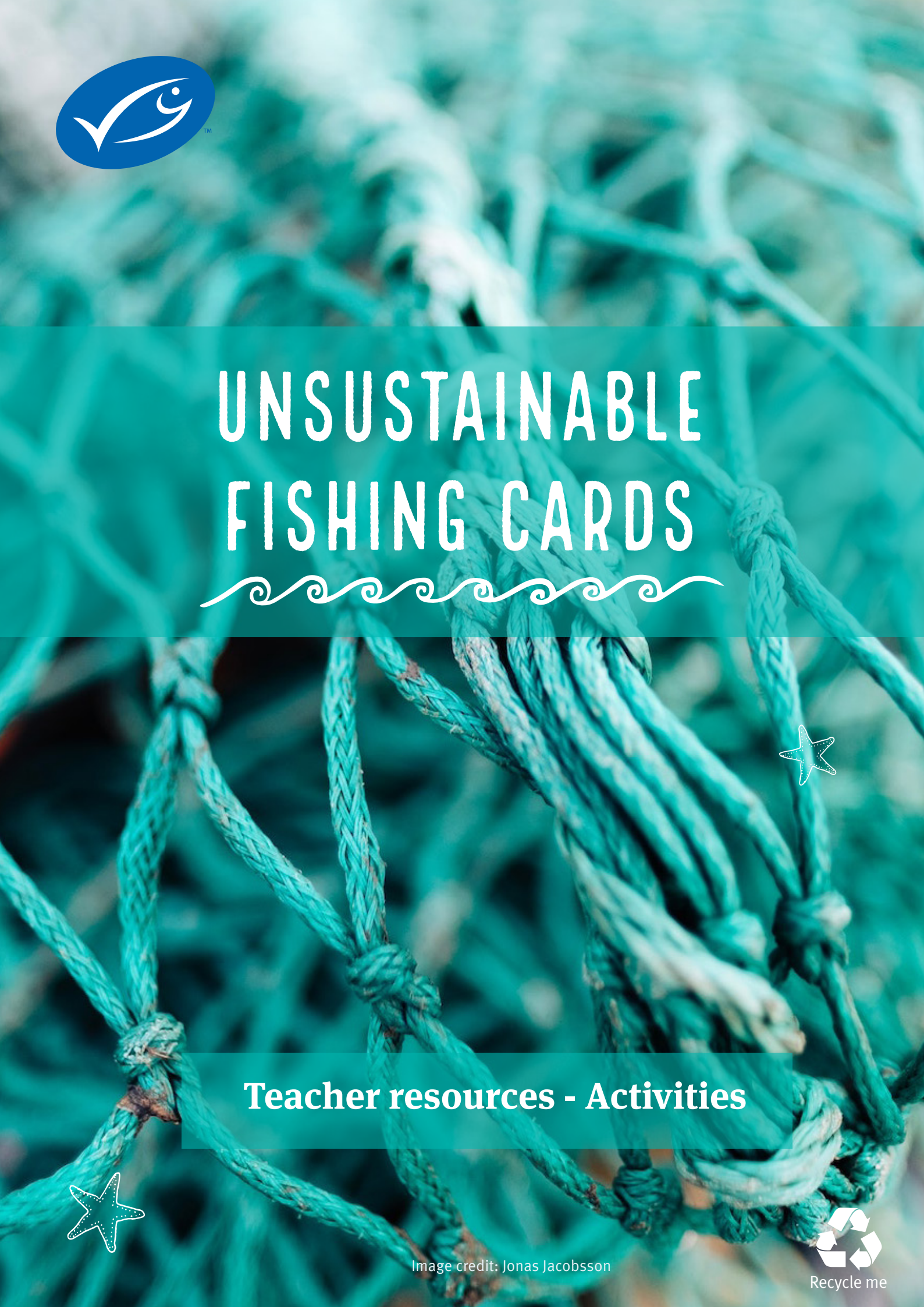

UNSUSTAINABLE FISHING CARDS

Teacher resources - Activities

Image credit: Jonas Jacobsson

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UNSUSTAINABLE FISHING CARDS - SHARK FINNING

HOW MANY SPECIES OF SHARK ARE THERE?

