

AquaMaps

Mapping Marine Biodiversity

Rainer Froese
IFM-GEOMAR, Kiel, Germany
FishBase Symposium
1 September 2008

What are AquaMaps

- Computer-generated distribution maps
- Based on environmental tolerance of species and known occurrences
- For eventually all species on Earth

Who Does AquaMaps

- Under the umbrella of the FishBase Consortium
- With data from FishBase, SeaLifeBase, GBIF and OBIS
- With support from Pew Charitable Trusts, European Commission, USGS, GBIF

Who Does AquaMaps

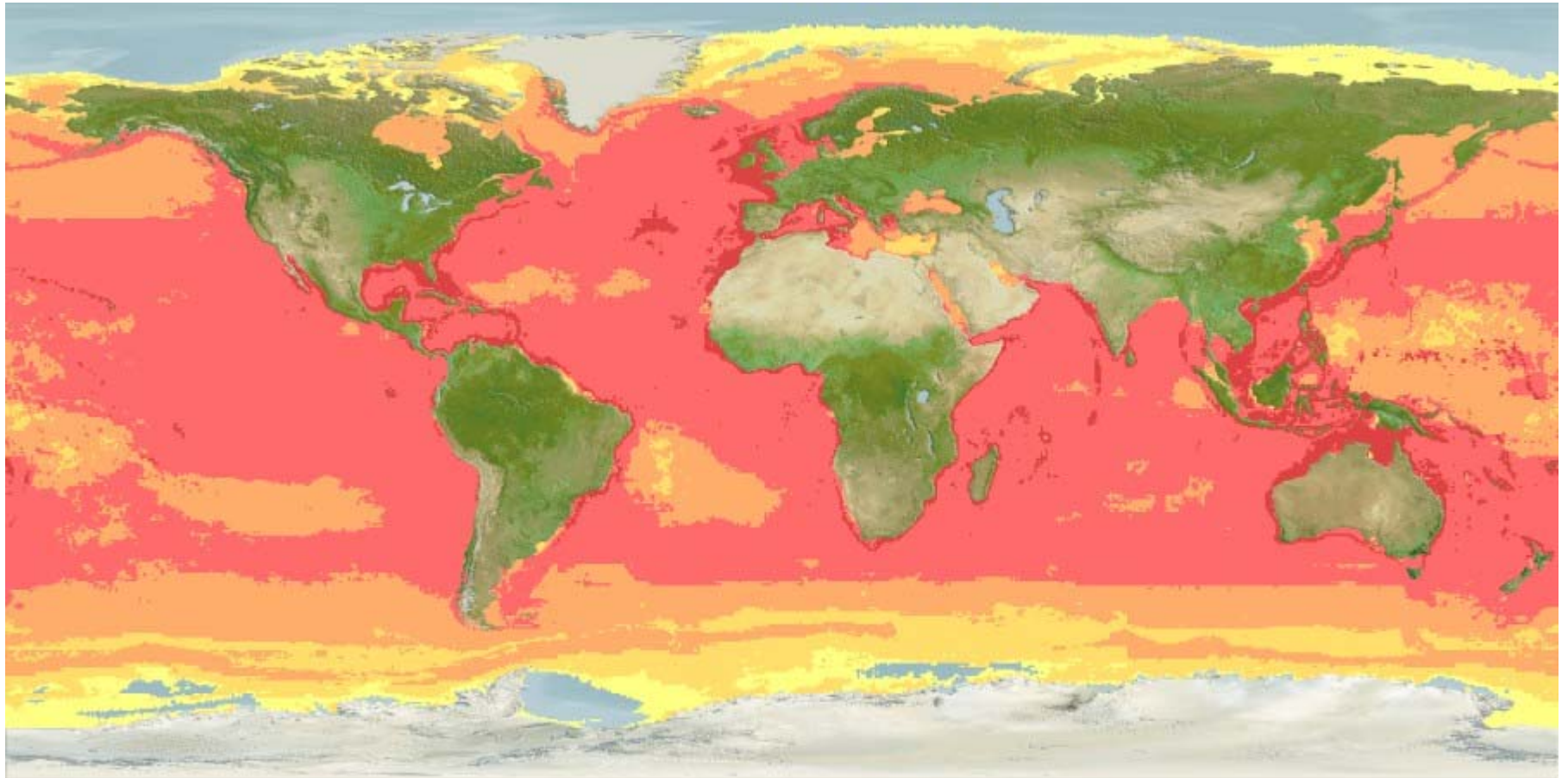
- Rainer Froese, IFM-GEOMAR, Coordinator
- Kristin Kaschner, UBC, model development
- Sven Kullander, NRM, extension to freshwater
- Jonathan Ready, formerly NRM, implementation
- Tony Rees, CSIRO, mapping tools
- Paul Eastwood, CEFAS, valuation
- Eli Agbayani, WFC, web programming
- Josephine Rius Barile, WFC, database programming
- Kathleen Reyes, WFC, map checking

