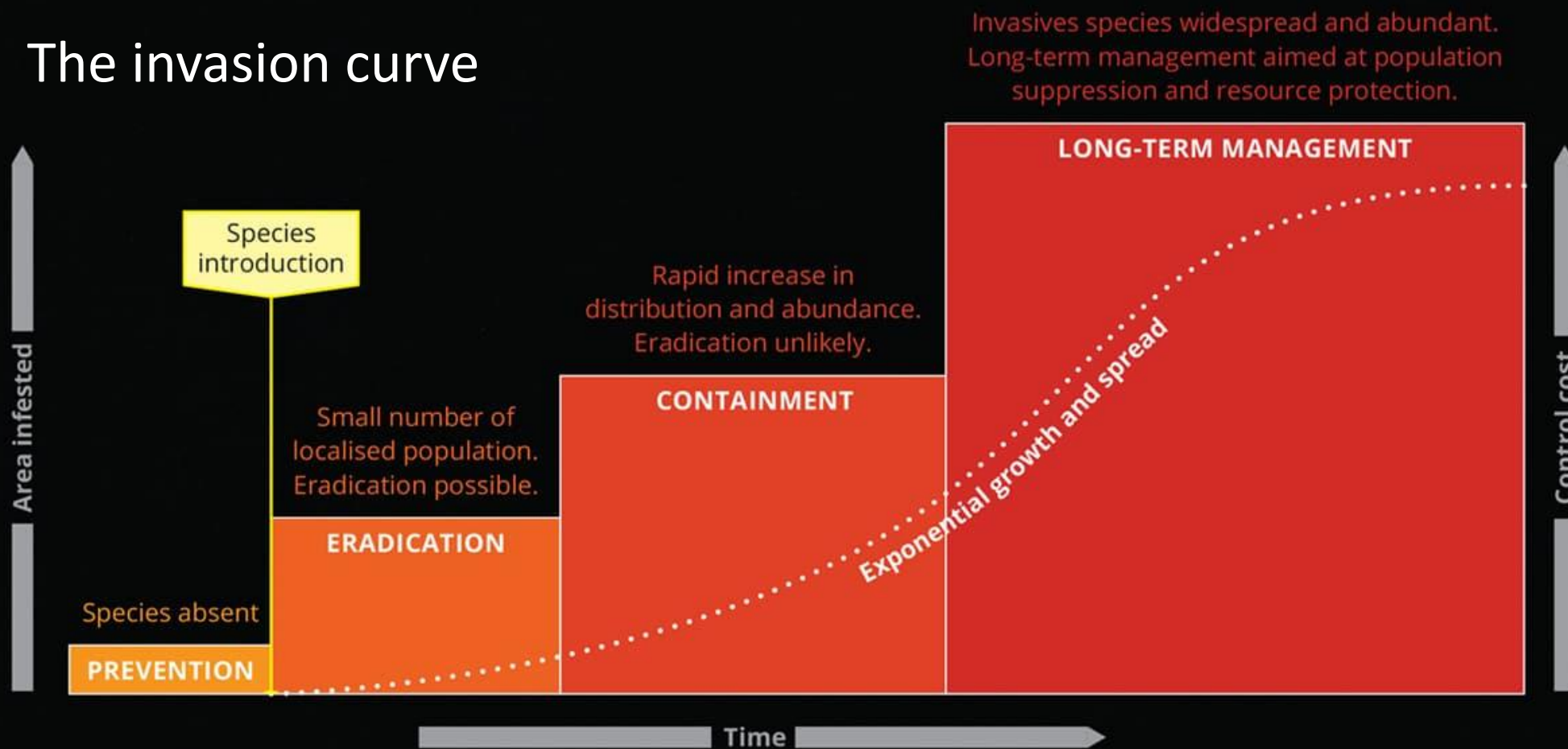


Mapping the impacts of Non-Indigenous Invasive species on European coastal habitats



