

Research of marine protected habitats in EEZ and determination of the necessary conservation status in Latvia - LIFE REEF

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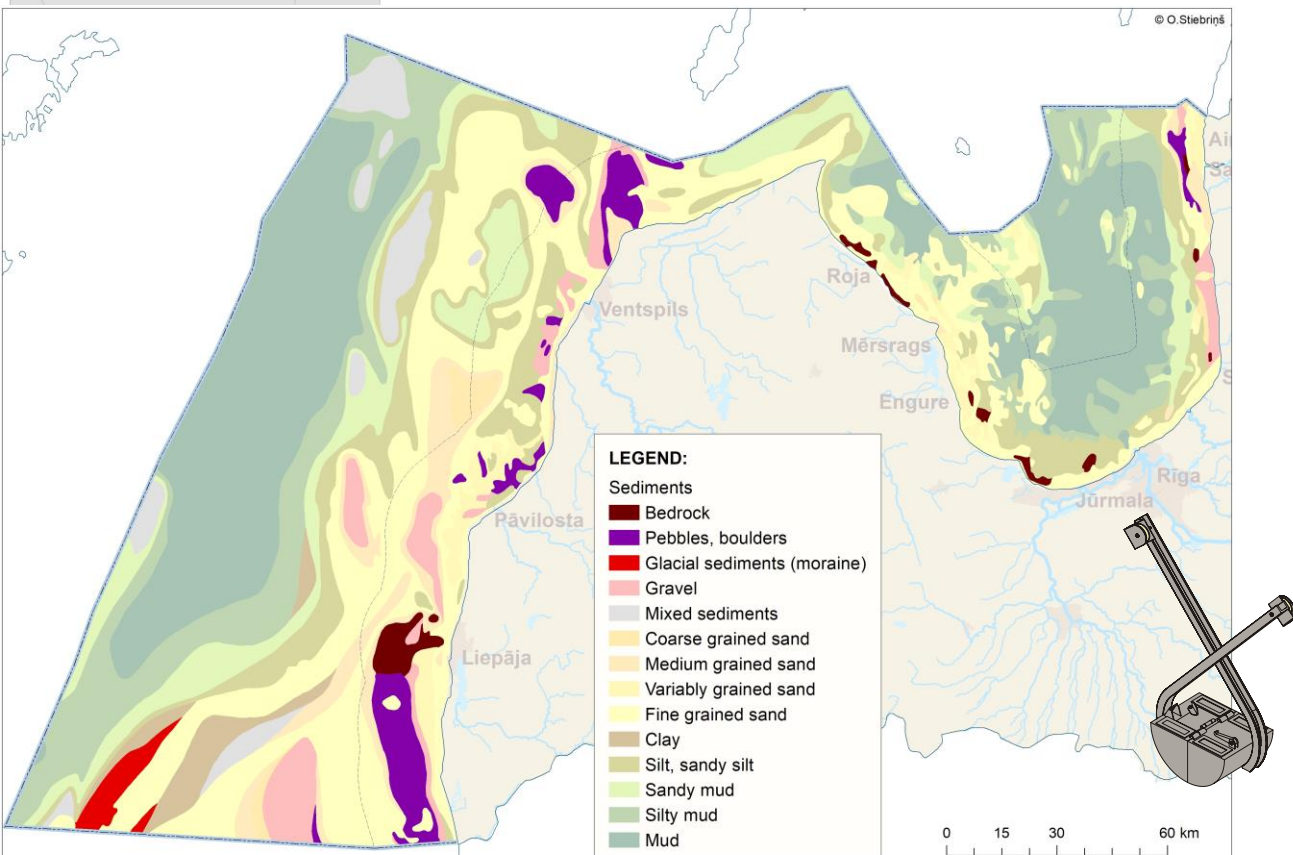


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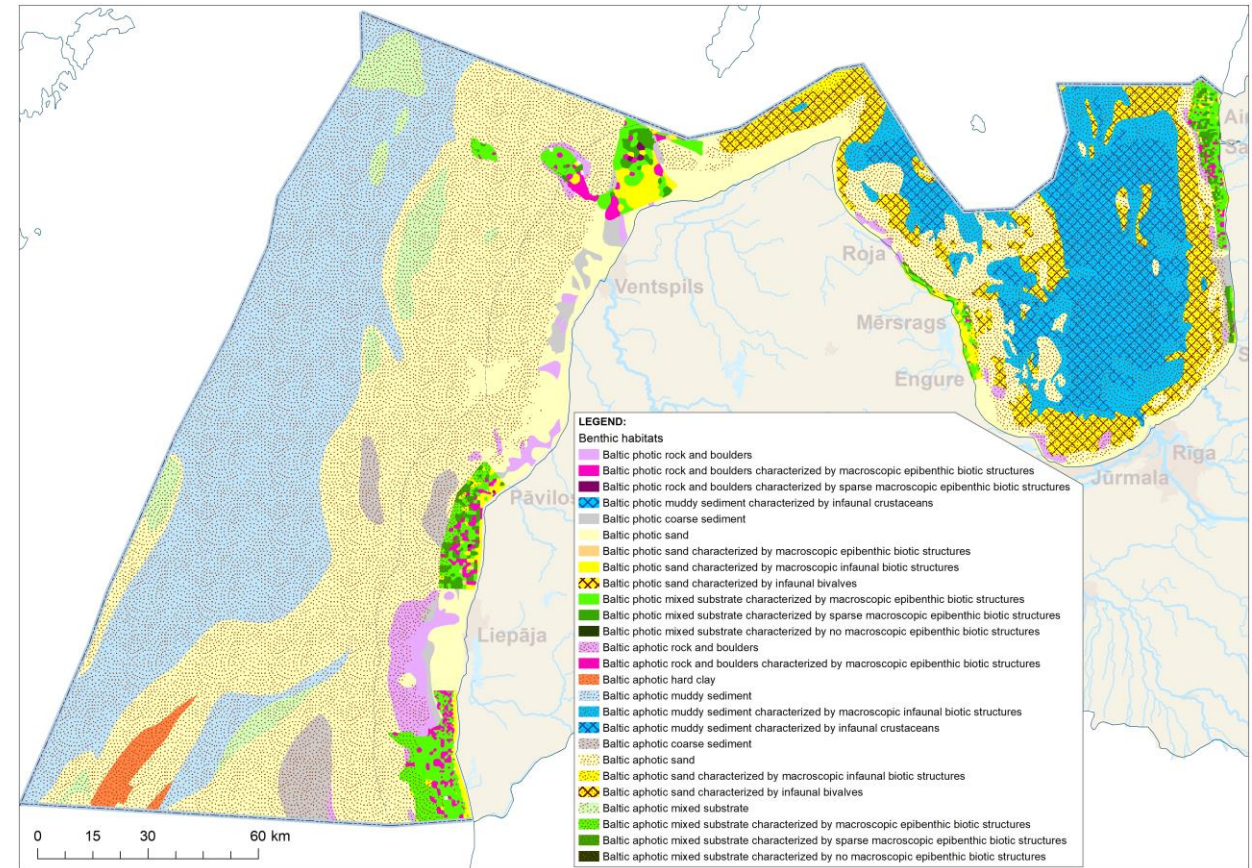
History