8,000 Species in 2008

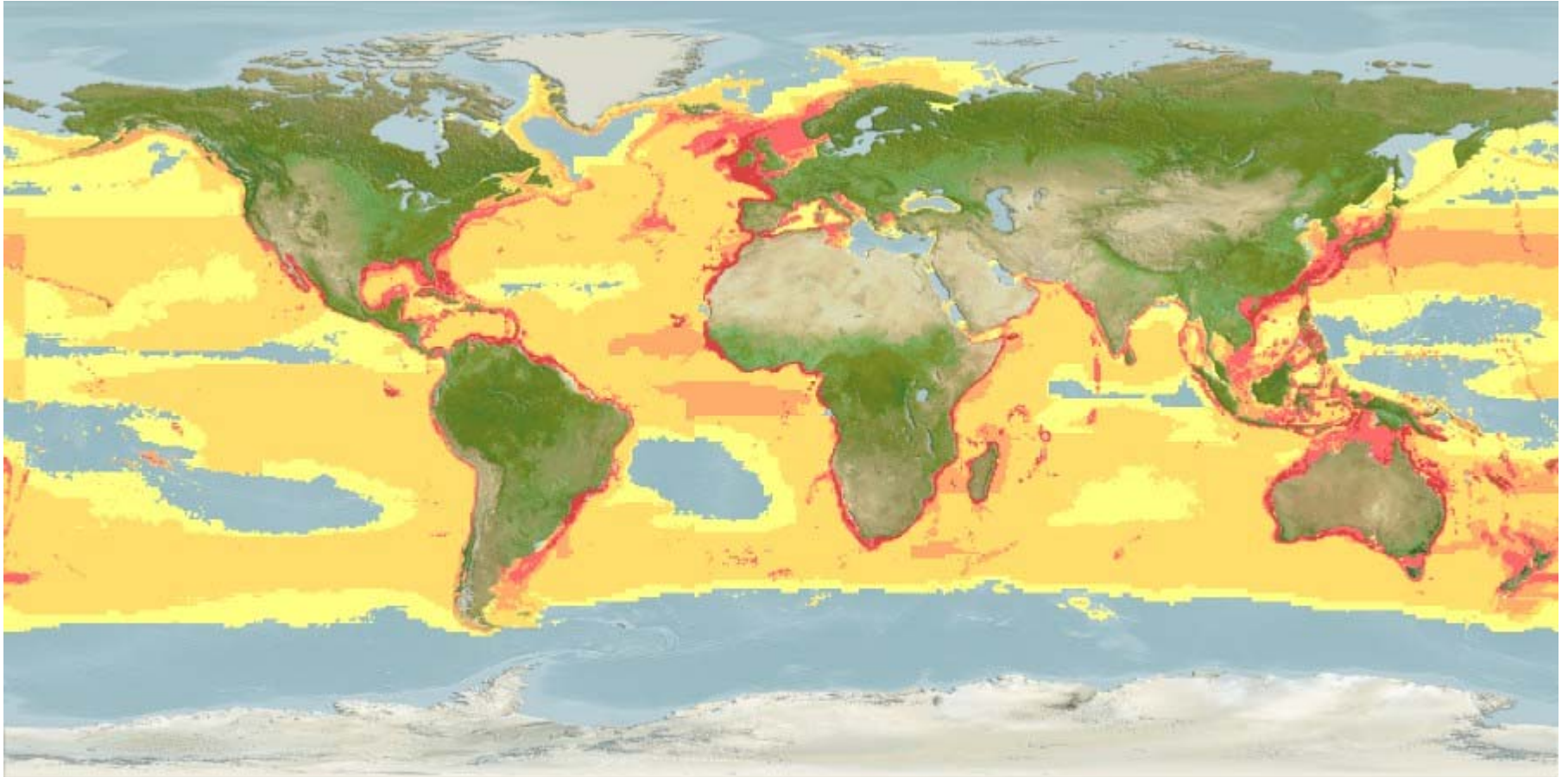
- Half of all marine fishes (~7,000)
- All marine mammals
- All marine reptiles (turtles, snakes)
- **Many seabirds** (those that are predicted by the properties of the water)
- One thousand invertebrates
- Important invasive species

