SECOND SOUTHEAST ASIAN

MARINE MAMMAL Stranding Network Symposium

REPORT

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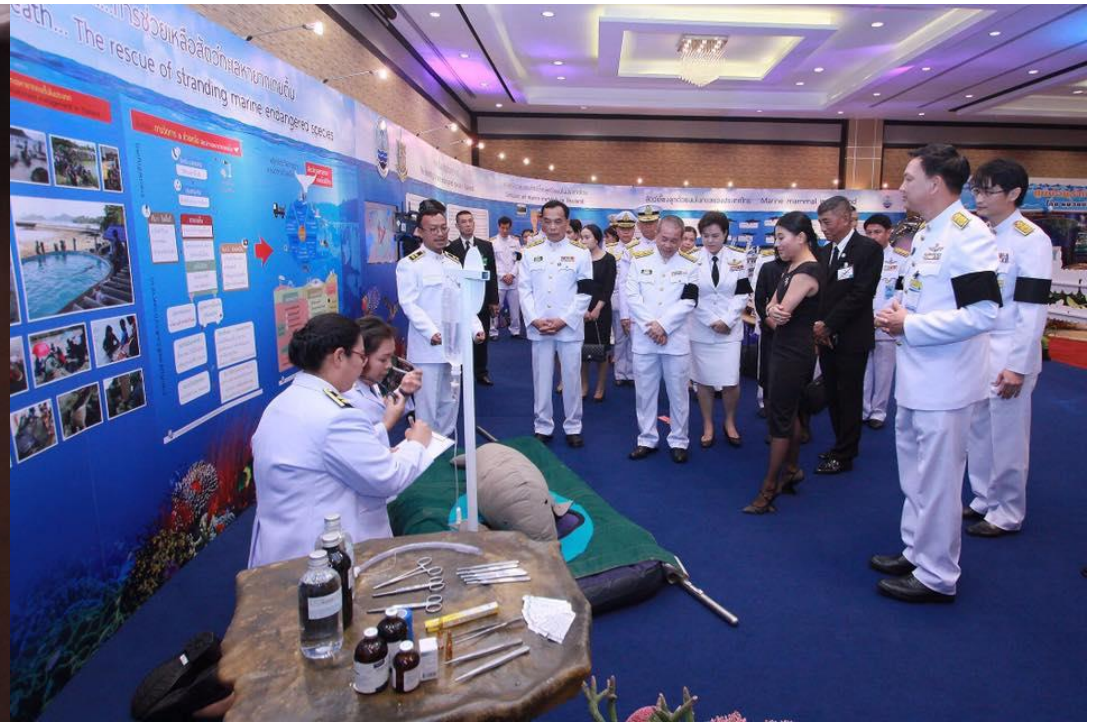
Photos: The SEAMMSN Committees and Dwi Suprapti

The **Southeast Asian Marine Mammal Stranding Network (SEAMMSN)** is a non-political, science based network dedicated to promoting the best practice of marine mammal stranding response and management through the open and free exchange of information, data, materials, methods and protocols in order to conserve marine mammals and their habitats in the South East Asian region.

The SEAMMSN Symposium and Workshop (hence called “the symposium”) was held at the Ambassador Jomtien Hotel, Pattaya, Thailand, from 8 to 12 November 2016. This symposium was attended by more than 80 participants from 11 countries, such as Indonesia, Malaysia, the Philippines, Taiwan, China, England, USA, Australia, Vietnam, Thailand, and Hong Kong. Participants from Indonesia were Sheyka N. Fadela (Whale Stranding Indonesia), Dwi Suprapti (WWF-Indonesia), and Sekar Mira (LIPI).



The symposium was opened by HRH Princess of Thailand Sirivannavari Nariratana. During her speech, Princess Siri explained the reason why she fully supports the establishment of marine mammal and sea turtles hospital run by the Royal Thai Navy and other activities focusing on marine mammal conservation; Her diving experiences inspired her to take a good care of the seas of her own country.

