

» The Dolphin Diploma «

An activity pack for teachers

It's the Year of the Dolphin
Time to become a dolphin expert !

Dolphins in danger !

Dolphins are really special animals, with lots of wonderful species living in the world's oceans and seas, even rivers and lakes. For hundreds of years, they have captured the imagination of people in many countries and have inspired poets, artists, musicians and others.

But, sadly, they face a number of threats that make their survival difficult. In 2006 the world lost its first dolphin species due to mankind, the Yangtze River dolphin, and world-wide others are close to extinction. They need clean and quiet oceans, protected areas and people who care.



So what is a Dolphin Diploma?

A Dolphin Diploma is an award for children. It shows that the participant has a good knowledge of dolphins, and certifies that he / she has been actively involved in the protection of dolphins. We think this is worth honoring.

How are Dolphin Diplomas awarded?

It's simple and it's fun! To receive a Dolphin Diploma, children need to correctly answer all the questions in our Dolphin Quiz and then carry out an activity that will help whale and dolphin conservation – we'll provide lots of ideas to help!

1. Part 1 of the diploma is the Dolphin Quiz, found on pages 2 and 3. Photocopy enough copies for the children (you might like them to work individually or in groups) along with the species fact sheets (pages 6-9) which will help them answer the questions.
2. Answers are provided for you on page 4. You may like to mark them all yourself or ask the children to swap their quizzes with one another and mark their classmate's.
3. Part 2 is the Dolphin Activity. You'll find a number of ideas on page 10 but let your imagination run! If you have any questions or need advice please don't hesitate to contact WDCS - we're happy to help.
4. Once you've completed both parts, fill in and return the form on page 11 by post, or email the contact below providing the same details that are requested on the form. In return you'll receive an award certificate to mark your achievement!

More information

.. and material to help you teach about dolphins is included in our easy-to-use teacher's manual. And WDCS can also provide you with more ideas and resources should you need them.

Use the Internet to promote your activities

Visit the official Year of the Dolphin website, www.yod2007.org, where you can publish details of your event / activity along with images.

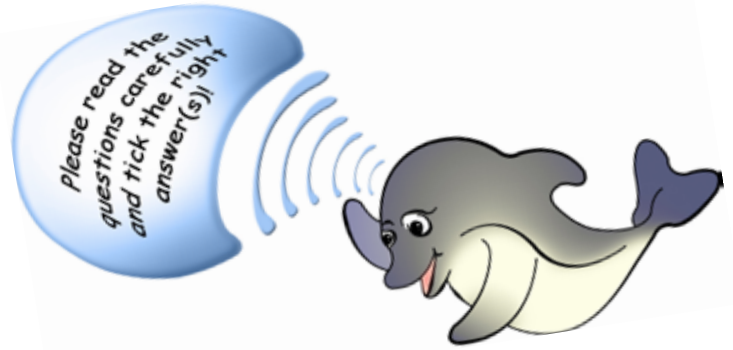
Contact

Please don't hesitate to contact us if you have any additional questions or are in need of advice. We look forward to hearing about any related activities and are always happy to help where we can by providing information and materials for you to distribute.

Education Dept. , WDCS (NA), 7 Nelson Street, Plymouth, MA 02360

contact@whales.org

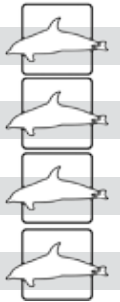
Dolphin Diploma Part 1: the Dolphin Quiz



Species diversity

Dolphins come in all sorts of shapes, colors and sizes!
Can you name one thing that makes the Irrawaddy dolphin look very different to common dolphins and bottlenose dolphins?

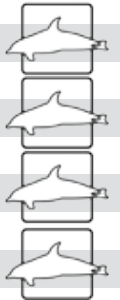
- a) The Irrawaddy dolphin is gray
- b) The Irrawaddy dolphin doesn't have a blowhole
- c) The Irrawaddy dolphin is double the length of the other two
- d) The Irrawaddy dolphin doesn't have a beak



Communication

Dolphins are very social animals and like to spend time together. When they are with each other it is important that they can communicate. Do you know how they do this? (Clue – more than one answer is correct!)

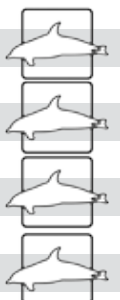
- a) With clicks and whistles
- b) Talking through their mouths
- c) Using body language
- d) By blowing bubbles



Threats

Humans are the cause of many threats that dolphins face. Can you name a threat that troubles a number of different dolphin species around the world?

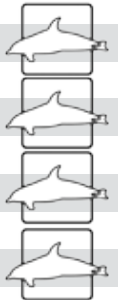
- a) Eating too much food
- b) Not being able to talk to each other
- c) Losing their habitat
- d) Dying of thirst due to climate change



Trash

Hundreds of dolphins die each year from eating plastic trash, including balloons which, even when released from land, can be blown out to sea. Why would a dolphin ingest plastic bags and balloons as if they were food?

