Marine Mammals in the Yellow Sea

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Cetacean Research Institute, National Institute of Fisheries Science Lotte World Aquarium Marine Mammal Center, United States WWF Korea, Head of Marine Conservation Team Adjunct Professor, College of Veterinary Medicine, Konkuk University **IUCN SSC Cetacean Specialist Group**

Bachelor's in Veterinary Medicine, Konkuk University Master's in Marine Biology, Pukyong National University PhD completion in Veterinary Medicine, Seoul National University

Conducted over 400 necropsies on Marine Mammals Received the Prime Minister's Award for Contribution to Conservation of Marine Resources Member of Committees on Marine Environment, Ocean Fisheries, Marine Debris, and Seals

EBS Invited Guest - Whale's Message of Death - Young Ran Lee (Marine Life Veterinarian) SBS Animal Farm - 'Mass Death of 299 Animals, the Need for Coexistence with NRFPs' KBS Environmental Special - 'Smile, Narrow-Ridged Finless Porpoise' SBS Video Mug - 'Veterinarian Dr. Lee Discusses the Death of a Dolphin Swallowed in Plastic ft. Sea Turtle' SBS Pyeon Sang-Wook's News Briefing - 'First Marine Veterinarian in Korea Reveals the Cause of Whale Deaths' JoongAng Ilbo - 'Despite the Danger of Costing 30 Million Won for Disposal Alone, Veterinarians Pursue the Cause of NRFP Deaths' YTN Science - 'Suffering Marine Life...Veterinarian Dr. Lee Young-ran Treats and Preserves' LG Chemical Green Festival Like Green - 'Humans Should Live When Whales Live,' and numerous other media appearances.



Plan Ocean is

a Non-Profit Organization approved by the Korean Ministry of Oceans and Fisheries.

a Public Interest Cooperation designated by the Korean Ministry of Economy and Finance.

Marine Biodiversity Conservation

Expanding Sustainable Fisheries



Marine Conservation



Title: Incorporative Association, Plan Ocean Established: January 30th, 2023

Marine Mammals

Cetaceans



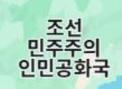


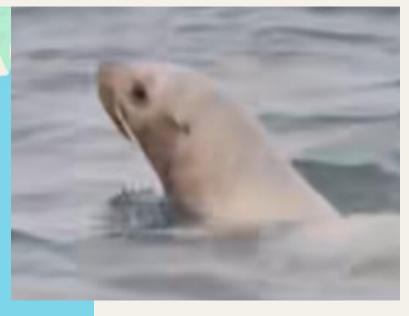
Sirenian



Residents of the Yellow Sea







Steller Sea Lion (*Eumetopias jubatus*)

대한민국







Sei Whale (Balaenoptera borealis) 2023

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SBS

First record of Pantropical spotted dolphins Stenella attenuata in the Yellow Sea, China

Biology | Published: 18 March 2015

Volume 33, pages 869-877, (2015) Cite this article

record of the species range

Published online by Cambridge University Press: 14 September 2022

Article (Special Issue)

The Sea Journal of the Korean Society of Oceanography. 31 August 2019. 475-482 https://doi.org/10.7850/jkso.2019.24.3.475

The Study on the Whaling Reality to the Large Baleen Whales and their Seasonal Occurrence in the Yellow Sea during Japanese Colonial Period

