

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

PRE-DIVE BRIEFING PACK

Eco-Region 4a North America - Pacific Coast - Sub-tropical



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1.0 General Information

This booklet is a **pre-dive briefing pack** for the **North America - Pacific Coast - Subtropical** 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 **ERRTHDIUE** Global Dive Log.

1.1 Introduction

The **ERRTHDIVE** 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 **ERRTHDIVE** 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 **EARTHDIVE** website can be viewed by you and other visitors.

The **EffRTHDIUE** 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 **ERRTHDIUE** 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 **EARTHDIUE**, 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 **EARTHDIUE** 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.

EARTHDIUE

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 America - Pacific Coast - Sub-tropical Eco-Region

This eco-region comprises the coastal waters of the US state of California from the southern border, north to San Francisco.

The California Current is a major influence on the climate of western North America and on the productivity of both terrestrial and marine ecosystems along the West Coast.



This cool offshore current flows southward along the west coast of North America, its main influence extending from the Columbia River to central Baja California. It remains offshore for most of the year except for the month of September when the flow is quite close to the coast. The prevailing northwesterly winds help to generate a seasonal upwelling from February to September, and this contributes greatly to the high rates of productivity seen in the region. The rate and volume of upwelling is greater than anywhere else along the west coast of North America. Water temperatures are fairly constant throughout the year. Average surface water temperatures are surprisingly cool ranging between 9° and 11°C in winter and 13-15°C in summer, although the more southerly parts of the region can reach a high of 22°C at depth in summer. Despite the latitude, this is not an area where 3mm wet suits can be comfortably worn.

Like all upwelling zones, the area off the coast of California supports huge marine mammal, seabird, and fish populations. The area is best known, however, for the extensive kelp forests and for the southern sea otters (*Enhydra lutris*), which wrap themselves in kelp to keep from floating away while they feed on oysters and sea urchins. There is also some endemism in invertebrates and fishes.



There are a multitude of environmental threats to the region, including coastal water pollution, especially around major cities, leading to potentially contaminated seafood region. The intense harvesting of abalone leads to loss of habitat and food for sea otters. Non-biodegradable plastics represent a particular problem as they trap or maim animals and may cause death by drowning of strangulation.

There is enormous variety in dive sites in the United States and the unexpectedly cool waters off the California coast, with its spectacular kelp forests, only adds to that variety

The waters around California's Channel Islands are generally cool and clear and are filled with a large variety and quantity of marine fauna. The Channel Islands consist of the Northern and Southern Channel Islands. The Northern Islands are made up, in an east to west chain, of Anacapa, Santa Cruz, Santa Rosa and San Miguel Islands. This chain of islands is ruggedly spectacular. The Southern group is made up of, in order of size from smallest to largest, Santa Barbara, San Nicolas, San Clemente and Santa Catalina Islands. Catalina Island is the only island with a substantial permanent population.

Hard corals are rare in cooler waters, but the Channel Islands are also host to the rare purple hydrocoral (*Allopora callifornica*), one of the few coral species that can survive in these waters.

Important species to be found in the region are typical of the California Current and include the southern sea otter (Enhydra lutris), northern elephant seal (*Mirounga angustirostris*), California sea lion (*Zalophus californianus*), northern fur seal (*Callorhinus ursinus*), Guadalupe fur seal (*Arctocephalus townsendii*), Steller's sea lion (*Eumetopias jubatus*), grey whale (*Eschrichtius robustus*), harbor seal (*Phoca vitulina*), pilot whale (*Globicephala maerorynchus*), killer whale (*Orcinus orca*), Pacific salmon (*Oncorhynchus spp.*), yellowfin tuna (*Thunnus albacares*), yellowfin sole (*Limanda aspera*), Pacific cod (*Gadus macrocephalus*), giant kelp (*Macrocystis pyrifera*), burrowing starlet sea anemone (*Nematostella vectensis*).

3.0 Indicator Species

What to look for and record in the North America - Pacific Coast - Subtropical eco-region:

All Sharks

Low numbers are indicators of overfishing

Groupers (Serranidae)

Low numbers are indicators of overfishing

Lobsters

Low numbers are indicators of overfishing

White Abalone

Low numbers are indicators of overfishing

Snappers (Lutjanidae)

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 phinative framework for the glossification 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.

