

Cetaceans in Korean Waters

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DVM, PlanOcean Founder, CEO

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
Ph.D. 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



PLAN OCEAN

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

Cetacean species in Korea

Western Gray Whale

East-Asian Finless Porpoise

Threats

Way to go

A total of 35 species
have been recorded

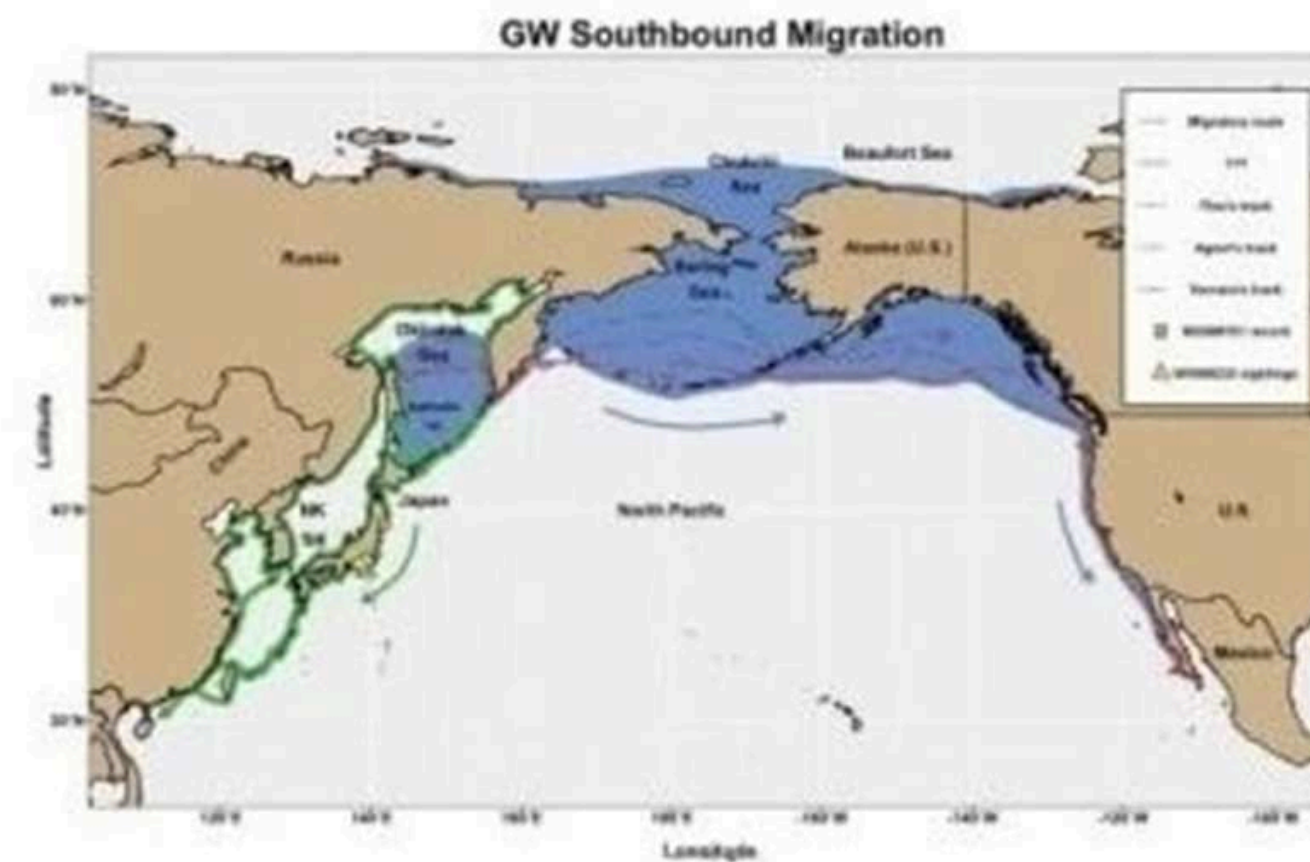
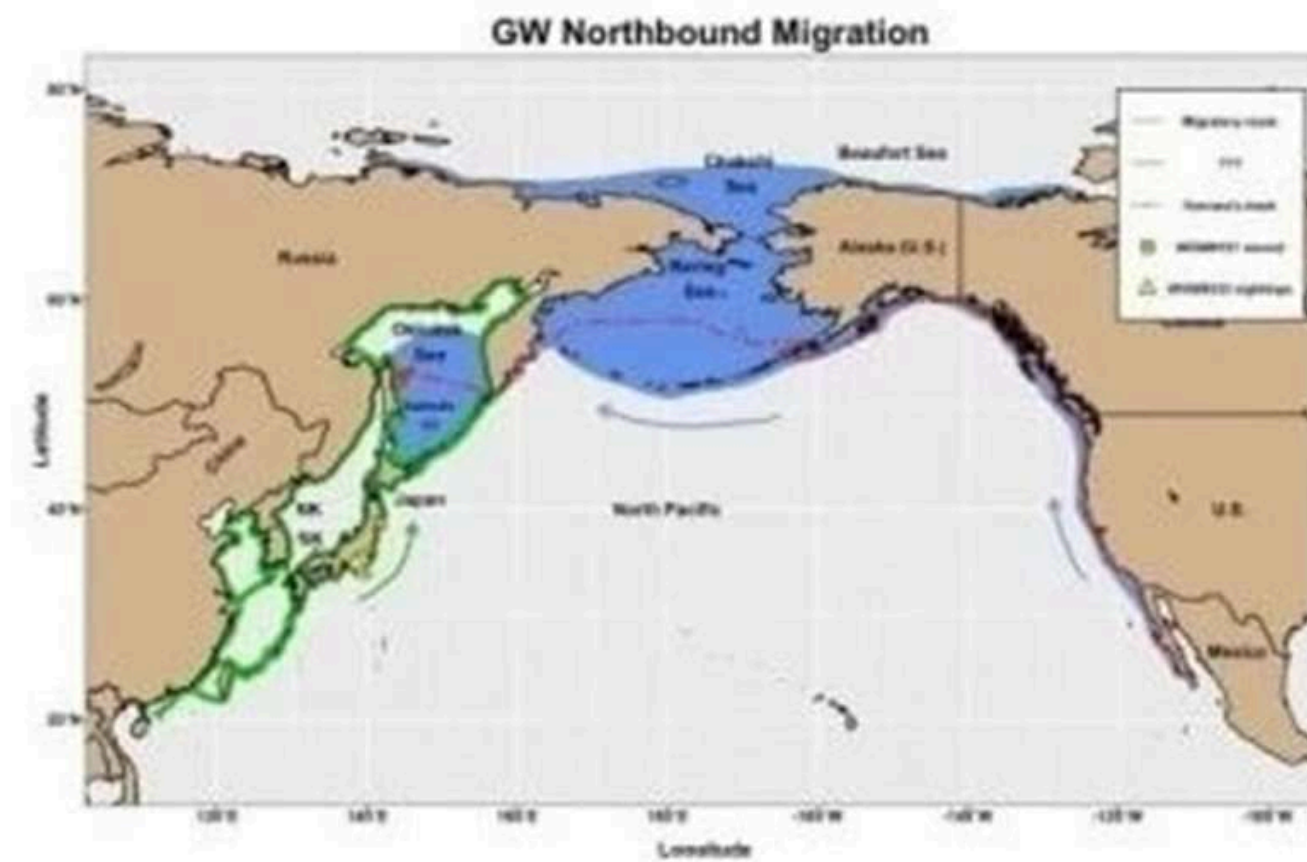
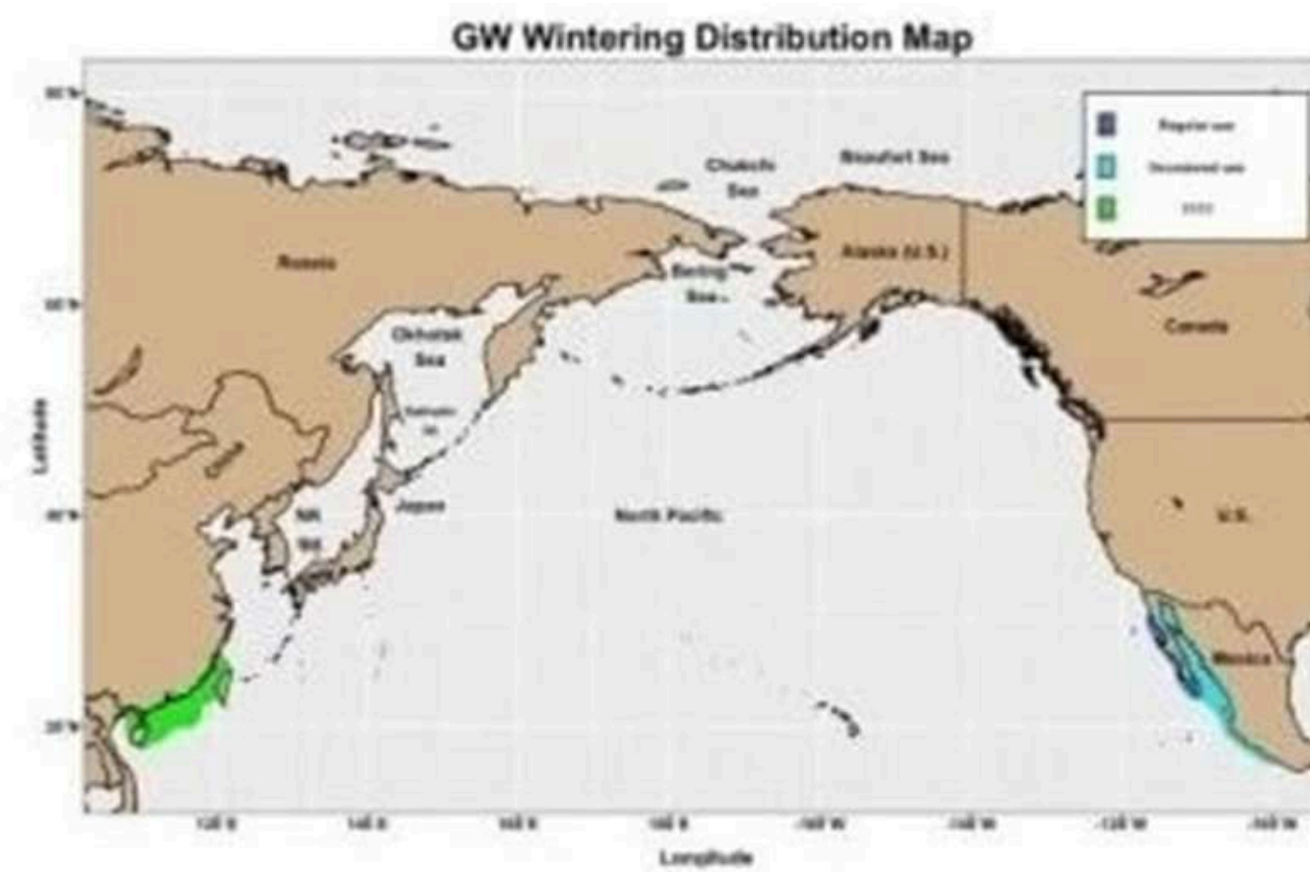
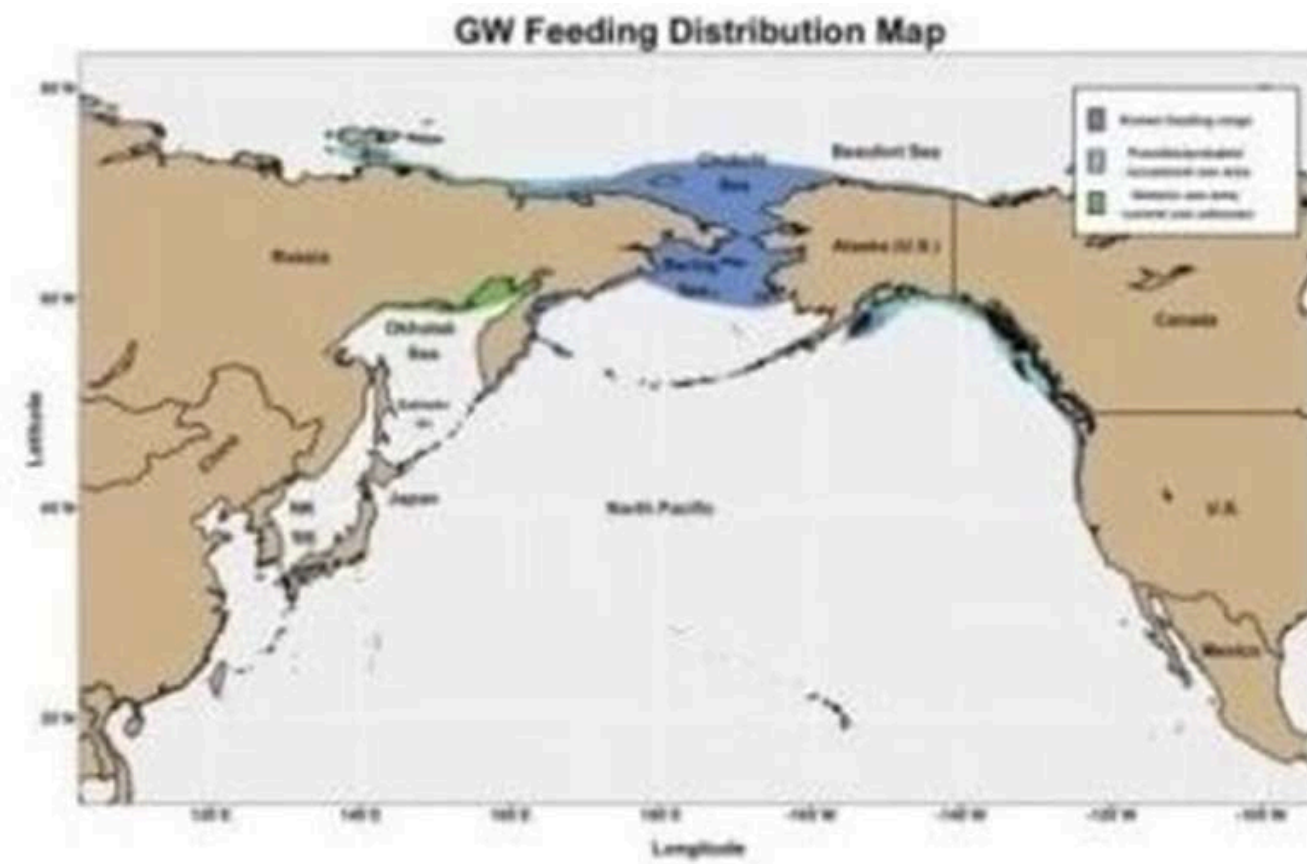


