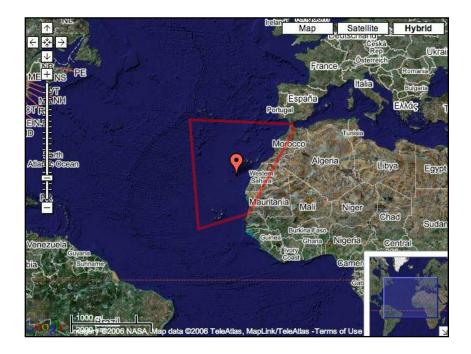


"The health of our oceans is intrinsically linked to the future of life on this planet"

PRE-DIVE BRIEFING PACK

Eco-Region 7d North Africa - Atlantic Coast - Temperate



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1.0 General Information

This booklet is a **pre-dive briefing pack** for the **North Africa - Atlantic Coast - Temperate** eco-region. Please feel free to print it and take it with you as an 'aide memoir' for your dive. It contains all the information you need to contribute to the **EARTHDIVE** Global Dive Log.

1.1 Introduction

The **EARTHDIUE** Global Dive Log is a pioneering methodology that has been developed in partnership with **UNEP-WCMC** and marine scientists from around the world. These marine scientists helped establish thirty **EARTHDIUE** eco-regions - areas of water that share a relatively similar climate and contain a common assembly of natural habitats and species. They then identified key indicator species for each region - an important set of marine animals whose numbers and changing population can tell us a lot about the changing state of our oceans.

You can help observe and record sightings of these marine animals during a dive or snorkel trip and enter observations into the **Global Dive Log**. You can also record evidence of key anthropogenic pressures - changes in the marine environment brought about by human activity such as pollution and overfishing. Any data you enter onto the **EfRTHDIUE** website can be viewed by you and other visitors.

The **EfRTHDIUE** eco-regions span all of the world's oceans - not just those areas with warm water and coral reefs. Whether you are diving in Scotland or Saint Lucia, Connecticut or Cocos, Denmark or Dominica, your data collection is equally valid and valuable. So you don't have to wait for the next exotic dive trip - home waters are just as important!

Each eco-region also has its own types of megafauna, from dolphins to whale sharks, from whales to polar bears (if you like really cold water) and provision is also made in the Global Dive Log to record sightings of these exciting animals.

Collecting this valuable information for **EfIRTHDIUE** helps create a **Global Dive Log** - a valuable research tool.

This briefing pack lists the indicator species and anthropogenic pressures for the **Mediterranean** eco-region.

Thank you for recording scientific information for **EARTHDIVE**.

1.2 How to record your observations into the Global Dive Log

When recording scientific information for **EfRTHDIUE**, divers are recommended to follow our 7 Point Plan. You will find the use of a slate or some other method of taking notes underwater, such as a laminated fish identification card, invaluable. Always try to transfer your data to the **EfRTHDIUE** website as soon as possible following your dive. Let dive buddies and dive leaders know what you are measuring, as they may be able to help with some post-dive questions on identification.

- **1.2.1** Try and ensure that the time of the underwater recording session is accurately noted. The length of the session can be all of the dive or just a period during the dive e.g. 10 minutes. You may even spend periods of time recording different indicators. For example there may be a dense aggregation of drums, which you count for 10 or 15 minutes. On the other hand you may look for other species such as groupers for most of the dive. Whatever your choice, the data is important so try to add the recording time in the notes for each indicator.
- **1.2.2** When possible always record <u>actual</u> counts of indicator species. If this is too difficult on the dive then enter your data into the abundance scale in the Global Dive Log as an estimate.