There are more than 1,000 types or species of shark and rays in the ocean today, with new species still being discovered every year.

WHAT IS SHARK FINNING?

Shark finning is the removal of any fins of a shark and discarding the rest of the shark (often still living) in to the sea.

HOW HEALTHY ARE SHARK POPULATIONS?

More than 30% of all known shark and ray species are in danger of extinction. More than half of some groups of sharks have disappeared because of shark fishing, and it can take a long time for populations to recover.

WHY ARE SHARKS SO SOUGHT AFTER?

Sharks are worth a lot of money! Shark fin soup is considered to be a symbol of prosperity in some Asian traditions, and a single bowl can cost up to $100.

DOES THE OCEAN EVEN NEED SHARKS?

Sharks play an important role in the ecosystem. As apex predators, they maintain the species below them and help to balance species diversity.

HOW IS THE MARINE STEWARDSHIP COUNCIL (MSC) HELPING TO END SHARK FINNING?

Any fishers engaged in shark finning are not allowed to get the Marine Stewardship Council blue fish tick label.

UNSUSTAINABLE FISHING CARDS - GHOST FISHING

WHAT ARE GHOST NETS?

Ghost nets are fishing nets that have been lost or thrown away at sea.

DO GHOST NETS CONTINUE TO CATCH MARINE LIFE?

Yes, ghost nets continue to catch fish beneath the ocean. They also get tangled with animals such as turtles, birds, sharks and seals. Hundreds of animals can be caught in just one net.

HOW MANY GHOST NETS ARE THERE IN THE SEA?

We do not know how many ghost nets are in the ocean today. It is estimated that at least 640,000 tonnes of fishing gear is lost each year. That's the equivalent of 90,000 double decker buses! (FAO)

HOW MUCH OF THE PLASTIC IN THE OCEAN COMES FROM DISCARDED FISHING GEAR?

It has been said that almost half (46%) of the plastic in the 'Great Pacific Garbage Patch' is from fishing nets.

DOES THE MARINE STEWARDSHIP COUNCIL (MSC) CONSIDER GHOST GEAR ALLOWING A FISHERY TO USE THE BLUE LABEL?

Yes. The effect of ghost gear is one of the factors that the MSC looks at when deciding if a fishery can use the blue fish tick label.

WHAT HAPPENS TO GHOST NETS OVER TIME?

Some lost or thrown away fishing lines and nets can stay in the ocean for a very long time. Others turn quickly into small pieces of plastic, which are seen wrongly as food by marine life.

UNSUSTAINABLE FISHING CARDS - ENDANGERED HABITATS

WHAT ARE 'ENDANGERED' OR DELICATE MARINE HABITATS?

Delicate marine habitats are places in the ocean that are breeding grounds for animals, or where endangered or slow growing creatures (like sea sponges) grow.

HOW CAN THE SEA FLOOR BE AFECTED BY FISHING?

Fishing gear can affect delicate sea floor habitats. This can happen for example during bottom trawl fishing, which involves the towing of a large fishing net along the sea floor.

CAN CORAL REEFS BE AFFECTED BY FISHING?

When fishing traps are set close to a reef they cause damage to the coral, which takes a long time to recover. Coral reefs can also act as nurseries for young fish, so we must fish very carefully in these areas.

HOW CAN OVERFISHING CAUSE HARM TO MARINE HABITATS?

Herbivorous (plant eating) fish play an important role in the marine ecosystem because they eat algae. If we catch too many herbivorous fish, large blooms of toxic algae can grow and cause harm to marine habitats.

ARE ANY HABITATS PROTECTED FROM THE IMPACTS OF FISHING?

