

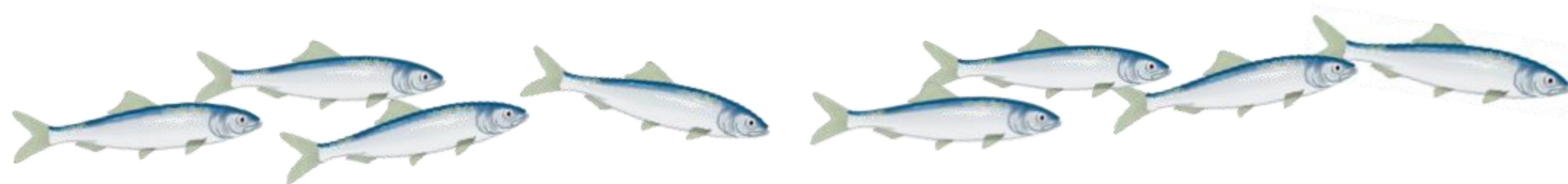
Applicability of the *satoumi* concept to Pacific herring management and conservation

Szymon Surma

Institute for the Oceans and Fisheries, University of British Columbia



THE
UNIVERSITY OF
BRITISH
COLUMBIA



Meaning of *satoumi*

里海

さと

sato

village

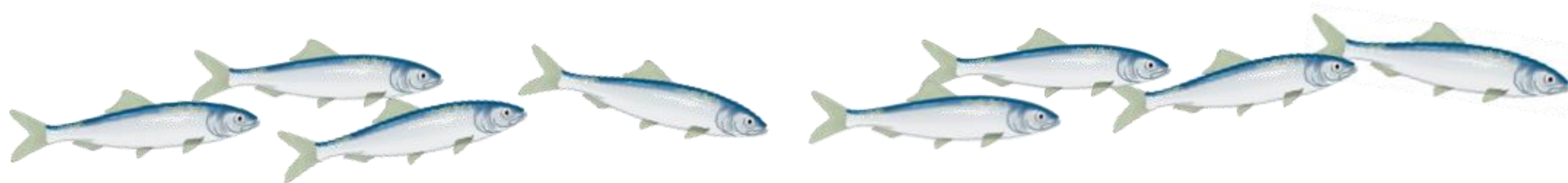
うみ

umi

sea

Main goals of *satoumi*

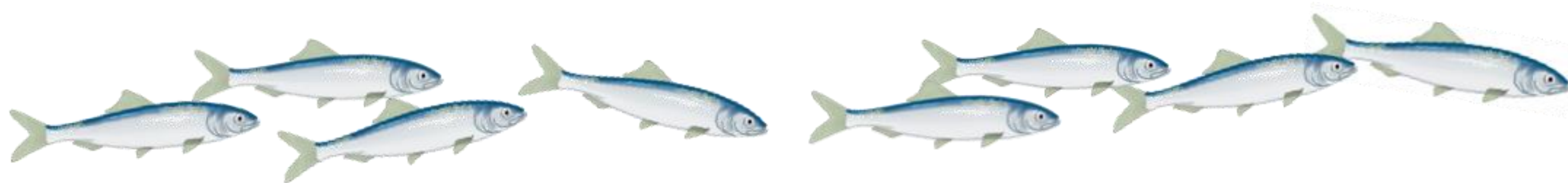
- 1) management of coastal waters with intensive human activity (e.g. ports, anchorages, shipping channels)
 - Japanese waters -> SF Bay, Salish Sea, Cook Inlet
- 2) promotion of biological productivity and biodiversity (similar to ecosystem-based management)