- **1.2.3** Only record an indicator to species if you are 100% certain that it is that species. Otherwise record to genus or to family, e.g. an indicator for the sub-tropical Atlantic Coast of South America is the dusky grouper (*Epinephelus marginatus*). If you are uncertain of the species but recognise the genus, call it *Epinephelus sp.* If you do not have time to recognise it, or do not know it apart from that it is a grouper, then just record it as that it's just as important!
- **1.2.4** Record as much background as possible in the notes section of the Global Dive Log for each indicator, i.e. depth of sighting, type of habitat (lower reef slope, kelp bed, sand with scattered rocky outcrops etc). Particular behaviour should also be noted spawning behaviour in fish or invertebrates for example.
- **1.2.5** When recording always fin slowly and evenly with minimal sudden movements. Moving rapidly will disturb resident fish causing them to hide from view more quickly. By moving slowly and evenly you have more chance of seeing indicator species and recording their presence/absence more accurately. Always look carefully for particular indicators such as lobsters, which are often under overhangs or in crevices.
- **1.2.6** On your way to and from your dive site, record any observations you have made regarding the listed anthropogenic pressures for this eco-region.
- **1.2.7** Following your dive, make notes from your slate or memory and keep them in a safe place. Add any further comments within 24 hours before you lose some of the detail from your memory.

Thank you

2.0 The North Africa - Atlantic Coast -Temperate Eco-Region

This eco-region comprises Madeira, the Canary Islands, the Cape Verde islands, plus the Atlantic coastlines of Morocco, Western Sahara and Mauritania.

The waters in this eco-region are influenced by the Canary Current, which flows along the African coast in a southwesterly direction between latitudes 30°N and 10°N. It also extends offshore to longitude 20°W.



Driven by the prevailing winds, the current, in common with other eastern boundary currents, is wide, at about 1000 km, and slow, flowing year-round towards the equator. On average, the current is about 500 m deep.

As it travels south, it draws upwelled water from the coast, bringing relatively cool waters toward the equator. The water brought from below the surface by the upwelling is nutrient rich, and this supports highly productive marine systems, particularly for deep-sea fish and lobsters. The waters in the region are therefore more temperate rather than the tropical or sub-tropical that might be expected at these latitudes.

The Canary Current is strongest near the continental coast, becoming progressively weaker offshore. As it passes between the Canary Islands and the coast lying between Gibraltar and Mauritania it accelerates. The islands create a 'sheltered' zone, with warmer water being found to the south of the islands.

Some of the commercial species in this eco-region include sardines, pilchards, horse mackerel, chub mackerel and hake, with the structure of fisheries changing over the past few decades as a result of increased fishing activities.

When diving here, you may find West African manatees (Trichechus senegalensis)



and endangered Atlantic green turtles (*Chelonia mydas*) as well as olive ridley turtles (*Lepidochelys olivacea*) swimming slowly among waving sea grasses, while harbour porpoises search for prey nearby. Humpback whales come to the eco-region during breeding season.

Canary Current fisheries are increasingly under pressure from foreign fishing fleets coming mostly from the European Union countries. These licensed foreign vessels exploit the fisheries, but do little for local economies since their profits are exported.

3.0 Indicator Species

What to look for and record in the North Africa - Atlantic Coast - Temperate eco-region:

All SharksLow numbers are indicators of overfishingCommon Octopus (Octopus vulgaris)Low numbers are indicators of overfishingAll lobstersLow numbers are indicators of overfishingSea Breams (Sparidae)Low numbers are indicators of overfishingTuna and Mackerels (Scombridae)Low numbers are indicators of overfishing

The International Union for Conservation of Nature and Natural Resources (IUCN) provides a listing of species that are at risk of global extinction. The 'IUCN Red List Categories and Criteria' are intended to be an easily and widely understood system and can be found at http://www.redlist.org The general aim of the system is to provide an explicit, objective framework for the classification of the broadest range of species according to their extinction risk. If any of the indicator species for this Eco-Region have been classified as Critically Endangered, Endangered or Vulnerable on the list, then we have included that information below.