In Australia there are special areas (or zones) of the ocean where fishing is not permitted. In these areas, delicate habitats like the sea floor and coral reefs are protected. The Great Barrier Reef in Queensland is the largest protected area in Australia.

HOW DOES THE MARINE STEWARDSHIP COUNCIL (MSC) MAKE SURE THAT CERTIFIED FISHERIES DON'T BADLY HARM THEY AREAS THEY FISH IN?

In order to receive the MSC blue fish tick label, fisheries must show that they do little harm to the areas where they fish. Some very destructive fishing methods (such as the use of explosives) are banned from the MSC program.

UNSUSTAINABLE FISHING CARDS - BYCATCH

WHAT IS BYCATCH?

Bycatch are different types of fish or sea creatures that are caught unintentionally with the species that a fisher is targeting. It can include young or undersized fish.

WHY IS BYCATCH A PROBLEM?

Bycatch can disrupt the food chain by taking fish that other species rely on for food. Bycatch is especially problematic when endangered and protected species like turtles and dolphins are accidentally caught, injured or killed.

IS IT POSSIBLE TO FISH WITHOUT GETTING ANY BYCATCH?

It is difficult to solve the problem of bycatch entirely, because different marine creatures swim together under the sea. However we can use better fishing methods and equipment to prevent instances of bycatch.

HOW CAN WE REDUCE BYCATCH

Fishers can reduce bycatch by using science and technology to improve our fishing methods and gear types such as Gillnets and Turtle Exclusion Devices.

WHAT DO FISHERS DO WITH BYCATCH?

Fishers will often discard the fish and others marine creatures that they did not want to catch, cannot sell and are not allowed to keep.

HOW IS THE MARINE STEWARDSHIP COUNCIL (MSC) HELPING TO PREVENT BYCATCH?

Fisheries that hold the MSC blue fish tick label must demonstrate that they have very few instances of bycatch, and that they have implemented measures to improve fishing methods and gear, and reduce bycatch.

UNSUSTAINABLE FISHING CARDS - CLIMATE CHANGE

HOW DOES CLIMATE CHANGE AFFECT THE OCEAN?

Oceans play a major role in climate dynamics, absorbing 93% of heat that accumulates in the Earth's atmosphere, and a quarter of the carbon dioxide (CO_2) released from fossil fuels. The impacts of climate change on our oceans include shifts in temperature, acidification, deoxygenation and changes in ocean currents.

HOW MUCH DOES CLIMATE CHANGE AFFECT THE OCEAN?

In the past 30 years, marine heatwaves are estimated to have increased by more than 50%. Globally, ocean temperatures are predicted to increase by 1-4°C by 2100.

HOW DOES CLIMATE CHANGE AFFECT MARINE LIFE?

Sudden rises in temperature and acidification can lead to the loss of marine habitats and species. Shifting ocean currents and warming waters are changing the distribution of fish stocks and altering the structure of ecosystems.

DOES CLIMATE CHANGE AFFECT FISHING?

Climate change threatens fish stocks, but also creates new opportunities for fishing. Areas in the Tropics are predicted to see declines of up to 40% in potential seafood catch by 2050. In contrast, areas in higher latitudes such as the North Atlantic and North Pacific are seeing increases in the range of some fish species.

DOES FISHING CONTRIBUTE TO CLIMATE CHANGE?

Fishing has less impact on climate than the harvesting of other proteins. A study of greenhouse gas emissions of wild fisheries found that each kg of fish caught produces between one and five kg of carbon.

HOW DO SUSTAINABLE FISHERIES COPE WITH CLIMATE CHANGE?

Sustainable fisheries that meet the MSC's standard for sustainable fishing are well-managed and more prepared for climate change. These fisheries have effective monitoring and management in place to reduce their impacts on the environment. Following advice from scientists, these fisheries have pre-agreed plans for responding to likely environmental changes.