



GREEN FINS

Newsletter

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Voice of Volunteer

By Sujaree Chaiyaboon

In this newsletter, we will have a great chance to make insightful acquaintance of one marine conservation volunteer, Mr. Kanchit Klingclub or having known as "Eddy" among the tour guides. Originally, Eddy was from Ranong, Thailand. Twenty years have passed since he moved to Phuket for the opportunity of working with tourism business. He has gained considerable experience concerning marketing, and many lessons learned about tour guide. Besides, he acts as leader of "Health Reef club" and presently, he makes a living as independent tour guide and as a taxi driver.



Green Fins : How have you participated conservation project?

Eddy : At first, my knowledge concerning coral was quite limited, I thought that the shape of corals was rounded shapes. However, the first acquirement of knowledge which I sought were from the famous nature documentary series namely, Lovely pets and Great Barrier Reef broadcasted on National Geographic channel. So, the aforesaid series had raised my interest and motivated me to obtain more knowledge ever since.

Green Fins : What does your project go by the name of?

Eddy : The name of our project is "Healthy Reef Club." In the first place, the members of our club was limited to tour guides only however it seemed to be more specific so our club was extended to all participants. Our members now consist of wide range participants including tourists, Thai citizen, Foreigners and people who work within marine field. It can be said that Australian tourists are most interested in marine conservation due to their high number of membership applications applied and their assistance in

circulating news for "Healthy Reef Club" for over six years.

Green Fins : For what reason are you interested in marine conservation project?

Eddy: I have a strong belief that a start from individual level means something when practiced by many so we should start this move towards excellence from ourselves. Regardless the high number of persons working and participating within marine field, most of them were up a blind alley in initiating marine conservation. Fortunately, thereafter our club was founded by persons not only sharing the same belief and dream but also having volunteer spirits so we are able to cooperate in this project together and continually expand our network since then.

Green Fins : What are the objectives of founding Healthy Reef Club?

Eddy : First objective is for participating in marine resources and coral reefs conservation. Second, we will act as mouthpiece of any project concerning marine resources conservation and we will continuously assist the development of marine resources conservation network in

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the future. Last but not least, we shall cooperate with any institute and organization in order to carry on useful research and advance knowledge with regard to tourism and local community promotion.

Green Fins : How do you know about the Green Fins Project?

Eddy : Prior to the acquaintance with the Green Fins Project, I had heard about the Greenpeace organization from one day trip tourists traveling to Phuket. At that time, I had faced the critical problem regarding skin diving practice, one of the tourists had insisted to snorkeling without wearing lifebuoy however, I had tried many times to inform that tourist that snorkeling without wearing lifebuoy would leave him exhausting. Thereafter, the Greenpeace volunteers had stepped in and talked with the said tourist until he came to understanding. Afterwards, I had an opportunity to talk with some marine resources volunteers and had known ever since that there has the Green Fins Project operating in Phuket as well. At that time, I could say that the Green Fins Project had impressed me so I had tried to know more about the project by questioning my friends about the Green Fins Project. Consequently, I had met Dr. Niphon Pongsuwan, the coral reefs specialist who became my advisor for five years ever since.

Green Fins : As they have come to your concern, what are the problems occurred in Phuket ocean?

Eddy : There have so many problems come to our concern, for example, the issue of waste management from many islands is one of the most concerning issues. Water pollution problem comes from water contains the residue of human practices and improperly disposed by the resort businesses into the ocean. The vast majority of marine debris float on the ocean is also one of the problems. Human intervene the marine food web by personally feeding coral reef fish would threaten the ocean and ocean life because when a link is missing or weakened, the chain as a whole is also weakened and no longer functions correctly. The last problem is snorkeling without wearing lifebuoy which will leave the tourist exhausting and then standing on the coral reefs.

Green Fins : How long do you think the future of tourism in Phuket will grow?

Eddy : For the situation on Koh Raya, It could be said that the impact on marine ecosystem around here is not the worst so any problems regarding marine tourism could be resolved by the cooperation between entrepreneurs. However, if anyone gives way to ignorance, the coral reefs stretch around island would be vanished in the next four to five years.

Green Fins : Which type of tourist would you like to travel to Phuket?

Eddy : I could say that any type of tourist would be appreciated if he is able to understand the balance of nature and environmental messages. He is supposed to take into consideration the conservation of natural resources. He shall realize that natural resources are the heritage of every mankind which should be conserved and protected. In conclusion, understanding this balance allows us to be more harmonious parts of the system, minimizing our destabilizing impact on it.