Examples from AquaMaps: Global Species Richness

www.aquamaps.org

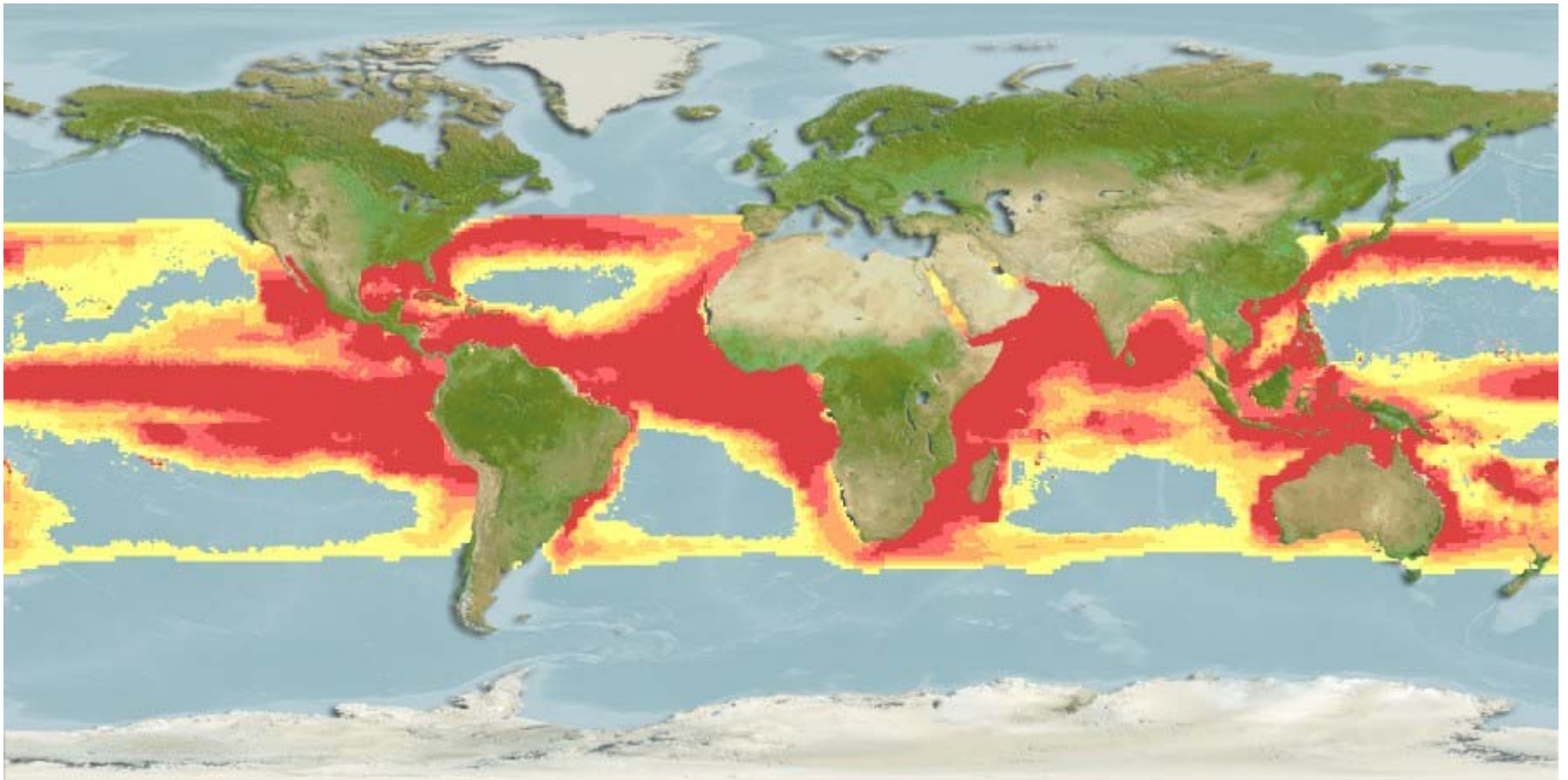


