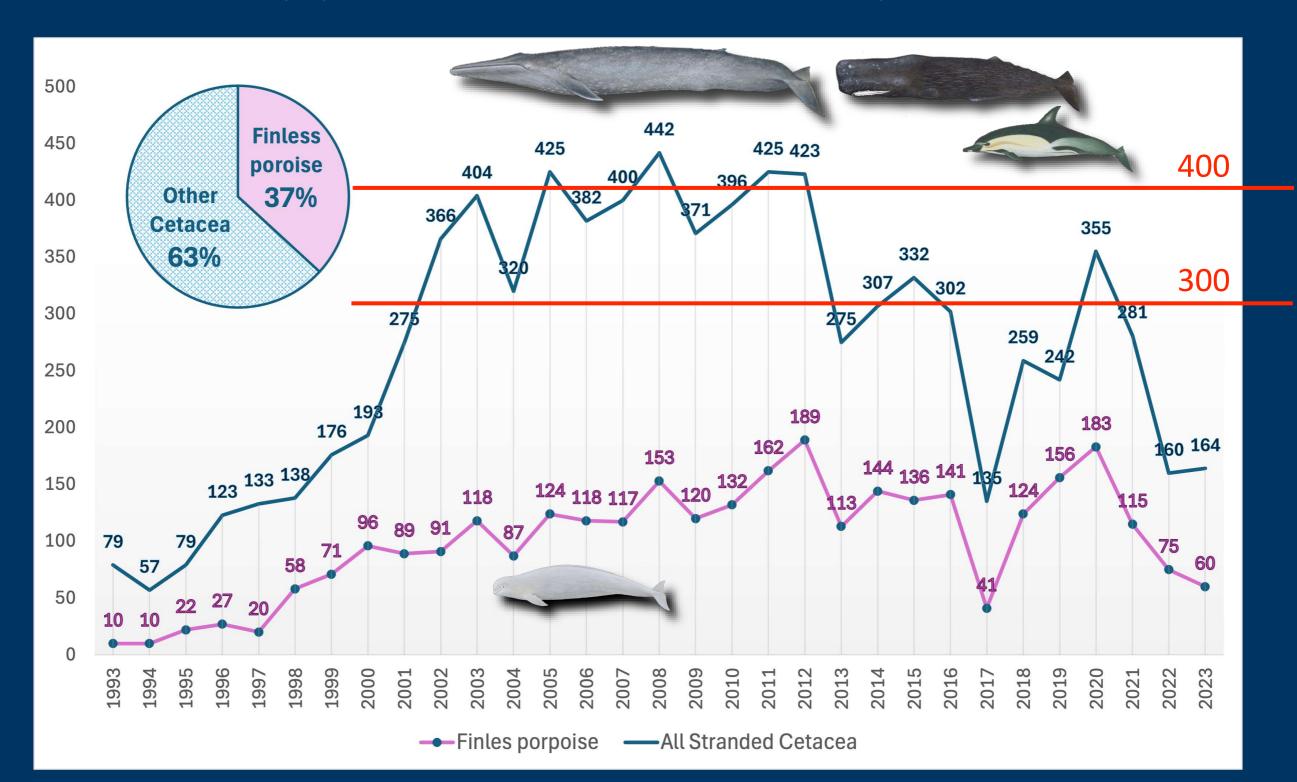


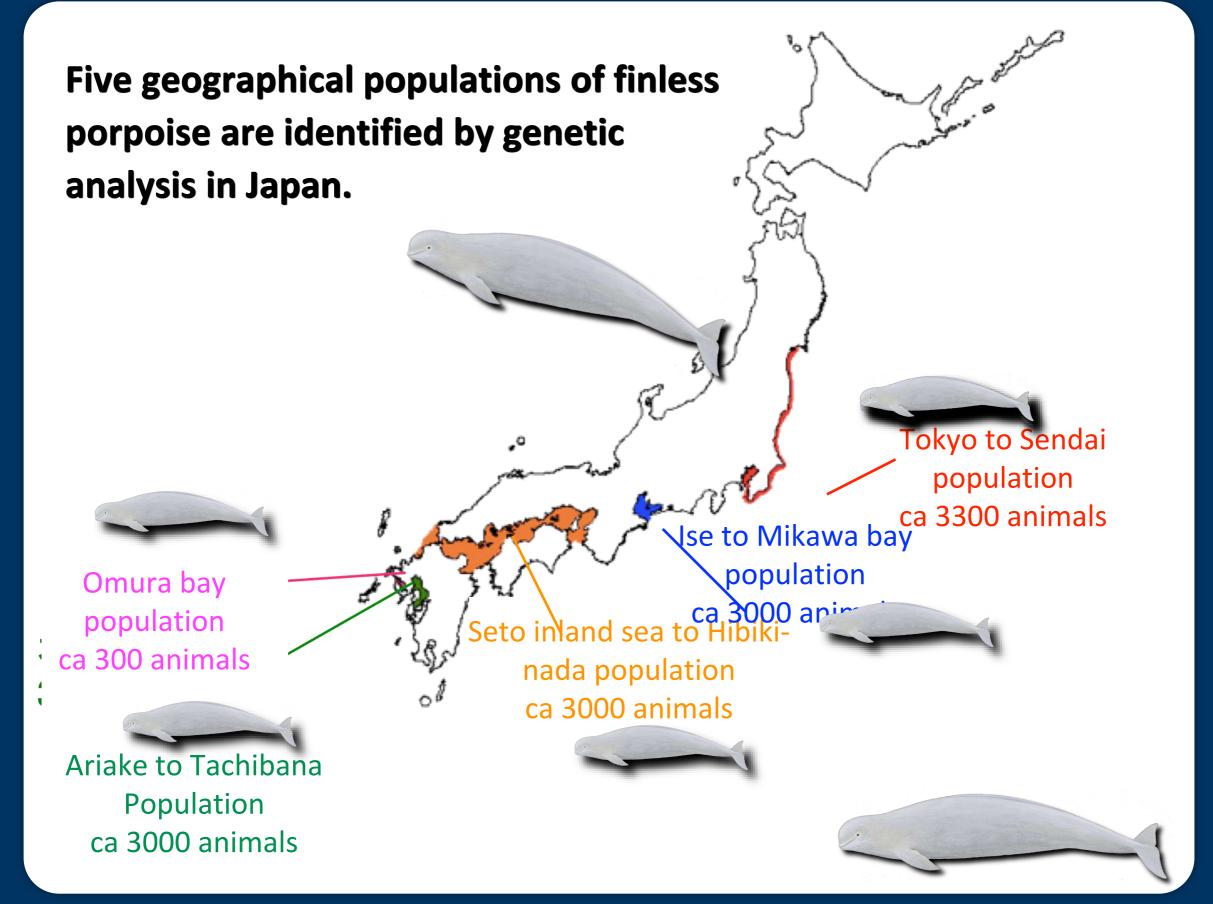


In Japan, 30 years from 1993 to 2023

- Annually, 300 to 400 stranding cases were reported.
- Finless porpoises is 36.5% (3055Fp / 8367all)
- 1021/3055 Fp specimens (ca one-third) were collected by us.