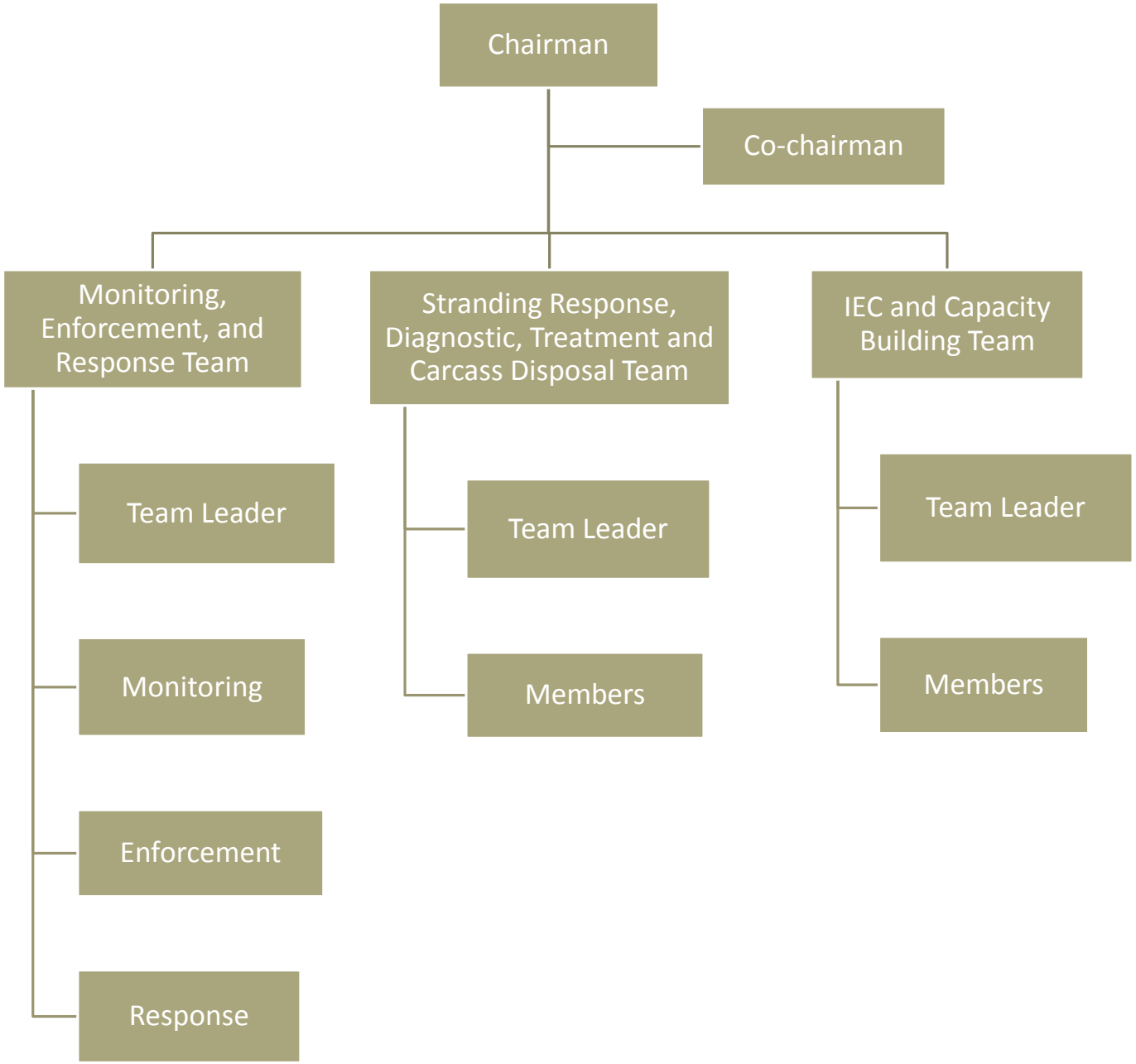
OPENING: MARINE MAMMALS AND HUMAN

- When presenting the history of SEAMMSN, Lemanuel Aragones from the University of Philippines Diliman mentioned how both human-marine mammal interaction and the effect of anthropogenic activities to the marine ecosystem inspired many members of the SEAMMSN, including himself, to keep continuing their works. The effects, either on land (e.g. industrial waste) or in the sea (e.g. algal bloom, high vessel traffics, alien species introduction, and ocean noise), should be considered by many from the most populated countries in SE Asia, such as the Philippines and Indonesia.
- Marine mammal strandings could give opportunities to people to obtain as much information about the animal and its habitat as they can. Necropsy results may not only show what has happened to the stranded animal in the sea, but also what is currently happening in the sea. The unique scar from the propeller on the animal's body, for example, may imply that marine mammals sometimes can not avoid fast-approaching vessels. These animals might also had been ill that they were too weak to swim faster.

OPENING: INTRODUCTION TO PMMSN

- Beside serving as the coordinator of the SEAMMSN, Lemanuel is also one of the founders of the Philippines Marine Mammal Stranding Network (PMMSN). PMMSN has gathered 698 stranding reports from all over the Philipinnes, including those of which the cause of death (COD) was acoustic trauma. PMMSN divided the CODs into “human impact”, “non-human impact”, and “not determined”.
- PMMSN was introduced by Lemanuel and Dr. Nantarika Chansue, the coordinator of The Symposium, later as a good example of a well-structured stranding network. PMMSN has maintaned good relationships not only with the relevant stakeholders, but also with its partners what provide rehabilitation and necropsy facilities and resources. One of its partners is Ocean Adventure.