Available geological information- sand and gravel substrates



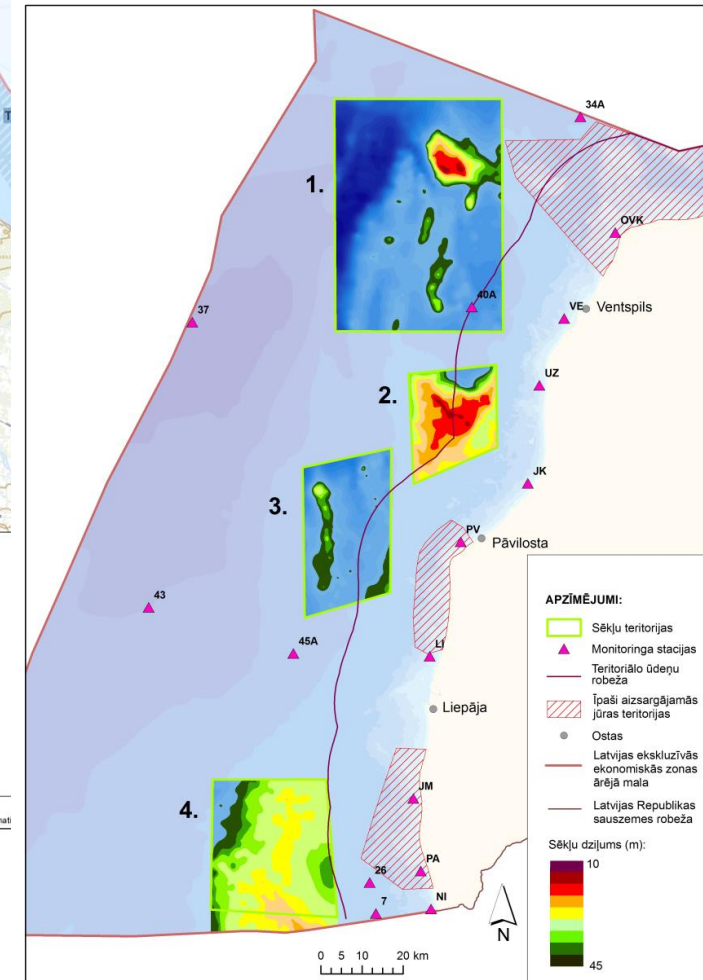
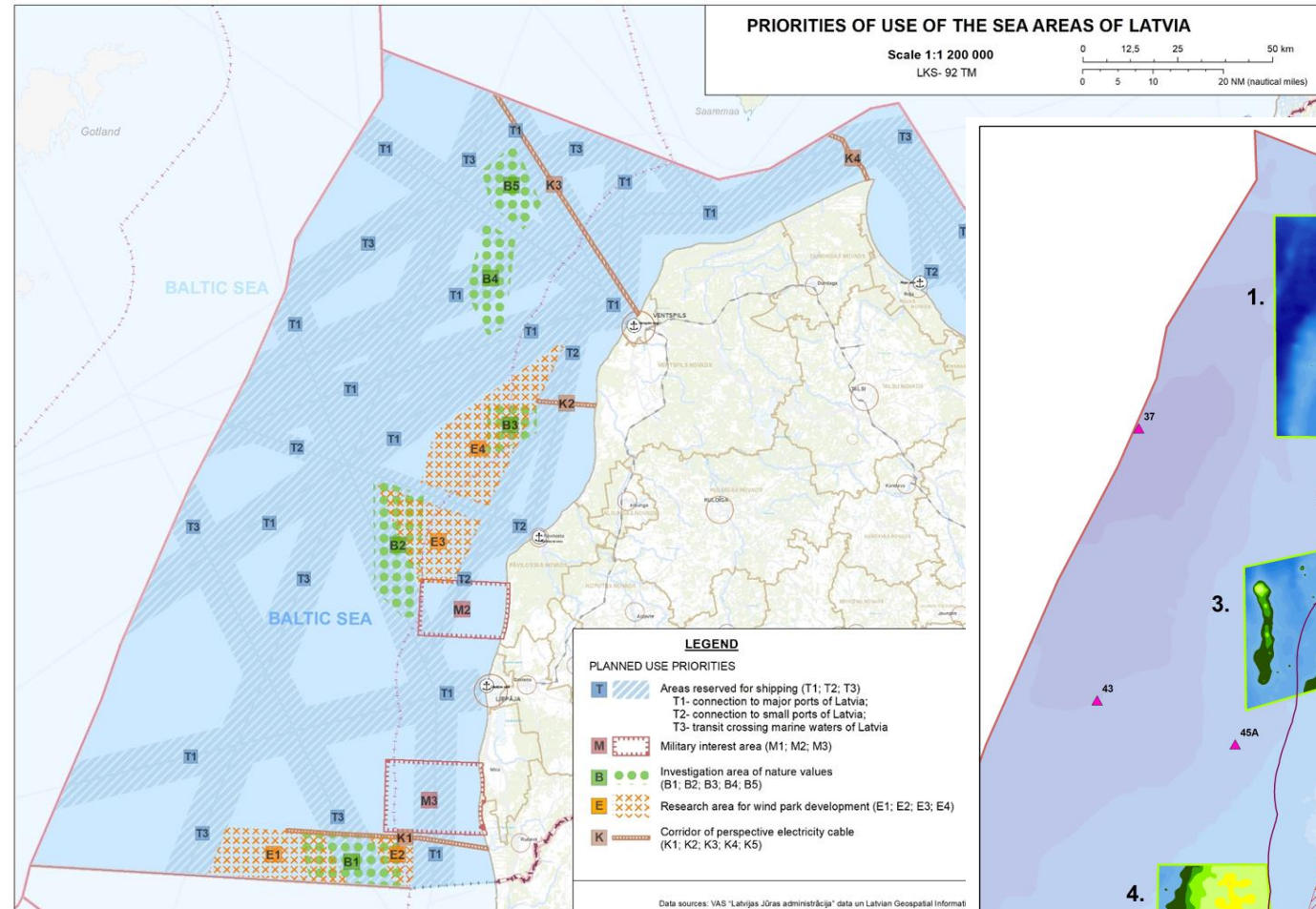
Habitats- Baltic aphotic sand





MSP and MPAs: identification of research areas with unknown natural value in EEZ

- Elevated sandbanks (protected habitat 1110) in the EEZ?
- Potential wind, wave energy, oil extraction or aquaculture sites?
- Result: LIFE REEF project





LIFE REEF project:

Research of marine protected habitats in EEZ and determination of the necessary conservation status in Latvia