3.1 Sharks

Identifying sharks in the wild is a great challenge! While scientists can spend weeks examining every detail of a species, divers may encounter a shark for only a few seconds or minutes. Many species look alike and one individual may not be identical to the next. There are, however, relatively few species in any one specific dive site and with some preparation and a little practice it is possible for all of us to recognise the more common and distinctive species.

The key to successful shark identification underwater is a process of elimination, based on a mental checklist of the main features to look for in every animal encountered. One feature alone is rarely enough for a positive identification, so gather as much information as you can before drawing firm conclusions.

EARTHDIUE wants you to record sightings of sharks. That in itself is valuable. A total count of <u>all species</u> and the time duration of the count is important information in itself and you can record this data in the Global Dive **Log**.



Black Tip Shark

However, identifying the actual species is even more important. If you do not recognise a species, ask your buddy, dive leader or other divers in the group, who may have seen it also. Or, record unusual features like, needle sharp teeth, incredibly long tail, diamond-shaped open mouth or a flattened hammer-shaped head. All these observations are sufficiently distinctive to help us and others make an identification. Record these details in the notes section for each indicator in the Global Dive Log.



Colour is also helpful - note the main background colours of both the upperside and underside as well as distinctive markings. The dorsal (back) fins can also tell us a lot. Do they have a broad or narrow base? Are they curved or upright? Are they falcate (sickle shaped)? Are the tips rounded or pointed? What is the background colour of the fins?

Some species have very distinctive dorsal fins - the first dorsal of the oceanic whitetip, for instance, is huge, rounded and conspicuously marked with a mottled white tip.

One thing we are pretty sure of (unless the **Global Snapshot** proves us wrong!), is that all sharks are restricted in their range in one way or another. Whitetip reef sharks are only found in the Pacific and Indian Oceans (including the Red Sea), for example, while bull sharks are found virtually worldwide but only in tropical and sub-tropical waters.

Caribbean reef sharks occur mainly around island reefs, whereas oceanic whitetip sharks are more common farther offshore in oceanic waters.

In this way we can tell you which sharks you might encounter in the North Africa – Atlantic Coast - Temperate eco-region and some of these are listed below, but given the enormous diversity of species within the region, this list is not all-inclusive:

- Angel Shark
- Basking Shark
- Blacktip Shark
- Blue Shark
- Bluntnose Sixgill Shark
- Bigeye Thresher Shark
- Copper Shark
- Great Hammerhead Shark
- Great White Shark (Vulnerable IUCN)
- Porbeagle Shark
- Sandbar Shark
- Scalloped Hammerhead Shark
- School or Tope Shark (Vulnerable IUCN)
- Shortfin Mako Shark
- Small Tooth Sand Shark
- Smooth Hammerhead Shark
- Spinner Shark
- Thintail Thresher Shark
- Tiger Shark

Squatina squatina Cetorhinus maximus Carcharhinus limbatus Prionace glauca Hexanchus griseus Alopias superciliosus Carcharhinus brachyurus Sphyrna mokarran Carcharodon carcharias Lamna nasus Carcharhinus plumbeus Sphyrna lewini Galeorhinus galeus Isurus oxyrinchus Odontaspis ferox Sphyrna zygaena Carcharhinus brevipinna Alopias vulpinus Galeocerdo cuvier



3.2 Common Octopus (Octopus vulgaris)

Octopuses belong to the class of marine molluscs known as the *Cephalopoda*, with both the octopus and the squid having evolved into intelligent mobile forms of the class, with a range of complex behaviours. They are the most advanced of all the marine invertebrates, with both long and short-term memory functions and the ability to 'learn'.

Although cephalopods are molluscs, most species have evolved to the point where only a diminished internal shell exists, as for example the cuttlebone of



the cuttlefish, or as in the case of the octopus, the shell has been completely lost.

