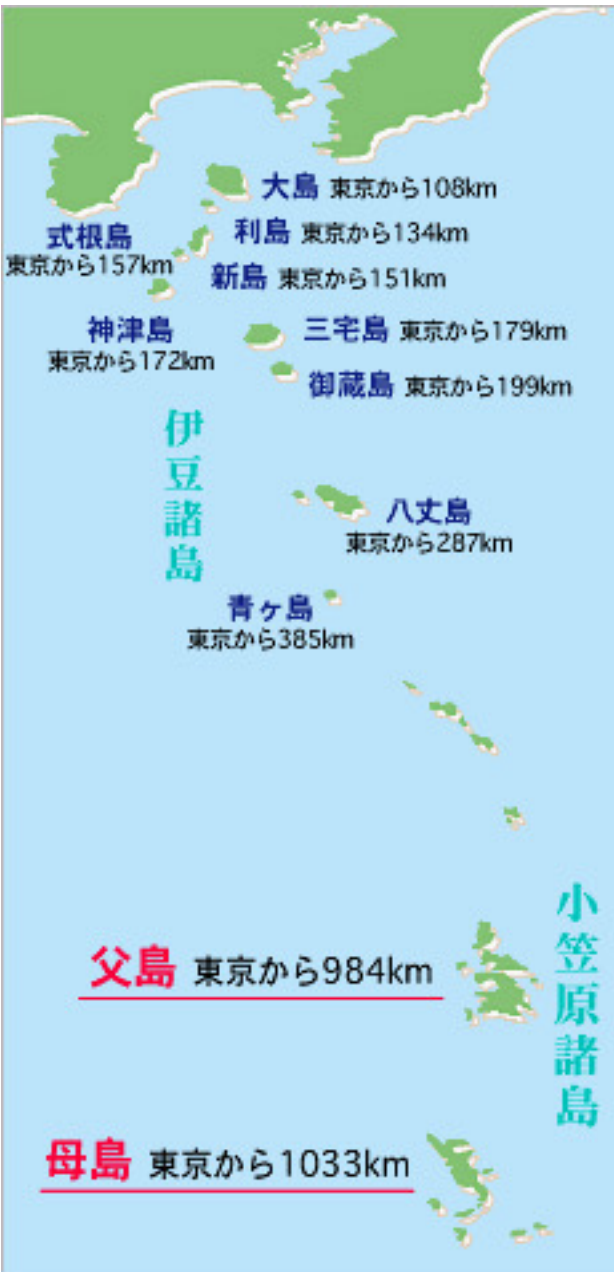


Effect of Environmental conservation for animals ～Sea turtle and sea horse～



About sea turtle



Ogasawara Hahajima island



Green sea turtle

About sea turtles:

7 species in the World. and 3 of these spawn in Japan



Habitat: Tropical zone ~ Temperate zone

Natural prey: jelly fish, seaweed, crustacians, sponge
(depending on species)

Females frequently return to coastal zone where they have birth

Spawning occurs in 2~3 years intervals

ウミガメの現状

全7種ともワシントン条約で
絶滅危惧種として登録

日本

産卵のために上陸するアカウミ
ガメが25年間で**1割以下に激減**

世界

1960年代には**5000カ所**あった
オサガメの**産卵地が10カ所以下**に
(マレーシア)

10年間で上陸していた砂浜
120か所のうち47か所で減少
(日本、オーストラリア)