LIFE19 NAT/LV/000973 LIFE REEF, 01/09/2020 – 31/08/2025

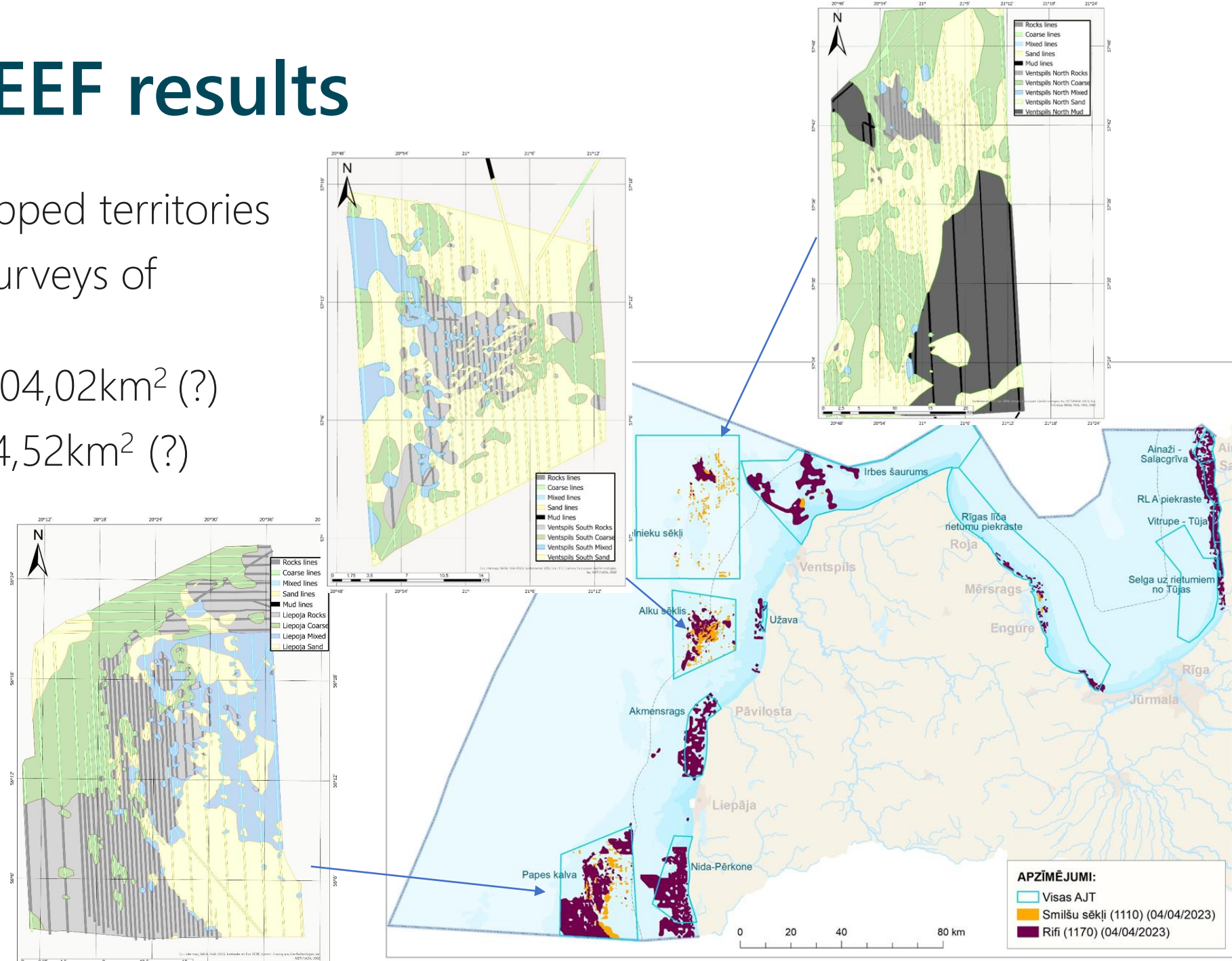
- The main objectives of the project are:
- Identification of potential marine protected sites and development of proposals for new MPAs.
- Assessment of the effectiveness of the MPA network (including newly assessed territories) within the Latvian marine waters.
- Development of the **management plan** for marine protected sites.
- **Assessment of ecosystem services** provided by protected benthic habitats (1170 and 1110).
- Development of an **action plan** for limiting invasive marine species and development of **mitigation measures** to reduce seabird and marine mammal bycatch in coastal fisheries.





