

Chapter 1 : Coral Reef Animal Printouts - calendrierdelascience.com

*The largest coral reef in the world, the Great Barrier Reef off the northeastern coast of Australia, consists of more than 2, coral reefs, continental islands, coral cays, and thousands of animal species, making it one of the world's most complex ecosystems.*

Threats to Marine Biodiversity 1. Dugong Dugong loves to be around the sea grass throughout the tropical water just like in the Indo â€” Pacific region. Then, mostly you can find dugong in the Australia, and this is why The Great Barrier Reef is supporting the dugong habitat and become a protected area because this marine mammal is classified as endangered animal. Dugong is a great swimmer in the sea but they cannot hold their breathe as long as dolphin and whales. Besides that, dugong also has a long life span that could reach the number of 70 but most of them die in the younger age. There are about 10 species of seal in Australia that you can find. And some of them are the fur seal, sea lion seal, and elephant seal. Due to the high number of harvesting in the 18th and 19th century, the Australian Government is trying to protect the seal population and The Great Barrier Reef is become and important place for the seal. Endangered Sea Lions 3. The shark species that you can find here are whale shark, epaulette shark, hammerhead shark, and many more. Meanwhile, Shark is known as top predator and hunter in ocean ecosystems. However, if you want to see them in The Great Barrier Reef you have to obey the rules and regulation there including not to touch the shark. This action is done to protect both the shark and human. Facts of Whale Shark 4. Many rays like to bury their self in the sand just like the eagle rays and blue spotted lagoon rays. On the other hand there is also a manta ray that can grow up to 7. Ray it self is a flat fish that related to shark. It uses its tail as a defense system when it feels threatened. Moreover, Ray also contains a deadly toxic that can cause a human die. This kind of animal also known has clever protection for itself. It can camouflage itself in the water to hide after their enemy or sea predator. As an animal of course they will look for a cozy habitat to breed and grow. Up to now there are about 17 species of seabird that choosing the Raine Island as a place for them to breed. And it takes two months long for the new baby born seabird to fly. Meanwhile, types of shorebird are difference based on beak. Then, beak of shorebird lead the differs of their habitats and also food-chains. Many species of shorebirds are very sensitive if their beak touched. Therefore, there are large contrast in term of habitats. This type of crocodile is big because they can reach its weight up to kg with their body size up to 4 m long. Their skin color mostly black, grey, and or olive brown with some dark mottling. With this you can realize their existence by the time you see them. In addition, the female crocodile can breed up to 20 to 80 eggs once their enter spawn time. The clam is named giant because of its weight that could reach kg with years of life span. There is also a myth about the clam that the clam can trap and devour a passing diver. Meanwhile, Clam is known as the main producer of pure pearl in the world. Then, they also have mirror-symmetry shaped of shell. Its composed by Calcium. Largest Clams in the World 9. Jellyfish The Great Barrier Reef also became a home for two deadliest box jellyfish in the world. Besides the box jellyfish there is also a cairn jellyfish. You are allowed to dive and see this beautiful marine creature but you have to remember to follow the rules and instruction given by the dive instructor. It likes to stay in the sea floor and change its color to camouflage. The camouflage done by the octopus can help them to catch their prey easier and also help them to be avoided from the predators. There is one unique species that you can find here which is the mimic octopus. This species of octopus can also impersonate another animal. Sponges Sponge is easy to be found everywhere. They live in the depth of less an m beneath the sea. But, there are also some species that live deeper such as demosponges and glass sponges that live about more than m depth. Because it can be found everywhere, you can also find sponge in The Great Barrier Reef. Differences Between the Ocean and the Sea Because they have so many species you can find the sea anemone from the swallow to the deep ocean. The anemone also became a home for the clown fish and they also create a symbiotic relationship. Plants in the Ocean Biome Some of them are parrotfish, coral trout, clown fish, and surgeon fish. They come from 13 different family and they also have so many beautiful color. Many of them live solitary and in a large group. They also have a symbiotic relationship with the coral. Sea snakes There are about 14 species of sea snakes from 60 species sea

snakes in the world that you can find in The Great Barrier Reef such as, the large olive sea snake. It can spend its time in the sea floor up to 2 hours long. The sea snakes are venomous but they are more reluctant to bite compared to the snake on land. It will only become sensitive during the breeding time. Animals in The Ocean Biome

Sea turtle Six from seven species of sea turtle in the world is choosing The Great Barrier Reef as their home. Such as green turtle, hawksbill turtle, and loggerhead turtle. Mostly, they nest in the northern and southern part of The Great Barrier Reef. The sea turtles also can live up to years. The species that usually occur is the spinner dolphin, bottlenose dolphin. In the last 15 years, this place can protect the dolphin and makes the dolphins safe to breed.