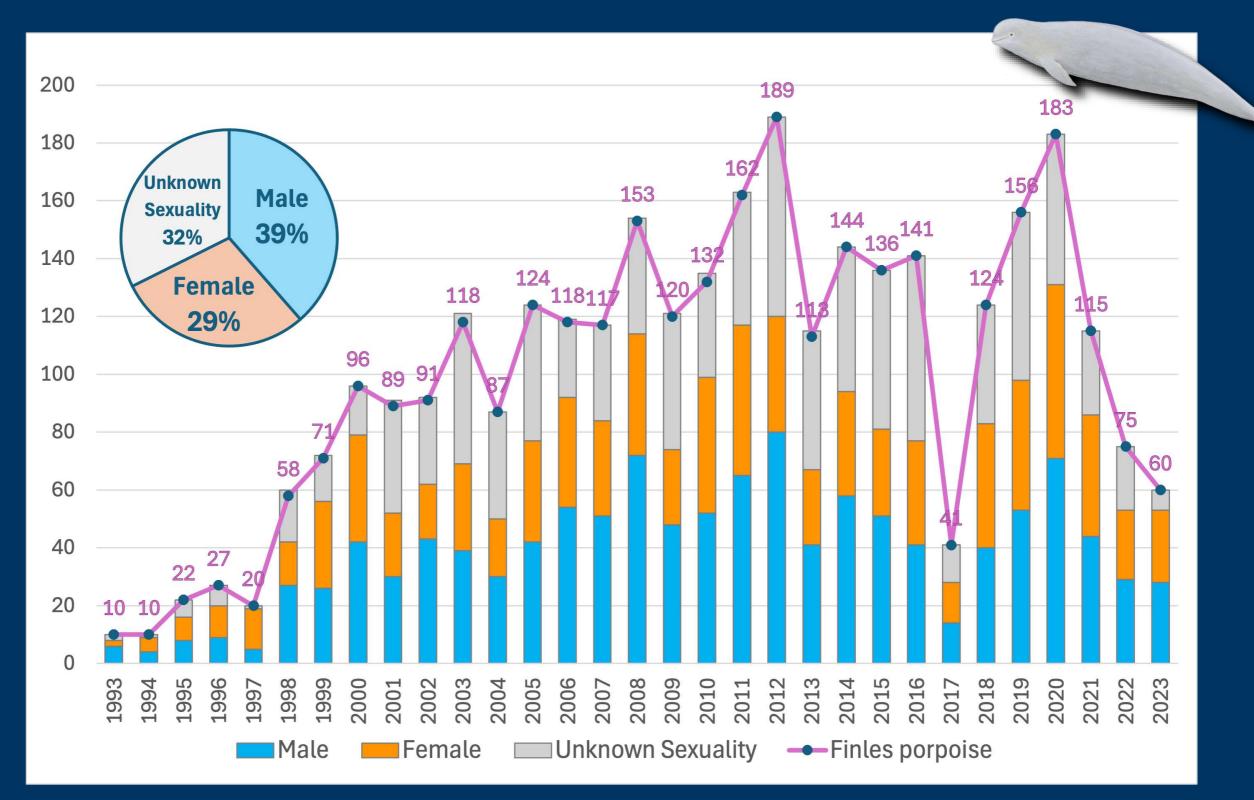




国立科学博物館 National Museum of Nature and Science

Stranding cases of Finless porpoises,

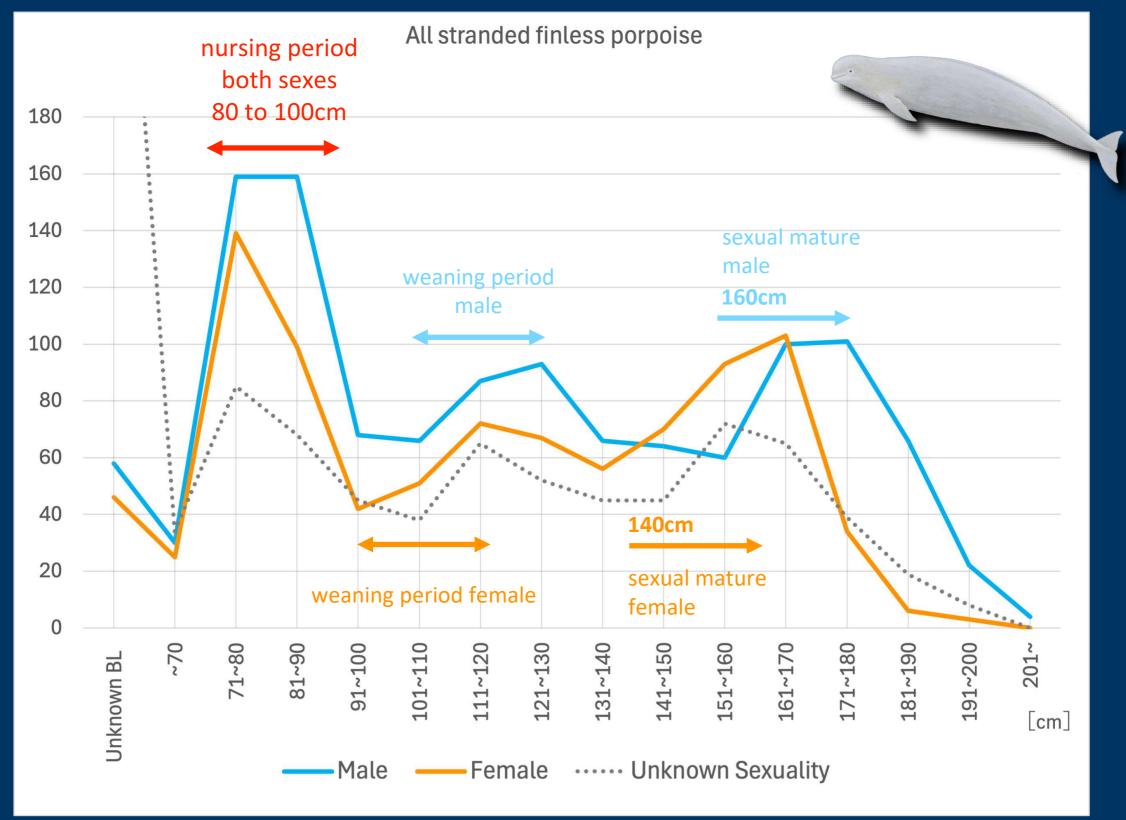
- Male: 39%, Female: 29% and unknown sexes: 32%.
- -The ratio of stranding of male is relatively higher than females.



Relationship between body length and stranding of Fps.

- The peak is at the nursing period, from 80 to 100cm, in both sexes.
- Other peaks are at the weaning period and after sexual maturity.







In Japan

- No specific institution is assigned to respond to stranding events.
- National Museum of Nature and Science has carried out a stranding survey with aquariums, universities, museums, NPOs, local governments and so on to collect numerous specimens and samples to understand their life history and the cause of stranding and collected numerous samples and specimens in the museum.

















Cetaceans: Status, Threats, and Data Gaps for Cross Border Cooperation in North-East Asia

- Data Gap for
 - Standardization Measurement items, points and methods
 - Protocol for necropsy and sampling
 - Item of the stranding database >>> Japan will make a big one soon
 - Found date, Locality, Species, Sexes, BL, BW, How many? and so on
 - Inventory of marine mammals based on academic studies
 - The list of experts coordinator?, researcher?, volunteer? Vets? Aquarium?
 government people?
 - The list of experience points: for alive one and dead one respectively
- Cross border cooperation in North-East Asia
 - share information and knowledge
 - symposium
 - workshop
 - big database





or



Outline of Stranding survey in NMNS, Japan

- 1. External measurements and photographs
- 2. Pathological investigation
- 3. Collection of various samples
 - Taxonomy and Systematics: skin, muscle
 - Biology: stomach contents, gonads, skeletons
 - Pathology: a part of all organs
 - Pollutants: blubber, muscles, liver, kidney, blood...
 - Anatomy and Morphology: parts in questions
 - Parasitology :parasites



