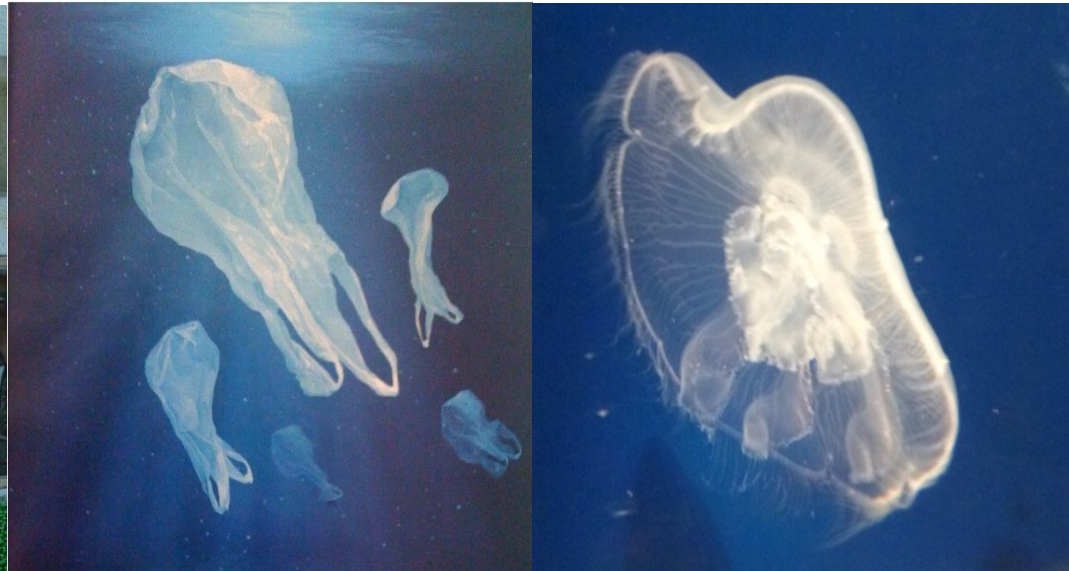
レッドリストによる登録

アカウミガメ	絶滅危機種
アオウミガメ	絶滅危機種
タイマイ	絶滅寸前種
ケンプヒメウミガメ	絶滅寸前種
ヒメウミガメ	絶滅危機種
ヒラタウミガメ	情報不足種
オサガメ	絶滅寸前種



Effect of human activity

Why do sea turtle eat jellyfish ?



Similar to the natural prey



Prevent swimming

Suffocate or drown

illness

Effect of human activity

① Trapped

- Entwined with fishing net



② Reduce habitat

- Landfill or Breakwater
- Artificial light or Noise

③ pollution of habitat

- Toxic substance from plastic

④ over fishing

- Appreciated as food resource
- Bekko or stuff sea turtle for business



Conservation activity for sea turtle

1. Removal of eggs for Artificial incubation
2. Activity of releasing juvenile turtles



Artificial incubation place



Hole enclose by net

Does releasing of sea turtle for conservation purposes reduce survival rate !?

- ① Don't swim actively
- ② Increase predation rate
- ③ Can't keep sexual balance



Juvenile turtle of Frenzy period



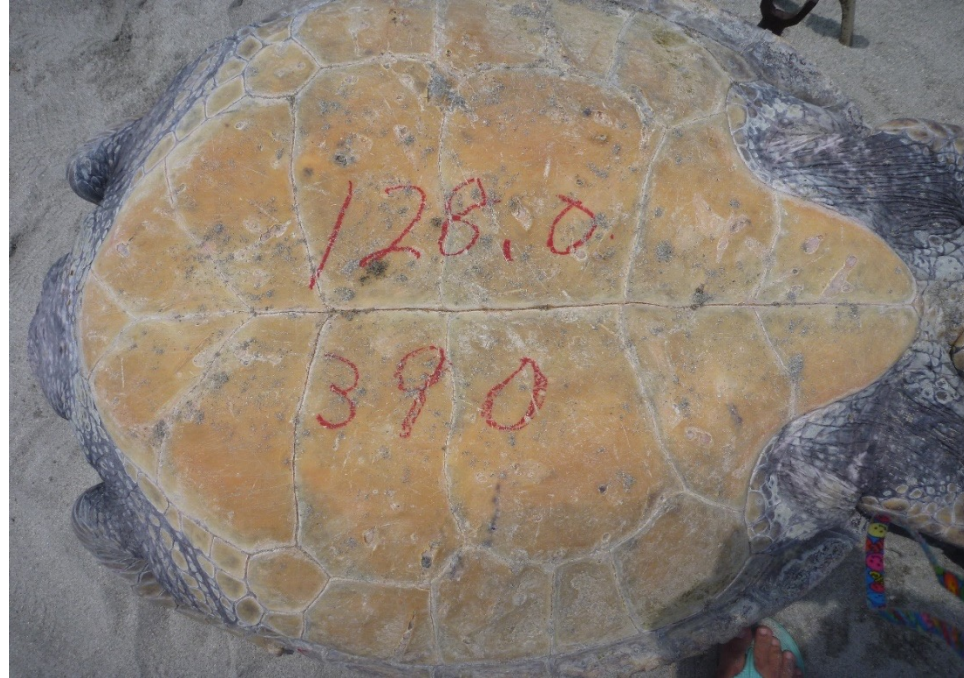
Need to consider whether the way of conservation is suitable for animals.