LIFE REEF results

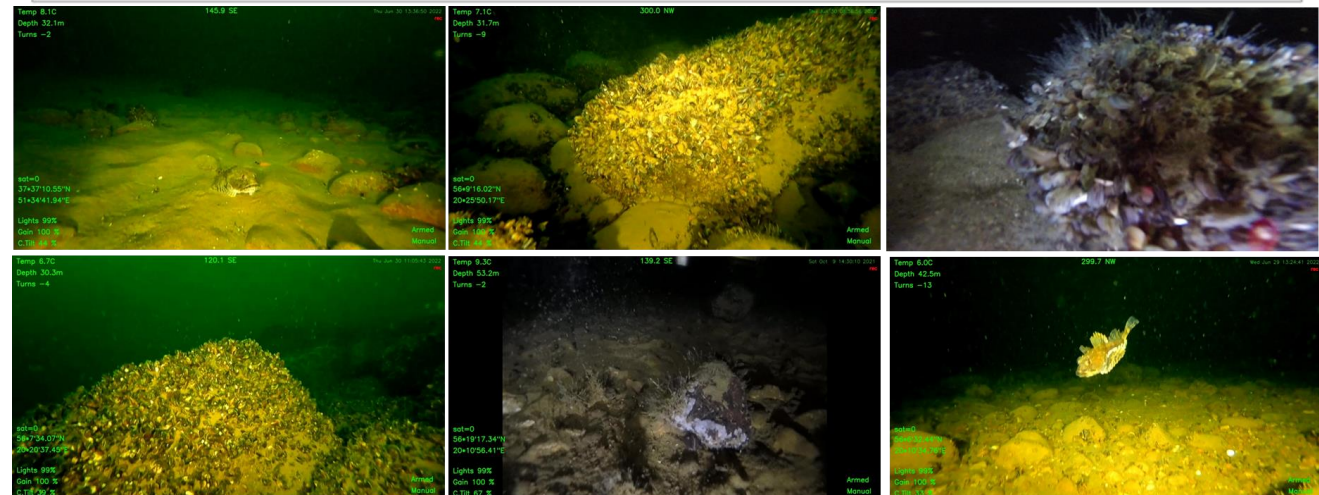
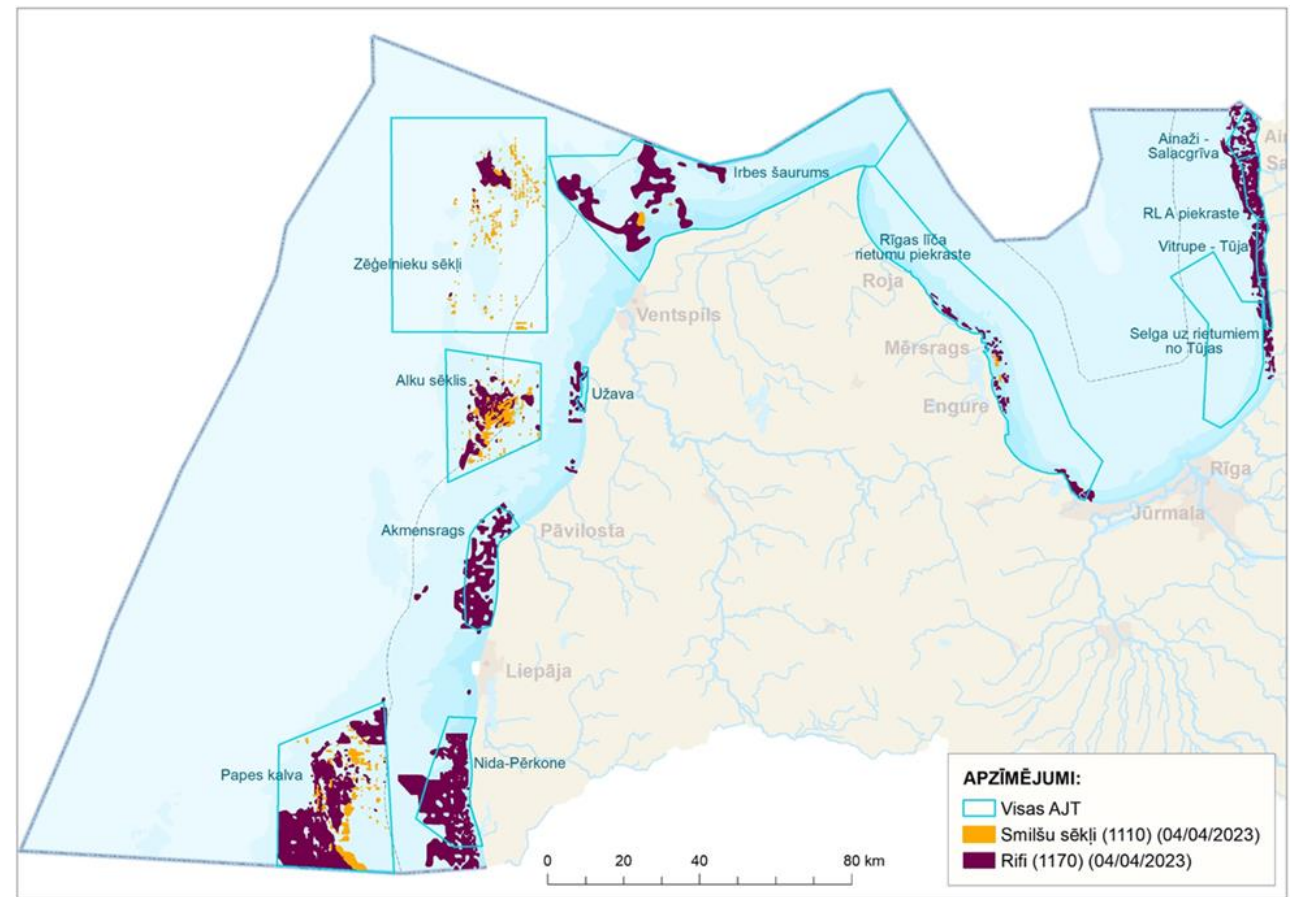
- Side-scan sonar mapped territories
- Underwater video surveys of southern territory
- Stony reefs (1170)- 504,02km² (?)
- Sandbanks (1110)- 74,52km² (?)





LIFE REEF results

- Investigations show predominantly healthy reef habitats (1170)
- Rich fish and bird communities
- Complex, diverse habitats with no sign of invasive fish species influence!



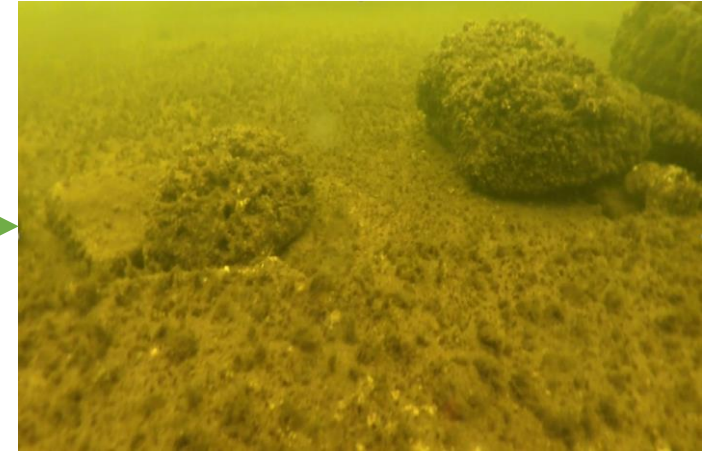


Challenges in the coastal zone

MPAs are area-based nature conservation measures that presume setting protection objectives for geographically distinct zones...

...While the main enemies are not local:

- Eutrophication
- Invasive species
- Hazardous substances

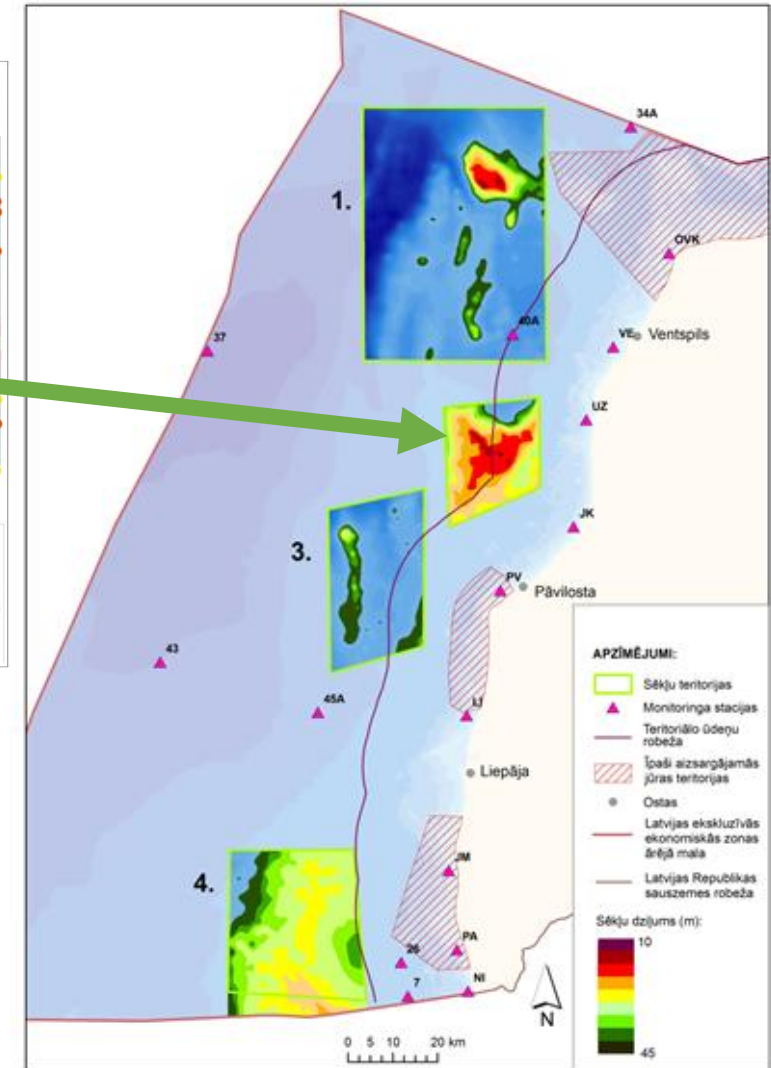
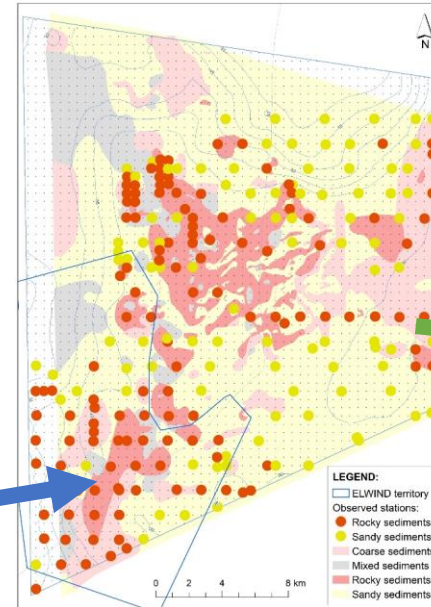




Challenges in the EEZ

MPAs are area-based nature conservation measures that presume setting protection objectives for geographically distinct zones...

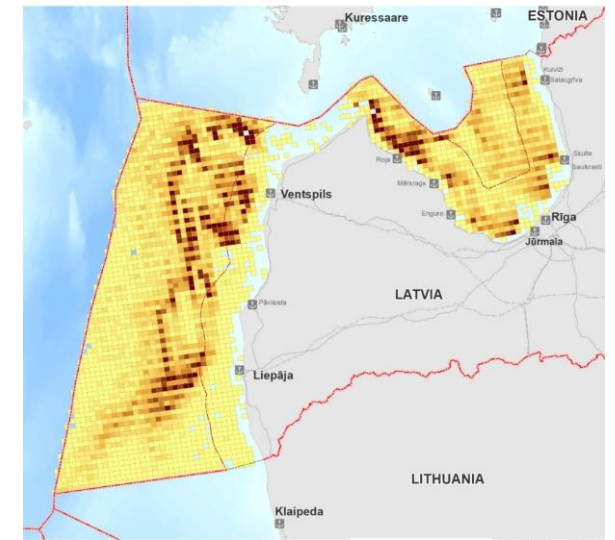
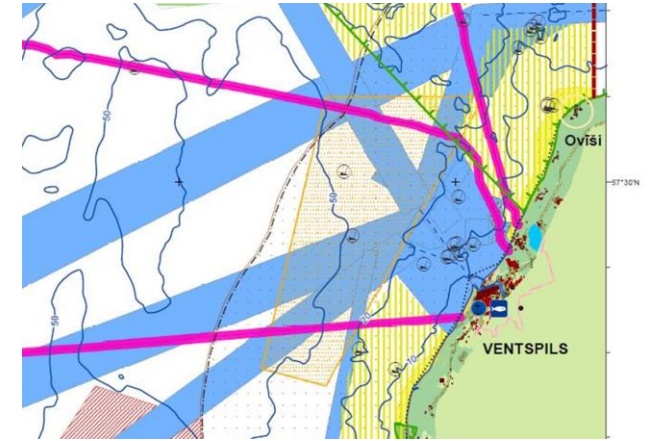
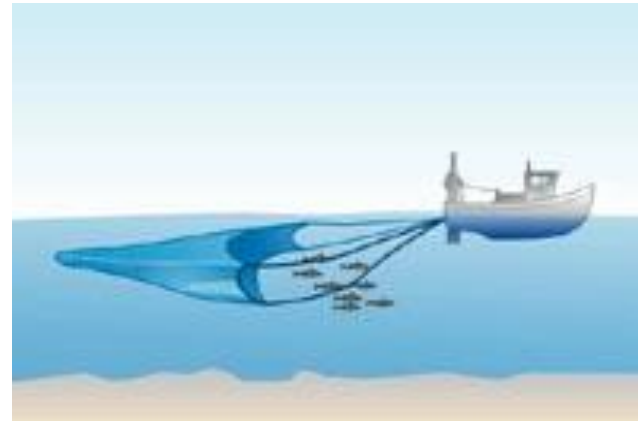
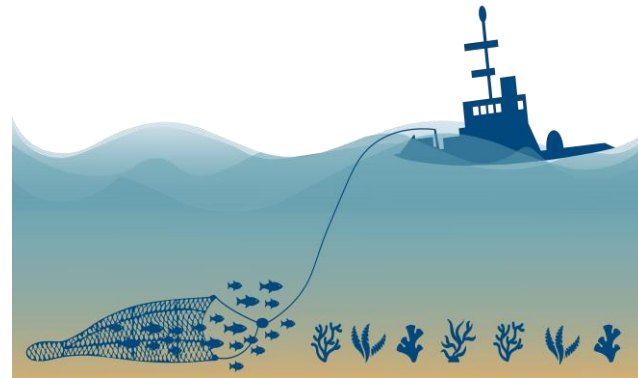
- Eutrophication
- Wind energy



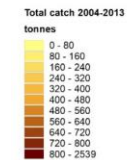


Challenges

- Bottom trawling allowed in specially designated territories
- Pelagic trawling- not harmful for benthic habitats: fisherman avoid reef territories