Conservation of Dolphins Whale Minke whale and humpback whale are two from many species of whale that live in The Great Barrier Reef. Whale itself is a marine mammal that lives in the sea, and they usually appear in the sea water surface to breathe. The humpback whale itself is under protection of the Australian Government and taking a place of protection in The Great Barrier Reef. And thank you for the time spent to read this article and your consideration toward the animal.

## Chapter 2 : Great Barrier Reef | Australia's Great Natural Wonder

*The Great Barrier Reef is a mosaic of 2, individual reefs off the coast of Queensland in northeast Australia. The sprawling reef can be seen from space and is not only the world's largest coral.*

Protected species of the Great Barrier Reef Dugong Though you may try to classify it as a dolphin or a shark, the dugong is actually a manatee that can swim for six minutes without having to catch its breath on the water surface. Due to their location around the shallow inter-reefal waters, they have been an easy target for fishermen and hunters, who have found their meat, teeth and oil a precious trade. Moreover, they are also threatened due to water pollution and sea dumping in the area, making them one of the most endangered animals in the Great Barrier Reef, Australia and the whole world. Nowadays, they are officially protected by the Australian state. Marine Turtles Another of the most endangered animals in the Great Barrier Reef is the marine turtle. In fact, the World Conservation Union has classified 4 out of the 6 species of marine turtles as endangered. The other two species are also vulnerable to being endangered. Take a look at the species that are currently endangered: The loggerhead has earned its name due to its big head, which it uses to crush its food. Though they are the most abundant species in the Barrier Reef, the high fluctuation in their nesting numbers, which is co-related to climate change as it causes more frequent flooding of their nests, makes this species endangered. These small sea turtles love shallow waters to feed on sponges and to hatch their eggs. It is precisely the eggs that make them seriously endangered, as these are still considered a delicatessen dish and are eaten in many parts of the world. This species is critically endangered in the Barrier Reef and is barely sighted. Studies have pinpointed other animals as the main cause for their disappearance. They are especially vulnerable, as female turtles hatch their eggs offshore, creating a nest where she needs to come back to; this means they are easy prey for hunters. Moreover, turtles migrate during their whole life cycle, which is why another reason for their disappearance is the fact that they are hit by boats fairly frequently, even more so with the rise of tourism in the Great Barrier Reef. Whales Whales have long been one of the most important animals of the reef for the aboriginal people, having the Mugga Mugga as their totem. Though it is currently under strict protection, whales became endangered due to the high rate of whaling, i. This is also the case of the Sei whale, that is so endangered there are estimations that say it will become extinct by , though they are currently under the protection of the Conservation of Migratory Species of Wild Animals. Saltwater Crocodiles Though they are actually one of the most dangerous animals in Australia , the truth is that there are currently only around , to , specimens in the whole world, also making them one of the most endangered animals in the Reef. Nicknamed "salties" by Aussies, the excellent abilities of saltwater crocodiles mean they are often found far out in the Barrier sea. This reptile has been hunted for its eggs and meat, as well as for their skin, which is pinpointed as the main reason for their endangerment, as well as the loss of natural habitat due to dredging of port expansions. Coral Though you may have thought that coral is actually a plant, the fact that they do not produce their own food makes them an animal too. Out of the species of coral found in the area, 22 types of coral are currently classified as endangered species. There are several reasons to explain why they are endangered. The first are Crown of thorns, a starfish species that is a natural predator for coral polyps. Other reasons are global warming and pollution which cause what is known as coral bleaching, a reaction from the species when it loses its pigmentation. It is believed to be a sign of stress of the coral polyp and, if a coral undergoes bleaching for a long period, it eventually dies. New aerial surveys have shown that these two bleaching events have damaged 1, km of the reef, and the damaged coral has little chance to recover. Corals feed from algae, so the loss of wetland in favor of new coastal constructions means that there has also been a decrease in the quality of water in these areas, so not as many algae can flourish, leaving corals without as much food as they may need. Protected species of the Great Barrier Reef Apart from animals that are currently endangered, the Great Barrier Reef Marine Park Authority also provides special care of several other species that are both threatened to be endangered and those that are migrants at the barrier but that are also currently endangered. Migratory animals The Bonn Convention stated several agreements to protect endangered migratory animals. Though we have stated several above, these are the ones that appear in their appendix:

**Chapter 3 : Great Barrier Reef Australia - Lionfish - Barrier Reef Australia**

*A Look Wildlife of the Great Barrier Reef [N. Coleman, Color Photos] on calendrierdelascience.com \*FREE\* shipping on qualifying offers. Color photos of the wildlife and coral of the reef, as well as history and facts about the reef itself.*

These images are a selection of photos taken recently near Lizard Island off the north Queensland coast. They document the ongoing bleaching on the Great Barrier Reef as ocean temperatures continue to be driven upward by climate change. The bleaching process Before corals bleach, they are often a deep brown or khaki-green colour. These colours come from the symbiotic algae sometimes called zooxanthellae that co-exist with the coral polyp. Sometimes polyps are transparent and we see only the white skeleton beneath. Other polyps may be brightly coloured, as seen here. Once the final stage of the bleaching process is reached, it is likely the coral has been stressed for days or weeks. From here on, it may recover slowly " by re-acquiring its symbiont friends " or it may die, having run out of energy in the absence of the symbiotic algae that provide it with carbohydrates. What often happens next is that the coral is covered with a film of turf algae, which takes over the parts of the reef previously colonised by healthy coral. But, as noted above, the bleaching can in some cases be weirdly beautiful, as the corals shed their algal cloaks and reveal themselves. Bleached corals glow a striking shade of purple. From this point it is a long, slow road to recovery " even those corals that survive will remain metabolically and reproductively compromised for months. They are often fluorescent " hence the day-glo appearance of some corals and their amazing fluorescence on torch-lit night dives. But these corals are rare. What we are seeing on reefs in northern Queensland is certainly bleaching. Non-symbiotic algae begin to take hold. Algae growing on coral tips. Eventually, the reef structure itself breaks down, meaning that many fish species will need to move on or die. That includes fish that feed on coral, such as this Okinawa goby. An Okinawa goby on a coral colony. The picture immediately below was taken before bleaching, while the one after that shows the fish on a bleached colony. Anemones are prone to bleaching too. Unfortunately, closer examination shows that the coral head has died and a thin film of algae covers the branches. The little blenny is farming his patch and cropping the algae so that it does not become overgrown. A blenny on the reef. What happens when these reefs disappear? Current predictions are that coral reefs worldwide could be gone within 25 years. How much will be left after this global bleaching event? How much will be left for future generations? Given the globally accepted link between carbon emissions, climate change and reef bleaching, the decision to approve the Carmichael coal mine in Queensland right next to the Great Barrier Reef really is adding insult to injury. Further afield, coral bleaching is a potential humanitarian crisis in countries that rely on reefs for food and basic livelihoods.

Chapter 4 : 17 Animals in The Great Barrier Reef - calendrierdelascience.com

*The Great Barrier Reef is the world's largest coral reef system composed of over 2, individual reefs and islands stretching for over 2, kilometres (1, mi) over an area of approximately , square kilometres (, sq mi).*

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**Chapter 5 : Inside the Great Barrier Reef's aquarium - Tourism Australia**

*The Great Barrier Reef is one of the world's most amazing ecosystems, covering over 2,900 square kilometres off the coast of Queensland. The reef is home to over 300 species of coral, 1,500 species of fish, 30 species of mollusks, 30 species of whales and dolphins, and 6 species of marine mammals.*