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

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 hammershaped 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 South America - Atlantic Coast subtropical 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:

- Basking Shark
- Bigeve Thresher
- Bluntnose Sixgill Shark
- Bonnethead
- Broadnose Sevengill Shark
- Copper Shark
- **Dusky Shark**

Cetorhinus maximus Alopias superciliosus Hexanchus griseus Sphyrna tiburo Notorynchus cepedianus Carcharhinus brachyurus Carcharhinus obscurus



- Leopard Shark
- Oceanic Whitetip Shark
- Pacific Sharpnose Shark
- Pacific Sleeper Shark
- Salmon Shark
- Sandbar Shark
- Scalloped Hammerhead
- School or Tope Shark (Vulnerable IUCN)
- Shortfin Mako
- Tiger Shark
- Whale Shark (Vulnerable IUCN)

Triakis semifasciata
Carcharhinus longimanus
Rhizoprionodon longurio
Somniosus pacificus
Lamna ditropis
Carcharhinus plumbeus
Sphyrna lewini
Galeorhinus galeus
Isurus oxyrinchus
Galeocerdo cuvier
Rhincodon typus

3.2 Groupers (Serranidae)



When people talk about coral reefs, fishermen tend to shrug their shoulders and complain about snagged lines and torn nets. But when you talk about groupers, they suddenly sit up and pay attention. Groupers are among the economically most important fishes of the coral reef, because of their popularity as food. Yet without the coral reef there would probably be no groupers. For this reason, groupers are an extremely important indicator species and your record of their existence or non-existence during your dive tells us a lot.

The goliath grouper (*Epinephelus itajara*), sometimes called the jewfish is classified as critically endangered on the IUCN Red List. Found in shallow, inshore waters to depths of 45m, this indicator prefers areas of rock, coral, and mud bottoms. It is also solitary and territorial and feeds on crustaceans. The largest member of the Sea Bass family in the Atlantic Ocean, it can reach lengths of 2.5m, and weigh up to 450kg. There is anecdotal evidence of Goliaths stalking and attempting to eat divers!

Like all indicators, it is valuable if you can record the particular species you sight. However, recording the total number of groupers is just as important. The species that we would most like you to record are listed below for the North America – Pacific Coast sub-tropical eco-region.

- Broomtail Grouper
- Gulf Grouper (Vulnerable IUCN)
- Itajara Goliath Jewfish
- Leopard Grouper (Vulnerable IUCN) Mycteroperca rosacea
- Spotted Grouper
- Starry Grouper

Mycteroperca xenarcha Mycteroperca jordani Epinephelus itajara Mycteroperca rosacea Epinephelus analogus

Epinephelus labriformis

3.3 Lobsters



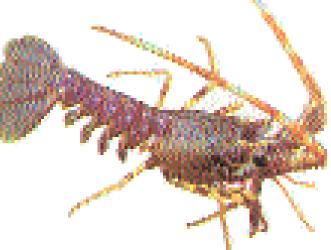
The Palinurus genus (frequently transcribed as Panulirus) is represented by numerous species in all of the world's tropical and sub-tropical seas as well as more temperate waters. It is a

predatory, nocturnal animal with a vividly decorated coat. 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. Lobsters have recently suffered a dramatic demographic decline; intensive fishing has annihilated entire populations, especially where tourism abounds. Please record all sightings of lobsters, identifying individual species where possible. However, we would particularly appreciate your observations on the spiny lobster (*Palinurus argus*).

The Spiny Lobster (*Palinurus argus*) has a number of com names, including crawfish (this is not the freshwate crawfish) and Florida lobster. It has numerous spines on the body, two large hooked horns over the eyes, a pair of long jointed antennae and five pairs of walking legs. The body and tail markings are a mottled colouring of yellow, brown, orange and blue. The tail is segmented and can be rapidly curled under the body to propel the lobster backwards. As with all crustaceans, the spiny lobster meshell to grow. It feeds on clams, snails, seaweed and smather A very popular and marketable food source, Spiny Lobster using special traps at depths of 2 to 50 metres and are us live.



3.4 White Abalone (Haliotis sorenseni)



The white abalone is the only mollusk currently listed under the Endangered Species Act by the National Marine Fisheries Service (NMFS). NMFS designated the white abalone as a candidate for listing in 1997 for the California region south to Baja California, Mexico. A short-lived commercial fishery began in the early 1970s, peaked middecade and collapsed in the 1980s. Only occasional landings occurred after that time. It was also sought after by recreational divers, but actual landings are unknown. Recent studies suggest that this species has likely suffered reproductive failure resulting from severe over-harvest. The fishery was closed in 1996.

The white abalone dwells in deep waters - 25 to over 65 metres (80 to 200ft) from Point Conception (southern California) southward to Baja California. Because of its depth range, this abalone was only described scientifically in 1940. It lives on rocky substratum such as pinnacles, rock piles, and deep reefs. Once occurring in numbers as high as 1 per square metre of suitable habitat, they now can be found only occasionally. Recent surveys found that densities average 1 per hectare (10,000 square metres) in the Channel Islands off southern California.

