Marine Eco System and It’s Important

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Abstract

With the many infrastructure being build here in Saipan, we can see how much the island had changed since then, Saipan is the island with the greatest diversity of coral reefs and associated habitats, yet it’s western side is also the most developed. This human activity hugely impacts the local reefs. The coral reefs in the CNMI are reasonably healthy, but the condition of each reef is largely determined by its proximity to human population centers. Consequently, there has been a dire need for both remedial and proactive conservation programs (Lauren Stoneburner.2013). Marine Ecosystem has a wide variety of ecosystem. Marine Ecosystem can be a branch off many ways. Coral reefs are one of the largest branches and plays a major role in our ecosystem. They are necessary to many forms of Marine life, consequently the reefs are in great danger due to mankind and natural destruction. Coral reefs are some of the most diverse ecosystems in the world; thousands of species and millions of people depend on reefs for food and protection (National Oceanic and Atmospheric Administration, noaa.gov). CNMI also has some of the diverse and beautiful coral reefs in the world, but few people know what coral are and how corals and related plants and animals build reefs and most importantly, how to ensure that the future generations will benefits from our coral reefs (Division of Fish & Wildlife, dfw.gov.mp). In my research I want people to understand how important marine ecosystem are for our Island.

Introduction to Research

The Commonwealth of the Northern Mariana Islands (CNMI) has undergone significant change over the years. Rapid development has resulted in a change from crushed coral roads to four-lane highways; from relatively few tourist facilities to five-star hotels, resorts, and golf courses. Although much of this development has been a boost to the CNMI’s economy, the culture, people, and islands will inevitably face adverse impacts. However, the degree of this potential damage from continuous change may be minimized if we plan properly to manage our resources (Burr, 1996.[Long Term Marine Monitoring Plan for the Commonwealth of the Mariana Islands](http://cnmicoralreef.com/uploads/cnmi/Images%20and%20documents%20for%20individual%20pages/Burr1996%20Long%20Term%20Marine%20Monitoring%20Plan%20for%20the%20CNMI.pdf).). As we can all see as Saipan starts to modernize, the citizen itself forget the importance of the marine life for our Island. They neglect the fact that sooner or later our marine life will be endanger thus affecting the people that lives on the Island.

Literature I

The deterioration of the world’s marine ecosystem contributes to an increase in marine mammal stranding each year, according to T. David Schofiels, a regional marine mammal health and response program manager of the National Oceanic Atmospheric Administration National Marine Fisheries Service (News article from Saipan tribune: Stranding’s go up as marine ecosystems deteriorate, Aug 31, 2011).

Research Questions

1. How does human affect the Marine Environment?
2. What is coral reefs?
3. How important are the coral reefs in our Island?

Background

 Like all ecosystems, marine ecosystems are mostly self-sustaining systems of life forms and the physical environment. In these ecosystems materials are cycled and recycled. All ecosystems have certain things in common and marine ecosystems have a few unique twists to these cycles. We can begin this discussion with describing the make-up of life forms (marinebio.net, 3.1.2). The deterioration of the world’s marine ecosystem contributes to an increase in marine mammal stranding each year, according to T. David Schofiels, a regional marine mammal health and response program manager of the National Oceanic Atmospheric Administration National Marine Fisheries Service (News article from Saipan tribune: Stranding’s go up as marine ecosystems deteriorate, Aug 31, 2011). With the ocean covering about 70% of the earth and supporting an incredible variety of life including the world largest mammal, the Blu Whale. The oceans are a significant source of oxygen for our planet and are instrumental in the capture and storage of carbon dioxide. Marine species provides an important ecosystem service such as the provision of food, and Medicine, (Marine, Iucn.org). Unfortunately, these are being taken for granted by humans for over harvesting the resources of the sea. Over fishing and its habitat, are the results of destructions that are evident in many parts of the world. Humans have used and had an impact on marine ecosystems throughout history (Marine Ecosystems and Global Change,Keith Brander, oxfordscolarship.com).

