

# **Sea Turtle Nesting Habitat and Beachfront Development**

## **Situation Report:**

**In Regards to Protection and Sanction of Mentawak Beach  
Kg, Juara, Tioman Island, Malaysia**

**Information current to date as of September 2012**

**Prepared by and edited by Juara Turtle Project**

**[www.juaraturtleproject.com](http://www.juaraturtleproject.com)**

**contact@juaraturtleproject.com**

## **Current Development Issues for Sea Turtles on Mentawak Beach**

### **Kg Juara, Tioman Island, Malaysia**

If development on Mentawak beach continues as currently planned, sea turtles will no longer have a suitable nesting habitat, thus eliminating the last significant nesting beach on Tioman. Additionally, all current and future egg-protection work is left impotent, since matured baby turtles from Tioman will have no suitable beach to return to for nesting.

Until now Mentawak has remained comparatively undeveloped (see Appendixes 3 and 4), leaving it as a suitable nesting habitat for sea turtles; but more unregulated development along the beach will destroy what is left if protective measures are not taken. Beachfront development will create more lights and noise spilling onto the beach (light and noise pollution); which is enough to prevent/scare the sensitive mother turtles from nesting on the beach. Most Tioman tourism is based on the natural beauty of Tioman; regulating and guiding development will additionally help to protect beaches as an economic asset. The planned current development is small scale, mostly locally owned beachfront chalets, restaurants and bars; which is exactly the type of development that has already eliminated and rendered the rest of Tioman's beaches unsuitable for nesting within the last 25 years (see App. 1). Currently there is no official protection or designation which would prevent the degradation of this critical nesting habitat. Active protection of eggs has been carried out in this location for the past 11 years by government and private organizations; but continuing to do so will be futile if the nesting habitat is not also protected.

Sea turtle population declines in recent history have been recorded worldwide, and can be seen quite profoundly on Tioman Island as a whole. Nesting used to occur at beaches all around the island, but now only 4 significant nesting beaches remain including Mentawak (App. 1); however their nesting counts are catastrophically low compared to historical accounts. Additionally, Tioman used to be home for four different species of sea turtles, but the species count has been reduced to only two: the endangered Green turtle and the critically endangered Hawksbill turtle (listing by IUCN & CITES). Tioman is quickly losing its turtles: their nesting sites, arriving species, and overall population count (App. 2); making Mentawak Beach the last stand for maintaining a turtle population, and intact eco-system.

Kampung Juara, where hatchery based egg protection has been conducted for 11 years, is divided into two beaches: Barok and Mentawak (Apps. 3 and 4). For many years Barok has been developed along the beachfront with a standard amount of lighting, cleared vegetation, and noise pollution. Due to this disruption of habitat turtles no longer nest on Barok. Until now Mentawak has had considerably less development and activity; thus continuing to record a small but comparatively significant number of nesting females each year (App. 3). Presently there are four new development plans along Mentawak beach which is cause for serious environmental concern (Apps. 3 and 4). If Mentawak is developed without consideration, like Barok and the rest of Tioman has been, Mentawak

turtles will have nowhere to nest; this includes all turtle hatchlings that have been protected and released over the past eleven years from Kg Juara.

