

LOCAL ACCEPTANCE OF MUSSEL CULTIVATION IN THE BALTIC SEA

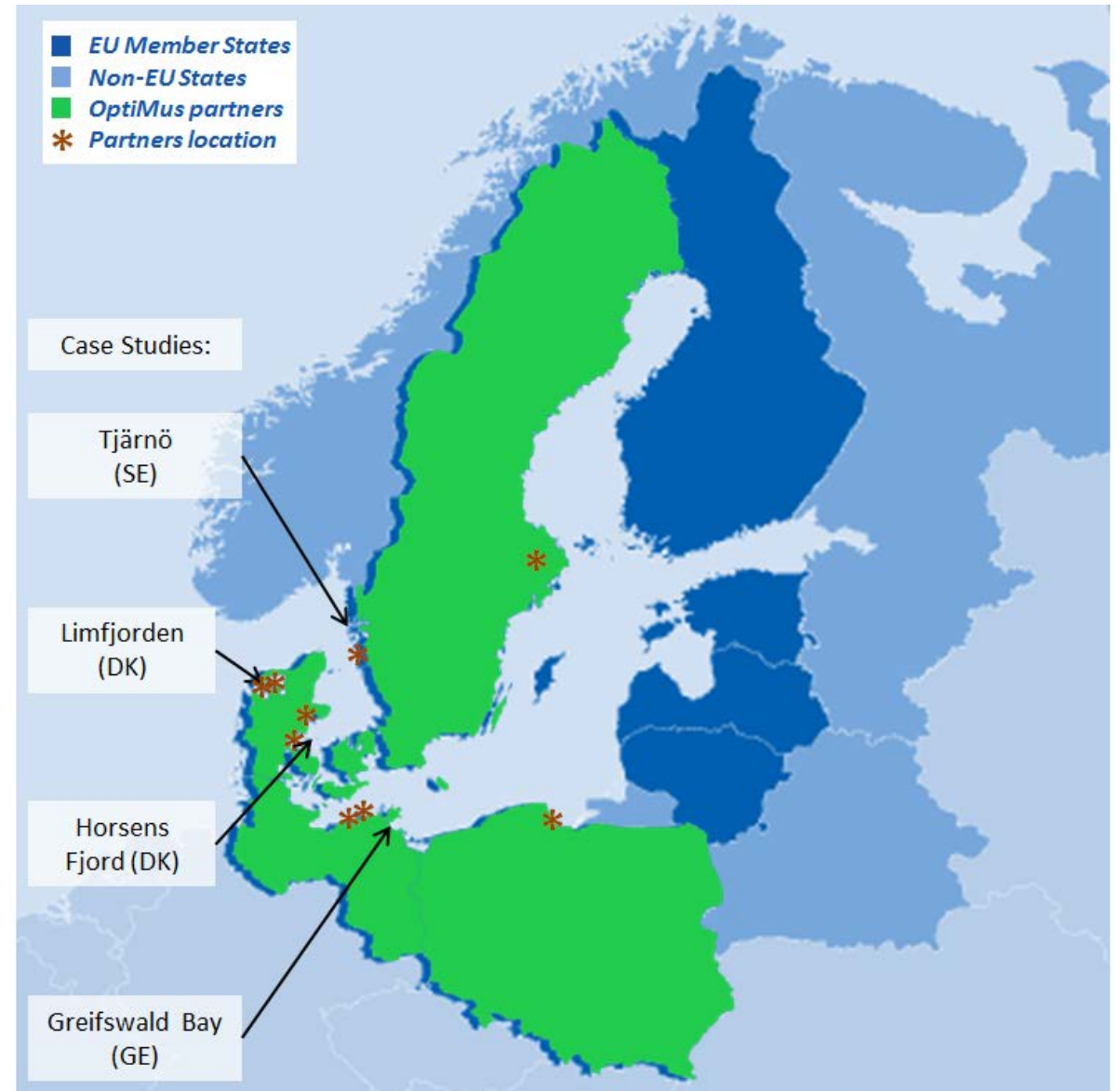
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AIM