The common octopus (*Octopus vulgaris*) is found world wide in tropical to temperate waters, from near-shore shallows to as deep as 200m. Most scientists believe that the *Octopus vulgaris* species actually contains a number of related sister species and that a review of the taxonomy is overdue. Despite these issues of identity, the common octopus is commercially important and accounts for a large percentage of octopus fisheries. They are commonly collected in octopus pots, which were traditionally made of clay but today are typically made of plastic. Unlike crab or lobster traps, octopus pots are not baited; rather, they provide a seemingly safe haven for the octopus.

The life span of the common octopus is 12 to 18 months. It may lay between 200,000 to 400,000 rice-grain sized eggs. After hatching, the young will they spend 45 to 60 days among plankton. During this time, the majority of them become a meal for other marine organisms; those that survive settle out and begin a benthic (bottom dwelling) existence. They have a hard beak to tackle prey with hard shells like crabs, shrimps and other molluscs.

The octopus is a master of camouflage, has the remarkable ability to change colour, and as a result can be difficult to spot. However, they discard piles of shells and carapaces outside their lairs, and these discards, called middens, help divers identify a likely octopus location. Octopus vulgaris lairs are typically holes in rocks or excavated under or between rocks.

The eight arms of the octopus (squids have ten) are equipped with sensitive suckers and are used to capture prey. The octopus grow to up to 60cm.

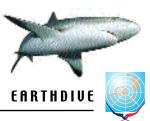
3.3 All Lobsters



Lobsters, like shrimps and crabs, are decapods – literally meaning 10 legs - and can be found in all of the world's tropical and sub-tropical seas as well as more temperate waters. They are predatory, nocturnal animals with a vividly decorated coat. They are often numerous locally; they linger in crevices (with their long antennae sticking out) during the day and hunt small benthic organisms at night, but they also feed on organic detritus whenever they happen across it. As with all crustaceans, the lobster moults or sheds its shell to grow.

Lobsters have recently suffered a dramatic demographic decline; intensive fishing has annihilated entire populations, especially where tourism abounds.

The lobster families that you may encounter are the spiny rock lobsters, *Palinuridae* and the slipper lobsters, *Scyllaridae* and one species of the true reef lobsters,



Nephropidae.

The true reef lobsters, *Nephropidae*, with their enlarged pincers on the first pair of legs, tend to prefer warmer waters, but the European lobster (*Homarus gammarus*) can be found in the region, on rocky substrata, living in holes and excavated tunnels from the lower shore to about 60 m depth. This is a large lobster that can grow up to one metre in length, although 50 cm is more common. It is blue-coloured above with



coalescing spots and yellowish below. The first pair of walking legs carry large buts slightly unequal pincers that can be both formidable and dangerous

The *Palinurus* genus (frequently transcribed as *Panulirus*) is represented by numerous species in all of the world's tropical and sub-tropical seas as well as more temperate waters. It is a predatory, nocturnal animal with a vividly decorated coat. Among the species that you may encounter in these waters is the pink spiny lobster (*Palinurus mauritanicus*) and the crayfish (*Palinurus elephas*), with its orange colouration and two long antennae.

Scyllarus arctus is a warm water species found in the Mediterranean, and in the Eastern Atlantic They live on stony ground, in caves, and can also be found on muddy bottoms or in seagrass beds. They use the large spade-like scales at the front of the head to burrow into mud, sand or gravel between and under stones. This crustacean can grow to 16cm long, is dark brown, with a lobster-like tail. It lacks the large claws of a true lobster, or the long antennae of spiny lobster. Instead it sports very short antennae and two large hinged scales or plates at the front of the shell. The carapace has a rough consistency. The head scales have an attractive light and dark brown pattern and there are light brown and red markings on the tail. The walking legs have alternating bands of cream and brown.

3.4 Sea Breams (Sparidae)



Red Stumpnose (Chrysoblephus gibbiceps

Seabream or porgies are members of the *Sparidae* family of carnivorous bony fishes.

Porgies are carnivores of hard-shelled benthic (bottom dwelling) invertebrates. Many species have been found to be hermaphroditic; some have male and female gonads simultaneously. Others change gender as they get larger.