LEGEND

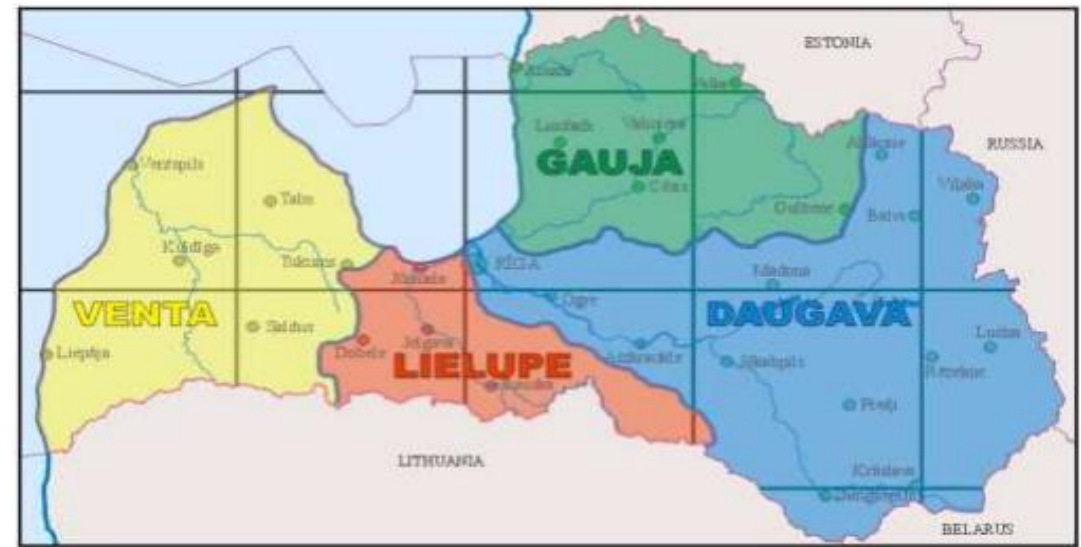


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Data sources:
Institute of Food Safety, Animal Health and Environment "BICE"
Ministry of Environmental Protection and Regional Development



Solutions

- Mitigating eutrophication by effectively implementing WFD River Basin Management Plans and nutrient reduction targets set by the Baltic Sea Action Plan



A new geographical frame:
The river basin



4 innovative objectives:

- Central role of aquatic life
- Good water and ecosystem quality
- Public participation in water management activities
- Recovery of costs for water services



One main tool:

The river basin management plan (RBMP)

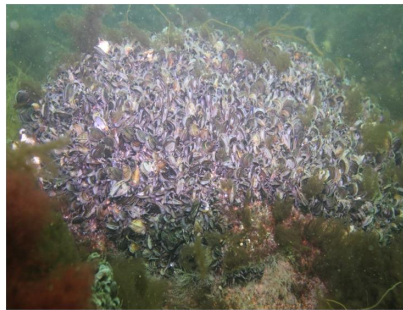
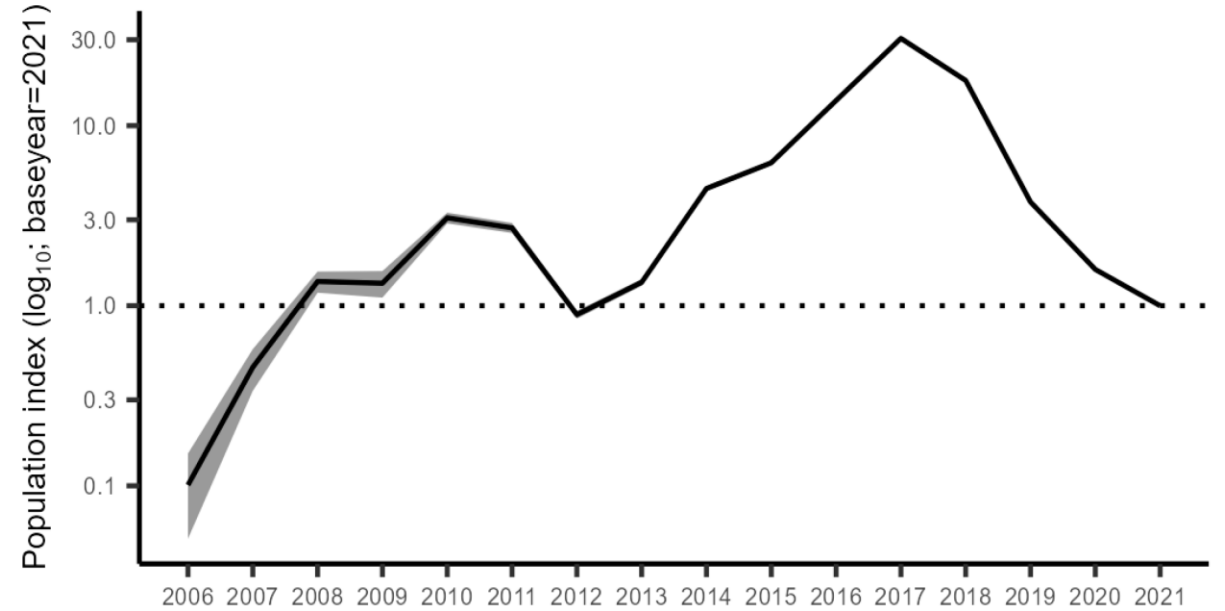
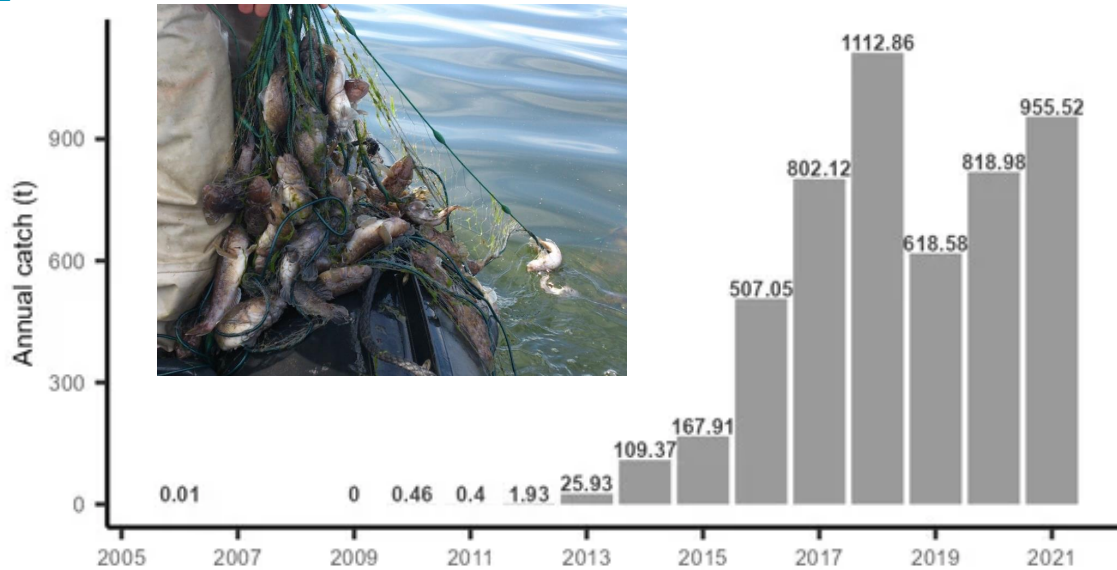
- What are the significant issues in the river basin?





