

Documenting the "undocumented" by institutionalizing local coastal knowledge

Multispecies Cultural Niche Construction for Biodiversity Recovery

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Aim for the study



 To focus on the role of water owners as part of broader conservation strategies for 2030 and beyond

Water-ownership and protected areas on the Åland Islands

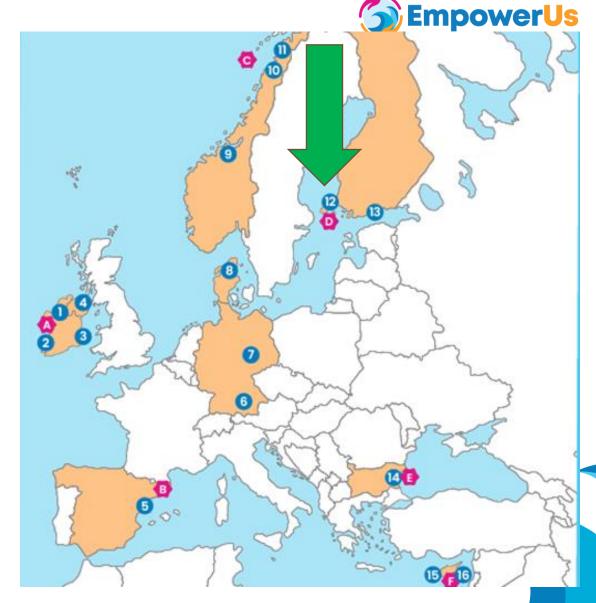






Aland in a nutshell

- Åland is a demilitarized (1856), self-governed (1921), Swedish-speaking region of Finland
- Population of 30,344 (2021)
- The archipelago consists of 6,700 islands, around 60 of which are inhabited
- Fisheries sector
 - Economy and culture









Finland's compliance 2030 puts pressure on Åland due to its vast marine territory => Åland must strengthen marine protection



Regulation	Goal
EU Biodiversity Strategy 2030	Protect 30% of land and sea (10% strictly) by 2030
Nature Restoration Law	Restore 20% of degraded nature by 2030 and all ecosystems needing restoration by 2050

Åland hosts unique ecosystems and currently protects **2.4**% **of land and 3.4**% **of its marine areas under various regimes,** including Natura 2000, IBAs, RAMSAR sites, HELCOM MPAs, seal protection zones, and private conservation initiatives.





The challenge for conservation activities of spawning areas

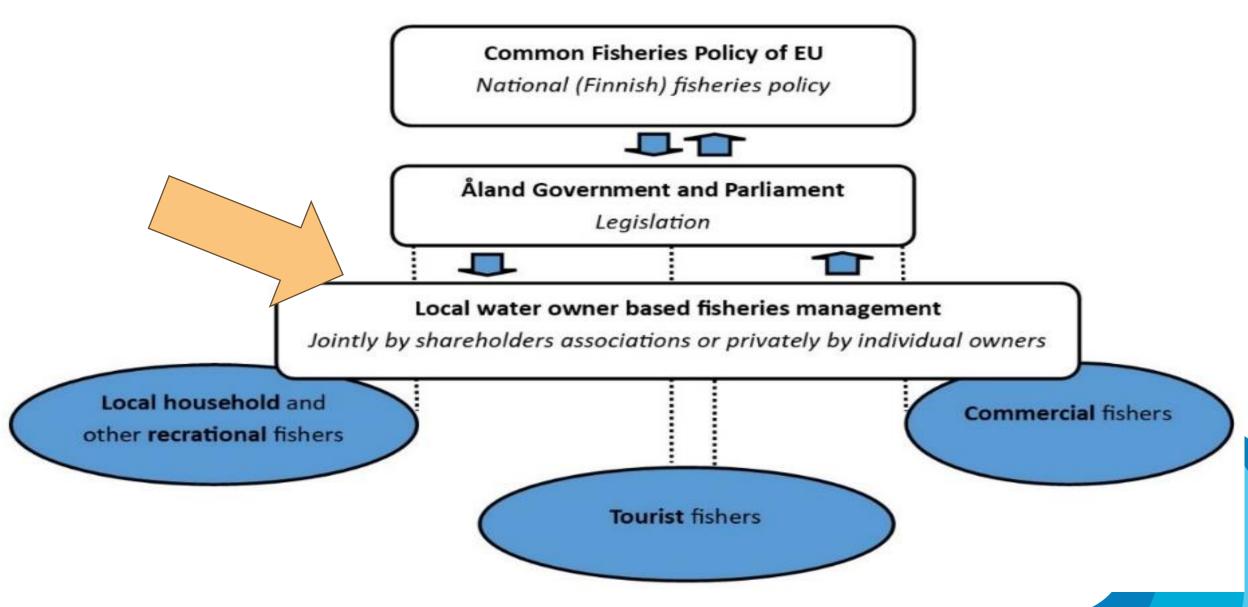


- The current monitoring system shows a gap in mapping existing protected zones.
- Are these areas included in officially protected areas? No
- What would take to make them 'official'? Legal act by registration or 'other' protection measure e.g. OECM
- What knowledge do we have today about these areas? Little collected and analysed data on water ownership and fisheries mgmt



Fisheries governance on Åland





Water ownership on Åland



- Structural types of owner-based water/fisheries management:
 - private waters owned by individuals, associations, or companies
 - common waters shared by villages or multiple owners and managed collectively by a statutory shareholders' association – 1.200
 - 3. public waters managed by authorities