Examples from AquaMaps: No Sharks in Antarctica



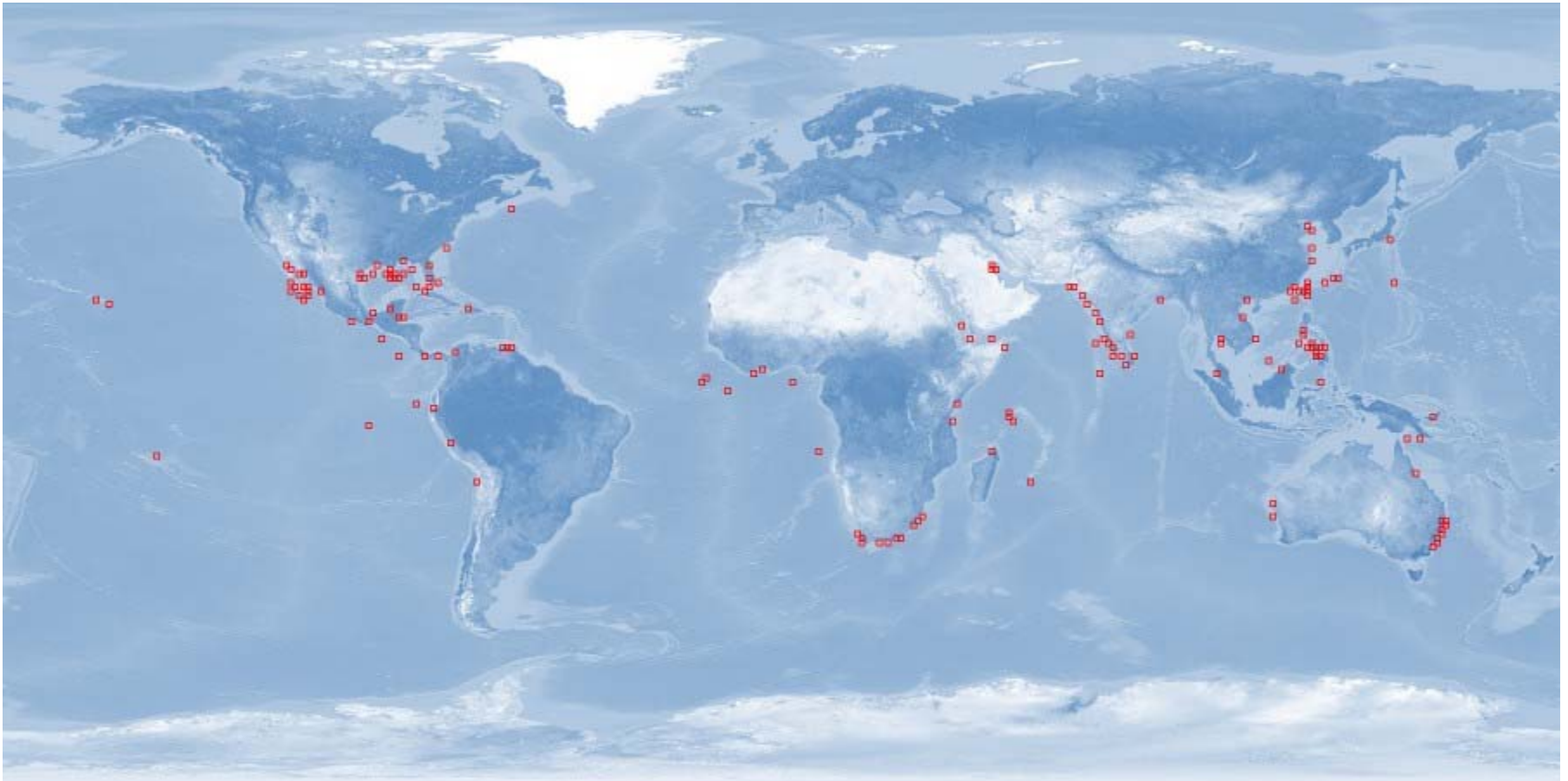
Examples from AquaMaps

Whale shark (cosmopolitan)