Solutions

- Controlling invasive species by effective fisheries management



Healthy mussel communities



Overgrazing



Regrowth of mussels



Return of macroalgal communities

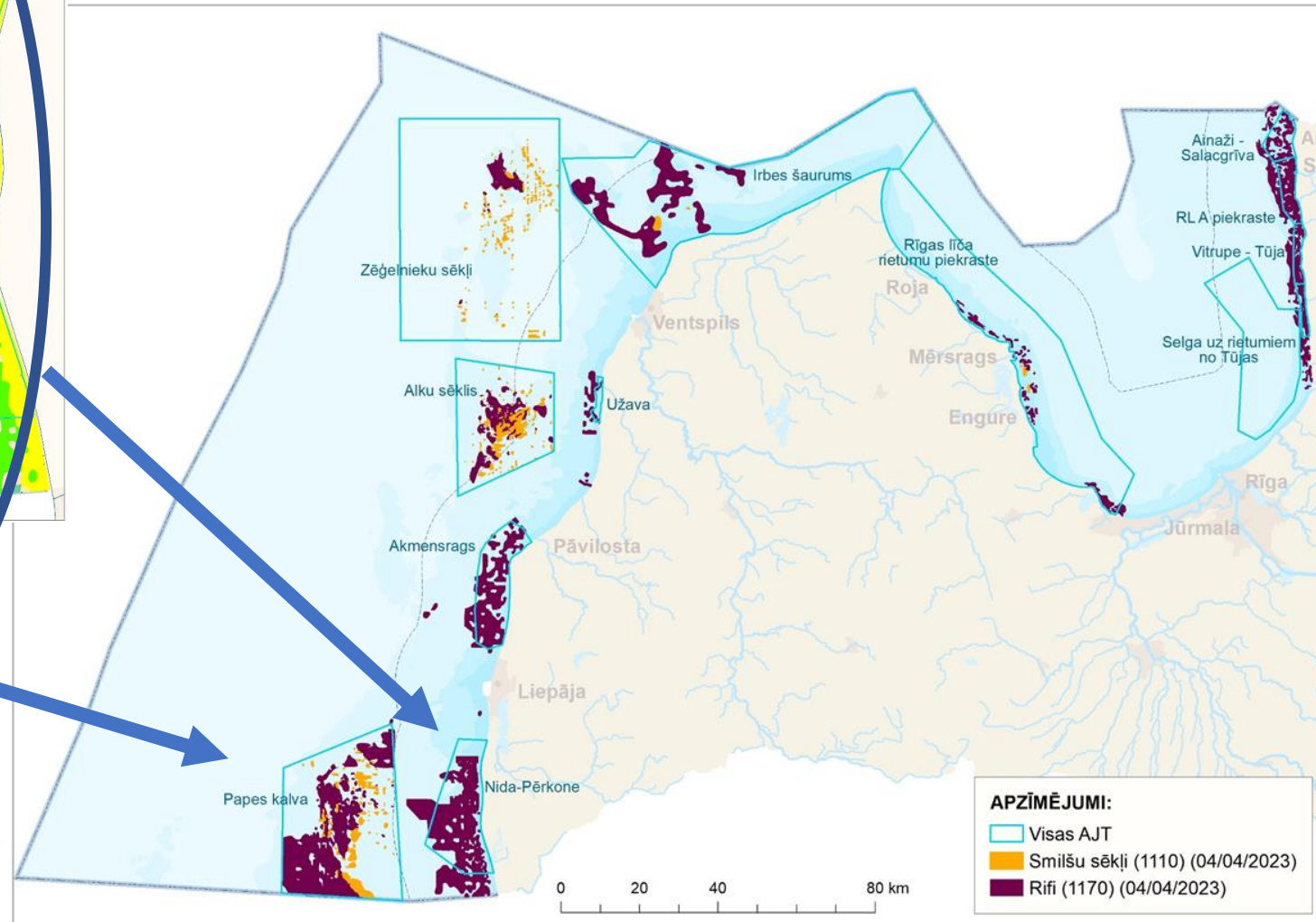
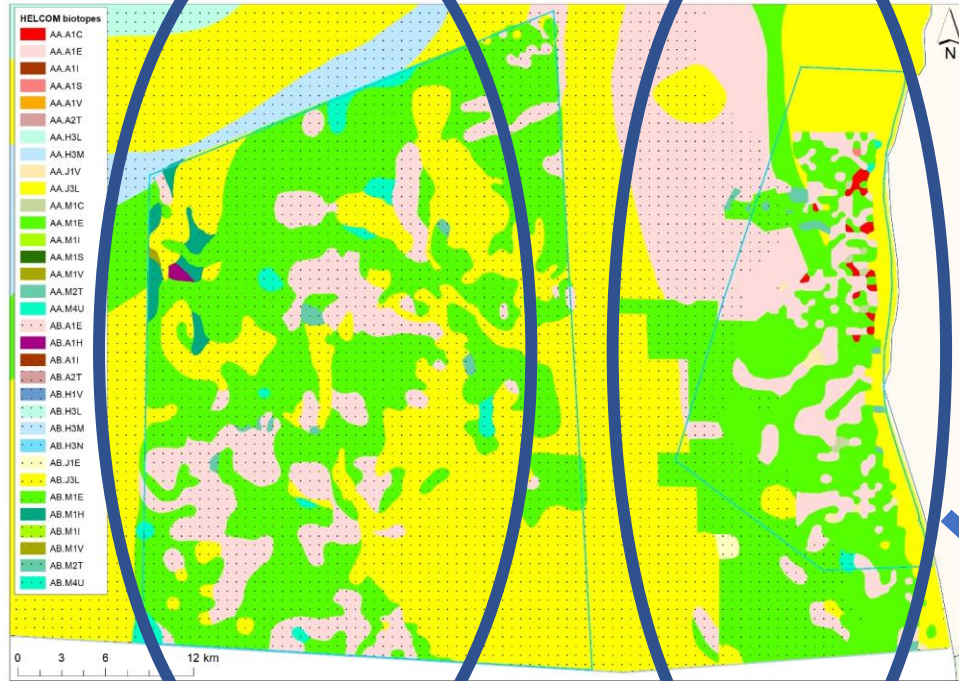