Improving Water Quality Can Help Save Coral Reefs

Aug. 19, 2012 — Research from the University of Southampton and the National Oceanography Centre, Southampton has found that an imbalance of nutrients in reef waters can increase the bleaching susceptibility of reef corals. Corals are made up of many polyps that jointly form a layer of living tissue covering the calcareous skeletons. They depend on single-celled algae called zooxanthellae, which live within the coral polyps. The coral animal and the associated zooxanthellae depend on each other for survival in a symbiotic relationship, where the coral supplies the algae with nutrients and a place to live. In turn, the algae offer the coral some products of their photosynthesis, providing them with an important energy source. High water temperatures can block photosynthetic reactions in the algal cells causing a build-up of toxic oxygen compounds, which threaten the coral and can result in a loss of the zooxanthellae. Without the algae, corals appear white, a state which is often referred to as 'bleached'. Bleaching often leads to coral death and mass coral bleaching has had already devastating effects on coral reef ecosystems.



Light and temperature trigger the loss of symbiotic algae (bleaching) in a nutrient-stressed staghorn coral. (Credit: University of Southampton)

The study of University of Southampton, published in the latest issue of the journal *Nature Climate Change*, has found that nutrient enrichment of the water can increase the probability of corals to suffer from heat-induced bleaching.

Within the coral, the growth of zooxanthellae is restricted by the limited supply of nutrients. This allows the algae to transfer a substantial amount of their photosynthetically fixed carbon to the coral, which is crucial for the symbiotic relationship.

Algal growth becomes unbalanced when the availability of a specific nutrient decreases compared to the cellular demand, a condition called nutrient starvation.

Researchers from the University of Southampton based at the Coral Reef Laboratory in the National Oceanography Centre, Southampton, found that an increased supply of dissolved nitrogen compounds in combination with a restricted availability of phosphate results in phosphate starvation of the algae. This condition is associated with a reduction in photosynthetic efficiency and increases the susceptibility of corals to temperature and light-induced bleaching.

Dr Jörg Wiedenmann, Senior Lecturer of Biological Oceanography at the University of Southampton and Head of the Coral Reef Laboratory, who led the study, says: "Our findings suggest that the most severe impact on coral health might actually not arise from the over-enrichment with one group of nutrients, for example, nitrogen, but from the resulting relative depletion of other types such as phosphate that is caused by the increased demand of the growing zooxanthellae populations."

Please see on <http://www.sciencedaily.com/releases/2012/08/120819153617.htm>

Activities

The seminar on coral reefs conservation and restoration is the knowledgeable way to create collaboration among environment-friendly dive businesses by The GREEN FINS project. The seminar was held on June 17, 2013 at Pru Nai municipality office, Koh Yao, Phang Nga. According to the uneducated and oblivious exploitation of abundant natural resources by tourism entrepreneurs, boat trip businesses and fishermen around Koh Kai, a hidden gem, despite its small size, Koh Kai is on the top rank of beautiful and famous islands surrounded by shallow coral reefs and offering skin diving practice which many tourists leapt at the opportunity to go there.

This seminar contributes to educate every tourism entrepreneur, boat trip business and tourist about the marine ecosystem and also encourage and promote the reduction of human induced damage to coral reefs and to educate the proper and safe skin diving practices.

Last May, Mr. Thanet Manno, Director of Marine and Coastal Resources for Conservation Center 5 (Phuket), department of Marine and Coastal Resources, Ministry of Natural Resources and Environment and officers had been at Koh Kai Nai, Pru Nai, Koh Yao, Phang Nga for the purpose of investigating an unauthorized undersea tourist attraction, "sea-walker" tours having been complained illegally operating in Plant and Marine Protected Area.

Furthermore, there also have more evidences concerning unknowledgeable exploitation of natural resources disclosed. Among other things, illegal dumping of waste into the ocean which is an environmental crime is one of them. Another devastating event is the blue coral reefs destruction by the seawalking companies. Over 300 square meters of corals had been destroyed for the purposes of refurbishing the area, building walkway for the seawalking tourist by putting the metal bars and seawalker equipment along the walkway. The investigating teams of Marine and Coastal Resources for Conservation Center 5 (Phuket) had been dispatched to inspect and clear the site. The metal bars had been removed and the mooring buoy system had been applied to meet the needs, these are, preventing further coral reefs damage and enabling the coral restoration to affordably and effectively achieve by the volunteer divers and academics.



The official website of The GREEN FINS project, www.greenfins-thailand.org which provides access to information, news and so on contributed by the GREEN FINS project is currently under construction for the purpose of being the most dependable source for up-to-date and useful information for the fellow members. The significance of this stage of development might finish by the end of August 2013 so if any fellow members or any person have any questions, comments, or suggestions, or if you are interested in sending information, news or photograph please email us at e-mail : reefwatchthailand@gmail.com.



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