Methodology

To begin with this research, the researcher will develop an effective and durable method to collect data for the research project. the researcher will first come up with a general topic along with a research question related to Marine Ecosystem “Human impacts on Marine Ecosystem.” The researcher will then collect data through conducting survey and started designing the survey. The researcher will come up with five efficient secondary questions corresponding with the research question, such as asking the participants about their awareness and their recommendations towards the research. The survey participant is limited to 16-year-old and older.

 In addition, he researcher planned to collect and analyze the through the last 6 months. After the instructor’s approval of the questionnaire, the researcher will start distributing the survey electronically to the participants. If the participant does not respond within the desired sate, the date of finishing the survey may delay several more days. When collecting data is completed, the researcher will use some type of spreadsheet or any available program to help calculate the certain responses and the people who responded in a way. Finally, the researcher will write the result of the survey and add the collected information into the research paper.

Findings

 With the ocean covering about 70% of the earth and supporting an incredible variety of life including the world largest mammal, the Blu Whale. The oceans are a significant source of oxygen for our planet and are instrumental in the capture and storage of carbon dioxide. Marine species provides an important ecosystem service such as the provision of food, and Medicine, (Marine, Iucn.org). Unfortunately, these are being taken for granted by humans for over harvesting the resources of the sea. Over fishing and its habitat, are the results of destructions that are evident in many parts of the world. Humans have used and had an impact on marine ecosystems throughout history (Marine Ecosystems and Global Change,Keith Brander, oxfordscolarship.com). With the growing population here in the CNMI and the booming infarctions that are being built here, we can’t deny that Saipan is already starting to be polluted. Human activities affect marine ecosystems because of pollution, overfishing, the introduction of invasive species, and acidification, which all impact on the marine food web and may lead to largely unknown consequences for the biodiversity and survival of marine life forms (Human Impacts on Marine Ecosystem, geomar.de).

Analysis Critique

The island consists of a volcanic core enveloped by younger coral reef derived limestone formations. The island has the most diverse types of coral reefs and associated habitats in the Commonwealth. A fringing and barrier reef system protects many of the beaches along the western and coastal plains. The western side of the island is the most populated and the coral reefs along these areas are negatively affected by human activity. Continuing sediment and nutrient pollution combined with sporadic stressors such as outbreaks of crown-of–thorns starfish (COTS) (Acanthaster planci) and temperature-induced bleaching affect many of Saipan’s western and southeastern reefs. Furthermore, coral habitat on two large page 400 Commonwealth of the Northern Marianas Figure 15.1. Locations in the CNMI mentioned in this chapter. Top left panel shows the spatial distribution of islands and banks in the chain; additional panels provide a closer view of the individual islands and banks. Map: A. Shapiro. Sidebar The State of Coral Reef Ecosystems of the Commonwealth of the Northern Marianas offshore banks (18 km x 22 km) in water depths between 30 m and 60 m on the western side of Saipan are negatively affected by the anchorage of commercial and naval vessels (Starmer, J. (ed.) 2005. [The State of Coral Reef Ecosystems of the Commonwealth of the Northern Mariana Islands](http://cnmicoralreef.com/uploads/cnmi/Images%20and%20documents%20for%20individual%20pages/State%20of%20Coral%20Reef%20Ecosystems%20of%20the%20CNMI%202005.pdf). pp. 399-441. In: Waddell, J.E. (ed.), 2005.).

References

Starmer, J. (ed.) 2005. [The State of Coral Reef Ecosystems of the Commonwealth of the Northern Mariana Islands](http://cnmicoralreef.com/uploads/cnmi/Images%20and%20documents%20for%20individual%20pages/State%20of%20Coral%20Reef%20Ecosystems%20of%20the%20CNMI%202005.pdf). pp. 399-441. In: Waddell, J.E. (ed.), 2005.

National Oceanic and Atmospheric Administration, noaa.gov

Human Impacts on Marine Ecosystem, geomar.de

Marine Ecosystems and Global Change,Keith Brander, oxfordscolarship.com