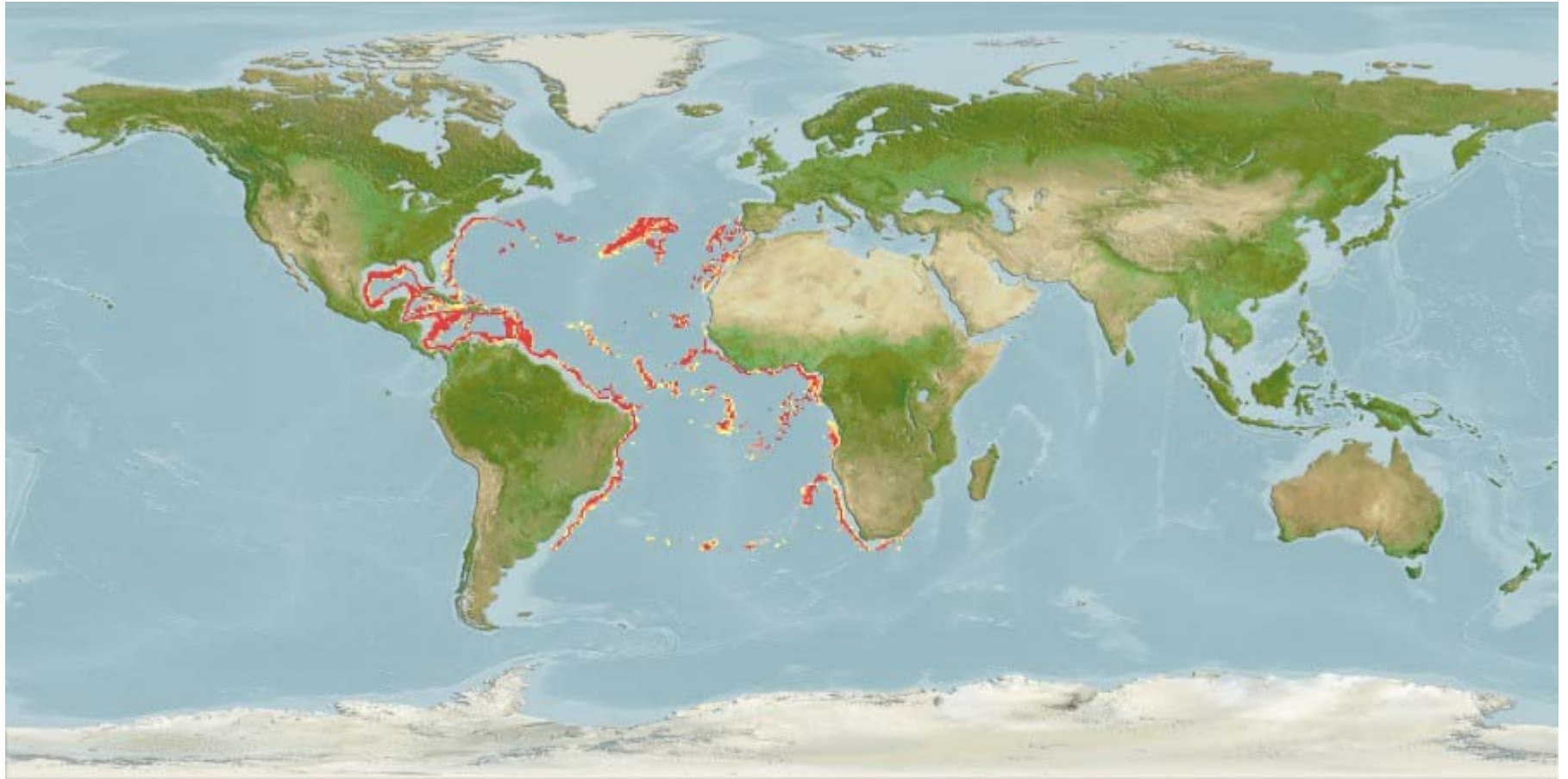
Examples from AquaMaps

Whale shark (cosmopolitan)