Rights and responsibilities

- Sustainable use and conservation of fish stock and ecosystems
 - implementing fishing regulations (e.g., seasonal closures, gear restrictions), protecting spawning areas, taking part in habitat restoration efforts







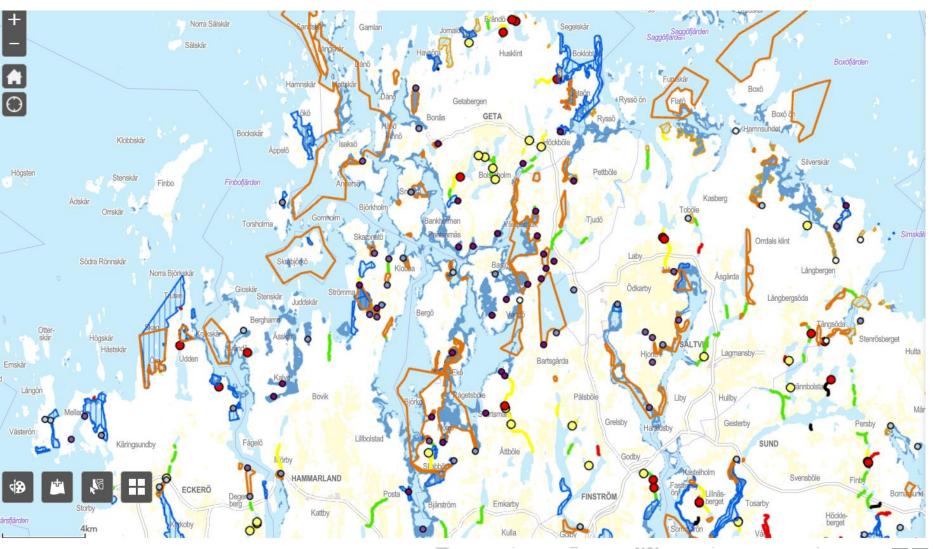
Spawning areas mgmt by water commons/ SempowerUs shareholders' associations • Coastal snawning areas are



- Coastal spawning areas are primarily located within private and commonly owned waters
- Restricted or no fishing allowed
- Communicated through the sales of <u>recreational fisheries</u> <u>licenses</u>
- Not complete, many areas do not publicly sell fishing licenses

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Spawning areas layered on local and expert knowledge



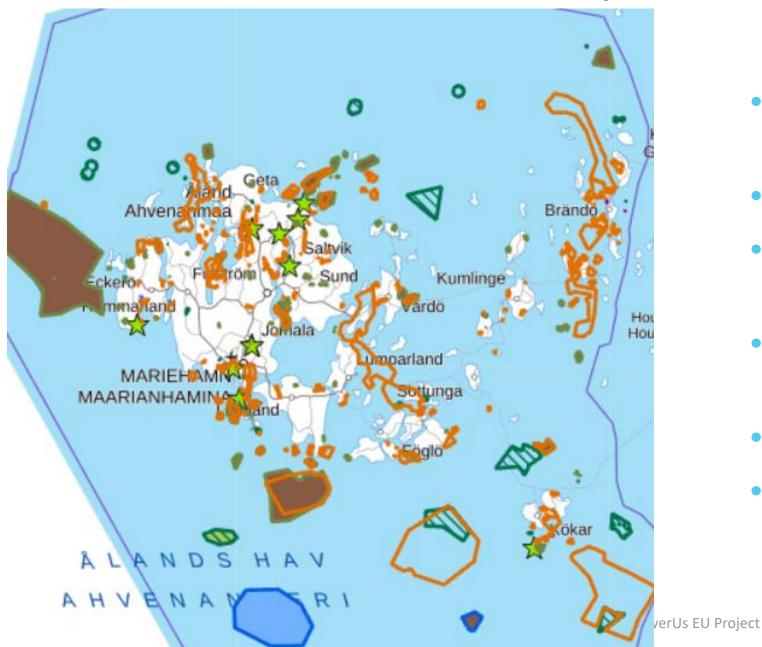


- Recreational fisheries
 licenses = Status of spawning
 areas, 2018, Ål government
- Status of <u>coastal habitats</u> by Husö Biological Station
- Migration routes and status by Husö Biological Station, 2010 and 2018
- Spawning areas, Neumann 2004-2007
- Potential areas for <u>pike</u>

 spawning, Bergström U,

 Sandström A, Sundblad G
 2007

Protected water areas = more than 3,4 %





- Protected fisheries and spawning areas
- Natural reserves
- Helcom protected areas
- Ramsar protected areas
- Natura2000 areas
- Bird protection areas



Other affective area-based conservation measure **OECM**



- Conservation area that is not officially designated as a protected area but still contributes to the long-term conservation of biodiversity.
- Managed in a way that supports conservation goals, even if they don't fall under formal protected area categories.
- In **Finland** the greatest potential for areas to be designated as OECMs lies on state-owned forest/mire land, predominantly in northern Finland
- Some of these areas include or affect also marine environments
 - fishing restriction areas
 - sites under Finnish Water Act
 - water bodies subject to the Rapids Protection Act
 - inland waters with good or excellent status classification according to EU Water Framework Directive guidelines.







Aland's challenges with OECM classification



- Environmental agency resources for the OECM process
- Politically imposed activities
- How to monitor and plan OECMs?
 - Which methods to use for monitoring?
 - Citizen-science? (fiskarna, lokalbefolkningen, nyttjarna)
 - eDNA analysis on fish population
 - Responsiability for monitoring
 - Water owners?
 - NGOs?
 - Government?







Thanks for listening!

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