Investigate social conflict/acceptance regarding mussel cultivation facilities

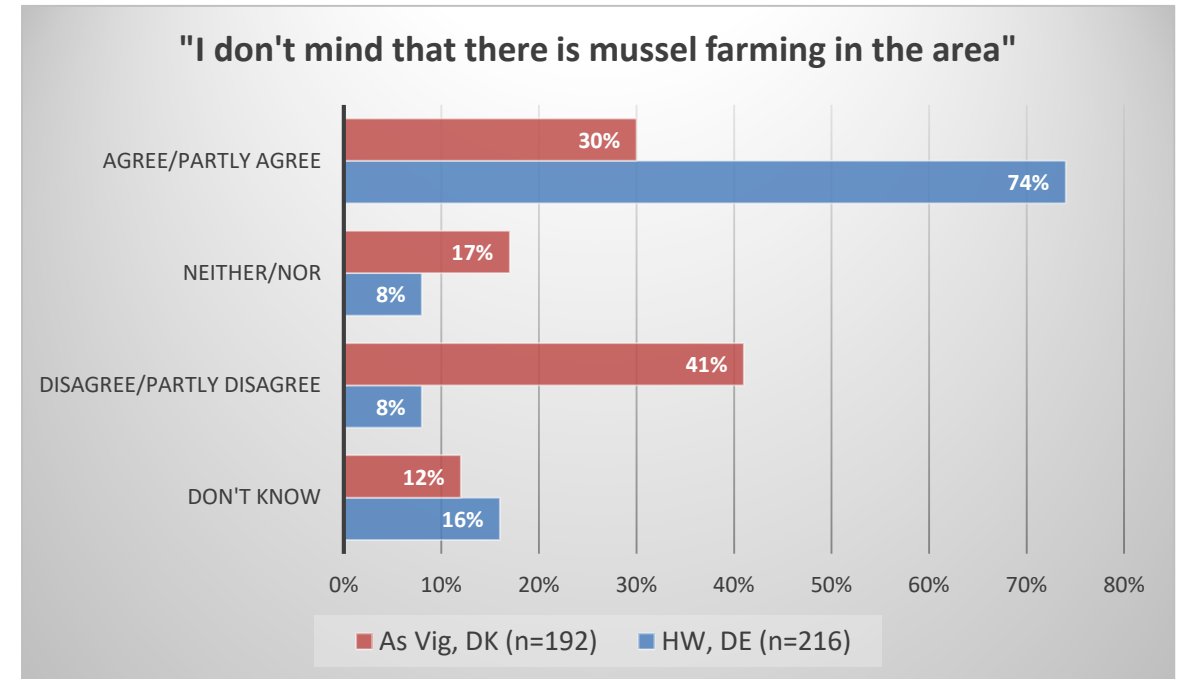
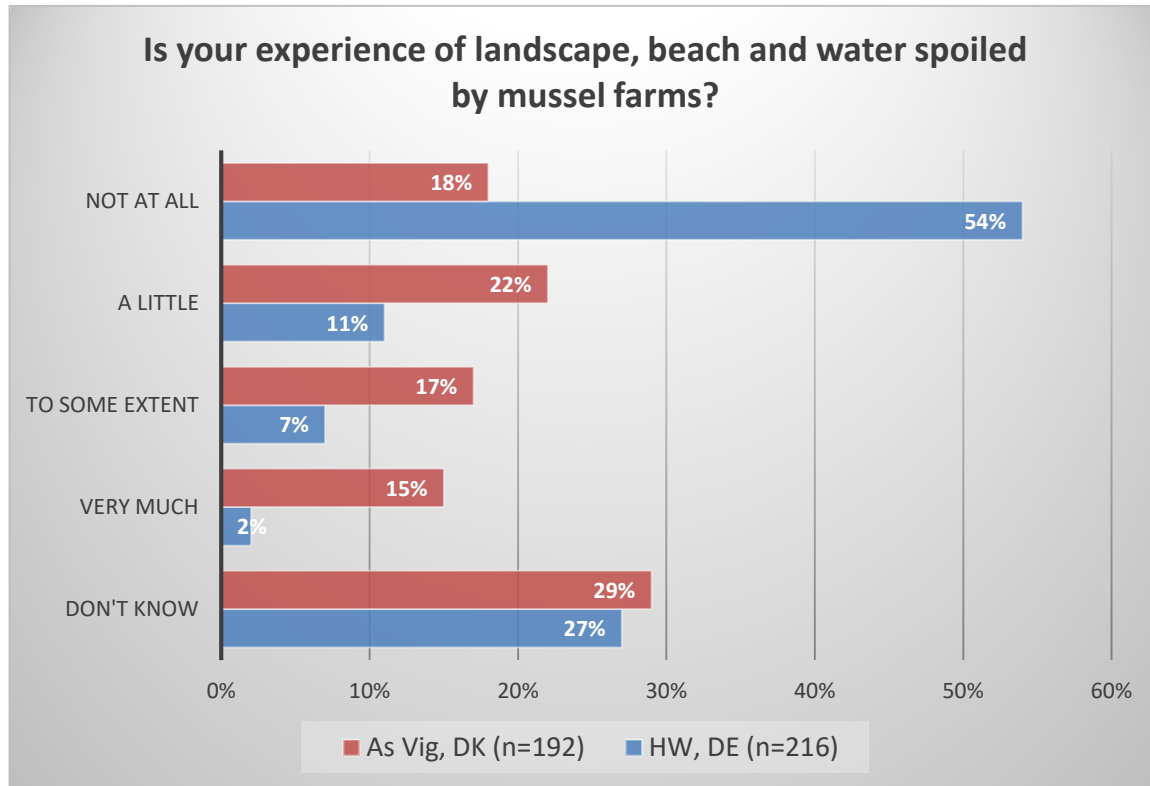
- They are located in marine spaces that are already charged with local interests.
 - Natura2000 area, scenic qualities. Local residents and summerhouse owners/users. Leisure activities: angling, yachting, kayaking. Etc.
- Explorative investigation of local concerns
- Siting conflict a well-known issue



