

# Exploitation of turtle hatchlings: How headstarting poses an increasing problem for sea turtle conservation in Indonesia



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## Introduction and background

Sea turtle hatchlings are exposed to manifold natural threats during their first stages of life. It is generally assumed that only one out of 500–1000 hatchlings will make it into maturity. Therefore, so-called headstarting initiatives have long been discussed as measures to increase survival chances for turtle hatchlings. Headstarting in this context means keeping sea turtle hatchlings in captivity for several months before releasing them to the ocean.

Today, headstarting is generally not considered beneficial for sea turtle conservation. While scepticism has been growing internationally over the past years, headstarting is currently becoming increasingly popular in Indonesia and has turned into a serious threat for the sea turtles. The most alarming re-

sult is, that an increasing number of cases have been reported, where hatchlings are sold as pets.

One important source for the promotion of headstarting in Indonesia is a handbook of conservation techniques for sea turtles published by the Department for Conservation and Marine National Parks under the Ministry of Marine Affairs and Fisheries in 2009 (Agus Dermawan et al.: Pedoman teknis pengelolaan konservasi penyu, Departemen Kelautan dan Perikanan, Jakarta 2009). Even though it is recommended, that hatchlings should generally be released into the ocean immediately, several exceptions are accepted. First, it is suggested that “handicapped hatchlings” (page 70) should be held back

for some time, because “at an age of about 2-3 month, they will be able to escape from predators” (page 70) and that headstarting can generally contribute to conservation efforts through “increasing survival chances” (page 81).

Secondly, the handbook explicitly allows headstarting for “special purposes such as education, research and tourism” (page 81). However, a restriction for headstarting is defined by the following conditions: “the tank must be filled with constantly running sea water / appropriate food must be given / the water in the tank must be free from diseases, pollution and harmful chemical ingredients” (page 81).

### 1. Headstarting facilities managed by governmental departments

The suggestion of headstarting by the Indonesian government justifies and encourages local departments which are involved in the conservation of sea turtles to include this activity in their annual work plans and budgets. Headstarting facilities alongside with hatcheries represent a visible effort of conservation and offer a good opportunity for visiting governmental officials and their guests to gain media attention through hatchling releases. However, in all headstarting facilities visited by and reported to the authors, not even the minimum requirements of clean and disease free water could be provided. But once built, the interest in evaluation of the facilities is low.

Headstarting facilities are most popular in Bali, but they are found all over the country; a complete compilation is still pending. The following two examples visited by the authors presumably represent the average condition of headstarting facilities in Indonesia.

#### Pramuka Island, Pulau Seribu Marine National Park

Located in the bay north of Indonesia's capital Jakarta, the Pulau Seribu (“Thousand Islands”) are an important rookery of Hawksbill Turtles (*Eretmochelys imbricata*). Due to poor maintaining conditions and low expertise in sea turtle biology and husbandry virtually all turtles are infested with infectious diseases, and mortality is excessively high.

#### Pariaman, West-Sumatra

Along the whole west coast of Sumatra nesting of various species of sea turtles is common. The headstarting facility in the city of Pariaman, north of the province capital Padang, is buying turtles eggs from local fishermen in order to incubate them. The conditions are similar to Pramuka island.

### 2. Headstarting facilities managed by private initiatives, companies, and NGOs

Initially well meant initiatives of private people and NGO's who want to help saving sea turtles can also lead to headstarting facilities. A true interest in the wellbeing of the hatchlings and a therefore better husbandry can sometimes be observed. But since turtle releasing events are great tourist attractions for which tourists pay considerable amounts of money, on Bali, hotels and private headstarting facilities are known to buy turtle eggs and hatchlings from various nesting sites on Bali, Java, and elsewhere to supply the demand for turtle releasing events. In fact, since sea turtles are protected by Indonesian law since 1990, it is illegal to keep them in captivity or to buy their eggs. Some facilities have obtained governmental permits while others just exist because of low law enforcement efforts by the authorities.

#### Turtle Conservation and Education Center (TCED), Serang, South-Bali

Opened in 2006, this facility is a common project of WWF Indonesia and the local department for nature conservation (BKSDA – Balai Konservasi Sumber Daya Alam). The TCED certainly is the most popular headstarting facility in Indonesia. Visits are included into many tour programs to this part of Bali. At the same time the extremely poor husbandry conditions are causing ongoing complaints by visitors.

#### Banyuwangi Sea Turtle Foundation, East Java

Attached to a company involved in ornamental fish trade, this facility provides good husbandry for sea turtles hatchlings. However, the overall conservation policy remains questionable.



### 3. From conservation to exploitation in 4 steps

There are numerous general problems with headstarting, such as interference with imprinting and navigational cues, imbalanced sex ratios, nutritional deficiencies, behavioral modifications, etc. Additionally, the Indonesian headstarting facilities do not implement any scientific validation of conservational benefits of their activities. Finally, governmental resources allocated to headstarting programs are lost to more effective conservation measures, such as beach protection and law enforcement. Thus, headstarting has completely lost its conservational purpose and turned into a new form of unsustainable sea turtle exploitation.

Summarizing, a certain sequence from conservation to exploitation can be observed:

1. in order to improve hatching success, a hatchery is introduced
2. for further “increase of survival chances”, hatchlings are kept in tanks
3. as commercial interests abound, hatchlings are kept until visitors pay for their release
4. hatchlings are sold for any purpose and finally end up in pet trade



The last stage of exploitation: members of ProFauna recently reported a pet shop in Bandung, West Java, which offers sea turtle hatchlings for sale. (Photo: ProFauna)

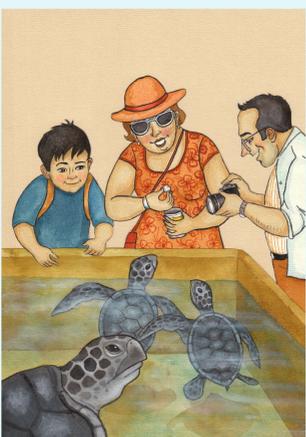


Hatchlings releases as a mean to obtain media attention: the symbol of the 69th anniversary of Indonesian independence on August 17, 2014, is shaped by colored, water-filled plastic bowls; each of them contains a hatchling which will be released during the ceremony. (Photo: Banyuwangi Sea Turtle Foundation)



Questionable education: which lesson are these pre-school children supposed to learn? Each kid is holding a water-filled plastic bag containing one hatchling. (Photo: Banyuwangi Sea Turtle Foundation)

## Addressing the problem



In order to take action against sea turtle headstarting, the Indonesian NGO ProFauna and the Turtle Foundation have started a two-sided approach:

First, with lobbying and direct approaches through technical meetings we want to convince governmental authorities to abandon promotion and financing of headstarting. To make this approach more powerful, we invited other NGOs who are committed to turtle conservation without headstarting to join a network which we called “Liga Konservasi Penyu Indonesia” (Indonesian League for Turtle Conservation).

Second, through educational campaigns we want to inform local and international tourists as well as the Indonesian public, in order to discourage the business aspect of headstarting. As a first step, we developed a bilingual booklet entitled “Siap berlayar! / Ready to go! – Kenapa tukik penyu tidak perlu dipelihara sebelum dilepaskan / Why sea turtle-hatchlings do not need help before being released” which explains the main problems of headstarting. A first edition of 5,000 copies was printed and distributed through the partners of the Conservation League.