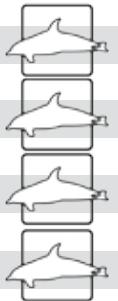
- a) Plastic bags and balloons taste good
- b) Plastic bags and balloons look like jelly fish, a favorite food of dolphins
- c) Plastic bags and balloons smell good
- d) Plastic bags and balloons have vitamins



Protecting dolphins

So that we can help protect dolphins around the world, groups like WDCS have to run special campaigns. What do you think has to be done to protect dolphins? (Clue – more than one answer is correct!)

- a) Use research to discover more about the dolphins
- b) Make sure as many people as possible know about the problems by organizing events like 'Dolphin Days'
- c) Talk to politicians and other important decision-makers
- d) Build fences around their habitats to keep the threats out



Dolphin Diploma quiz – answers and notes

1. Species diversity (correct answer is 'd')

There are over 30 species of dolphins around the world, with great characteristic variation between them.

Irrawaddy dolphins are similar in size to common dolphins and some bottlenose dolphins but, unlike the other two, Irrawaddy dolphins have no obvious beak.

This is not unusual within the dolphin family. Although many species do have a prominent beak, there are a similar number that don't (including Risso's dolphins, dusky dolphins and Hector's dolphins).

2. Communication (correct answers are 'a', 'c' and 'd')

Dolphins live in a world dominated by sound, which travels better than light underwater. Although most dolphins have good vision, they can't always rely on sight because waters can be dark (unlike humans they can't turn lights on at night or at depth!) and visibility in seas and rivers can be poor. So, vocal communication is very important to them.

Although they don't have vocal cords, dolphins can produce a range of calls, which might include greeting and warning calls. The variety of noises they make include whistles, barks, squeaks, clicks, croaks and grunts.

They also use body language to signal to one another, including slapping the water, clapping their jaws, and twisting their bodies. Dolphins sometimes emit bubble streams which may also be a way to communicate.

3. Threats (correct answer is 'a')

One threat dolphins do not seem to be facing is eating too much food. However, dolphins do face a number of man-made threats ranging from hunting to capture for display in marine parks to prey-depletion to pollution to bycatch (incidental capture in fishing nets).

Of the multiple choice options, the loss and degradation of their habitat is a significant problem faced by a wide range of dolphin species across the globe. Pollution (chemical, noise and litter), the building of docks, dams and marinas, and other industry development can change habitats to such an extent that dolphins may no longer be able to survive there.

Dolphins need to communicate by sound to stay in groups and find food, with increasing noise in the ocean, it is getting more difficult to these animals to talk with each other. Climate change is likely to negatively affect dolphins by changing water temperature and food availability. Dolphins don't need to drink like we do. Their main prey (fish and squid), contains large amounts of water and so dolphins gain water from their food. In addition, dolphins don't actually need to take in very

much fluid because, unlike us, they don't lose water by sweating. However, climate change could result in less food being available and cause thirst and hunger problems for dolphins. Simple things like shutting off lights, TVs, video game players when not in use, or unplugging chargers when your phone or game player is fully charged, are ways to save energy and reduce emissions which cause climate change.

4. Trash (correct answer is 'b')

We do not know if dolphins can smell or taste but we do know that they are very good at finding food. And, although dolphins are very smart, they will sometimes mistake balloons and plastic bags for jelly fish, one of their favorite foods. While the dolphins can ingest the trash, they can't digest it and their stomachs can fill up with it, preventing them from eating real food.

Wind can blow balloons and bags from inland areas into streams and rivers which dump into oceans. So it doesn't matter where you live - you can help save dolphins by making sure you don't let balloons go, or simply picking up trash.

5. Protecting dolphins (correct answers are 'a', 'b' and 'c')

Campaigning is an important part of conservation, and a successful campaign is often made up of a number of elements.

Research is vital to discover which dolphin species and populations may be under threat and what those threats are. Armed with this knowledge, we are in a better position to tackle issues and lobby for better conservation laws and regulations.

Influencing governments to better protect dolphins obviously requires dialogue with relevant decision makers, so a campaign will usually involve the lobbying of politicians and authorities.

And public support for an issue no doubt helps to influence authority. So awareness raising activities such as the organisation of special events and other publicity are also vital.

Dolphin Diploma quiz: fact-sheet 1

The Irrawaddy dolphin – A dolphin clown at home in oceans and rivers

What does the Irrawaddy dolphin look like?

Irrawaddy dolphins have round heads with no beaks and flexible necks. They are gray in color but this can vary from one dolphin to another - some are dark to medium gray, others light bluish grey. They have a small triangular shaped dorsal fin (the fin on their backs) which has a rounded or blunt tip, large paddle-like flippers and a U-shaped blowhole. They can have up to 40 teeth on their upper jaw, and 36 teeth on the lower jaw.