Washed algae at Liepaja beach





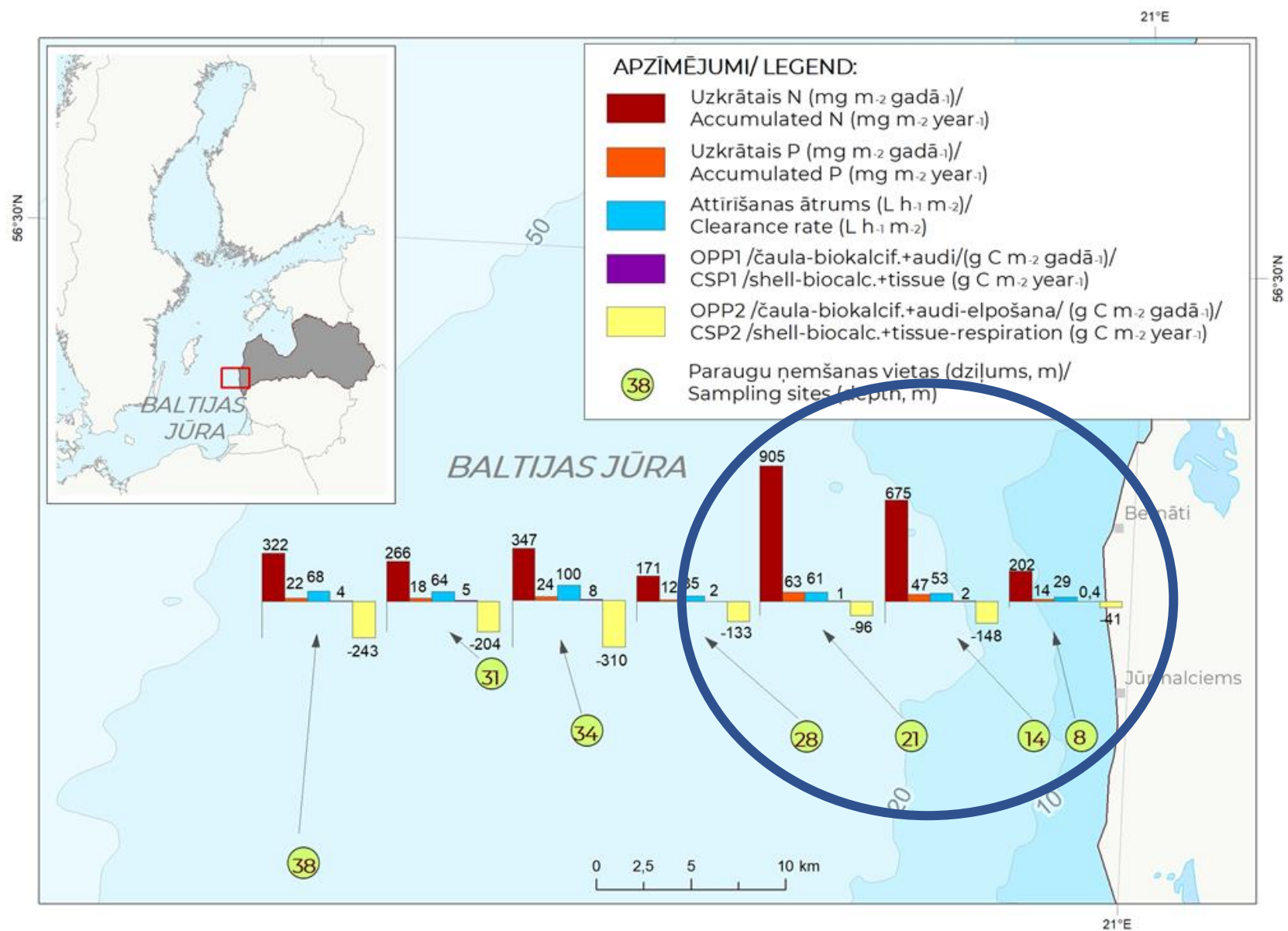
Habitat connectivity



- Continuity of substrate from coast to depth

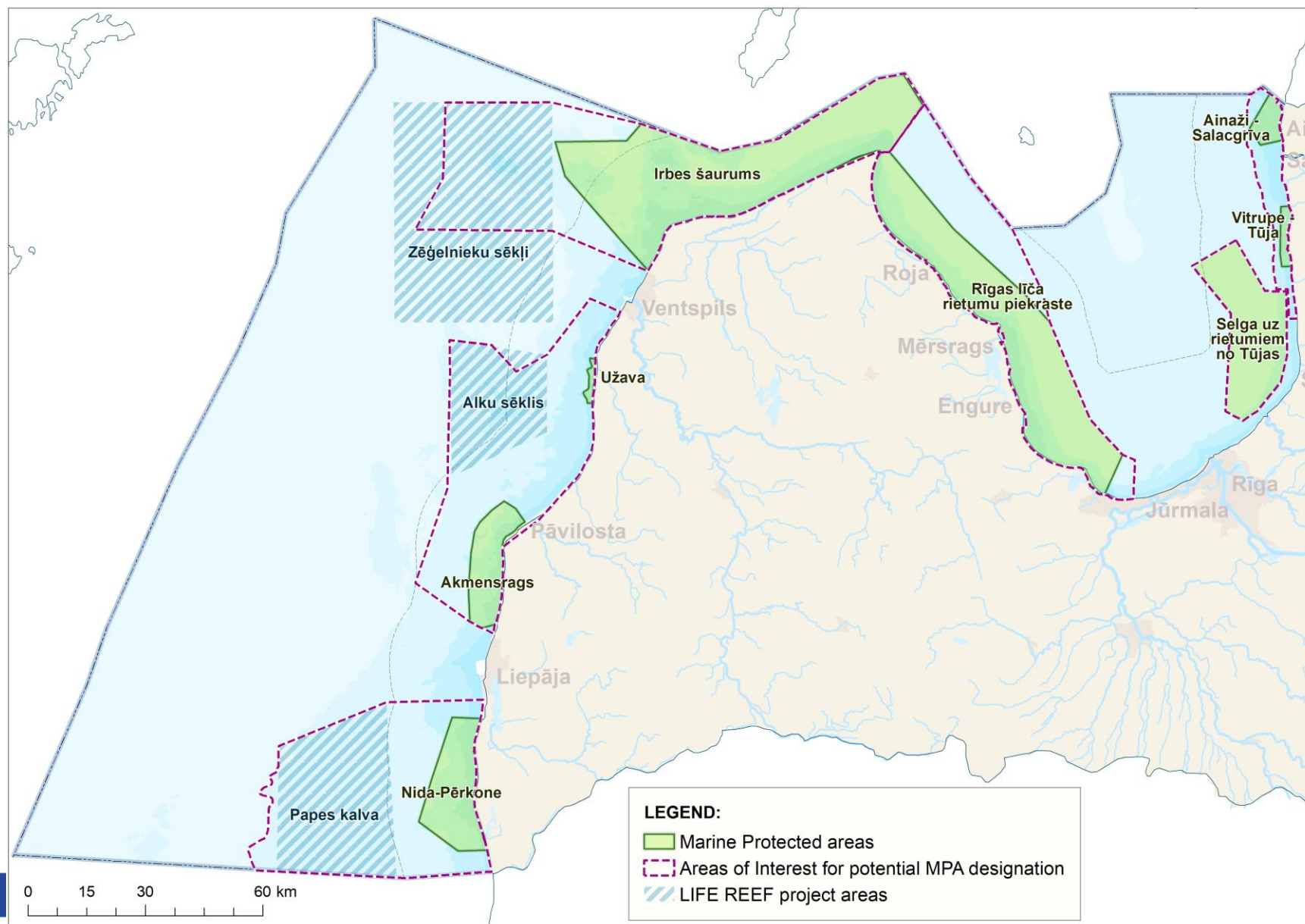


Habitat connectivity: land-coastal zone- offshore





Towards achieving 30% goal





Thank you!



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