

## **The release of whale shark from NMMBA, July 10, 2013**

Whale sharks, the largest fish on earth, are commonly found around Taiwan. For the purposes of educating and exhibiting to the public, the National Museum of Marine Biology & Aquarium (the exhibition halls are operated by private sector Hi Scene World Enterprise Co.) introduced three whale sharks between April 2004 and July 2005. Among the three, “WS #1” was introduced in April 2004 and successfully released in March 2007 after reaching a total length of 6 m. “WS #3” was introduced in July 2005 but died in May 2007. “WS #2”, with a total length of 2.3 m and weighted 200 Kg, was introduced in June 2005. After 8 years in captivity, the shark grew to over 7.2 m and weighted 3600 Kg. After careful assessments by several experts and veterinarians, a timetable to release the animal into the wild was set. Since April 2013, numerous discussions and formal meetings concerning the health of the animal, the transportation, and the location of release were held. Finally, Jhu-Keng was selected as the best location for release since whale sharks were occasionally spotted, and apparently it was in the migration route of the animals. On July 10, 2013, “WS #2” was released into the ocean before dawn.

The task began at 0100 hr, starting with guiding the animal into a cage, then into a stretcher and a tank. The tank was then firmly placed on a truck and sent to Jhu-Keng. On the way to Jhu-Keng, a GPS transmitter was installed on the dorsal fin by Dr. Hua-Hsun Hsu from National Taiwan Ocean University, and his crews. After drawing blood and collecting tissue samples from the tail upon arrival, the animal was transferred into an outdoor cage, and the cage was slowly moved out into the ocean by a boat to 2 nautical miles from the beach. At 0505 hr, the whale shark swam out of the cage and into the dark.

However, at 0540 hr, the animal was spotted swimming too close to the coast. Helping by a local bamboo raft, the animal was moved to 3 nautical miles from the beach. Examined by the experts, the animal was lively during the second release and dove into the deep after some circling. However, at 1130 hr, we were informed by Coast Guard that the shark beached in between Jhu-Keng and Hai-Ko. With the helps from Coast Guard, personnel from Hi Scene Co., and local people, the shark was once again in the water at 1345 hr. Although there were multiple abrasions on the body and seemingly weak, the experts in the field concluded that sending the shark back to the ocean had a higher chance of survival than sending back to the aquarium. At the same time, to avoid tangling of wire on the rocks during rescue, the GPS on the dorsal fin was taken off following the suggestion of Dr. Hsu, and was replaced by a conventional tag. Finally, at 1520 hr, the whale shark was once again released at 4 nautical miles from the beach.

The present release of the whale shark was not a successful one. Beaching of whale shark has never been reported, revealing that the behavior of the captive animals might be different from the natural populations. It is a highly valuable information that should be considered in the future for any animal release program. Base on the current experience, we will not introduce whale shark into the aquarium in the future. NMMBA will devote more to public welfare activities and continue our programs in marine related education, research, collection, exhibition, and housing for the protected aquatic species in Taiwan.

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