The white abalone is a herbivorous, marine, rocky benthic (bottom dwelling), broadcast spawning gastropod. The epipodium is tan and looks pebbly. The bottom of its foot is orange. The shell is oval-shaped, very thin and deep. They can be up to 10 inches, but are usually 5-8 inches. If fertilized, the eggs hatch after only one day, but high concentrations of sperm are required in order for an egg to be fertilized. Therefore, aggregations of adults are necessary for successful fertilization to occur.

Currently, the white abalone are frequently found alone, and have little chance for successful fertilization. Because populations are only small fractions of former numbers, recovery will be complicated by loss of genetic diversity from genetic bottlenecks, genetic drift and founder effects.

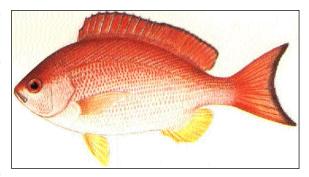
Abalones are also vulnerable to various bacterial and parasitic infections. The fishery

was historically managed using size limits and seasons, but such methods failed because they did not account for density dependent reproduction and assumed regular successful settlement of the larvae.



3.5 Snappers (Lutjanidae)

The snappers are a large and diverse group of robustbodied, carnivorous fishes. Most species possess relatively large mouths with stout canine teeth and bodies covered with relatively large, coarse scales. They are frequently brightly coloured. They are demersal (spending most time swimming close to the sea bed) in some cases down to 450m and are found in the tropical and sub topical waters of the Atlantic, Indian and Pacific Oceans.



There are over one hundred individual species globally, but within the Pacific Coast Sub-tropical eco region there

are only a limited number of species that you are likely to see at diving depth, and these will tend to be in the warmer waters of the region.

4.0 **Anthropogenic pressures**

ERRTHDIVE 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:

Boat Activity pleasure, fishing, commercial

Subsurface Pressures litter, sediment, physical damage

Evidence of Fishing pots, traps, discarded nets, blast damage, cyanide damage, other etc.

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.

eCORD 5.0

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 fresh-water 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 **EfirthDIUE** 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 **EARTHDIVE** 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 **EARTHDIVE** 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.



Appendices 6.0

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: V Boat Shore Water Type: Salt Brackish Fresh			
Dive Type: Recreational			
Time In:: Time Out:: (24 hour clock) Dive Time:: (hr:mins)			
Air/Nitrox Start: End: (psi or bar) Max Depth (ft/m)			
Visibility:ororororororor_			
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 \hdots NO \hdots			
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 state of the s	How many Sharks did you see? (tick box and/or record actual number)
	0 🗌 1 - 5 🗎 6 - 20 📗 20 - 50 🗎 51 - 250 🗌 >250 🗌
Į.	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:

	All Groupers
	How many Groupers did you see? (tick box and/or record actual number)
	0 🔲 1 - 5 🗎 6 - 20 📗 20 - 50 🗎 51 - 250 🗎 >250 🗌
7	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:

1.1	All Lobsters How many Lobsters did you see? (tick box and/or record actual number)	
1//	0 🗌 1 - 5 🗎 6 - 20 📗 20 - 50 🗎 51 - 250 🗎 >250 🗌	
	Actual Number (write actual number)	
AND CONTRACTOR OF THE PARTY OF	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:	



	White Abalone How many White Abalone did you see? (tick box and/or record actual number)
(6)	0 🗌 1 - 5 🗎 6 - 20 📗 20 - 50 🗎 51 - 250 🗎 >250 🗌
40 Day	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:

	Snappers (<i>Lutjanidae</i>) How many Snappers did you see? (tick box and/or record actual number)
	0 🗌 1 - 5 🗍 6 - 20 📗 20 - 50 🗎 51 - 250 🗎 >250 🗌
A SAN A SAN	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:



Post Dive Recording Sheet - Anthropogenic Pressures

Surface Pressures			
Did you see any Surface Litter? (tick box)			
Yes No Dont Know			
If yes please record any details (plastic, wood, paper, other etc.) Please record quantity and any other relevant information.			
Boat Activity			
Did you see any Boat Activity? (tick box)			
Yes No Dont Know			
If yes please record any details (i.e fishing boats, pleasure boats, commercial vessels any other etc)			
Subsurface Pressures			
Did you see any Surface Litter? (tick box)			
Yes No Dont Know			
If yes please record any 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 details (pots, traps, discarded nets, blast damage, cynanide damage, other etc).			

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.

	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)			
© Elizabeth Fleming Turtle shell ornaments on display	Yes 🗌	No 🗌	Dont Know	
If yes please record any deta Please refer to the TRAFFIC laws, and contact information	Guide for more	e information cond	-	•
			T	RAFFIC -