COORDINATION STRUCTURE OF PMMSN



OPENING: WHY PMMSN WAS ESTABLISHED?

- Marine mammals are animals take long time to be sexually mature, hence most of them reproduce slowly and their population are unable to withstand much human-caused mortality.
- Marine mammals usually have big bodies that the effects of human activities on their populations are usually visible.
- Marine mammals are prone to overexploitation, therefore it is necessary to study about these animals to prevent their extinction.
- Many people consider the high economic value of marine mammals, including the governments, and the important biological role of these animals to the marine ecosystem.
- Marine mammals have a vast geographical range of movement.
- The number of live strandings are high, therefore it is essential to learn and to teach people about the best practices in responding and rescuing the stranded marine mammals.
- PMMSN as a network serves as place to gather as much information as possible from people or its members all over the Philippines. The network members may also exchange information about marine mammals and capacity building opportunities.

OPENING: PRINCIPLES OF MARINE MAMMALS STRANDING RESPONSE

During his explanation on “Why humans should care about marine mammals?”, Grant Abel from the Ocean Park Conservation Foundation (OPCF) mentioned that it is normal for humans to show the empathy to fellow living beings. Thus, the empathy itself is one of the basic consideration to....

1. Be efficient and as quick as possible in rescuing the live-stranded marine mammals
2. Take into consideration the public safety during the rescue
3. Remember that marine mammal strandings are opportunities to learn as much as possible about the animals and their habitat

These principles can be used by the members of the stranding team, especially the coordinator, to make decisions regarding the best response.

UPDATES FROM SEAMMSN MEMBER COUNTRIES

- The representatives from Thailand, Indonesia, Timor Leste, Malaysia (Sabah and Sarawak), and Philippines are not the only presenters that bring out updates about marine mammal stranding cases and past or current studies in their country. The representatives from Taiwan (Professor Wei-Cheng Jack Yang from National Chiayi University, Hong Kong (OPCF), China (Profesor Wang Ding dari Institute of Hydrobiology, Chinese Academy of Sciences), and India (Nachiket Kelkar) also presented.
- Sekar Mira from Indonesia mentioned that she and her colleagues are currently working on Dugong and Seagrass Conservation Project that allows her to learn more about the dugongs as most of the times the stranding cases of this animals were overlooked.
- The Irrawaddy dolphin, sperm whale, and short-finned pilot whale are marine mammal species that are most often found stranded in Indonesia.
- Some tribes and local communities in Indonesia used to hunt dugongs and marine mammals that Mira mentioned there is a need to monitor the hunting activities as they are still possibly continued.

LARGE WHALE ENTANGLEMENT RESPONSE

- David Matilla from the International Whaling Commission (IWC) presented one of the concerns of his workplace, that is large whale entanglement (LWE). This event most often reported near the east coast of the USA and some parts of the Atlantic Ocean. The large whales are often entangled in lobster creels used by many fishermen from Atlantic countries.
- LWE tends to attract the interest of people as it usually involves exotic, big, and live animals that it is necessary for the rescue team to act according to the best practices which includes good coordination and documentation.
- Good documentations of previous LWE or missing nets made by local fishermen or residents could be presented to the IWC. The information helped the organization to identify the potential locations where capacity buildings can be done. David said anyone coming from a place where there is a lot of missing nets being reported may request for trainings on LWE rescue from the IWC.

LARGE WHALE ENTANGLEMENT RESPONSE

- David divided the members of LWE response team to three categories: 1) First responders, who receive reports and assess the situations while not necessarily being near the report area; 2) Main first responders, who verify the reports by coming to the relevant area, assess the current situations around the LWE area and the current conditions of the weather and logistics, and produce good documentations of the LWER; 3) Rescue team members, who carry out actions according to the best practices.
- Large whales that have been entangled for quite long time may be found dying, starving, injured, or even dead. The death of entangled whales is usually slow and painful. Some countries allow the vet in the rescue team to carry out euthanasia by harpoon-like on the entangled whales that could not be helped anymore.

LARGE WHALE ENTANGLEMENT RESPONSE

- Usually, LWE occurred to humpback whales (*Megaptera novaeangliae*) and right whales (genus *Eubalaena*). These whales have body types that does not allow them to be as elusive as the other species, especially humpback whales that have slow tail movement.
- Basic concepts of LWE response is 1) stop and slow the movement of the entangled whale, then 2) cut the tangle net from head to tail.
- Basic principles of LWE response are similar to those of stranding response, but LWE response emphasizes more on good documentation as the technique used in one event might be different than in another. This way, the documentation may support the evaluation of the whole rescue event, therefore improving the quality of the response or the technique used.
- Following the success of the disentanglement of the whale, the rescue team may also monitor the condition and location of the animal. This could be done by attaching tags to the whale or getting many good shots of the whale's body for photo-identification method during the disentanglement process. If necessary, the rescue team may take some genetic samples as well.