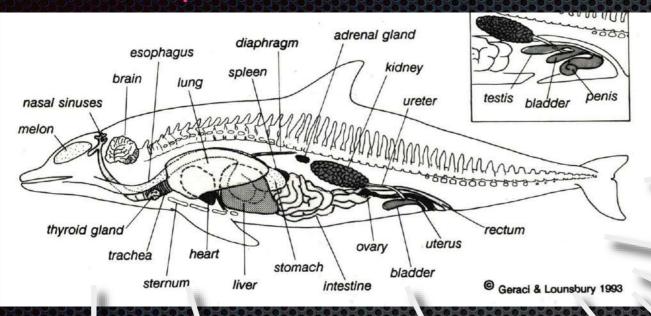








Each parts for each studies











Tooth age



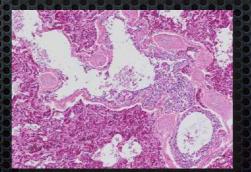


Food habit



Pathology









Museum activities



Morphology



国立科学博物館 National Museum of Nature and Science

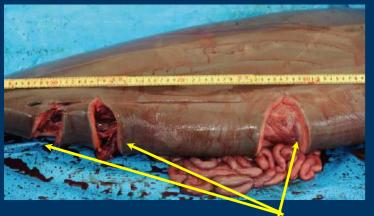
Aim for Health Assessment

Entanglement / Accident

- Net mark / stomach contents undigested → Entanglement
- Laceration caused by propeller → Accident
- No significant change in all organs → Not pathological cause