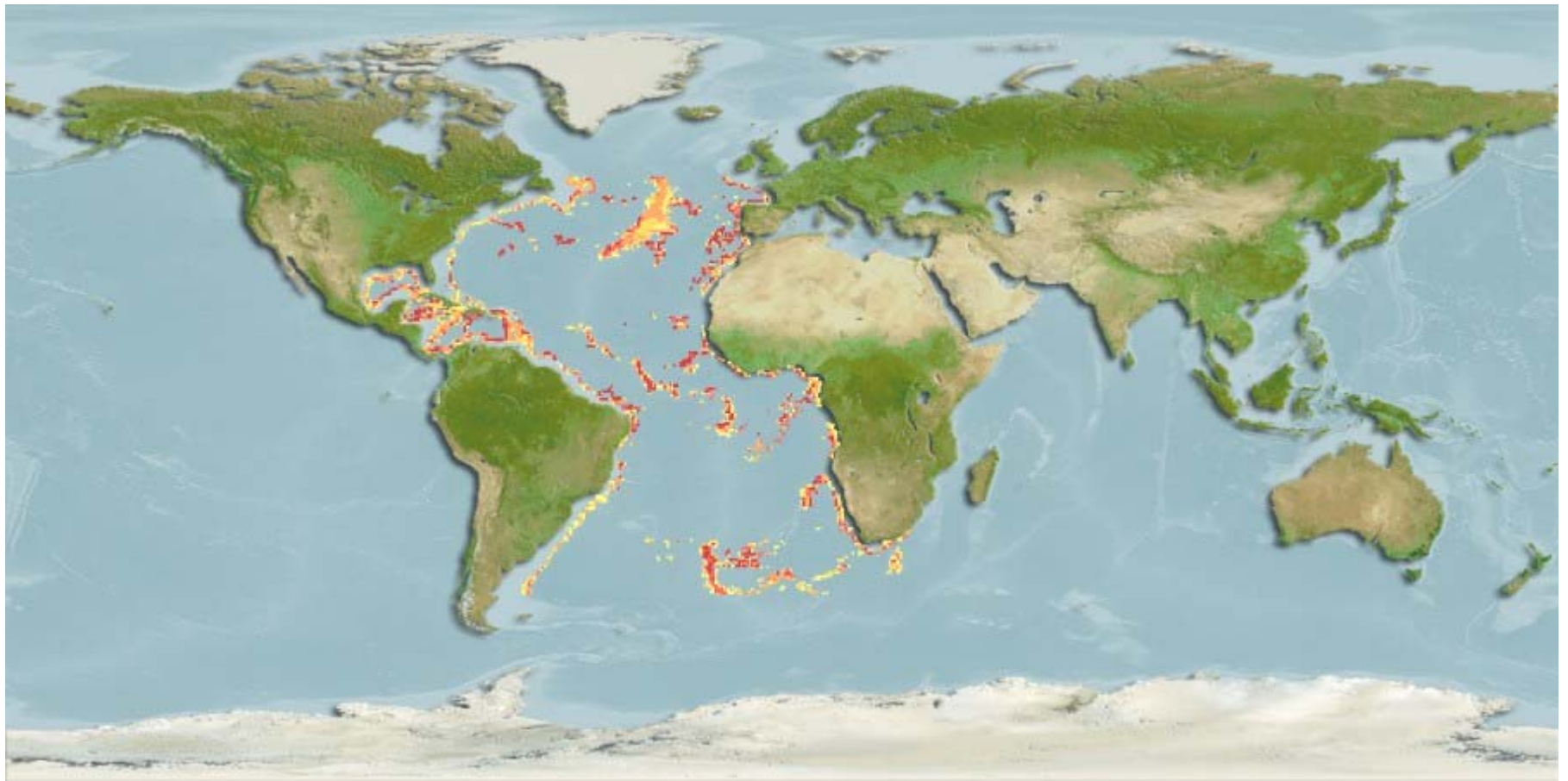
Examples from AquaMaps

Blackfin spiderfish (continental shelves)