EMPIRICAL STUDIES

- Questionnaire surveys
 - Horsens Fjord / As Vig, Denmark, June-August 2018
 - 191 full replies, summerhouse owners
 - Greifswald Bay / Hagensche Wiek, Germany 2018
 - 216 full replies, 75% holiday visitors, 25 % residents
- Stakeholder workshops, Limfjorden DK & Baltic coast DE (plus SE)
- Stakeholder interviews , Horsens Fjord DK & Greifswalder Bay DE
- Media analysis
 - Local Danish media in Horsens Fjord and Limfjorden areas, 2013-2015
 - Local Swedish media, east and west coast, 2013-2018

RESULTS: APPROVAL RATES (DK AND DE)



DIFFERENCES BTW DE AND DK CASES

	As Vig/Horsens Fjord, DK	Hagensche Wiek / Greifswalder Bay, DE
Experience with aquaculture	Decades	One year
Assessment of water quality	50 %: It has deteriorated	Stakeholders: No need for improvement
Have visited the area for more than 20 years	72 %	37 %
Accommodated in their own summerhouse	98 %	13 %
First time visitors	None	36 %
Had not noticed any facilities	2 %	83 %

Very strong place attachment

MAIN CONCERNS

What are the (potential) sources of aversion towards mussel cultivation?

- Fish farming affects mussel farming
- Space matters
- Longing for undisturbed scenery/nature
- Proper regulations and orderly daily operation are needed



Photo: Daniel Taylor

FISH FARMING AFFECTS MUSSEL FARMING

- **82 %** of the respondents in As Vig find that **fish farming reduces water quality**
- **67 %** find that fish farms **spoil their experience** of the beach and the water
- Of 87 replies to the open question “Why do you think the water quality has changed?” 70 mention fish farms as a primary source.
 - Respondents complain that **fish have vanished** from the cove
 - and that the seabed has become **muddy and slimy**, where it once was sandy
- An aqua culture company in the area is under suspicion of overproduction and of cheating with compensation measures - Has been **reported to the police**.