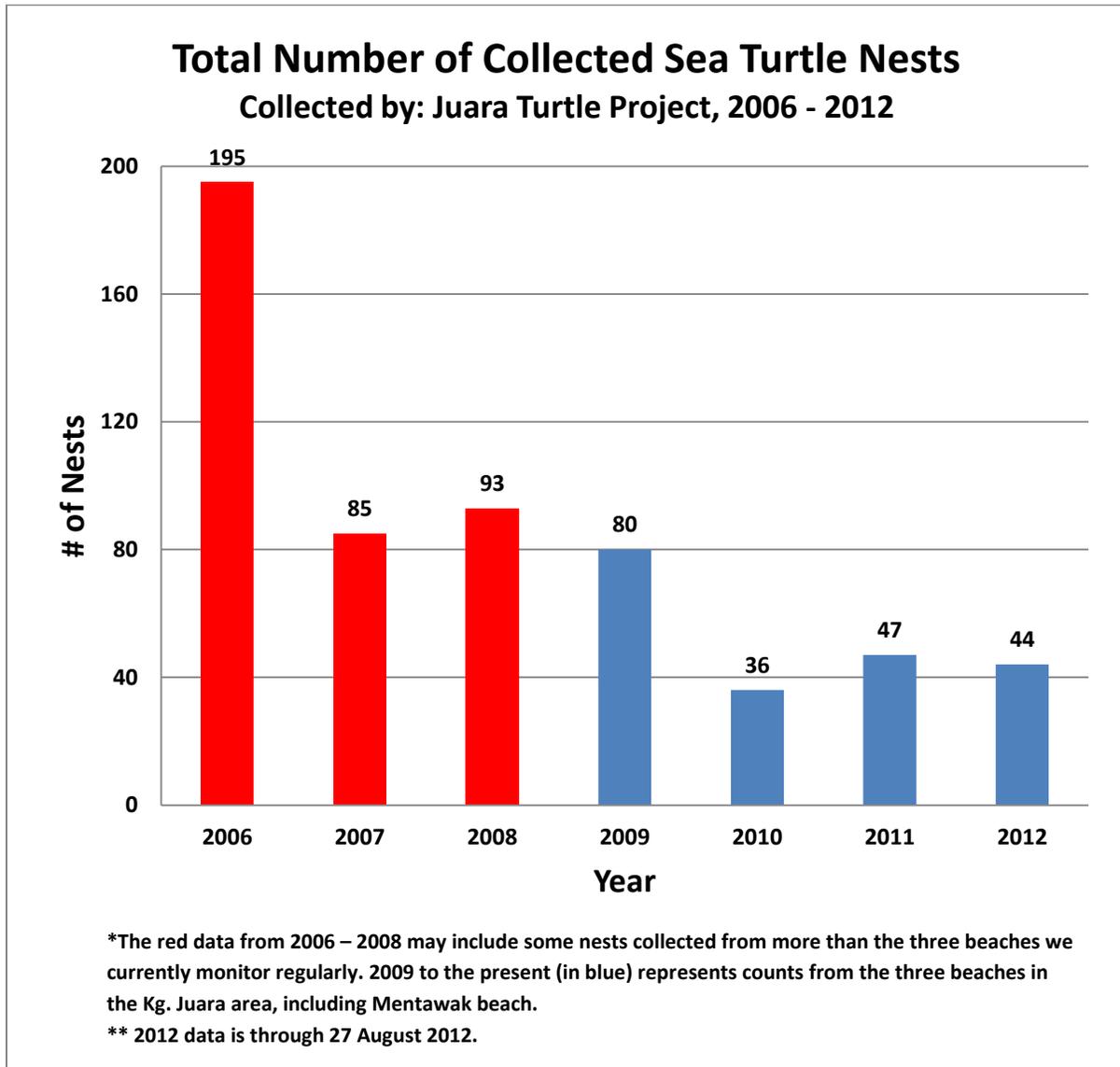
There are a number of options to prevent this local extinction from happening. Prevention of all future development on Mentawak is an unlikely option; however efforts heavily directed towards considerate and turtle-friendly development can meet economic and environmental needs as well. This would need to include regulations for noise and activity, important guidelines dealing with beachfront light pollution, maintaining or developing the beach's vegetation line, and only situating buildings/structures behind that vegetation line. An intact buffer zone between the beach and any development will help block light, visual deterrents, and provide vegetation for turtles to nest underneath. Zoning is the best option for coexistence between people and sea turtles, and it has been tested and used at many locations worldwide. This could be accomplished by a Temporary Occupation of Land (TOL) on the government's beach land, which would quickly secure the beach's nesting area (App. 4). Additionally, as a more permanent solution the beach can be sanctioned with proper legal recognition, as is the case on Pulau Redang, Terengganu and the Turtle Islands, Sabah. If sanctioned with a protected beachfront, the land value and tourism attraction would likely increase over time in Kg Juara instead of becoming overdeveloped and exploited like so many other beaches already have. The turtles, surrounding ecosystem, Tioman tourism, resorts, business, and local culture could all benefit from making this important investment to protect Juara's nesting beaches.