One of the Seven Natural Wonders! The animals that live there are amazing and can be seen on one of the many different tours available to the many who want to witness nature at its best. There are mammals that live off the sea grasses that grow in shallow inshore waters such as dugongs. These large grey mammals live in tropical waters and are docile. They get air by surfacing to breathe through nostrils near the top of their heads. There are whales and dolphins that swim the Great Barrier Reef, 30 species of these mammals visit the Great Barrier Reef but not all stay for long periods of time. The Humpback Whale uses these waters to breed and then use the reef as a nursery to raise their young for the long migration back to the Antarctic. Spinner Dolphins visit the waters as well as the Irrawaddy River Dolphins. Reptiles also call the Great Barrier Reef home, 23 species of them in fact. The snakes of the reef are all poisonous and should be avoided. There are the turtle headed snake, olive sea snake and the krait. There are 17 species of sea snakes you should be aware of and avoid! Saltwater crocodiles hang out in the mangrove. Most of these reptiles can be seen on guided tours. These will include the loggerhead turtle, the leatherback turtles and the hawksbill that all nest on the coral cays. The flatback turtles nests on continental islands. The Great Barrier Reef sources are also used by large variety of birds. These mid sized birds have large wings and look out of balance because their legs and beak are short. They are a nocturnal bird that feeds on insects and moths at night or early mornings. They nest on the bare ground. They will pick up the eggs in their beaks and move them out of danger. They have colours of bark and leaves with distinct markings so they can hide easily. These amazing birds preferred habit is Bracken. Fish are a primary species of wildlife of the Great Barrier Reef. With more than 1,500 species of fish, the photo ops are numerous. White spotted pufferfish *Arothron meleagris* inflated There are pufferfish , clownfish , angelfish , butterfly fish and 9 species of sea horses just to name a few. Fishing is also a big tourist attraction to the Great Barrier Reef. There is cod, trout, sea perch and sole to fish for. So for an amazing fishing trip for a photo shoot or to hook a big one to tell tales about The Great Barrier Reef is the place to go. With close to 1,000 species of mollusc that call the reef home, there is the Giant Clam , Cone Snails , and nudibranchs. With island, coral cays and coral reefs we cannot forget one of the smallest forms of life that make up the Great Coral Reef and that is a tiny organism. All these billions of tiny life forms make up this unbelievably beautiful reef with all its amazing colors and formations. Talk about a photo op, WOW! The organisms are known as coral polyps. Spawning gametes breed in mass spawning events that is triggered by the rising sea temps of spring and summer. Both hard and soft coral live on the reef. There are tours that can be booked for different locations of the Great Barrier Reef. You must see and experience the beauty of the Great Coral Reef. So book a vacation of a life time.



## Chapter 6 : GBRMPA - Animals

*These images are a selection of photos taken recently near Lizard Island off the north Queensland coast. They document the ongoing bleaching on the Great Barrier Reef as ocean temperatures.*

In fact, this reef is visible from space. As you might have guessed, this massive organism provides food and shelter to a large number of animals. This Top 10 list will capture ten of the coolest in my opinion animals found on the Great Barrier Reef. For the record, given the diversity of animals, this will not be an easy task. In fact, they are one of the few tropical fish that are bred extensively in captivity. Good thing too since the wild population is threatened. The Cardinal Fish is a nocturnal creature who buries themselves deep in the coral reef during the day. Yes, their lips actually look like the beak of a parrot. The bright colours and shallow water habitat make this beautiful fish very easy to spot while snorkelling the Great Barrier Reef. These unusual turtles will typically lay fewer but larger eggs along the same beach that they hatched from roughly 30 years earlier now that is a good memory. In fact, these characteristics make them one of the most recognizable fish on the world famous reef. The Triggerfish is known for being incredibly aggressive and will attack divers if they feel threatened. They have powerful jaws and are capable of delivering a painful bite so be careful when observing them up close. If you want to catch a glimpse of the massive mammal then I suggest spending some diving time in the northern waters of Australia, between Shark Bay and Moreton Bay where the Dugong likes to hang out. They are known to be quite aggressive towards other reef fish. Considering how poisonous they are human fatalities in children and the weak have been reported , it is never a good idea to cross their path. Although, they are typically a blue-grey colour throughout most of their range, they will have this amazing, ringed form when living on the reef. Just what you want a whole group of deadly sharks coming after you. Although the Hammerhead Shark can be found throughout the world, they enjoy hanging out around the edges of the Great Barrier Reef. The best place to spot them is where the reef begins to drop off into the deeper water. Unlike true jellyfish that just float around waiting for food to come to them, the Box Jellyfish will actively hunt their meals. The tentacles of the Box Jellyfish are still capable of stinging even if they are not attached to the animal or if the jelly is dead, so please be careful. Well, I know if I saw them during a dive, I would spend the rest of my day looking at them. Their striking colours not only make them special but also very easy to spot. While these colourful Sea Slugs can be found in many parts of the world and at just about any ocean depth, they are most abundant in the shallow waters surrounding the Great Barrier Reef.