Gray Whales (*Eschrichtius robustus*)



- Endangered on the IUCN Red List
- High uncertainty in stock delineation of the species in feeding area
- Not been shown since 1960's in Korea





Distribution of gray whales in the North Pacific on a seasonal basis (v. October 2016)

Whale Species Threats & Risks Priorities & Protections Conservation & Solutions

- BLUE WHALE +
- BOWHEAD WHALE +
- FIN WHALE +
- GRAY WHALE +



HUMPBAC WHALE

IUCN STATUS: LEAST CONCERN
LENGTH: 13-16M
POPULATION: ~ 84,000

- NORTH ATLANTIC RIGHT WHALE +
- SOUTHERN RIGHT WHALE +
- SPERM WHALE +

TRACKS
CORRIDORS
RANGE

Q



Whale
Species

Threats
& Risks

Priorities
& Protections

Conservation
& Solutions



☒ BOWHEAD WHALE

+

☒ FIN WHALE

+



TRACKS ☒
CORRIDORS ☒
RANGE ☒

INFO ⓘ

GRAY WHALE

IUCN STATUS
LEAST CONCERN

LENGTH
12-14M

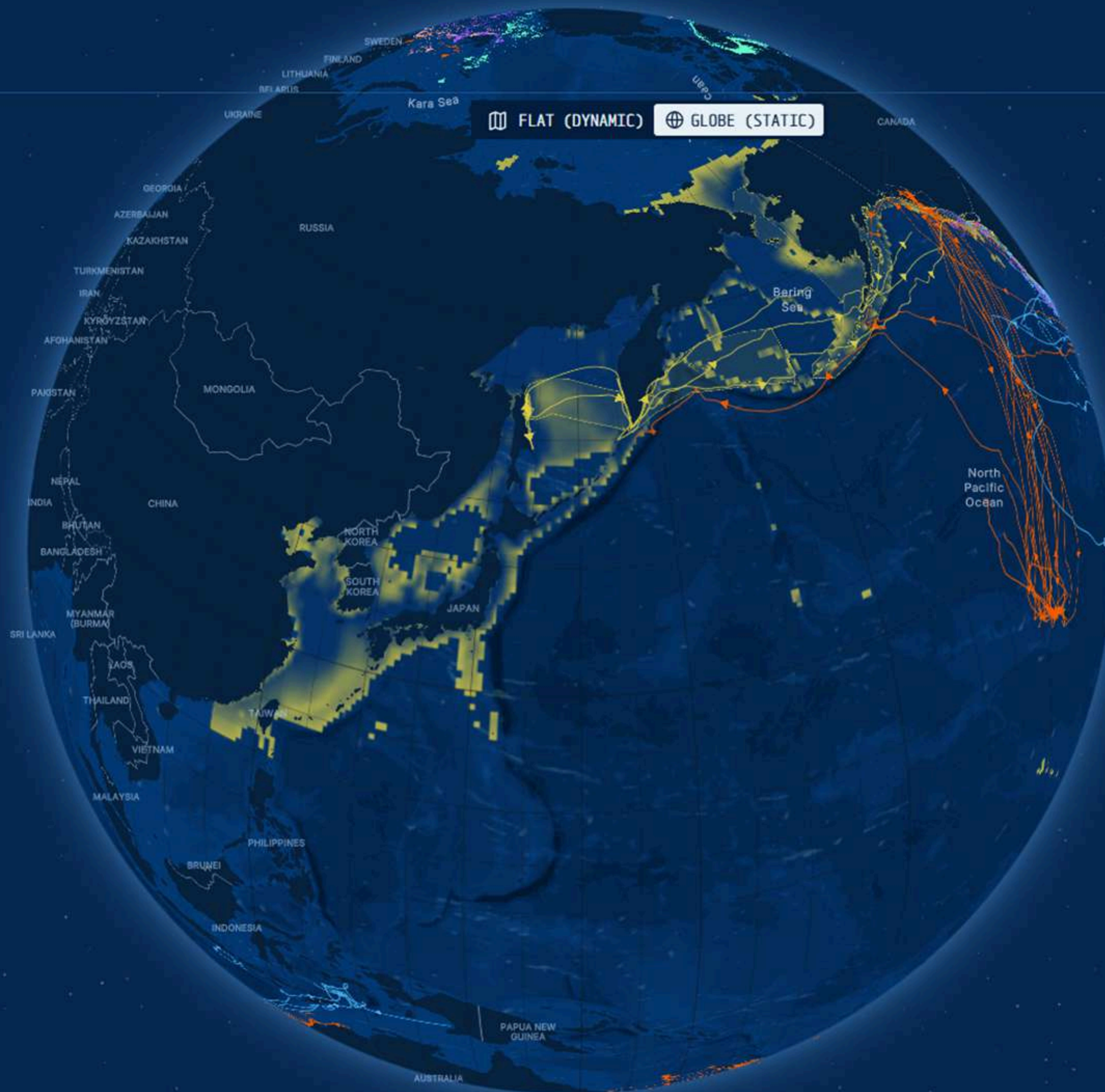
POPULATION
~ 27,000

☒ HUMPBACK WHALE

+

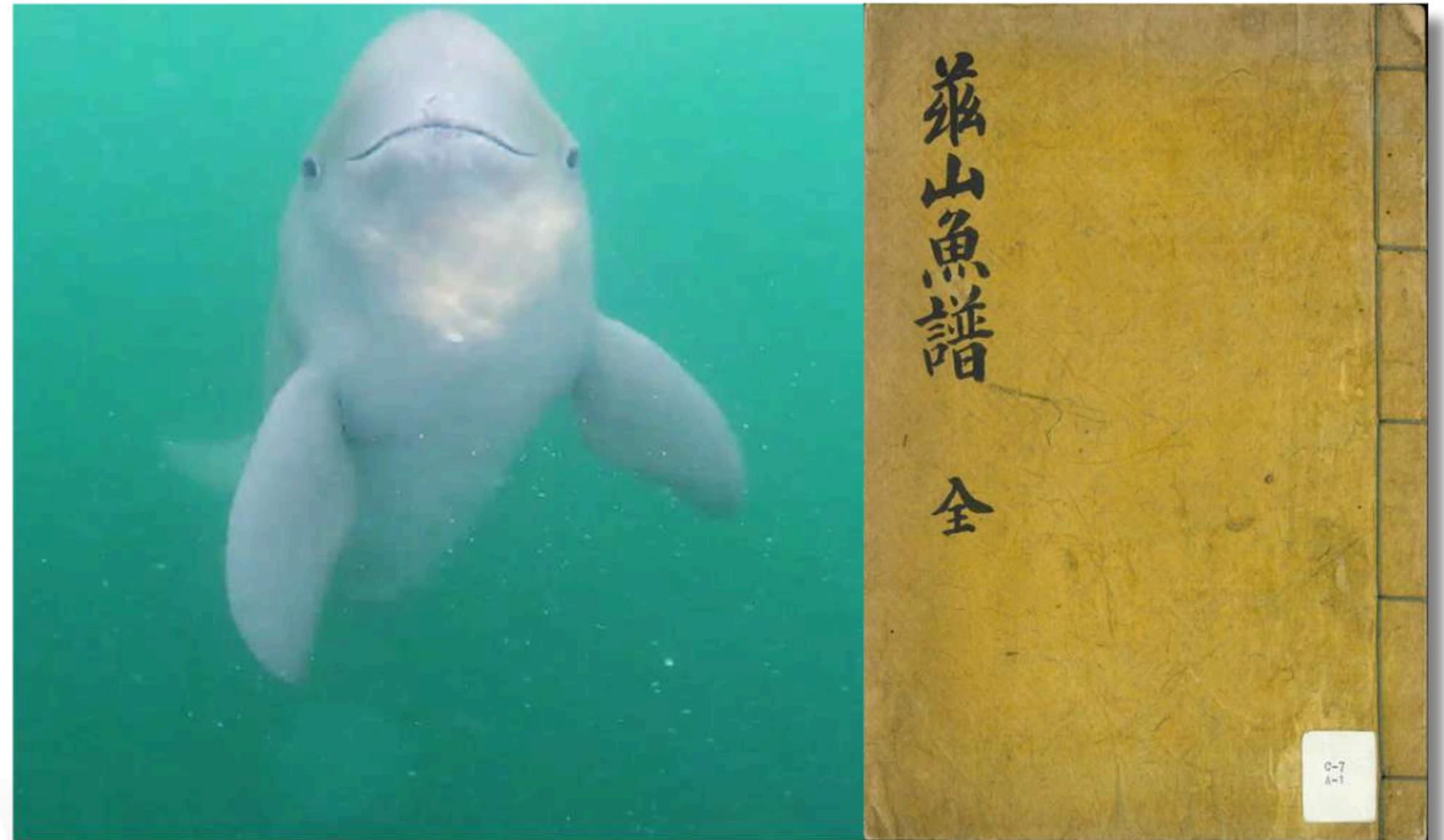
☒ NORTH ATLANTIC
RIGHT WHALE

+



East-Asian Finless Porpoise

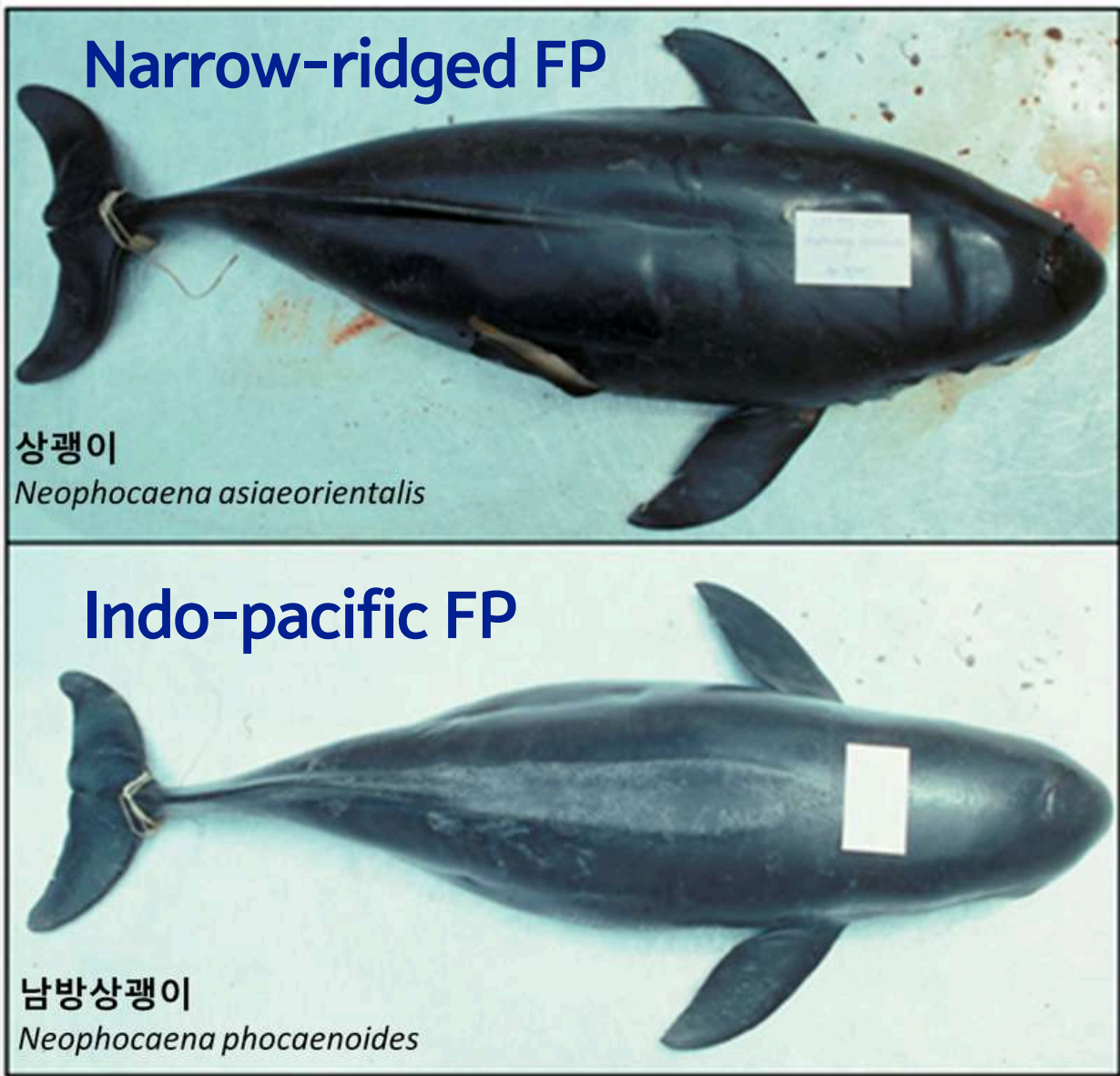
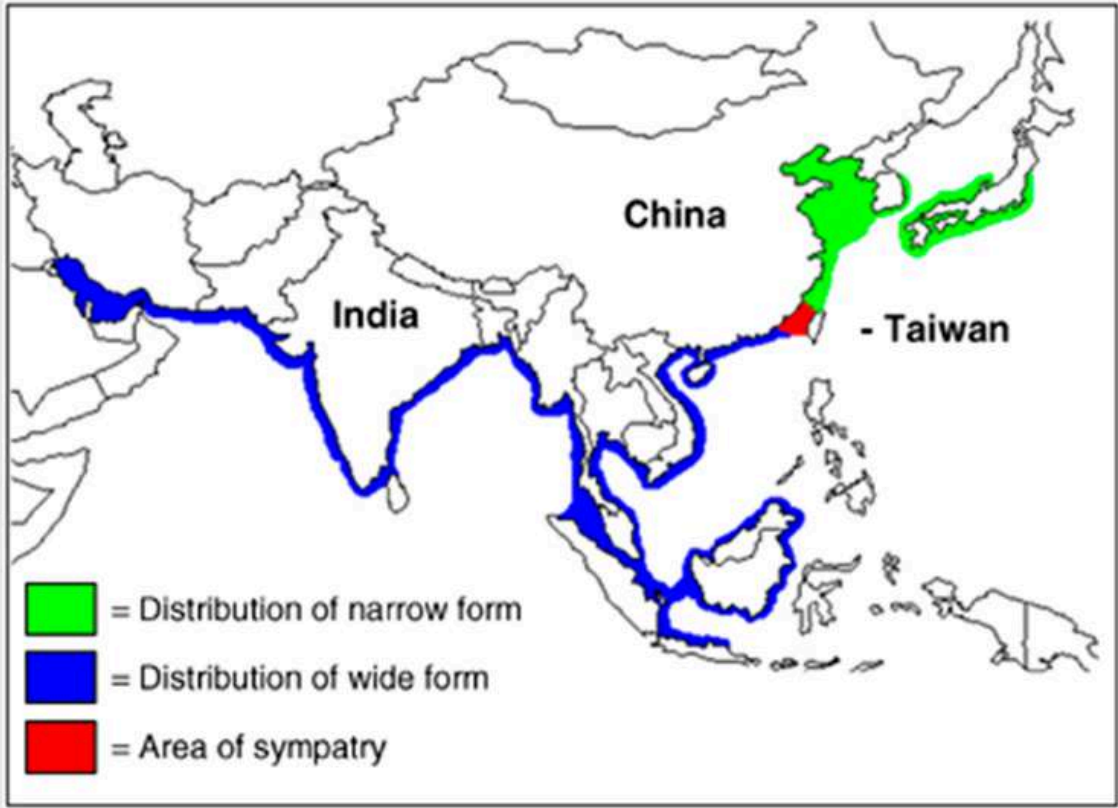
- A native species with records in the Joseon Dynasty
- The most frequently observed cetacean in Korea
- Endangered on the IUCN Red List(2017)
- Bycatch is the leading cause of death



NOT EVALUATED	DATA DEFICIENT	LEAST CONCERN	NEAR THREATENED	VULNERABLE	< ENDANGERED >	CRITICALLY ENDANGERED	EXTINCT IN THE WILD	EXTINCT
NE	DD	LC	NT	VU	EN	CR	EW	EX

Taxon

Species	Subspecies
Indo-pacific finless porpoise (<i>Neophocaena phocaenoid</i>)	
Narrow-ridged finless porpoise (<i>Neophocaena asiaeorientalis</i>)	Yangtze finless porpoise (<i>N. a. asiaeorientalis</i>)
	East Asian finless porpoise (<i>N. a. sunameri</i>)



WoRMS
World Register of Marine Species

Quick search...