No caudal fin with sharp cut end



Laceration caused by propeller

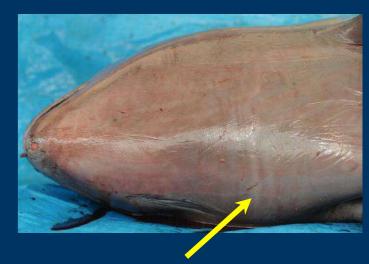


large amount of stomach contents

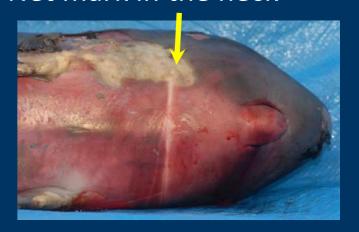


Laceration in the tip of rostrum

→ caught by gill net



Net mark in the neck





Aim for Health Assessment

Ship strike

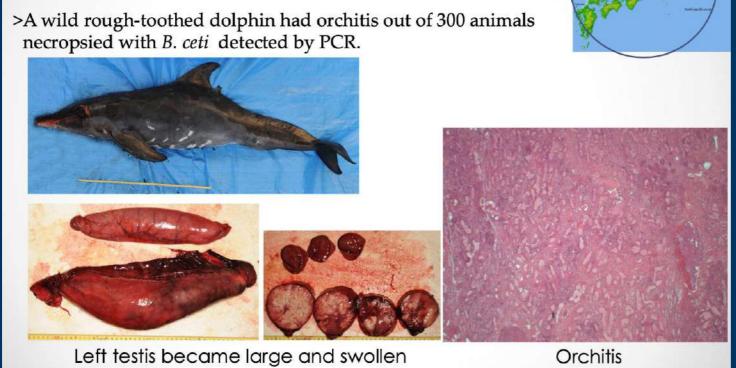


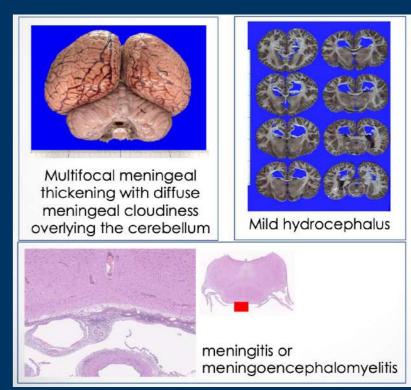
Aim for Health Assessment

Infectious diseases



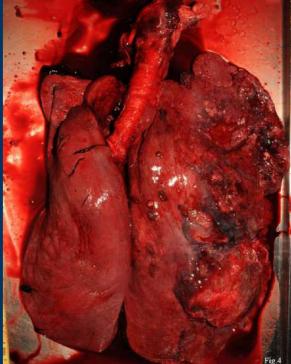
Brucellosis





Lobomycosis







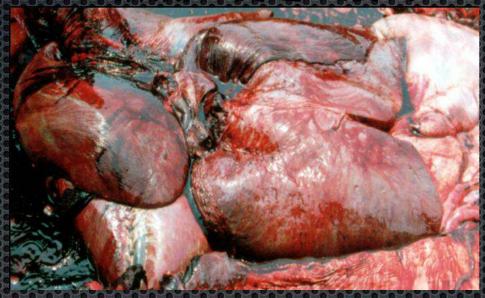
Aim for Health Assessment

Diseases

Stejneger's beaked whales

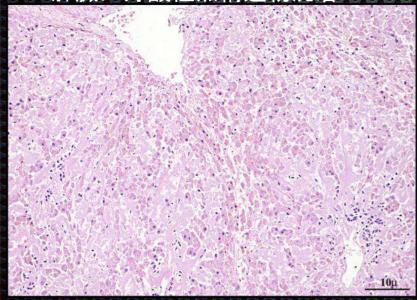


肝臓:褪色、高度脆弱

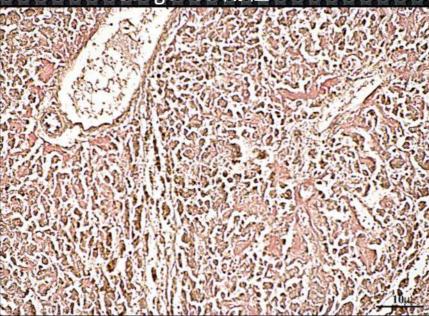


Secondary amyloidosis

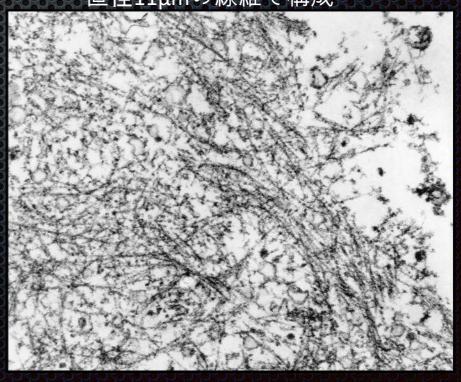
肝臓に好酸性無構造物沈着



Congo red 陽性



直径11µmの線維で構成



Aim for Health Assessment

Diseases

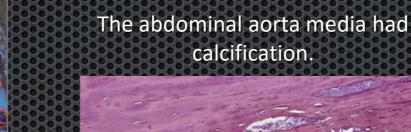


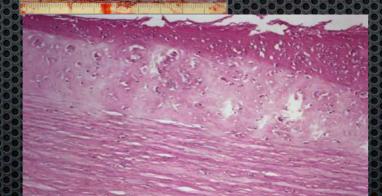


The abdominal aorta was so hard



The mesenteric aorta was so hard and unevenness irregularity



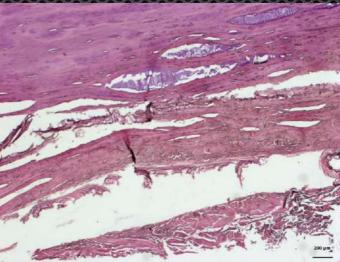


Many aorta media became atheromatous degeneration.

Arteriosclerosis

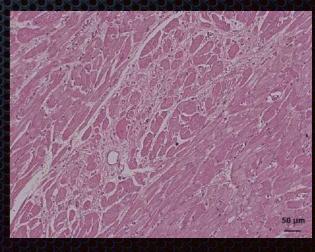
The crown aorta was so hard in the heart.

Some fibrosis foci were scattered in the cardiac muscle.



calcification.