The structure of the fins of Porgies is essentially the same as in the family *Serranidae* of seabasses with which they can be confused.

There are important anatomical differences, however, most obvious of which are that the edge of the gill cover does not end with a sharp spine in the porgies but is rounded or at most bluntly angular; and that the maxillary bone (the bone forming the margin of the upper jaw) is sheathed and hidden when the mouth is closed. Long, pointed pectoral fins (found on each side of the body behind the gill opening) are likewise characteristic of the family; the spiny and soft portions of the dorsal (back) fin are continuous, and the soft-rayed anal fin is about as long as the soft part of the dorsal.

There are many species of seabream to be found in the region, including the common seabream (*Pagrus pagrus*). This fish grows to 91cm and is pinkish silver with an indistinct yellow spot on each scale on the upper half of body. This spotting gives a yellow-striped effect and there is some yellow colouration on the snout and upper lip. The dorsal, caudal (tail) and pectoral fins are pink.

Some of the species that you may encounter underwater are listed below, with the list showing their maximum adult size. When you are surveying and recording seabream, it is helpful if you can record the particular species:

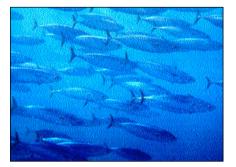


•	Bogue
•	Angola Dentex
•	Canary Dentex
•	Pink Dentex
•	Large-eye Dentex
2	Morocco Dentex
	Annular Seabream
	Senegal Seabream
•	Zebra Seabream
	Sharp Snout Seabream
	Moroccan White Seabream
•	White Seabream
•	Common Two-banded Seabream
•	Saddled Seabream
•	Axillary Seabream
•	Red Pandora
•	Blackspot Seabream
•	Common Pandora
•	Redbanded Seabream
•	Bluespotted Seabream
•	Common Seabream
•	Salema
•	Gilthead Seabream

36cm Boops boops 37cm Dentex angolensis 100cm Dentex canariensis Dentex gibbosus 106cm Dentex macrophthalmus 65cm Dentex maroccanus 45cm Diplodus annularis 24cm Diplodus bellottii 30cm Diplodus cervinus cervinus 55cm 60cm Diplodus puntazzo Diplodus sargus cadenati 45cm Diplodus sargus sargus 45cm 45cm Diplodus vulgaris Oblada melanura 34cm Pagellus acarne 36cm Pagellus bellottii bellottii 36cm Pagellus bogaraveo 70cm Pagellus erythrinus 70cm Pagrus auriga 80cm Pagrus caeruleostictus 90cm Pagrus pagrus 91cm Sarpa salpa 51cm 60cm Sparus auratus

3.5 Tuna and Mackerels (Scombridae)

This is a family of fast-swimming, wide-ranging pelagic fishes who are pprimarily swift predators of open seas. They have a number of special adaptations for this lifestyle, including a streamlined body form and recessible dorsal and anal fins. Some species are partly endothermic, maintaining a higher body temperature in the swimming muscles. *Scombrids* often swim in schools and prey on other fishes. Many species are very important as sport fishes and in commercial harvest.



The northern bluefin tuna (*Thunnus thynnus*) is an oceanic fish, but seasonally comes close to shore and is able to tolerate a wide range of temperatures. They school by size, sometimes together with albacore, yellowfin, bigeye, skipjack. They feed on small schooling fishes such as anchovies and hakes, or on squids and red crabs. It is very large species, reaching lengths up to 4.5 metres. The lower sides and belly are silvery white with colourless transverse lines alternated with rows of colourless dots. The first dorsal fin is yellow or bluish; the second reddish-brown; the anal fin is dusky yellow and edged with black

There are around fifty individual species within the family, and some of the species that you may see throughout the waters of the region are listed below, along with their maximum adult length.