WoRMS taxon details

★ ***Neophocaena asiaeorientalis sunameri* Pilleri & Gühr, 1975**

AphiaID 446127 (urn:lsid:marinespecies.org:taxname:446127)

Classification: Biota > ★ Animalia (Kingdom) > ★ Chordata (Phylum) > ★ Cetartiodactyla (Order) > ★ Cetancodonta (Suborder) > ★ *Neophocaena asiaeorientalis* (Species) > ★ *Neophoca*

Status: accepted

Rank: Subspecies

Parent: ★ *Neophocaena asiaeorientalis* Pilleri & Gühr, 1972

WCC-2020-Rec-094-EN

Safeguarding the Endangered narrow-ridged finless porpoise (*Neophocaena asiaeorientalis*) in the Yellow Sea

The IUCN World Conservation Congress 2020, at its session in Marseille, France:

1. REQUESTS that countries bordering the Yellow Sea, with support from IUCN State and Government Agency Members and other Members working in the region, complete the following prioritised actions while also advancing research:

- a. form a **regional working group** to address threats to *N. asiaeorientalis*;
- b. hold a direct **consultation with stakeholders (especially fishers) and communities** that influence the future of *N. asiaeorientalis* to address conservation concerns for the species, and maintain that consultation;
- c. conduct robust, comprehensive **research on** population dynamics, distribution, habitat conditions and movement patterns of *N. asiaeorientalis*;
- d. improve **monitoring** of *N. asiaeorientalis* **bycatch** across space and time and by fishery and gear type;
- e. analyse and develop effective **solutions to environmental threats** to *N. asiaeorientalis*;
- f. develop and implement **bycatch mitigation** measures for *N. asiaeorientalis*, including spatial and temporal management, gear modification and safe release of porpoises from fishing gear;
- g. establish **support mechanisms for fishers** who implement proven bycatch mitigation measures; and
- h. analyse impacts of **fishing and fishing-related** activities on mortality and abundance of *N. asiaeorientalis*; and

2. INVITES **relevant intergovernmental bodies to engage actively** – and to support states in the region – in addressing issues of population decline and bycatch of *N. asiaeorientalis*.

What Threats Do Cetaceans Face?



Fishing Activities
Entanglement, Bycatch



Offshore Construction
Oil & Gas



Pollution
Chemical, Plastic, Noise



Shipping
Vessel strike

Climate change
Habitat, prey, reproduction, disease



Whale Species

Threats & Risks

Priorities & Protections

Conservation & Solutions

CLIMATE CHANGE

Sea Surface Temperature



FISHERIES

Bycatch



Entanglement in fishing gear is the most significant threat to the survival of whale and dolphin populations globally.