Adults grow to between 6.9 and 8.5 ft (2.1 and 2.6 m) in length.



Photo: Dipani Sutaria

Spitting clowns!

Irrawaddy dolphins have been seen to spit water from their mouths whilst spy-hopping (popping their heads out of the water), maybe to scare fish!

They feel comfortable in rivers or coastal waters ...

Irrawaddy dolphins are found in the warm coastal waters and rivers in the Indo-Pacific area (in Indonesia, Myanmar, Laos, Cambodia, Vietnam and Thailand). Although they are classed as an oceanic dolphin, some may spend all their lives in freshwater river systems.

Dying in nets ...

The greatest threat to Irrawaddy dolphins is being accidentally caught in gill-nets (a type of fishing net). This issue is known as bycatch. Other threats include habitat loss and human disturbance, including being hit by boats and other vessels.

Fascinating Facts

In Vietnam, the Irrawaddy dolphin is believed to be a sacred animal. Dolphins caught in nets are released and if villagers come across a dead Irrawaddy dolphin they will cremate the body and give it a religious ceremony as a mark of respect.

Irrawaddy dolphins usually steer clear of humans. However, in Myanmar (formerly known as Burma) they famously cooperate with fishermen, where the dolphins herd fish into the nets and in return get to eat all the fish that escape!

Dolphin Diploma quiz: fact-sheet 2

The bottlenose dolphin – the best-known dolphin of all?

What does a bottlenose dolphin look like?

The easiest way of recognizing a bottlenose dolphin is to look out for an obvious dark and curved-back dorsal fin on a lively gray dolphin! The shape of their dorsal fin, along with nicks, scratches and other markings on their skin, are what researchers use to identify individual bottlenose dolphins.

Bottlenose dolphins from different parts of the world are very different in sizes. There can be as much as a 6.5 ft (2 m) difference between some adults, ranging from 6.2 to 12.8 ft (1.9 to 3.9 m) in length. Some of the world's largest bottlenose dolphins, for example, live around the United Kingdom. They can be a good 3 ft (1m) longer than those living off Florida in the USA, and will probably be fatter with shorter beaks.



Photo: Charlie Phillips/WDCS

There are two different species of bottlenose dolphin – the common bottlenose dolphin and the Indo-Pacific bottlenose dolphin.

Bottlenose dolphins hang out with friends ...

Although they can be found on their own, they tend to live in family groups called 'pods'. They are very active swimmers and are often seen bowriding (riding on the pressure waves at the front of boats), surfing, lobtailing (slapping their tails) and breaching (jumping out of the water, often falling back sideways with a big splash). They are able to leap tens of feet out of the water. They are sometimes seen playing 'games' with things such as seaweed, coral or other animals, and some Indo-Pacific bottlenose dolphins carry sponges on the ends of their beaks to protect them when looking for food on the sea bed!

Where do they live?

Bottlenose dolphins are found in many places around the world although not in polar regions. In fact, they can be found off all the continents, and in-between, except around Antarctica. Common bottlenose dolphins are found in most warm to tropical oceans whilst Indo-Pacific bottlenose dolphins are found in the waters around India, Australia and South-China.

Bottlenose dolphins under threat

Major threats include "drive hunts" where schools of dolphins are driven into shallow bays by people in boats and are either killed for their meat or sold to the captivity industry. Habitat loss, human disturbance, chemical pollution and entanglement in fishing nets also threaten bottlenose dolphins.

Dolphin Diploma quiz: fact-sheet 3

The common dolphin – no longer common

Common dolphins are amazing acrobats ...

Common dolphins are often found in large active groups. They are very energetic and acrobatic, and can seem to spend as much time above the water as they do under it.

They can be seen and heard from long distances, as they jump and splash around. Their loud, high-pitched squeaks can often be heard above the surface of the water.

They usually dive for short periods of 10 seconds to 2 minutes, although dives of 8 minutes have been recorded.



Photo: Ingrid N Visser/www.orcaresearch.org

What does a common dolphin look like?

Common dolphins can be easily recognized by the hourglass/criss-cross pattern of yellow, white, gray and black on their sides. They have a dark V-shaped cape under the dorsal fin, dark fins and fluke and yellow/white patches on their sides and belly.

There are both long-beaked and short-beaked common dolphins. Adult common dolphins grow to between 5.6 and 7.9 ft (1.7 and 2.4 m) in length.

Common dolphins are spread out across the world

Common Dolphins are found in many places with lots of different populations in all oceans. They are known as an off-shore species so aren't usually found near the coast, and are rarely seen in waters shallower than 590 ft (180 m). In some areas common dolphin populations can be seen all year around, in other areas they are only seen at certain times of the year.