 Wahoo 	Acanthocybium solandri	250cm	
 Bullet Tuna 	Auxis rochei rochei	50cm	
 Frigate Tuna 	Auxis thazard thazard	65cm	
 Little Tunny 	Euthynnus alletteratus	122cm	
 Skipjack Tuna 	Katsuwonus pelamis	108cm	
 Chub Mackerel 	Scomber japonicus	64cm	and Allahar
 West African Spanis 	sh		
Mackerel	Scomberomorus tritor	100cm	
Albacore	Thunnus alalunga	140cm	
Yellowfin Tuna	Thunnus albacares	239cm	
			EARTHDIVE



4.0 Anthropogenic Pressures

EARTHOIVE is recording five different types of anthropogenic pressures (effects resulting from the actions of humans). Collection of this data enables us to establish an ever-evolving **Global Snapshot** of our oceans.

The types of anthropogenic pressures are the same for each region and are:

٠	Surface Pressures	paper, wood, plastic and any other man-made debris
•	Boat Activity	pleasure, fishing, commercial
•	Subsurface Pressures	litter, sediment, physical damage
•	Evidence of Fishing	pots, traps, discarded nets, blast damage, cyanide damage, other etc
٠	Coastal Development	resorts, villages, towns, distance from the dive sites etc

Please note any information you feel is relevant and record the data in the notes section for each impact in the Global Dive Log.

Thank you.

5.0 eCORD

EARTHDIVE asks all scuba divers to subscribe to the principles of **eCORD** - the **EARTHDIVE** Code of Responsible Diving - and to encourage others to practice them. **eCORD** is a straightforward 7 Point Plan which will help divers to limit the anthropogenic impact of recreational diving - while at the same time making their diving experiences more rewarding and enjoyable. Be sure to incorporate the 7 points in your dive planning!

1. Know your limits.

Every dive is different and every diver is different. Always ensure that you dive within the limits of your training and experience, whilst taking due account of the prevailing conditions. Take the opportunity to advance and extend your skills whenever that opportunity arises. In particular, buoyancy skills can become a little rusty after any prolonged absence from the water. If you can't get pool or confined water practice before your trip, get your buoyancy control checked out by a qualified instructor on your first dive! There are many national and international dive training organisations which offer a comprehensive range of courses and instructional material beyond basic skills level. Take advantage of them!

2. Be aware of the marine environment and dive with care.

Not surprisingly, many dive sites are located where the reefs and walls play host to the most beautiful corals, sponges and fish - fragile aquatic ecosystems! Starting with your point of entry, be aware of your surroundings: never enter the water where there are living corals, water plants or reeds. Once underwater, it only takes one unguarded moment - a careless kick with a fin, an outstretched hand, a dragging gauge or octopus - to destroy part of this fragile ecosystem. Even fin kicks too close to the reef or sand can have an adverse effect - so dive with the utmost care. Photographers in particular need to take greater care as they strive for that best-yet shot! Don't let your dive become an adverse anthropogenic

impact! And remember that these rules apply just as much to 'hard' dive sites - such as wrecks, which have become the home of diverse marine life - as well as freshwater and other sites.



3. Understand and respect marine flora and fauna.

A large part of the joy of diving is in learning more about the plants and animals who live in this unique underwater environment. In order to survive and thrive, many living creatures disguise themselves to look like plants and inanimate objects, or develop defence mechanisms such as stings. Some even do both! (Have you seen a stonefish lately?) The **EffRTHDIUE** briefing packs (available by download only) provide information about indicator species for the region in which you are planning to dive. In addition, dive training organisations run marine naturalist and identification courses. The more that you learn, the more that you will see, the more that you will derive pleasure from your underwater experience - and the safer you will be for yourself, other divers and the marine environment!

4. Don't interfere.

First and foremost, be an observer in the underwater environment. As a general rule, look don't touch. Remember that polyps can be destroyed by even the gentlest contact. Never stand on coral even if it looks solid and robust.