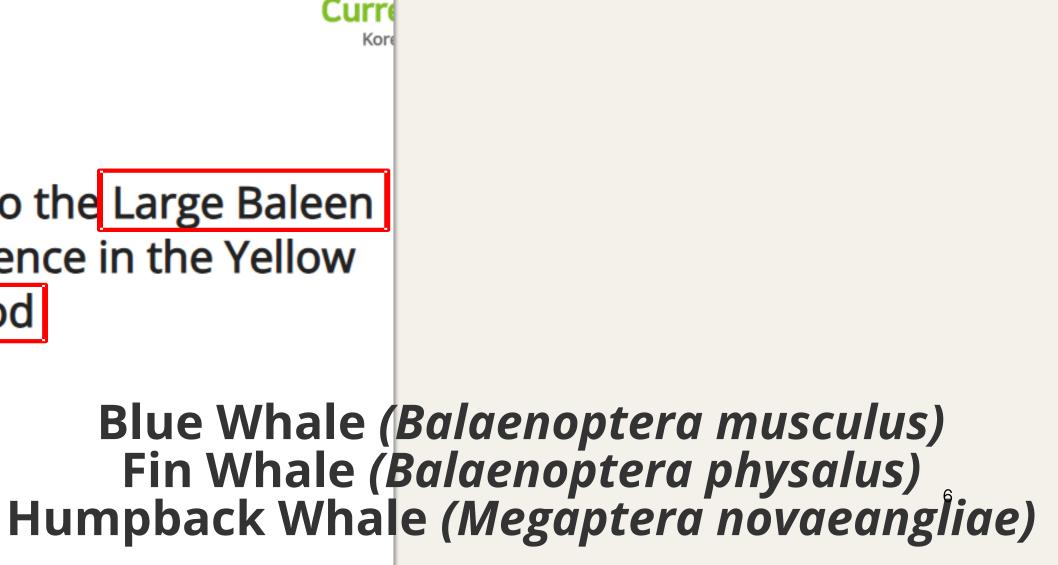
일제강점기 황해에서의 대형 수염고래류 포경실태 및 출현 계절에 대한 고찰

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¹Department of Ocean Science, Inha University ²Human and Marine Ecosystem Research Laboratory 1인하대학교 해양학과 ²사람과 해양연구소



First live sighting of an Indo-Pacific humpback dolphin (Sousa chinensis) in the Yellow Sea, the northern-most



Why Protect Marine Mammals?

Nutrient Cycling

Whale Pump, Whale Falls → Biodiversity Maintenance →Climate Regulation

Sentinel of the Sea

Indicators of Ocean Health



How whales sustain life on Earth and fight climate char

WHEN AT THE SURFACE WHALES DO GIGANTIC POOS rients that phytoplanktor v plant-like organisms, need to survive

THROUGH PHOTOSYNTHESIS, PHYTOPLANKTON ABSORB NEARLY A THIRD OF HUMAN-GENERATED CARBON DIOXIDE FROM THE ATMOSPHERE

A similar amount to that absorbed by all land-based ecosystems, including forests and rainforests

WHALES COME TO THE SURFACE TO BREATHE

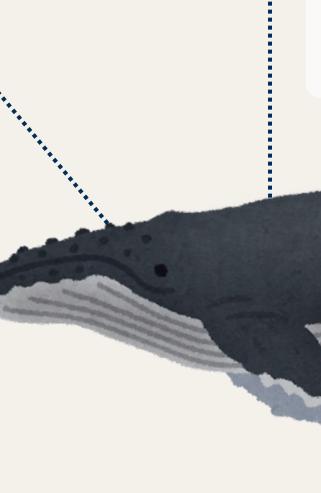
As they travel up to take a breath, they circulate nutrients. This is known as the 'whale pump

PHYTOPLANKTON PROVIDE EVERY OTHER BREATH YOU TAKE These floating 'rainforests' produce half of our planet's oxygen

WHALE PUMP' PROCESS CREATES A THRIVING OCEAN HABITAT

Nutrients from whale poo are key in supporting a healthy marine ecosystem and fish populations



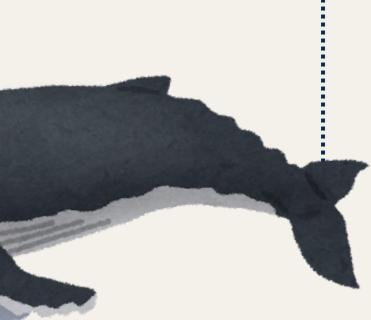


WHALES.ORG

WHALES FEED AT DEPTH

Cultural and Economic Importance

Whale watching, Inspiration



What Threats Do They Face?