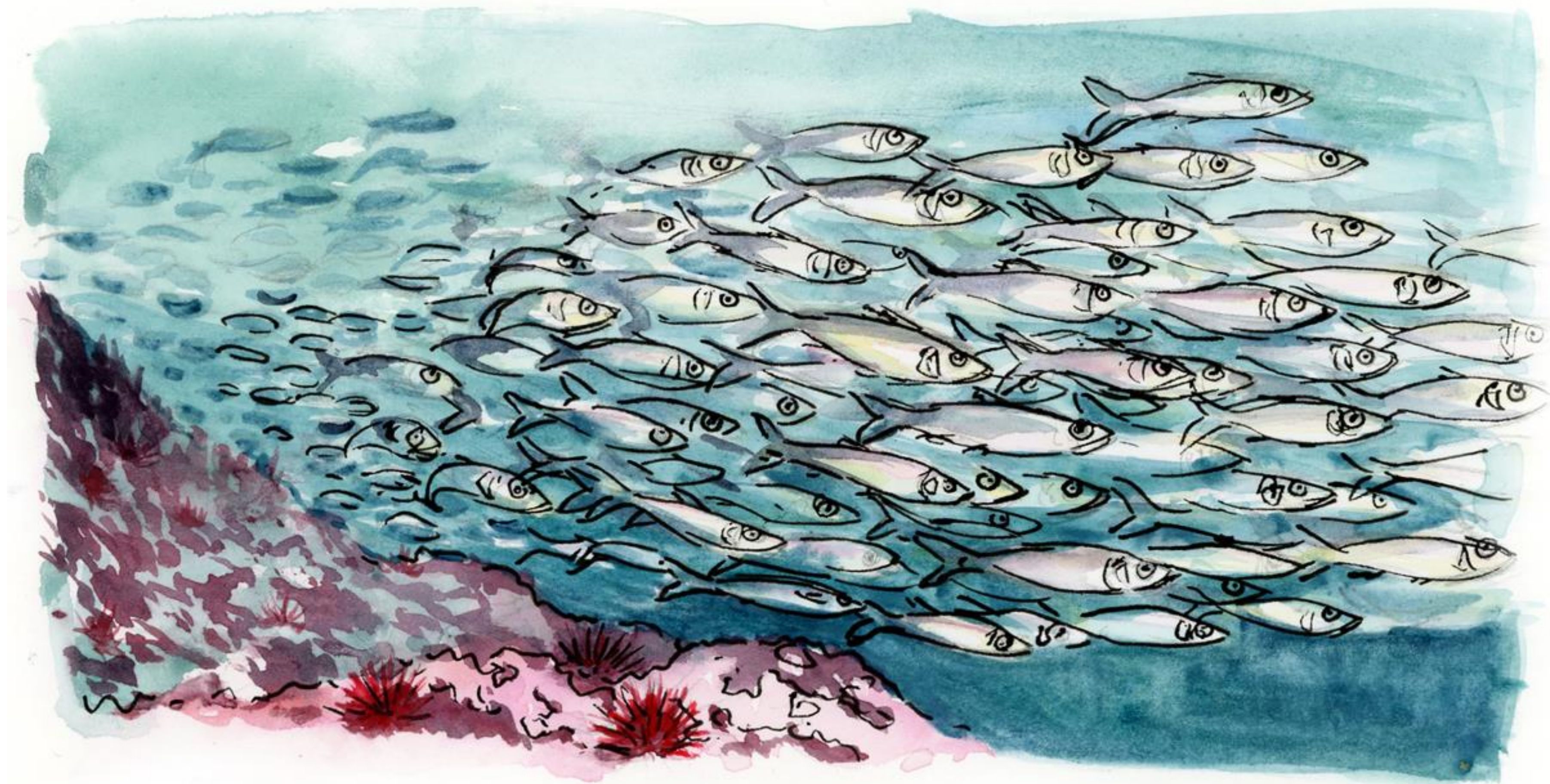
Main components of *satoumi*

integrated management of marine activities and ecosystems:

- coastal habitat restoration
- small-scale fisheries and mariculture
- environmentally responsible marine engineering