COOPERATION BETWEEN PARTNERS IN MARINE MAMMAL STRANDING RESPONSE : CASE STUDY FROM HONG KONG

- Mandy Lo from OPCF and Ng Wei Chun from Agriculture, Fisheries and Conservation Department (AFCD) in Hong Kong shared their experience in working together as partners and how partnership between non-governmental organization like OPCF and governmental institution like AFCD has bring success to many stranding responses in Hong Kong.
- AFCD usually provides permits, and supports from legal to logistic issues, while OPCF staffs are mostly trained scientists and vets who are capable of carrying out stranding response according to the best practices. OPCF staffs usually conduct the analysis of stranding events and of the necropsy results following the stranding report. The information from OPCF supports the AFCD in improving the conservation efforts carried out by the Hong Kong government.

SUCCESSFUL RESEARCH COLLABORATION

- Guido J. Parra from Flinders University shared his own version of “Do(s) and Don’t(s)” when collaborating in a research during The Symposium. Research collaboration is actually full of challenges as the researcher is dealing with another researcher who might view the same research topic in a very different perspective, who work in a different pace, and who bear different personal characteristics.
- It is necessary for both collaborators to have the same goals or visions. This can be achieved by maintaining good communication between the collaborators. Formally, collaborators need to sign Memorandum of Understanding (MoU) or at least agree on a Terms of Reference (ToR) before starting the collaboration. Each document should be presented in very clear statements as it is possible that the other person came from a different background than the researcher him/herself, regardless of how much the researcher may benefit from the interdiscipline collaboration.

NECROPSY ON STRANDED MARINE MAMMALS

- The Symposium actually emphasizes on the importance of veterinarians in marine mammal stranding response. Therefore, most of the speakers were trained marine mammal vets with years of experience in marine mammal necropsy. Among the vets are Dr. Keiichi Ueda from Okinawa Aquarium in Japan and Dr. Nimal Fernando from Bali Safari in Indonesia. Dr. Ueda presented the recent technologies in marine mammal necropsy and live-stranding response, including how he and the team from Bridgestone developed a prostethic tail to a rescued dolphin and using ultrasound imaging to examine the internal body condition of the live-stranded animals.
- Dr. Ueda mentioned that eventhough there seemed to be many success stories from dolphins that have been rehabilitated in his workplace facility, only 8% from 50 individual dolphins that have been able to continue living in the aquarium.

NECROPSY ON STRANDED MARINE MAMMALS

- Dr. Nimal Fernando is among the lead veterinarians during necropsy session in the Royal Thai Navy office. The participants were allowed to have hands-on experience in conducting necropsy on six stranded dolphins. One striped dolphin was stranded with empty stomach that Dr. Chris Torno from the Ocean Adventure concluded that it is necessary to do histopathological analysis as well to determine the COD of the animal.
- Dr. Fernando also presented some principles in handling marine mammals, including some points to consider before deciding to release the live-stranded animal back to the sea. Among them are available logistic and human resources to carry the animal.
- If it is not possible to release the animal, a rehabilitation facility is then needed. However, the response team must decide the next action further if there is no adequate rehab facility nearby.
- Tracey Goldstein, a pathologist from the University of California Davis, eplained that vets must be involved in marine mammal stranding response team considering people need to be aware of the disease risk in handling marine mammals. Following the response, vets are also the only people allowed to carry out necropsy.

CLOSING : MESSAGES TO THE PARTICIPANTS

- Dr. Nantarika Chansue and Lindsay Porter delivered the closing messages to the participants by reminding the participants the importance of SEAMMSN as a knowledge-sharing network to the country members. It is the time for SE Asians to promote their success stories in marine mammal conservation to the world. SEAMMSN committees are available in case the country members in need of help in assistance in terms of participating in conferences and others. Lindsay mentioned that there are grants available for SE Asians to participate in the Society of Marine Mammalogy's Biennial Conference in Canada in 2017.
- The Symposium is planned to be the last one that used "SEAMMSN" as the network's name will be changed to Asian Marine Mammal Stranding Network (AMMSN). The committees have expressed the need to expand the geographical range of country members as more and more participants from other Asian countries are interested in sharing their knowledge to the SE Asians.
- The next symposium will be held in 2018, therefore Indonesia and other DSCP member countries are expected by the SEAMMSN committees to participate in it by sharing the results from previous DSCP research activities.