**Chapter 7 : Encounter marine animals on the Reef - Tourism Australia**

*The bleaching hitting the Great Barrier Reef not only harms corals. As these close-up photos show, it also deprives many other species of a home and livelihood. In pictures: a close-up look at the.*

It reaches from Torres Strait between Bramble Cay , its northernmost island, and the south coast of Papua New Guinea in the north to the unnamed passage between Lady Elliot Island its southernmost island and Fraser Island in the south. Also during this time, Queensland experienced volcanic eruptions leading to central and shield volcanoes and basalt flows. Heron Island , a coral cay in the southern Great Barrier Reef The land that formed the substrate of the current Great Barrier Reef was a coastal plain formed from the eroded sediments of the Great Dividing Range with some larger hills most of which were themselves remnants of older reefs [22] or, in rare cases, volcanoes [20]: As it rose, the corals could then grow higher on the newly submerged maritime margins of the hills of the coastal plain. As the sea level rose further still, most of the continental islands were submerged. The corals could then overgrow the submerged hills, to form the present cays and reefs. Sea level here has not risen significantly in the last 6, years. Lagoonal reefs are found in the southern Great Barrier Reef, and further north, off the coast of Princess Charlotte Bay. Cresentic reefs are the most common shape of reef in the middle of the system, for example the reefs surrounding Lizard Island. Most of the islands on the reef are found on planar reefs. Threatened species known to occur in the Great Barrier Reef World Heritage Area A variety of colourful corals on Flynn Reef near Cairns The Great Barrier Reef supports an extraordinary diversity of life, including many vulnerable or endangered species , some of which may be endemic to the reef system. Large populations of dugongs live there. The green sea turtles on the Great Barrier Reef have two genetically distinct populations , one in the northern part of the reef and the other in the southern part. The northern islands have " plant species which tend to be woody, whereas the southern islands have which tend to be herbaceous; the Whitsunday region is the most diverse, supporting 1, species. The plants are propagated by birds. Between " species of bryozoans live on the reef. Reefs in the inner Great Barrier Reef spawn during the week after the full moon in October, while the outer reefs spawn in November and December. Environmental threats to the Great Barrier Reef Sea temperature and bleaching of the Great Barrier Reef Climate change , pollution, crown-of-thorns starfish and fishing are the primary threats to the health of this reef system. Other threats include shipping accidents, oil spills , and tropical cyclones. Coral bleaching events lead to increased disease susceptibility, which causes detrimental ecological effects for reef communities. UNESCO , in a draft decision published in June as part of the agenda for the meeting, expressed serious concern about the impact of coral bleaching on the Great Barrier Reef. The draft decision also warned Australia that it will not meet the targets of the Reef report without considerable work to improve water quality. Five Great Barrier Reef species of large benthic corals were found bleached under elevated temperatures, affirming that benthic corals are vulnerable to thermal stress. The rivers of north eastern Australia pollute the Reef during tropical flood events. Farming practices damage the reef due to overgrazing , increased run-off of agricultural sediments, nutrients and chemicals including fertilisers , herbicides and pesticides representing a major health risk for the coral and biodiversity of the reefs. A study by Katharina Fabricius and Glen Death of Australian Institute of Marine Science found that hard corals numbers were almost double on reefs that were far from agricultural areas. Large outbreaks of these starfish can devastate reefs. Fishing also impacts the reef through increased water pollution from boats, by-catch of unwanted species such as dolphins and turtles and habitat destruction from trawling , anchors and nets. Shipping Shipping accidents are a pressing concern, as several commercial shipping routes pass through the Great Barrier Reef. This 35 years plan, titled "Reef Plan" is a document proposing possible measures for the long-term management of the pollution, climate change and other issues that threaten the life span and value of this global heritage. The plan contains all the elements for measurement and improvements, including; long-term sustainability plan, water quality improvement plan and the investment plan for the protection and preservation of The Reef until As such, experts doubt on whether it will be enough to save the fragile environment. Aboriginal Australians have been living in the area for at least 40, years, [78] and Torres Strait