Conservation activity for sea turtle in Haha island

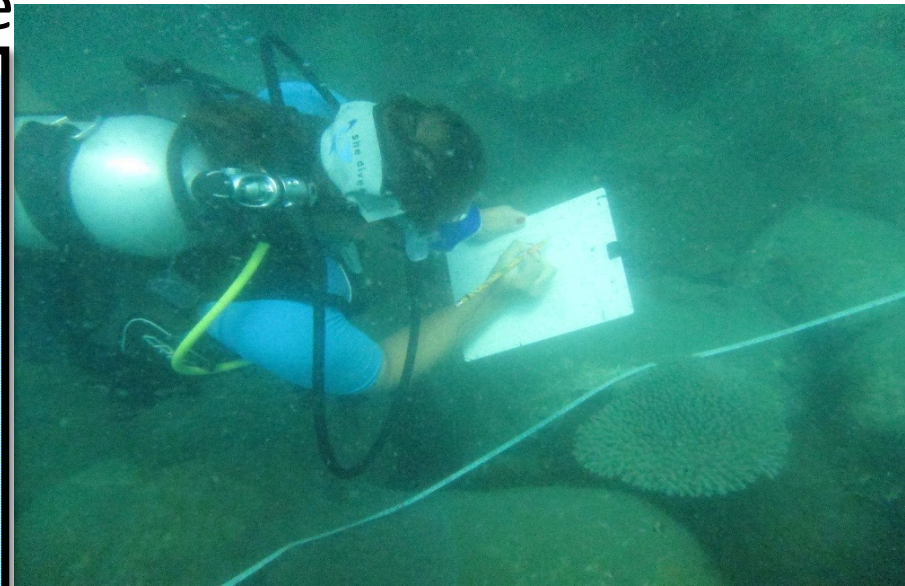
- Search number of land and spawn individual
- Search of Incubation rate
- Search of mark individual and release