Matthias Obst, University of Gothenburg

The invasion curve



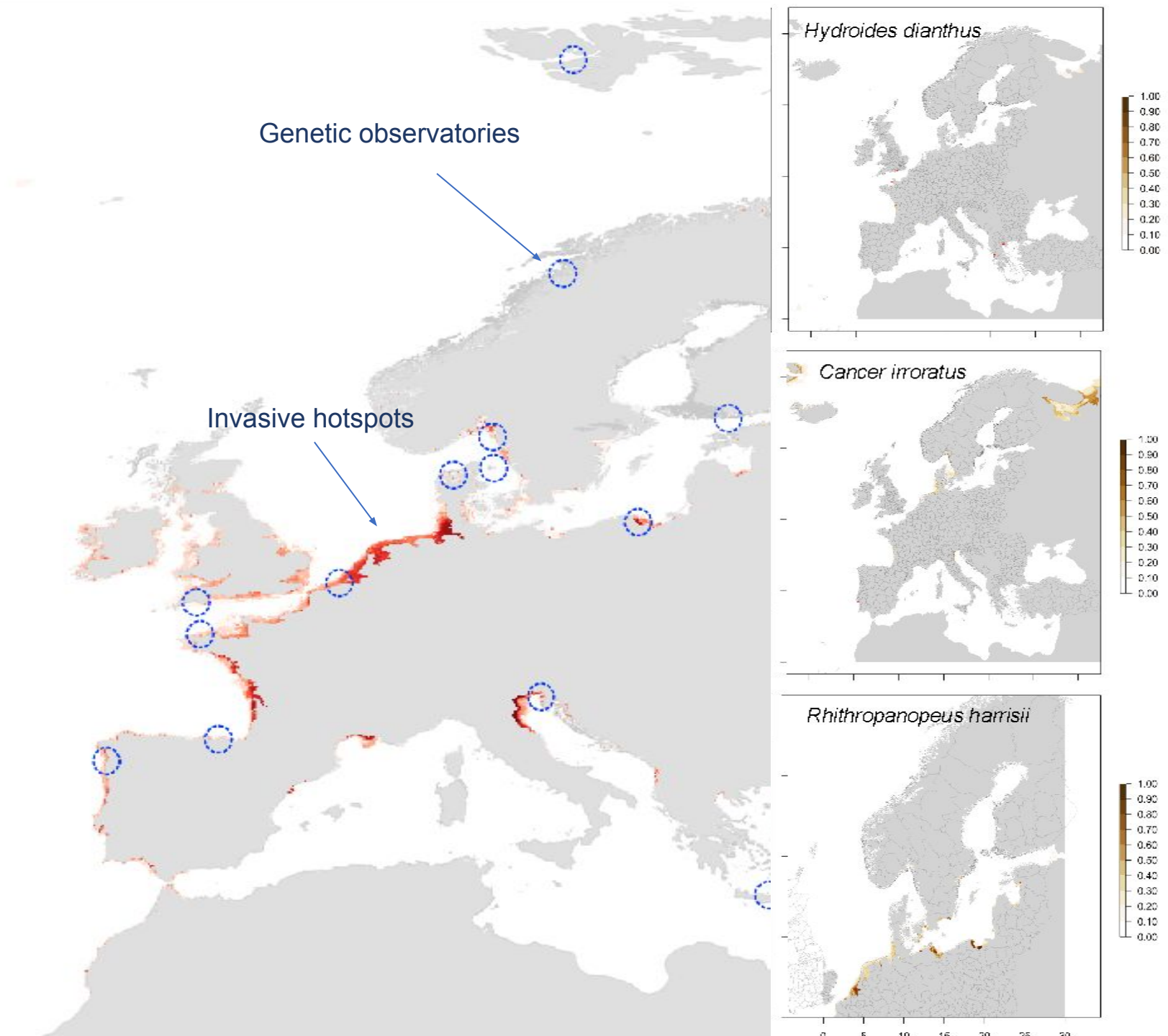


Objectives

1. Develop & test invasive heat maps and alien forecasts for the European coastline, i.e., work towards “biological weather forecasts”
2. Evaluate the forecasts with observations from highly sensitive observation networks, i.e., genetic observatories

Results

- Potential invasive hotspots identified
- Individual forecast models developed for >50 marine alien species
- Most individual models detected areas with suitable habitat where the species have not yet been reported from