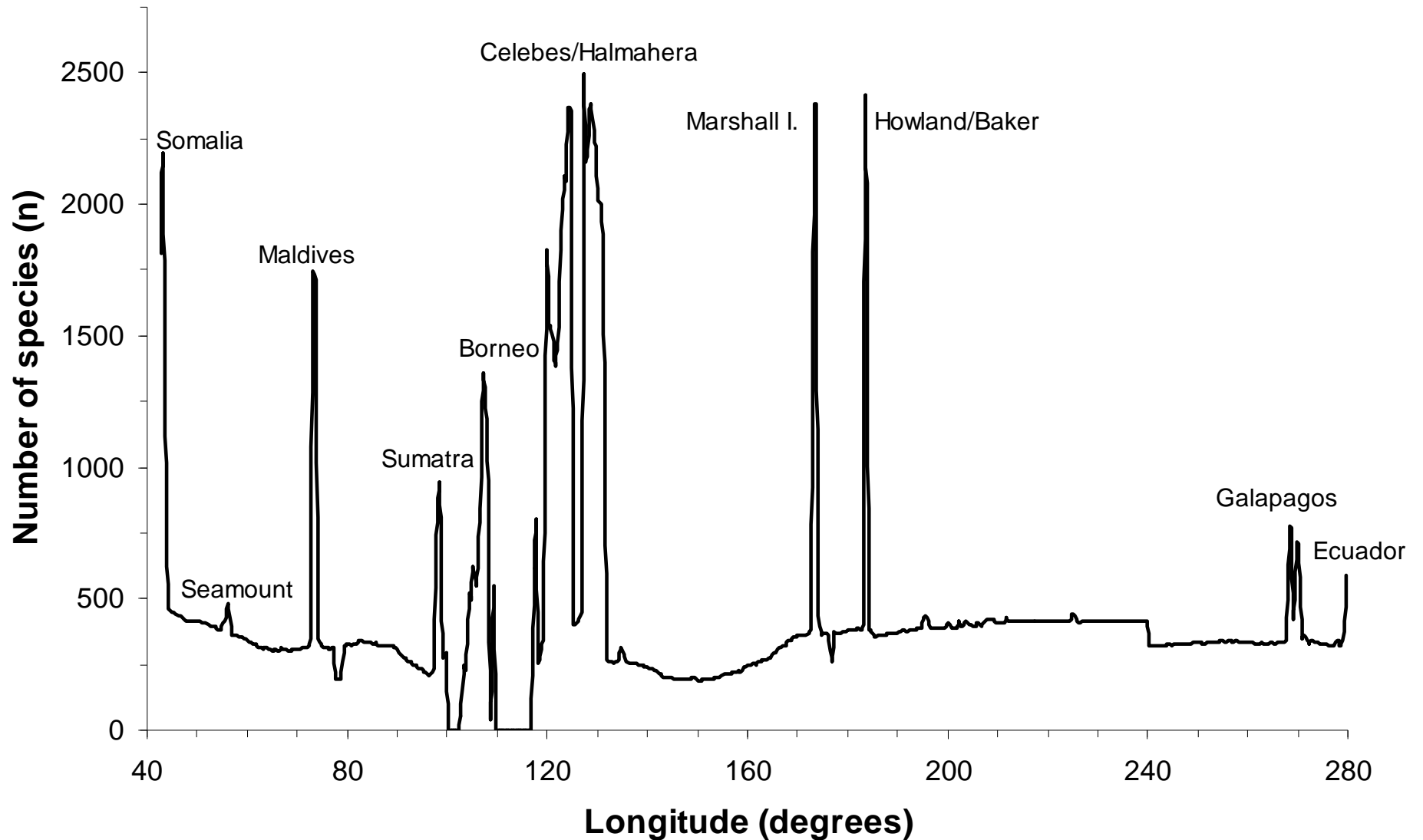


Examples from AquaMaps

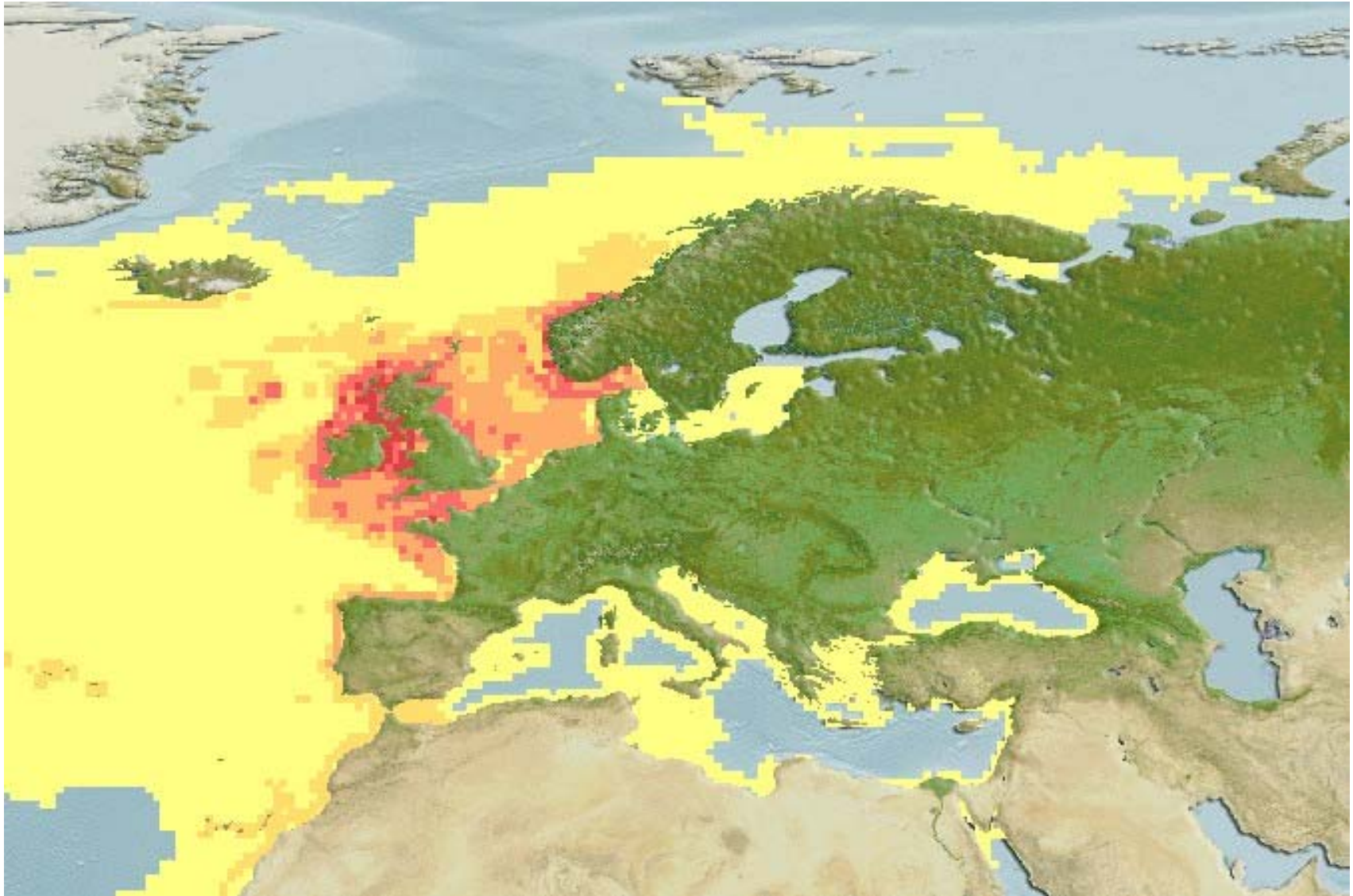
Blackfin spiderfish (preliminary 2050)