Pollution **Chemical, Plastic, Noise**





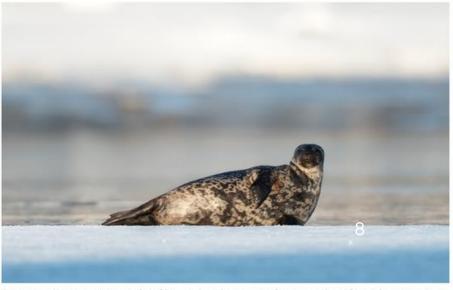
Fishing Activities Entanglement, Bycatch





US government signs agreement ending lawsuit over marine mammal protections in foreign fisheries

Rathan Strout published in Supply & Trade



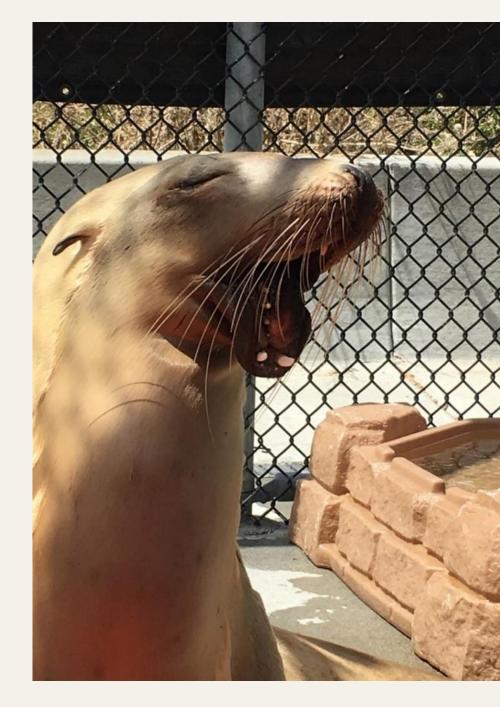
What Threats Do They Face?

Habitat Disruption Development, Wind Farm

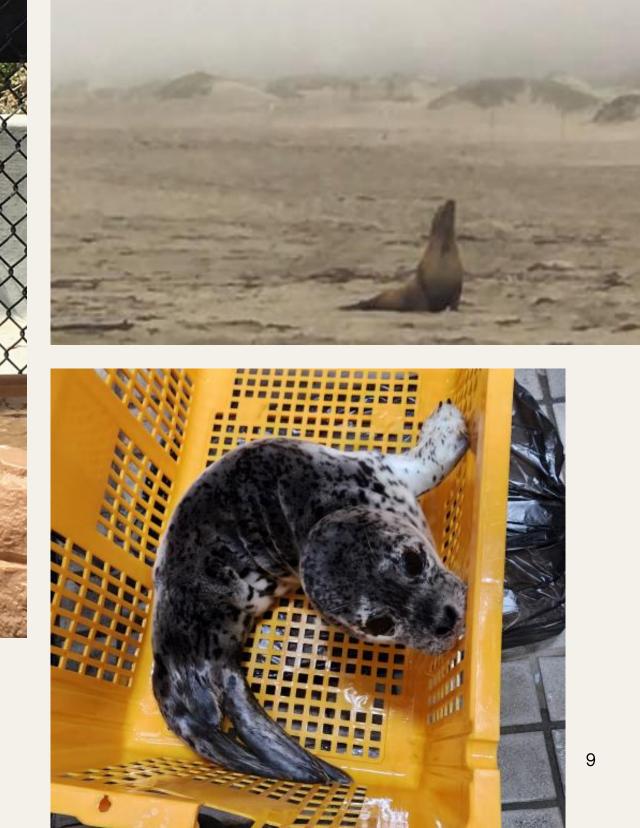
Climate Change

Biotoxin (Domoic Acid)