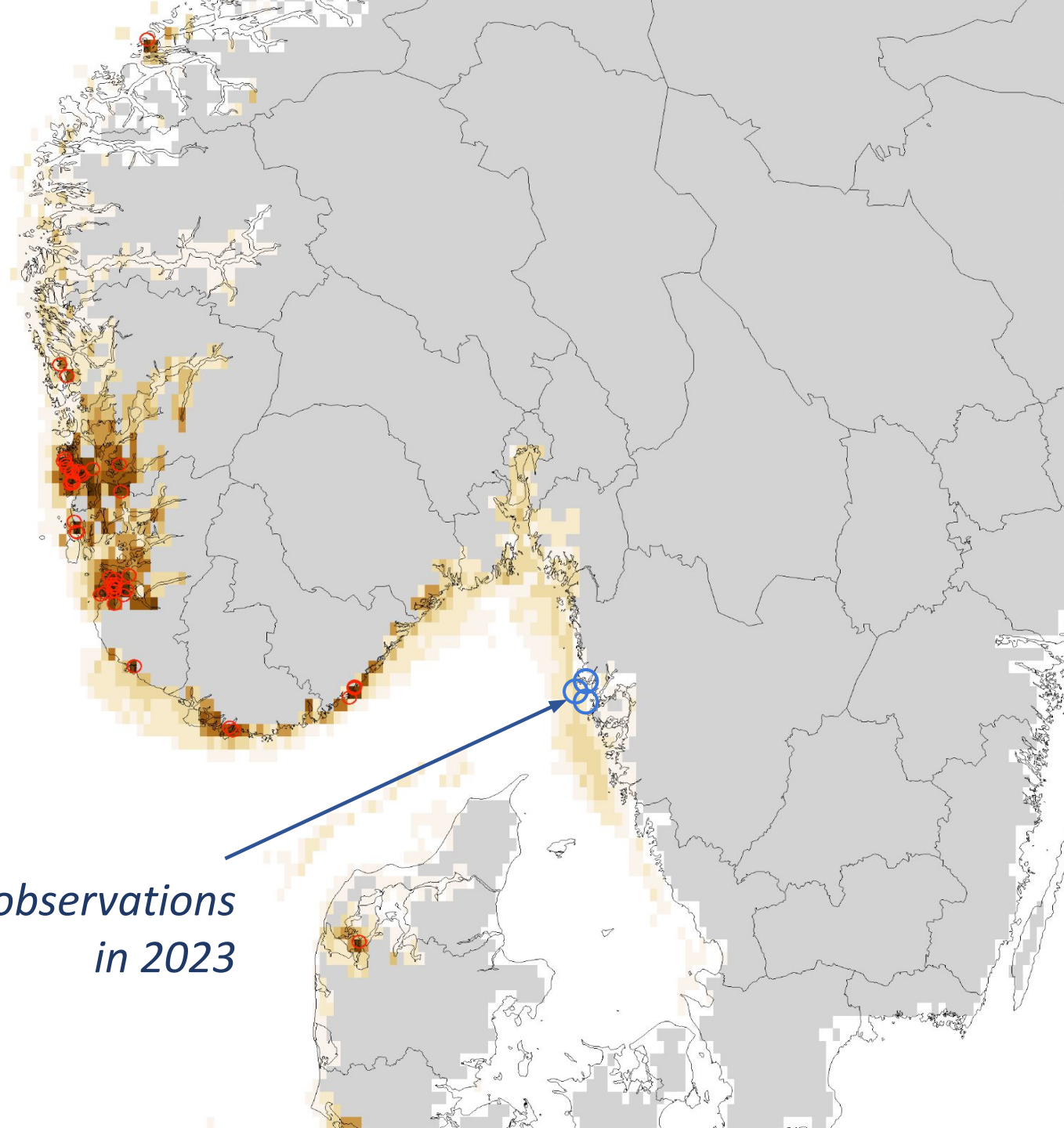
An example (one out of 50+ species)

Styela clava (Leathery sea squirt)

Origin: NWPacific (Japan, Korea)

Invasion history: Global distribution since mid. 1900's

Impact: fouling, clogging



*New observations
in 2023*

Application in MSFD

- Swedish Agency for Marine & Water Management (SwAM) uses the MBO models to design its national monitoring program for marine alien species
- SwAM implements genetic observatory network as early warning system for marine alien species