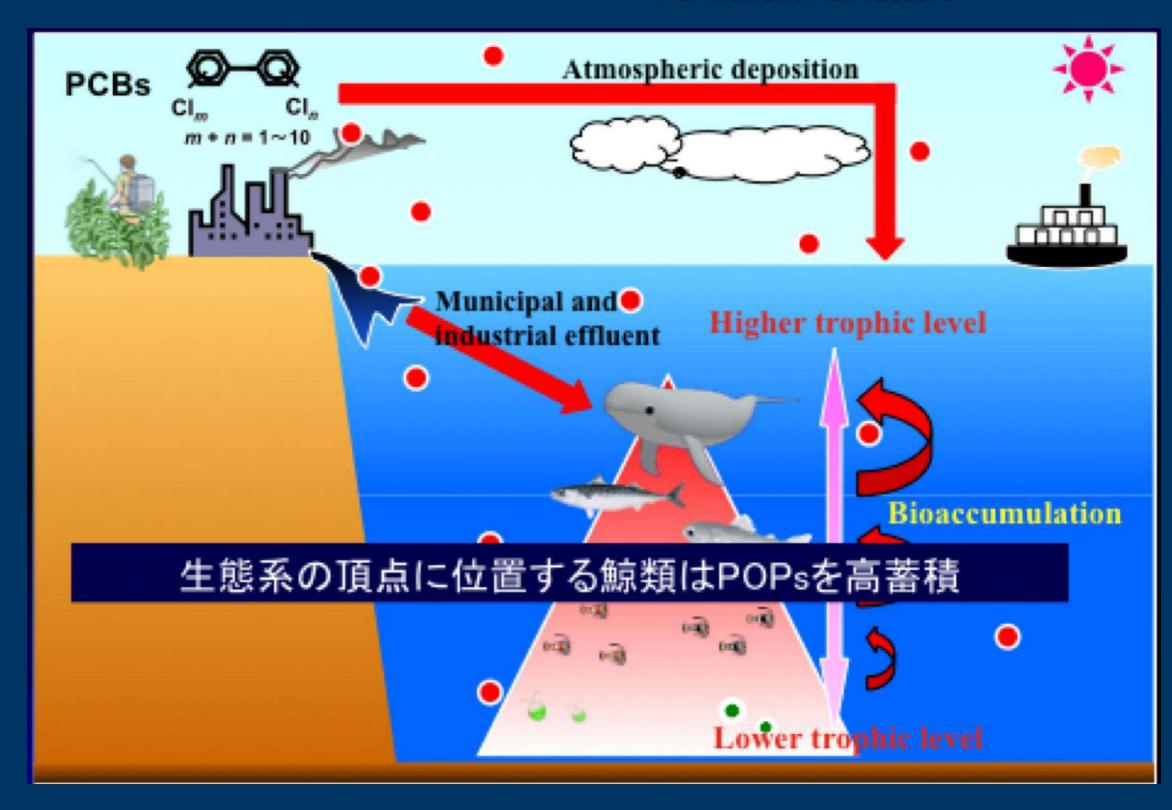




Aim for Health Assessment

POPs(Persistent Organic Pollutants)

Permanent risk factors



国立科学博物館 National Museum of Nature and Science

Aim for Health Assessment

Anthropogenic debris Marine plastic debris

fishing gears





Public Data-base

Useful and important to spread and share various knowledges with ordinal people.

- >> About 5000 specimens collected from the stranding survey from 1993 to 2023 in NMNS, Japan
- >> 5 Data-bases on marine mammals were opened in the museum official website.
 - 1. Prompt stranding news, 2. Literatures, 3. Stranding DB, 4. Emcyclopedia of MMs,
 - 5. Skull photo DB





4. Encyclopedia of MMs





Special Exhibition <The Ocean - How much do you know about the ocean? ->



What is 'Mass stranding'





Sagital section of the head of Bottle nosed dolphin



Cetacean Stranding and Museum Collection in Japan.