Conservation activity for sea turtle in Haha island



Conservation activity of sea horse



Seaching coral reef



Local school

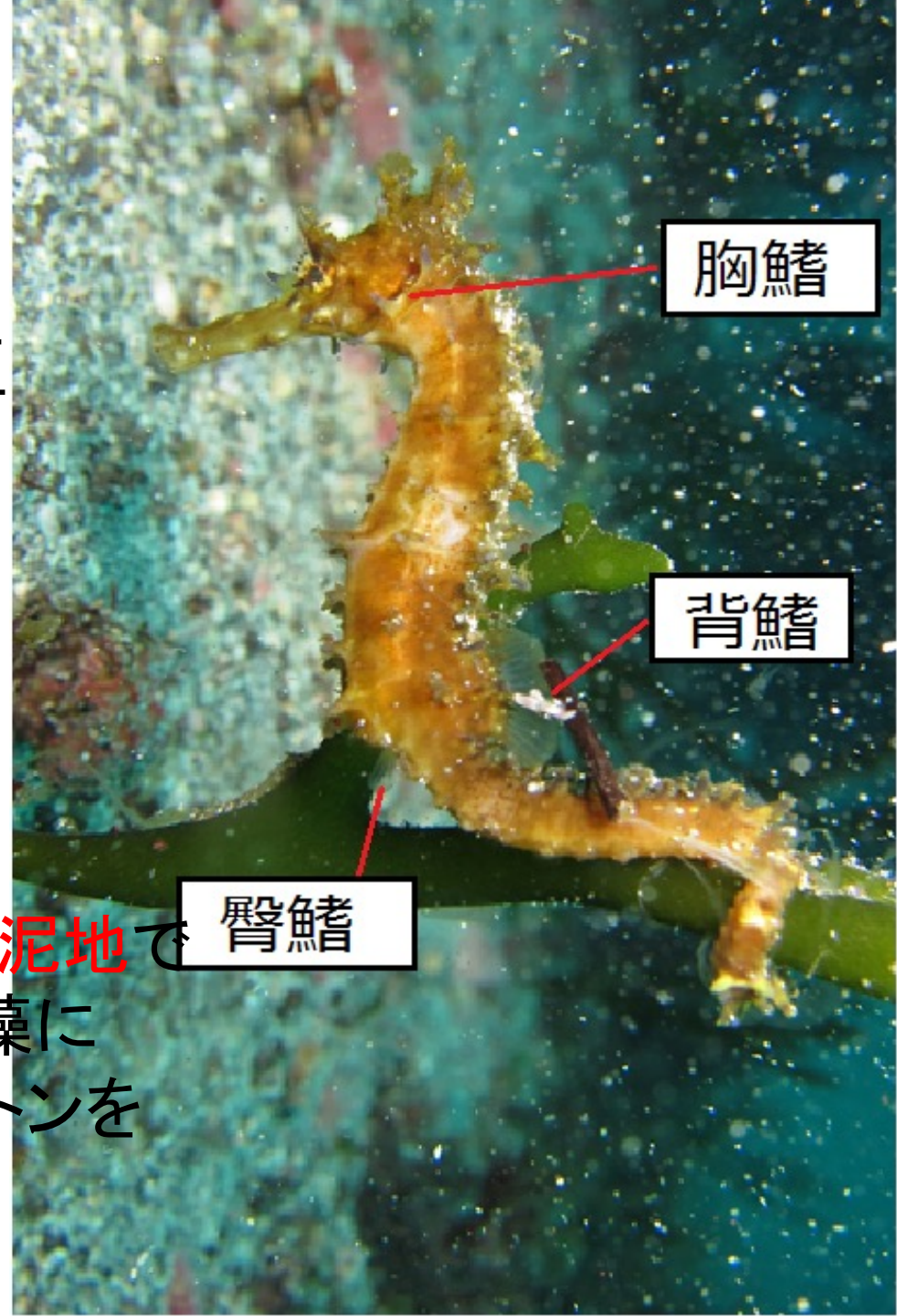
About sea horse ?

硬骨魚綱・ヨウジウオ目・
ヨウジウオ科タツノオトシゴ亜

33species in the world

世界中の温帯～熱帯地域の
浅い海や汽水域に生息。

サンゴ礁やアマ藻場、砂地、泥地で
多く見られ、枝サンゴや、海藻に
尾を巻き付けながらプランクトンを
捕食する。



Male sea horse giving birth ! ?

交尾時にメスがオスの育児嚢に
輸卵管を差し込み、産卵する

オスは受け取った卵を、育児嚢
の中で保護し、そこで孵化した稚
魚を放出する



spawn



giving birth

The present situation about sea horse

Reducing number of individual

33種のタツノオトシゴのうち
9種が絶滅に瀕しており、レッドリストに登録されている
その他の23種は情報不足で評価できない

Increasing over fishing

- **6million** per a year sea horses were traded.

粉末状のタツノオトシゴの取引価格は
1キロあたり約6000ドル(約47万円)



These are found at souvenir shop in Thailand



dry sea horse

Use for ■■■ accessories, medicine(lacks credibility),pet



Why sea horse influenced by human activity

- ① Low of swimming ability ② Need long time to reproduction
- ③ low spawning rates/low mortality ④ dwells in flat bottom



Mountain of plastic debris (Cambodia)



Traditional island fishing gear (For the squids)



Problem

- The fish net made from vinyl
- Disposable

Mimicry by dead leaf

What we can do for environment

1. Living with concern environment
2. Keep and share exactly about resources and ecology
3. Consider the conservation way is appropriate for animal





Thank you very much for your attention!!