Islanders since about 10, years ago. Lightening the ship and re-floating it during an incoming tide eventually saved it. The Queensland Museum has led archaeological digs to wreck of Pandora since Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. March This article possibly contains original research. Please improve it by verifying the claims made and adding inline citations. Statements consisting only of original research should be removed. September Main article: A combination of zoning , management plans, permits, education and incentives such as eco-tourism certification are employed in the effort to conserve the reef. The marine bioregional planning process came from the implementation of this law. This process conserves marine biodiversity by considering the whole ecosystem a species is in and how different species interact in the marine environment. There are two steps to this process. The first step is to identify regional conservation priorities in the five currently different marine regions. Like protected areas on land, marine reserves are created to protect biodiversity for generations to come. Marine reserves are identified based on criteria written in a document created by Australian and New Zealand Environment and Conservation Council called "Guidelines for establishing the national representative system of marine protected areas", also known as just "the Guidelines". These guidelines are nationally recognised and implemented at the local level based on the Australian policy for implementation outlined in the "Goals and Principles for the Establishment of the National Representative System of Marine Protected Areas in Commonwealth Waters". These policies are in place to make sure that a marine reserve is only added to the NRSMPA after careful evaluation of different data. The priorities for each region are created based on human and environmental threats and the Marine Bioregional Plans are drafted to address these priorities. After the plan is finalised, activity in different bioregions may become limited based on particular threats an activity may pose. In response to this report, in , the Australian and Queensland governments launched a joint initiative to improve the quality of water entering the Great Barrier Reef. These forms of pollution have made the reef less resilient to climate change. When the plan was introduced in October , it originally contained 65 actions built on previous legislation. Their immediate goal was to halt and reverse the decline in water quality entering the reef by To achieve these goals they decided to reduce pollutants in the water entering the reef and to rehabilitate and conserve areas of the reef that naturally help reduce water pollutants. To achieve the objectives described above, this plan focuses on non-point sources of pollution, which cannot be traced to a single source such as a waste outlet. The plan specifically targets nutrients, pesticides and sediment that make their way into the reef as a result of agricultural activities. Other non-point sources of pollution that are attributed to urban areas are covered under different legislation. In , the plan was updated. The updated version states that to date, none of the efforts undertaken to improve the quality of water entering the reef has been successful. This updated version has improved the clarity of the previous plan and targets set by that plan, have improved accountability and further improved monitoring and assessment. The report found that 41 out of the 65 actions met their original goals, however, 18 were not progressing well according to evaluation criteria as well as 6 were rated as having unsatisfactory levels of progress. A taskforce of scientists was also created to assess the impact of different parts of the plan on the quality of water flowing into the coral reefs. They found that many of the goals have yet to be reached but found more evidence that states that improving the water quality of the Great Barrier Reef will improve its resilience to climate change. The Reefocus summit in , which is also detailed in the report, came to similar conclusions. After this, a stakeholder working group was formed that worked between several groups as well as the Australian and Queensland governments to update reef goals and objectives. The updated version of the plan focuses on strategic priority areas and actions to achieve goals. Also quantitative targets have been made to critically assess whether targets are being met. The plan also outlines a number of steps that must be taken by landholders to help improve grazing, soil, nutrient, and chemical management practices. There are also a number of supporting initiatives to take place outlined in the plan to help create a framework to improve land use practices which will in turn improve water quality. Through these means the governments of Australia and Queensland hope to improve water quality by The outlook report and revised water quality plan will assess what needs to be done in the future to improve water quality and the livelihoods of the wildlife that resides there. In July , a new zoning plan took effect for the entire Marine Park, and has been widely acclaimed as a new global benchmark for marine ecosystem