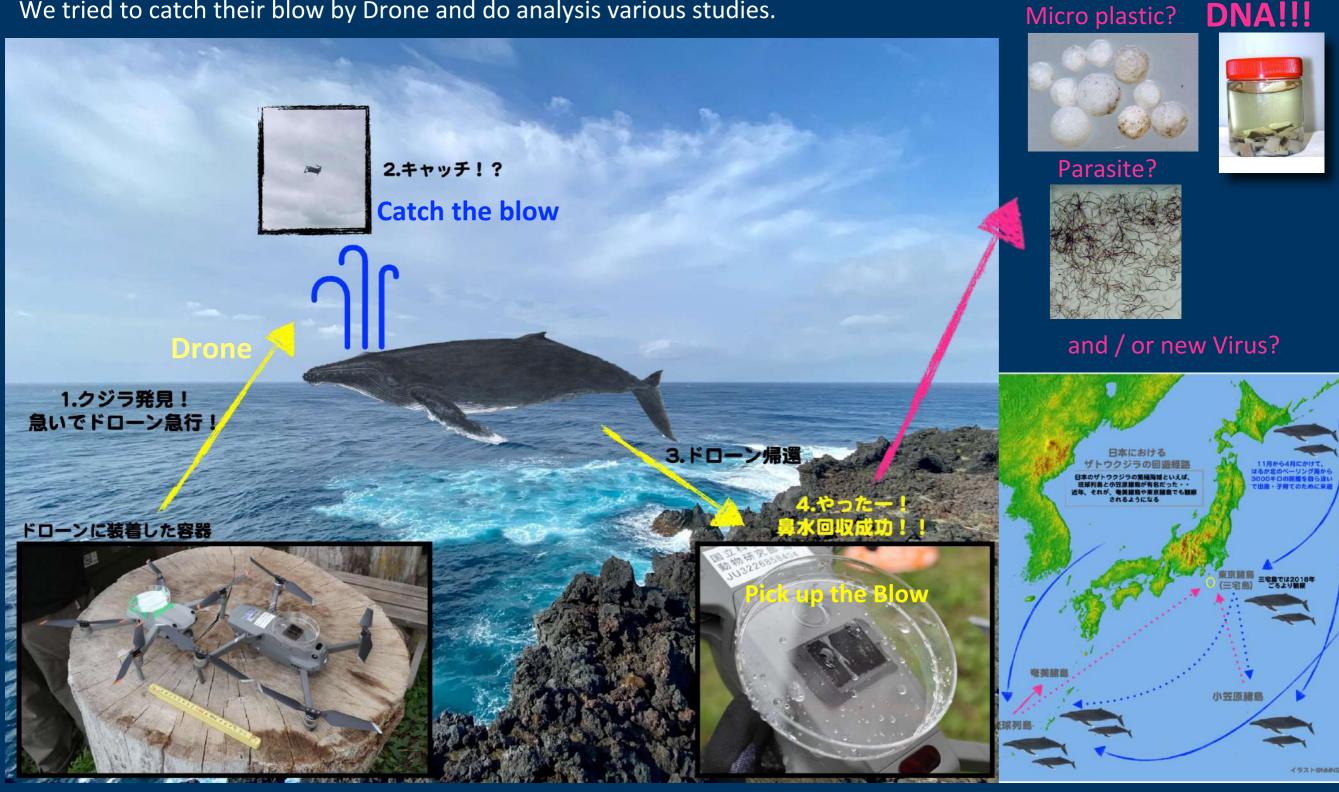


Miyake Whale Blow Project

Recently, some Humpback whales migrate around the Miyake island where is 200km far from Tokyo.

They are originated from Where? They are going to Where?

We tried to catch their blow by Drone and do analysis various studies.



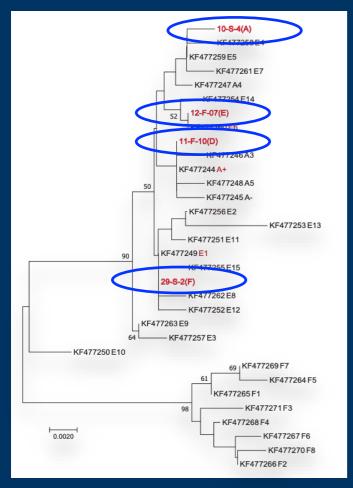
Cetacean Stranding and Museum Collection in Japan.



Miyake Whale Blow Project

DNA!!!

- >>> 6 samples collected >>> mitochondrial DNA (955bp)
- >>> 4 hapro types are detected, 3 types are first reported in GeneBank.



It is clear that Humpback whales around Miyake island are related to Okinawa, Ogasawara and the Philippines's populations

