready to hatch.





Credit: Stefan Andrews / Ocean Image Bank



Name of the species	Class of vertebrates	In which sea was this species hidden	Where does this species live	What does this species eat	Fun fact about this species
Bluefin tuna	Fish	Bay of Biscay	Atlantic bluefin tuna live near the surface in temperate waters but frequently dive to depths of 500 to 1,000 meters.	Young Blue Tunas eat squid, fish and crustaceans. But adults hunt on baitfish like mackerel, herring and bluefish.	As top predators, they play an important role in maintaining balance in the ecosystem. They make sure that prey populations don't become too big!

Some sources

<u>World Wide Fund for Nature – IUCN RED List:</u>
<u>Atlantic Bluefin Tuna - Marine Stewardship Council</u>
(MSC) - <u>NOAA Fisheries</u>



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Retrieved from Canva

Bluefin Tuna



Name of the species	Class of vertebrates	In which sea was this species hidden	Where does this species live	What does this species eat	Fun fact about this species
Humpback anglerfish	Fish	North Atlantic Ocean	Usually found at depths of between 200 and 2,000 metres.	On the menu: other fish!	The anglerfish has a special way of luring other fish close. Females have a fishing-rod attached to their head with a light bulb at the end.

Some sources

Nausicaa: Humpback anglerfish
- Monterey Bay Aquarium – Oceanographic Magazine







• Instruction: No species were hidden in the Baltic Sea and in the Black Sea. Can you find examples of species that can be observed in the Baltic Sea and the Black Sea?



Source: <u>European Atlas of the Seas</u>



Live in groups of 2 to 3 in

coastal areas. Vulnerable

to pollution, noise and

accidental capture.

• Instruction: No species were hidden in the Baltic Sea and in the Black Sea. Can you find examples of species that can be observed in the Baltic Sea and the Black Sea?

Solution:

Common Bottlenose Dolphin, Black Sea



Credit: Mark Ian Cook / Ocean Image Bank / Mangrove Photography Awards Bottlenose dolphin mud-ring feeding behavior

They live in groups of about 12 individuals and work together to herd their prey to the surface.

Harbour Porpoise, Black Sea



Retrieved from Canva Harbour Porpoise



• Instruction: No species were hidden in the Baltic Sea and in the Black Sea. Can you find examples of species that can be observed in the Baltic Sea and the Black Sea?

Solution:

#### Short-Beaked Common Dolphin, Black Sea



Retrieved from Canva
Short-Beaked Common Dolphin

They are highly social and energetic! One of the most world. They like to be in water comes to surface.



• Instruction: No species were hidden in the Baltic Sea and in the Black Sea. Can you find examples of species that can be observed in the Baltic Sea and the Black Sea?



Source: European Atlas of the Seas



Can be seen attached

to hard substrates like

rock, boulders and

• Instruction: No species were hidden in the Baltic Sea and in the Black Sea. Can you find examples of species that can be observed in the Baltic Sea and the Black Sea?

Solution:

Baltic tellin, Baltic Sea



Retrieved from Canva Also called Baltic Macoma

The most common clam along the Finnish coast. They live on the sediments of the soft seafloor.

Blue mussel, Baltic Sea



Retrieved from Canva

Blue mussels



Needs ice and snow cover to survive! They

dependent on it for

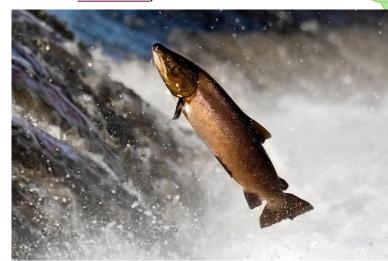
reproduction and

moulting.

• Instruction: No species were hidden in the Baltic Sea and in the Black Sea. Can you find examples of species that can be observed in the Baltic Sea and the Black Sea?

Solution:

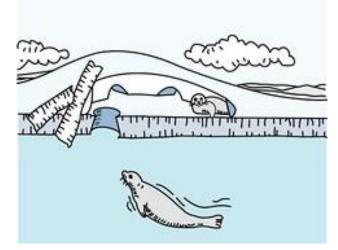
Salmon, Baltic Sea



Retrieved from Canva Salmon leaping rapids

Feeds in the sea but swims up rivers to spawn. Many migratory species are endangered!

Baltic ringed seal, Baltic Sea



Credit: Robert Barnes, UNEP/GRID-Arendal (www.grida.no/resources/5262) Ringed seal pupping lair, with the pup in the lair and the female approaching the haul-out hole from the water

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## Part 4: Discuss key measures to protect marine species

#### Part 4: Discuss key measures to protect marine species



#### **Instructions:**

- What are the main threats faced by these marine species?
- How can they be protected?
- What are Natura 2000 sites?

A few ideas for an interesting debate!

#### Solution:

#### Threats include

- Ocean warming
- Ocean acidification
- Loss of oxygen in the ocean
- Habitat degradation
- Climate change
- Pollution
- Over exploitation
- ....

#### How can species be protected?

- Marine Protected Areas (MPAs)
- Legislation for protecting species and habitats
- Limit pollution
- Limit greenhouse gases emissions
- Sustainable fishing practices
- Limit bycatch
- Reduce plastics
- ...

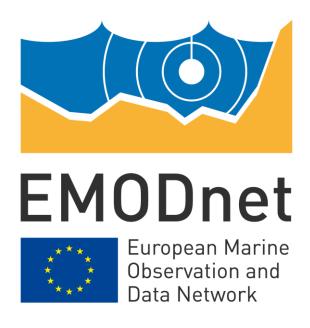
#### Natura 2000 sites

 These are designated sites in Europe both on land and in the ocean aiming to protect valuable and threatened species and habitats.

#### Additional ressources on marine biodiversity



- Ocean Literacy Portal What is Ocean Biodiversity?
- World Register of Marine Species (WoRMS)
- WoRMS: Ten remarkable new marine species from 2024
- Ocean Biodiversity Information System
- Agreement on Marine Biological Diversity of Areas Beyond National Jurisdiction





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