conservation. Each assessment has a set of assessment criteria that allows for better presentation of available evidence. Each assessment is judged by these criteria and given a grade. Every outlook report follows the same judging and grading process so that information can be tracked over time. No new research is done to produce the report. Only readily available information goes into the report so little of what is known about the Reef is actually featured in each outlook report. Potential significant harms have been identified in relation to dredge spoil and the process of churning up the sea floor in the area and exposing it to air: Furthermore, dredge spoil can literally smother reef or sea grass to death, while storms can repeatedly resuspend these particles so that the harm caused is ongoing; secondly, disturbed sea floor can release toxic substances into the surrounding environment. As a deepwater port that has been in operation for nearly 30 years, Abbot Point is better placed than other ports along the Great Barrier Reef coastline to undertake expansion as the capital and maintenance dredging required will be significantly less than what would be required in other areas. A long-term water quality monitoring plan extending five years after the disposal activity is completed. A heritage management plan to protect the Catalina second world war aircraft wreck in Abbot Bay. The establishment of an independent dredging and disposal technical advice panel and a management response group, to include community representatives. The Queensland government and the Commonwealth have now accepted the alternative option and advice from The World Heritage Committee and will now commence dumping on land. Several continental and coral cay islands are now resorts, including Green Island and Lady Elliot Island. As of , 27 islands on the Great Barrier Reef supported resorts. Boat sizes range from dinghies to superyachts. The outer part of the Great Barrier Reef is favoured for such activities, due to water quality. A daily fee is levied that goes towards research of the Great Barrier Reef. Platforms are large, ship-like vessels that act as a base for tourists while scuba diving and snorkelling in the Great Barrier Reef. Seabirds will land on the platforms and defecate which will eventually be washed into the sea. The feces carry nitrogen, phosphorus and often DDT and mercury, which cause aspergillosis, yellow-band disease, and black band disease. Areas without tourism platforms have 14 out of 9, 1. Thus, while non-permanent platforms could be possible in some areas, overall, permanent platforms are likely a necessity. Solutions have been suggested to siphon bird waste into gutters connecting to tanks helping lower runoff that causes coral disease. These act to reduce damage to the reef due to anchoring destroying soft coral, chipping hard coral, and disturbing sediment as it is dragged across the bottom.

## Chapter 8 : Great Barrier Reef

*The Great Barrier Reef is a refuge for many species of conservation concern. We work to protect marine animal species that are threatened, iconic or at risk. By working closely with the state and federal government and the community, threats to species can be identified and appropriate management actions can occur.*

More than just fish and coral The Great Barrier Reef is home to a stunning array of animals, from microscopic plankton to whales weighing more than tonnes. More than just fish and coral, the Reef supports: While there is a lot known about some animals that make the Reef home, vast amounts of information and species are yet to be discovered. We work to protect and conserve all elements of biodiversity, as outlined in our Biodiversity Conservation Strategy. Species of conservation concern The Great Barrier Reef is a refuge for many species of conservation concern. We work to protect marine animal species that are threatened, iconic or at risk. By working closely with the state and federal government and the community, threats to species can be identified and appropriate management actions can occur. Protected species are those that are protected by law and need special management. Snapshot of Reef animals Marine mammals whales, dolphins , dugong , seals More than 30 species of marine mammals are found along the Great Barrier Reef. The Great Barrier Reef is an important habitat for dugong. Birds, seabirds and shorebirds Islands and cays along the Great Barrier Reef support breeding populations of 22 seabird species. Areas of international significance for migratory and resident species of shorebirds are found on, or adjacent, to the Great Barrier Reef. Marine turtles Six of the worlds seven species of marine turtle occur on the Great Barrier Reef with globally significant nesting areas for four of these found in the Region. All six species are classified as threatened as a result of pressures both from within the Great Barrier Reef Region and elsewhere. Crocodile The estuarine crocodile can be found in most coastal waters and around many of the islands and cays of the Great Barrier Reef. Sea snakes Sitting in a global hotspot of sea snake diversity, the Great Barrier Reef is home to 14 different species of sea snake. Sharks and rays species are found along the Great Barrier Reef and range from small, cryptic species such as the epaulette shark to large, migratory species such as the whale shark. Fishes Around of bony fish species including important commercial species such as coral trout. Echinoderms About species recorded along the Great Barrier Reef, with starfish perhaps being the most well known. Crustaceans Around species, including a number that are commercially important for example, some species of crabs and prawns. Molluscs More than species known from the Great Barrier Reef. Hard corals The signature group of the Great Barrier Reef with more than species known. Sea anemones Around 40 species recorded along the Great Barrier Reef. Soft corals and sea pens At least species known from the Great Barrier Reef. With their swaying bodies and jelly like feel, soft corals bodies are made up of a large number of polyps connected by fleshy tissue. Jellyfish More than species recorded along the Great Barrier Reef, including blue bottles and box jellyfish. Large adult jellyfish are often accompanied by small fish which hide amongst their tentacles for protection. Sponges Often colourful and common reef animals. Still more species make the Great Barrier Reef home and these include:

## Chapter 9 : Meet the Great Eight wildlife of the Great Barrier Reef

*The Great Barrier Reef is an iconic destination on the planet as it has more marine species and land species than any other parts of Australia and other parts of the world. The nature and wildlife are so unique and unfortunately so rare and endangered we need to do all we can to protect them from extinction.*