Common dolphins are no longer common ...

Common dolphins in the Mediterranean Sea used to be just that...common. But now, conservationists believe that the Mediterranean common dolphin is one of the most endangered dolphins in Europe and could face extinction if urgent action isn't taken.

Their main threat is being accidentally caught in fishing nets (which is known as bycatch). Other threats include habitat loss, human disturbance and scarcity of food due to human over-fishing.

Dolphin Diploma quiz: fact-sheet 4

The orca – the largest dolphin on Earth!

What does an orca look like?

Orcas (or killer whales) are large, stocky, and heavy, with paddle-shaped flippers. Their jet black, white and gray markings, and the males' very tall dorsal fin (up to 6 ft or 1.8 m high), make them hard to muddle up with other species.

Researchers use the dorsal fins to identify individual orcas. Different shapes, sizes, nicks and scars help them remember which whale is which. Saddle-patches (the patch behind the dorsal fin) are also unique to individuals.

The orca is beyond doubt, the largest member of the dolphin family with newborn calves measuring 6.9 - 8.2 ft (2.1 – 2.5 m) and adults measuring between 18 - 32.2 ft (5.5 – 9.8 m).



Photo: Rob Lott

Mother is best !

Orcas are very social dolphins and stay together their entire lives in family pods that are led by matriarchs (female leaders). Orcas can be very acrobatic and are extremely fast swimmers (almost as fast as a galloping race horse).

Like all dolphins, orcas communicate with each other using body language and sound. They don't have vocal cords and can't talk to one another in the same way as humans do but they can make a wide variety of noises including whistles, barks, squeaks, clicks, croaks and grunts.

Orca pods are known to have their own "dialects" (which are a little like individual languages) and sound different to one another.

Free Willy !

One main threat is being caught to be put on display in marine parks, another is pollution (chemical and noise). Other threats include the ruin of their habitat, and scarcity of food due to human over-fishing.

Noise Annoys!

Sound is extremely important in their underwater world, probably more so than sight, because it is often dark and visibility can be very poor. They use sound to communicate, find their prey and find their way around. This is why other underwater noises, made by boats for example, can disturb them.

Dolphin Diploma Part 2: Dolphin Activity

Knowing about dolphins is fantastic but, in order to best protect them, action is also needed!

Below are just a few ideas for children's activities that they could undertake with your help and be awarded with their diploma:

Dolphin Swim

How about organizing a sponsored swim (or other sponsored activity) and get sponsored by family and friends for every length you manage. WDCS has many ideas and can provide you with more information if needed.

Poster Display

On your own, or with a group of friends, why not create a range of posters that you can display in your school hall/ classroom or maybe at a club meeting you go to (such as Brownies or Cubs). You could show the different species of dolphins there are, where they live and what threats they face. Let people know how they can help!

Artwork Auction

In your art class at school, perhaps you can create some dolphin artwork – paintings, models, mosaics etc. Then hold a fun auction to raise awareness and a few funds!

Dolphin Concert

If you belong to a school orchestra or band, why not give a charity concert in aid of dolphins and charge an entrance fee to be donated to dolphin protection projects. Or, if you like drama, put on a dolphin play instead!

Raffle or Sale

Run a raffle - maybe asking friends and family if they can donate goodies (books, toys, biscuits and chocolates etc.) for you to use as prizes. Or you could organize a cake or 'healthy eating' sale at school break time!

Trash Pick-up

Organize a beach, park or school trash pick-up. Perhaps get sponsored for every piece of trash you dispose of properly!

What happens to any money you raise?

Any money you send will be put to good use helping to fund dolphin protection projects around the world. This might be a project in the Mediterranean Sea to protect common dolphins from extinction for example, or a project in Florida to help the bottlenose dolphins that live off the coast.

Any funds should be sent to...

Dolphin Diploma WDCS (NA) 7 Nelson Street Plymouth MA 02360

Please include the return form found on the following page.

Dolphin Diploma response form

To claim your award certificate, please print off, complete and return this form to the address at the bottom of the page.

Full contact name of teacher or parent:

Position (if applicable):

Address:

Zipcode:

Email address:

Number of children that took part:

Age of children (please provide dates of birth if possible*):

Dolphin Activity (please include DATE, LOCATION, ACTIVITY DESCRIPTION and ANY RESULTS - number of visitors to your event, donations collected, feedback received for example):

* If you have been working with a class of children, their ages are enough.

PLEASE SEND ANY IMAGES OF YOUR EVENT - WE MAY USE THEM IN OUR PUBLICATIONS OR WEBSITE.

PLEASE NOTE THAT WE REQUIRE WRITTEN PERMISSION AND A PARENT/GUARDIAN'S SIGNATURE TO USE ANY PHOTOS OF CHILDREN.

Please tick the box if you would rather not receive any further information from WDCS by post or email