Ship Strike

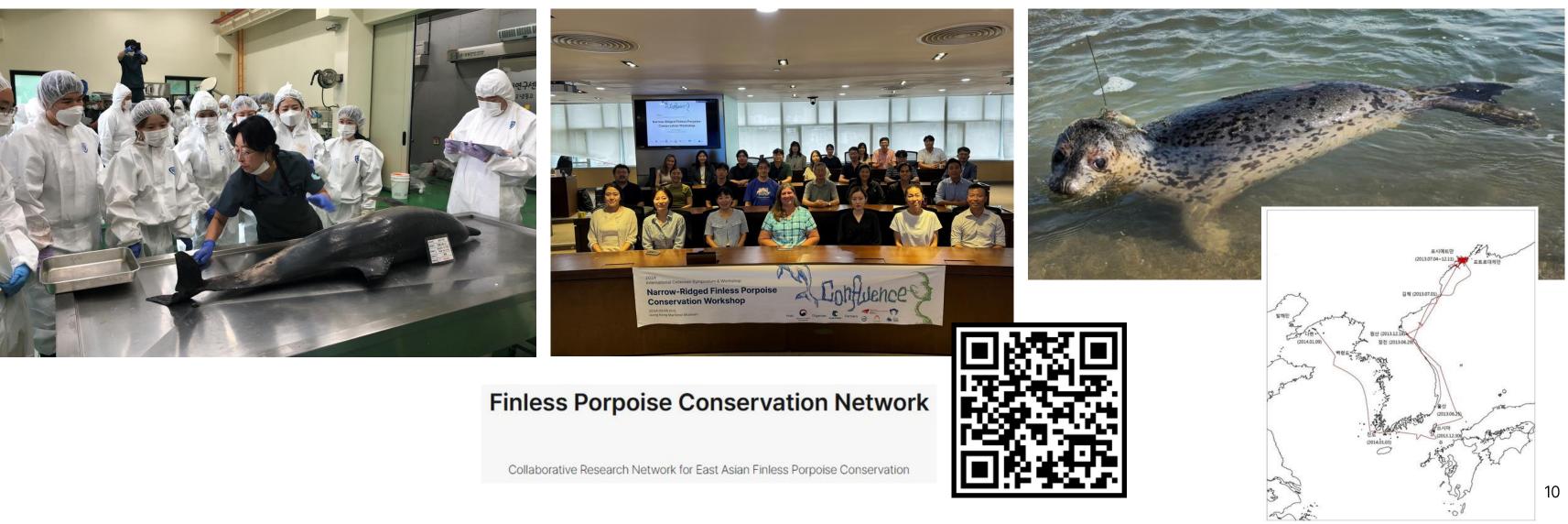






What Can We Do Together?

Collaborative research Ecology, Health, Toxin





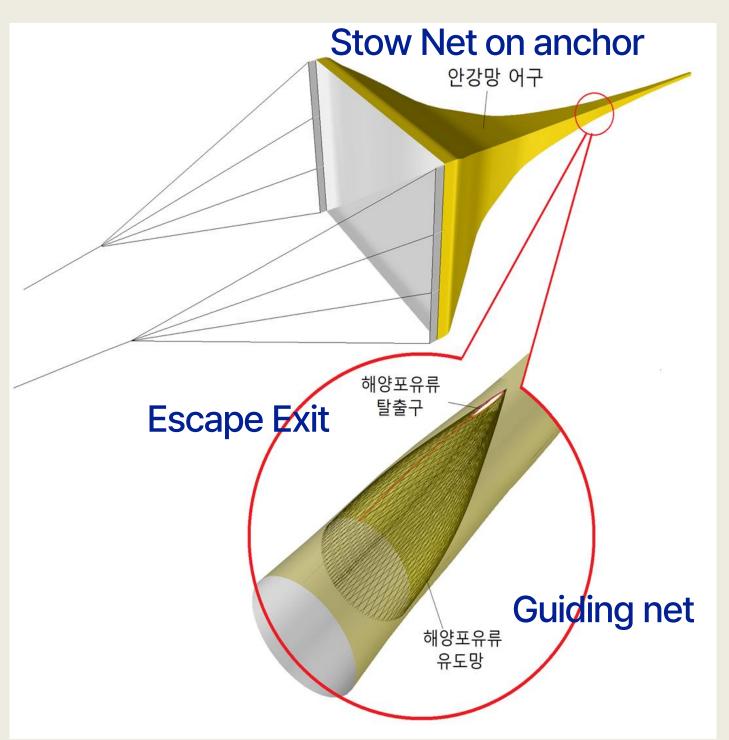
Regional Conservation Practice sustainable fisheries, tackling pollution, regional center

Last Refuge : Marine Protected Areas

- Scientific monitoring : population, migration, reproduction, feeding, behavior
- Fishery management : Gear modification, bycatch mitigation, seasonal fishing restrictions
- Ocean health monitoring: Persistent Organic Pollutants, Microplastics, biotoxin,
- Vessel speed reduction
- Ocean Noise reduction
- Education
- MPA network



Gray whale tourism in MPA in Mexico



Bycatch mitigation – excluder device for finless porpoise attaching the stow net by NIFS, Korea republic.

환경시매설

Thank you for your attention

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