Overfishing



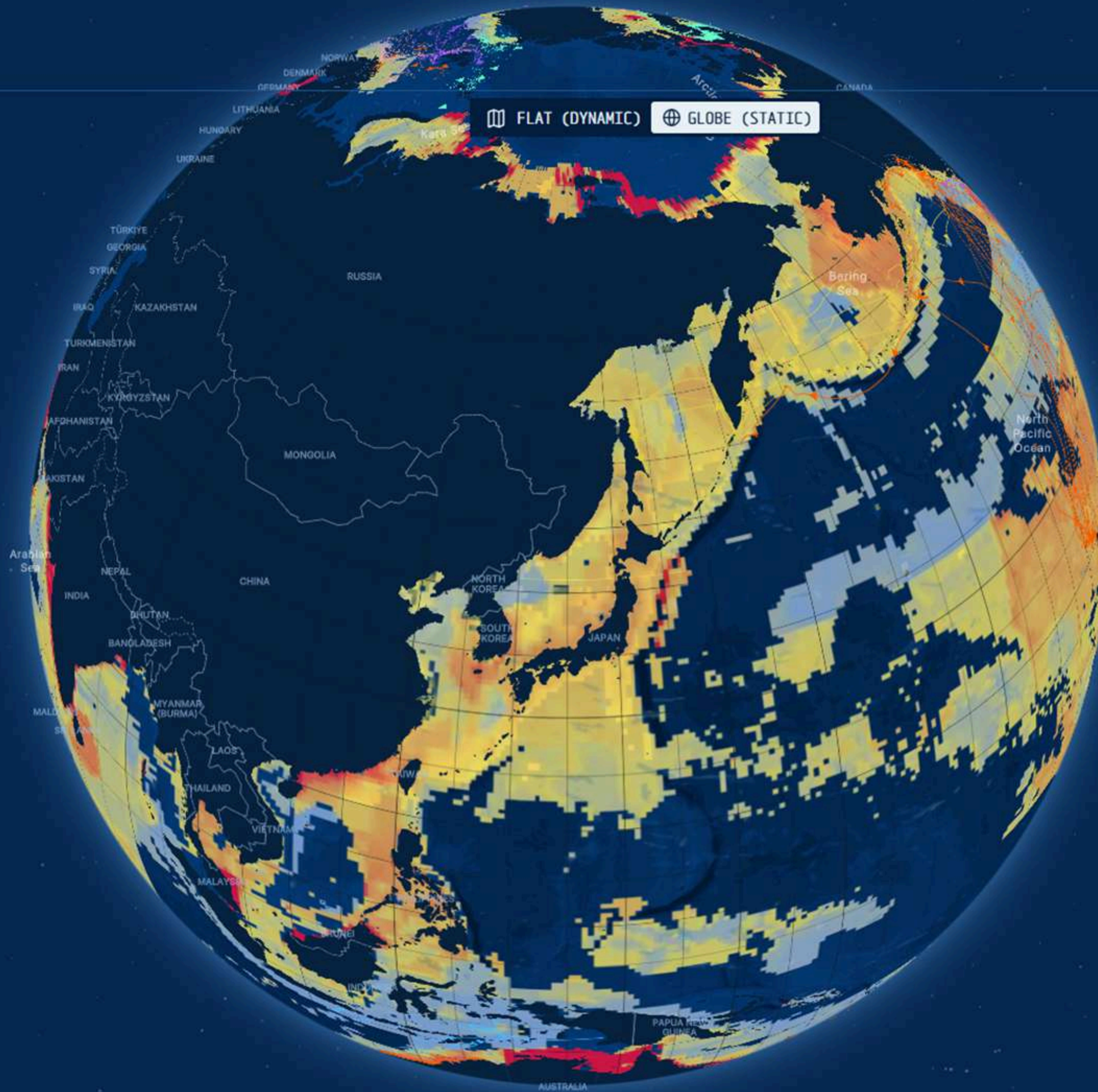
SHIPPING

Shipping And Vessel Strikes



FLAT (DYNAMIC)

GLOBE (STATIC)



What Can We Do Together?

Collaborative Research Ecology, Health, Toxin



Regional Conservation Practice Sustainable fisheries, Tackling pollution, Conservation of habitats and migration pathways



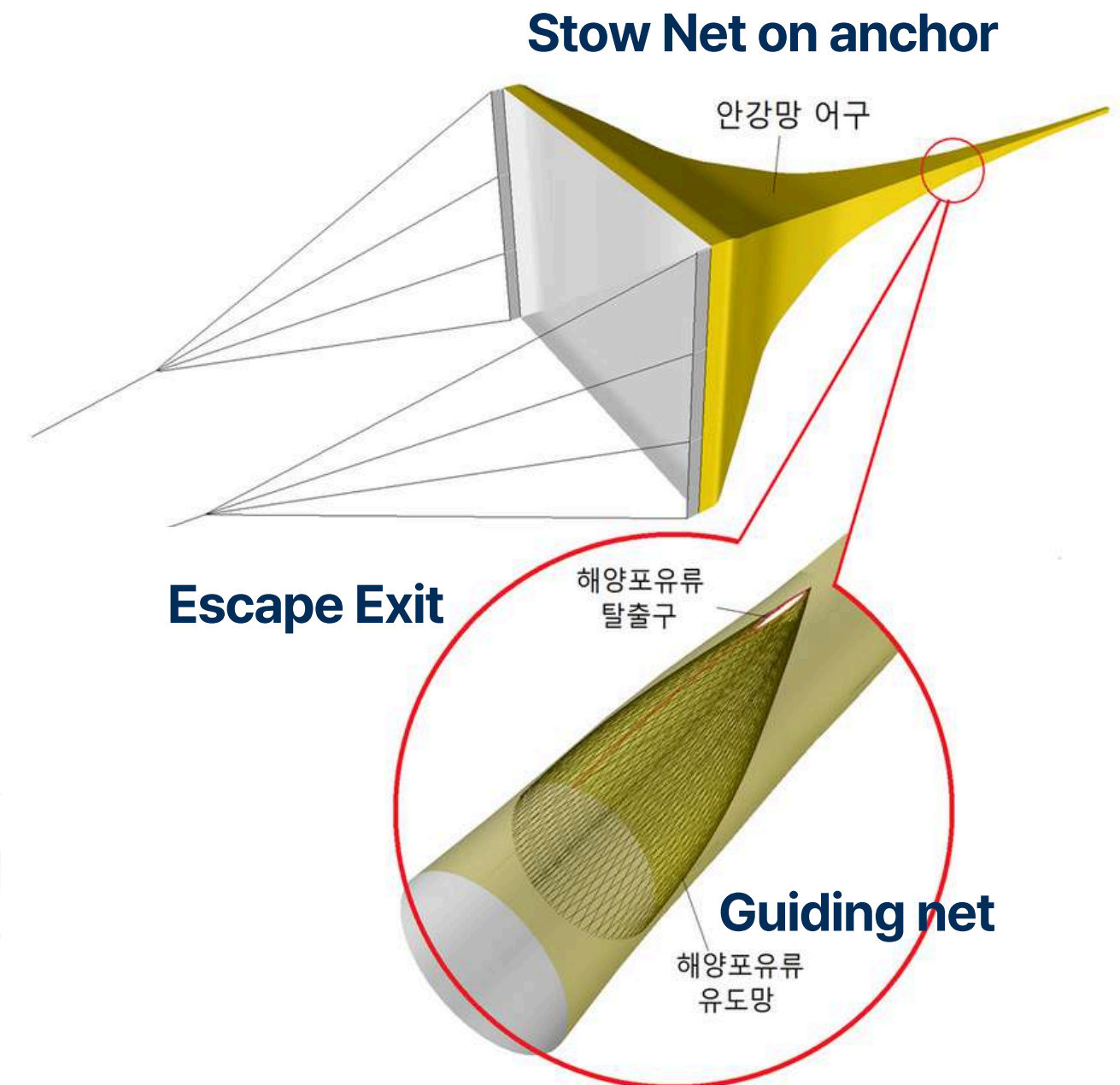
Building a **joint governance framework** in Northeast Asia

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.

Thank you for your attention



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