#### Protective measures taken to date:

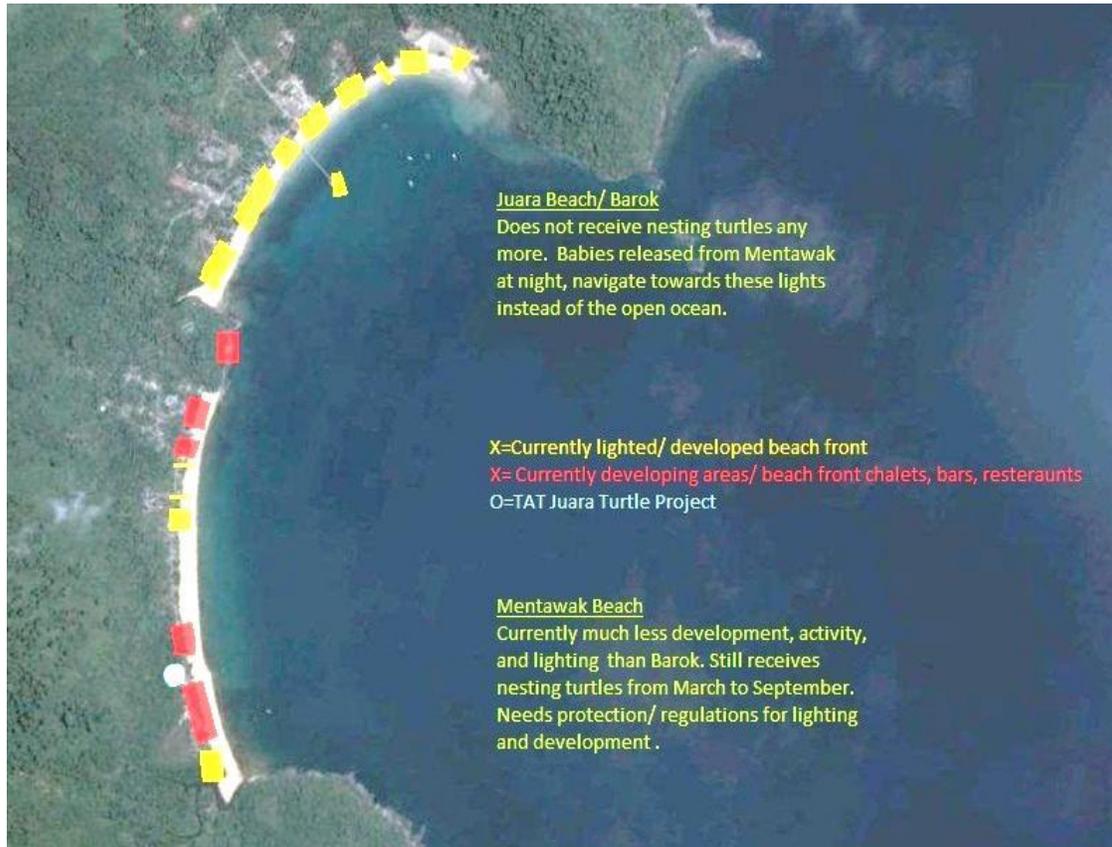
- In 2009 we had requested that TAT (*Tengku Arif Temenggung- Turtle sanctuary operated by the Royal Family of Pahang*) apply for Mentawak beach to be protected, although through some confusion the beach received signboards on it but no actual legal standing.
- In 2010 together with TAT we applied to the MB (*Menteri Besar*), Pahang for sanction on important nesting beaches around the Tioman Island area; however there has been no reply to date.
- JTP has started supporting existing beachfront businesses and homes in Juara with yellow (turtle friendly) light bulbs.
- We have approached the owners of the new Mentawak developments however the development still remains as a significant threat.
- Members of TAT/ the Royal Family Pahang, have been here and seen the development situation currently threatening this nesting beach and the turtles.
- We have been discussing options with TAT on what can be done to help.
- With help we have begun assembling another petition to the Government for beach sanction.
- We have created an online petition/ agreement to support environmentally friendly development.



**App. 2 – Nesting population decline** Graph showing nests collected from 2006 - 2012. This year's (2012) count is accurate up to 27 August 2012, potentially 0-6 nests more may be collected as the nesting season continues through to October. At least 90% of nests from the Kg. Juara area are collected; therefore the data also represent a fairly accurate account of total nests laid.



**App. 3 – Lighting influences in Kg Juara** Picture of Juara Bay via satellite image. Yellow color highlights existing development, red color highlights the new development threats and light blue shows the location of the Juara Turtle Project. This clearly shows the prevalence of the new development, and how the new lighting on Mentawak will be in similar amount to the existing lighting on Barok which already receives no nesting turtles.



**App. 4 – Proposed sanction area** Topographic map of Juara Bay with property lines included. Yellow color highlights existing development, red color highlights the currently developing threats and green is the proposed area of Mentawak Beach that could receive a TOL (Temporary Occupation of Land) for protecting the nesting beach habitat. It is important to note the TOL would be in effect for the beach land and not impose on private property lines. However to be effective the TOL would need to regulate certain activities that influence the protected beach area, such as lighting, activity and noise.