Always resist the temptation to feed fish and discourage others from doing so. You may interfere with their normal feeding habits, damage their health and encourage aggressive behaviour. Leave only your bubbles!

5. Take only what you need.

The marine environment is a valuable source of food for mankind and it is important that it remains so into the future. If you are among those divers who enjoy taking food from the sea, observe some simple rules:

- Obtain any necessary permits or licenses.
- Comply with all relevant fish and game regulations. These are designed to protect and preserve fish stocks, the environment and other users.
- Only take what you can eat. If you catch it and can't eat it, put it back.
- Never kill for the sake of 'sport'.
- Avoid spear fishing in areas populated by other divers or visitors to the area, or where you might cause collateral damage.

Don't be tempted to collect shells, corals or other mementos of your dive. If you want a souvenir, take a photograph!

6. Observe and report.

As an **EARTHDIUE** member, you will be in a unique position to monitor and report on the health, biodiversity and any obvious damage to dive sites using the **EARTHDIUE** Global Dive Log. In addition, we would encourage you to report anything unusual to the appropriate local marine and environmental authorities, or if this is difficult, get your dive centre to do it for you. They have a vested interest in a healthy marine environment, and will normally be more than willing to help. Always be on the lookout for physical damage, fish stock depletion, pollution and other environmental disturbances. If the dive operation itself is causing damage -say by anchoring to the reef - then let them know how you feel in no uncertain terms!

7. Get involved.

No matter where you are diving or snorkelling, be it at home or abroad, there will be at least one (and often many more) marine conservation bodies who are active in the area. Don't be afraid to approach them for information, to offer help, or just to find out what they have to offer. You will receive an enthusiastic welcome! They will provide you with lots of opportunities to contribute to marine conservation.



6.0 Appendices

Post Dive Recording Sheet - General Data (complete/add/delete/tick as applicable)
Dive No: Dive Site Name:
GPS: N/S: E/W: (Decimal Degrees up to 7 decimal points)
Date: // // Boat Shore Water Type: Salt //Brackish//Fresh
Dive Type: Recreational Technical Training Drift Search Wreck Drift Night Other
Time In: Time Out: (24 hour clock) Dive Time: (hr:mins)
Air/Nitrox Start: End: (psi or bar) Max Depth (ft/m)
Visibility: ft/m Temperatures: water: ⁰ C/ ⁰ F air: ⁰ C/ ⁰ F
Current: None 🗌 Light 🗌 Medium 🗌 Strong 🗌 (tick)
Surface Conditions: Cloudy Sunny Partly Cloudy Rain Variable other

IF DIVING WITH A CLUB/DIVE CENTRE/LIVEABOARD OR RESORT, WERE YOU GIVEN AN ENVIRONMENTAL BRIEFING: YES D NO D

Please record any other information you normally record immediately following a dive. Add this data to the **earthdive** website via your control panel as soon as possible. **Thank you**

Post Dive Recording Sheet - Indicator Species

Important Note: If you allocated some time to looking for one of the indicator species, but didn't find any, please make sure that you record a **0 (zero)** count in the appropriate box, and record how much time you spent looking for the indicator.

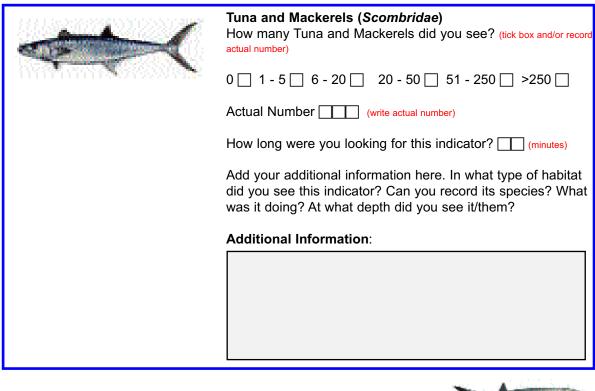
	All Sharks
The second se	How many Sharks did you see? (tick box and/or record actual number)
	0 🗌 1 - 5 🗌 6 - 20 🗌 20 - 50 🗌 51 - 250 🗌 >250 🗌
<i>I</i> .	Actual Number (write actual number)
	How long were you looking for this indicator? [(minutes)
	Add your additional information here. In what type of habitat did you see this indicator? Can you record its species? What was it doing? At what depth did you see it/them?
	Additional Information:

	Octopus (<i>Octopus vulgaris</i>)
200	How many Octopus did you see? (tick box and/or record actual number)
J Tat	0 🗌 1 - 5 🗌 6 - 20 📄 20 - 50 🗌 51 - 250 🗌 >250 🗌
1 1 2 1 2 2	Actual Number (write actual number)
	How long were you looking for this indicator? [(minutes)
	Add your additional information here. In what type of habitat did you see this indicator? What was it doing? At what depth did you see it/them?
	Additional Information:

	All Lobsters How many Lobsters did you see? (tick box and/or record actual number)
	0 🗌 1 - 5 🗌 6 - 20 🗌 20 - 50 🗌 51 - 250 🗌 >250 🗌
	Actual Number (write actual number)
	How long were you looking for this indicator? [(minutes)
	Add your additional information here. In what type of habitat did you see this indicator? Can you record its species? What was it doing? At what depth did you see it/them?
	Additional Information:



	Sea Breams (Sparidae) How many Sea breams did you see? (tick box and/or record actual number)
	0 🗌 1 - 5 🗌 6 - 20 🗌 20 - 50 🗌 51 - 250 🗌 >250 🗌
	Actual Number (write actual number)
	How long were you looking for this indicator? [(minutes)
	Add your additional information here. In what type of habitat did you see this indicator? Can you record its species? What was it doing? At what depth did you see it/them?
	Additional Information:







	Did you soo any Surface Litter? (Surface)
	Did you see any Surface Litter? (tick box)
DEVENSION	Yes No Dont Know
	any details (plastic, wood, paper, other etc.) Please record quantity and
other relevant informa	ation.
	Boat Activity
WILL ARE (Boat Activity Did you see any Boat Activity? (tick box)
WILL ARE A	Did you see any Boat Activity? (tick box)
	Did you see any Boat Activity? (tick box) Yes No Dont Know
If yes please record a etc)	Did you see any Boat Activity? (tick box)

	Subsurface Pressures		
	Did you see any Surface Litter? (tick box)		
	Yes 🗌 No 🗌 Dont Know 🗌		
If yes please record an	y details (litter, sediment, physical damage, coral bleaching other etc).		

	Evidence	of Fishing	
	Did you see any Surface Litter? (tick box)		
	Yes 🗌	No 🗌	Dont Know
If yes please record any other etc).	y details (po	ots, traps, disc	arded nets, blast damage, cynanide damage,

Evidence of Coastal Development
Did you see any evidence of Coastal Development? (tick box)
Yes No Dont Know
If yes please record any details (resorts, villages, towns, distance form the dives site etc).

Evidence of the illegal trade in endangered species

Any observations you make below and record in the Global Dive Log will be passed onto **TRAFFIC**, the world's wildlife trade monitoring network.

TRAFFIC works to ensure that the trade in wild plants and animals is not a threat to the conservation of nature. It has offices covering most parts of the world and works in close co-operation with the Secretariat of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). **TRAFFIC** is a joint programme of WWF and IUCN-The World Conservation Union.

© Elizabeth Fleming Turtle shell ornaments on display	Evidence of the illegal trade in endangered species		
	Did you find any evidence at any time during your holiday/dive trip of the illegal trade of endangered species. (tick box)		
	Yes 🗌	No 🗌	Dont Know 🗌
If yes please record any details (the species, sale location, and any other available information). Please refer to the TRAFFIC Guide for more information concerning species identification, local laws, and contact information of TRAFFIC to report offences.			
			TRAFFIC -