Tools: Equatorial Species Richness Transect across the Indo-Pacific



Tools : Where to Place an MPA



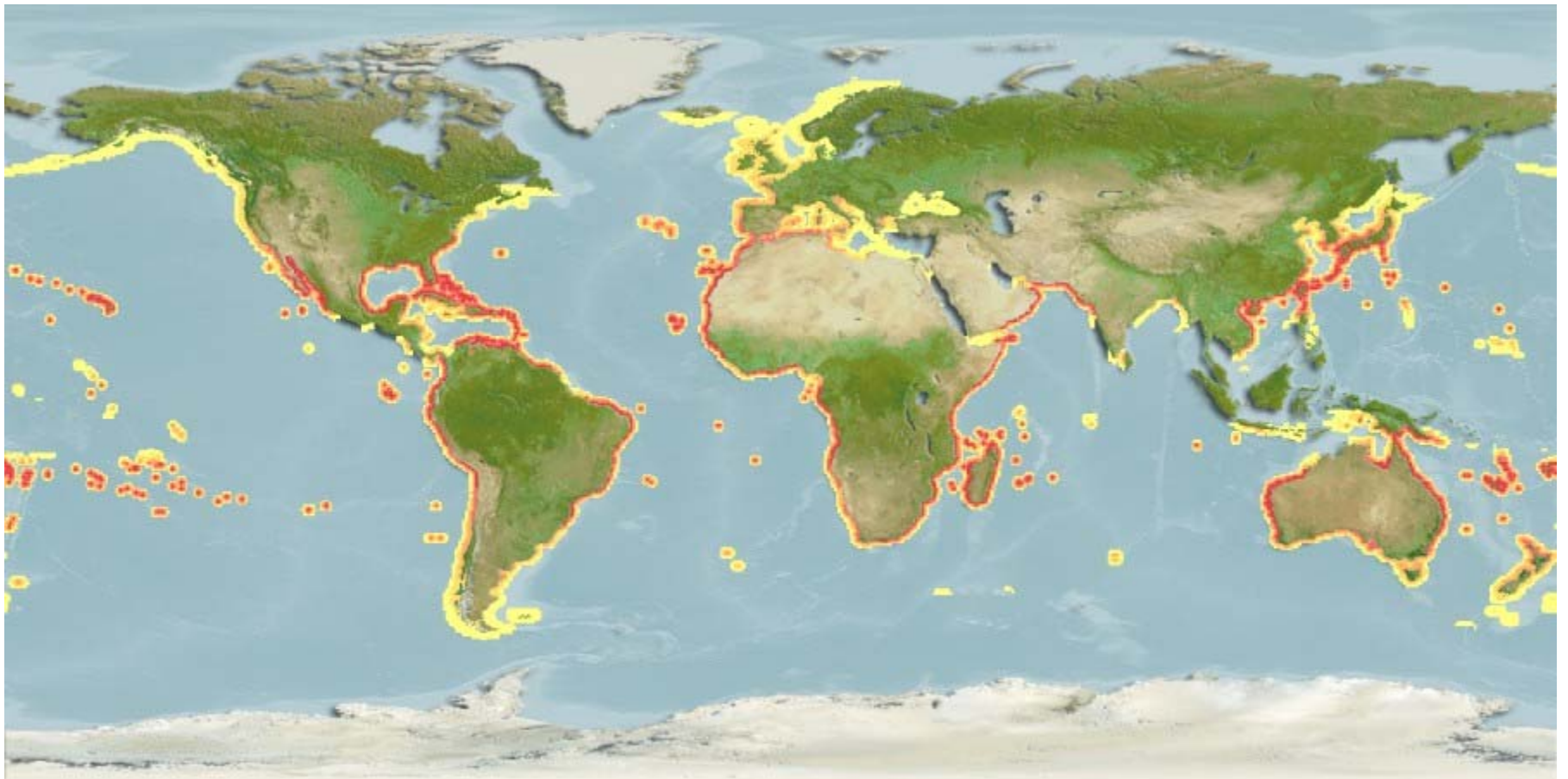
Tools

Mnemiopsis leidyi (invasive Black Sea)



Tools

Mnemiopsis leidyi (invasive Black Sea)



Other Tools from AquaMaps

- What lives in my Bay?
- What species may invade my coast?
- Where shall I put an MPA?
- Deep-water biodiversity: Cold Spots
- Checklists by Ecosystem and Country

Live Demo!

- Thumbnail AquaMaps in Species Summary page
- Interactive Layers in expanded map
- Online Search Page

No VaporWare

- www.aquamaps.org
- www.fishbase.org
- www.sealifebase.org
- www.speciesbase.mobi

Thank You