All this affects people’s perception of mussel cultivation

- **Trust** issue: Engenders distrust in aquaculture companies
- **Space** issue: Waterscape gets crowded with production facilities

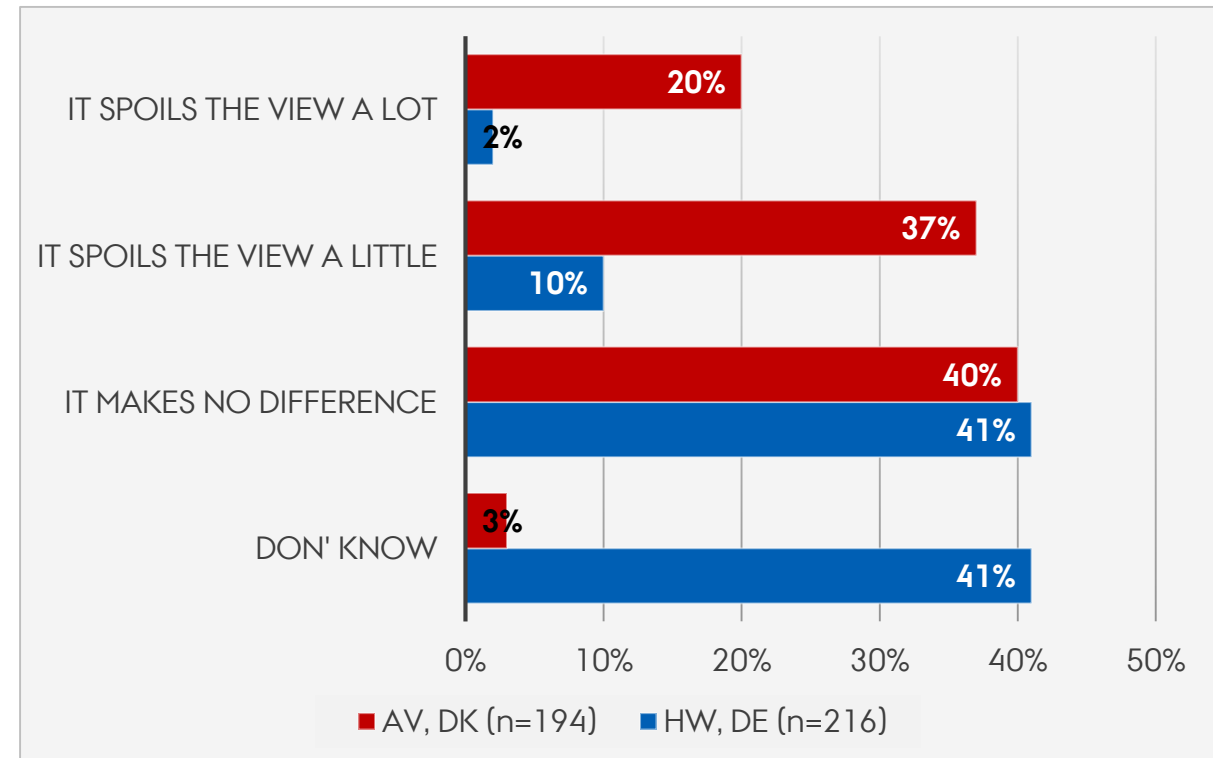
SPACE MATTERS

Risk that all the aqua culture facilities put together take up too much space.

- Concern that mitigation effect of mussel farms is insufficient (DK)
 - Especially if they are supposed to mitigate emissions from agriculture *and* fish farms
- Concern that the waterscape will be covered by aqua culture facilities (DK).
 - *Cluttering* the view/nature
 - Disturbing other activities.
- Concern that larger farms will cause problems for boating & fishing (DE)

“If the fish farms were on land, there would be many places you could put mussel farms without anyone being bothered.” Village Council member, Horsens Fjord area

In your opinion, how is the view over Hagensche Wiek/As Vig affected by mussel/fish farming?



SCENERY AND NATURE

Natura2000, Horsens Fjord

Facilities ruin the sense of undisturbed views over an open waterscape

Production facilities are located in Natura 2000 areas

- Against the point of marine protection
- Ruin the sense of real nature
- (According to stakeholder interviews and local newspaper debate in DK & SE)

However: Perception of cluttered views is conditioned by the knowledge that fish farms are a source of pollution



PROPER REGULATION AND OPERATION

Skive Fjord:

- Continuous problems with loose buoys, loose lines and other waste
 - Block fairway, litter the beach
- Owners of mussel farms do not always live in the area
 - Do not react quickly to problems. Do not follow the state of their facility

Bohuslän: Mussel farmers use areas on land against permissions

- Blocking the space for other uses
- Misuse of recreational and protected areas

Greifswald: Plastic pollution from farms must be avoided

Social acceptance depends upon proper operation of the facilities and no violation of regulations or misuse of spaces which serve other functions for the public.

Thank you for your attention