Pacific herring



Herring and predators



Herring and humans



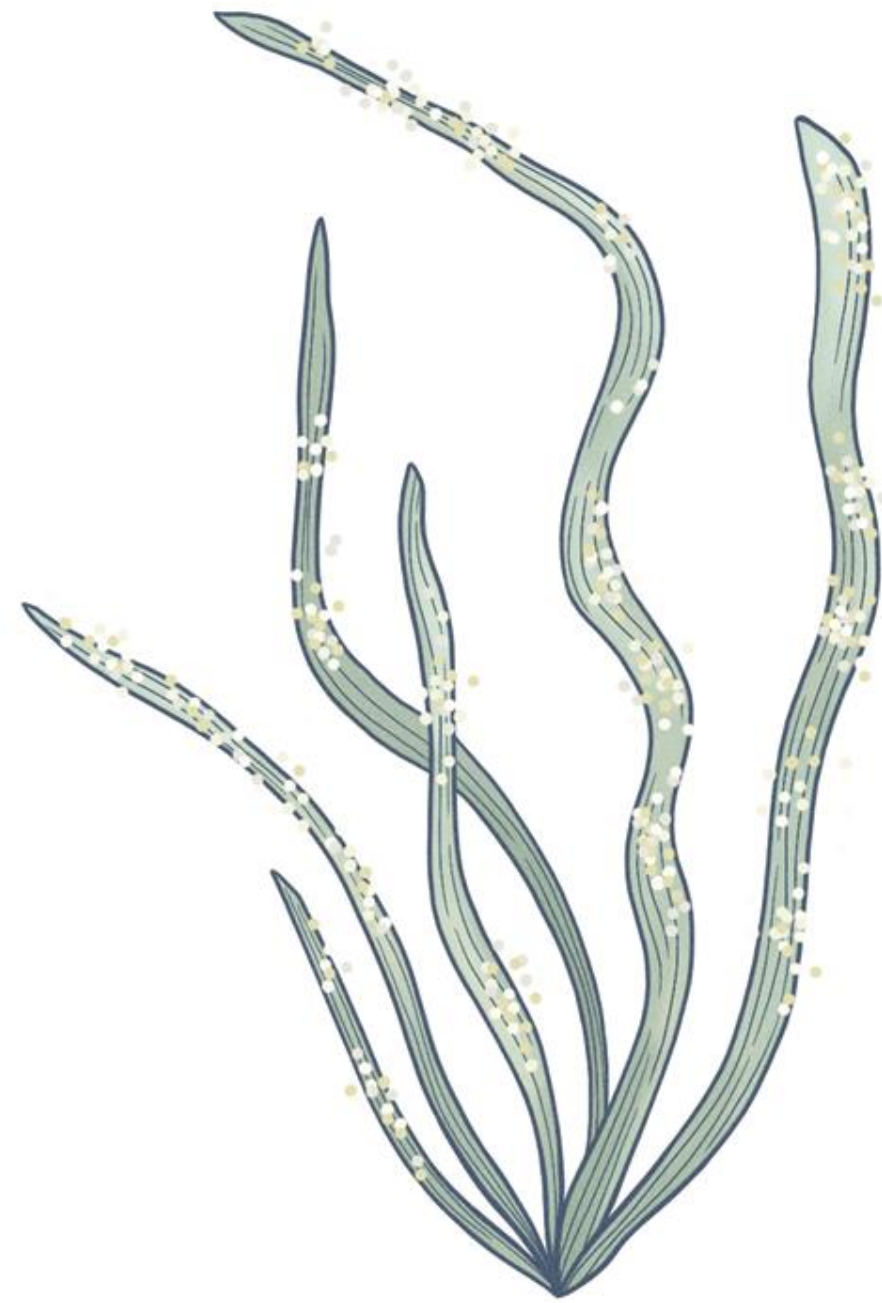
Herring spawn



Kelp forest restoration



Eelgrass bed restoration



Lily Nie



Lily Nie

Herring, pilings, and predators



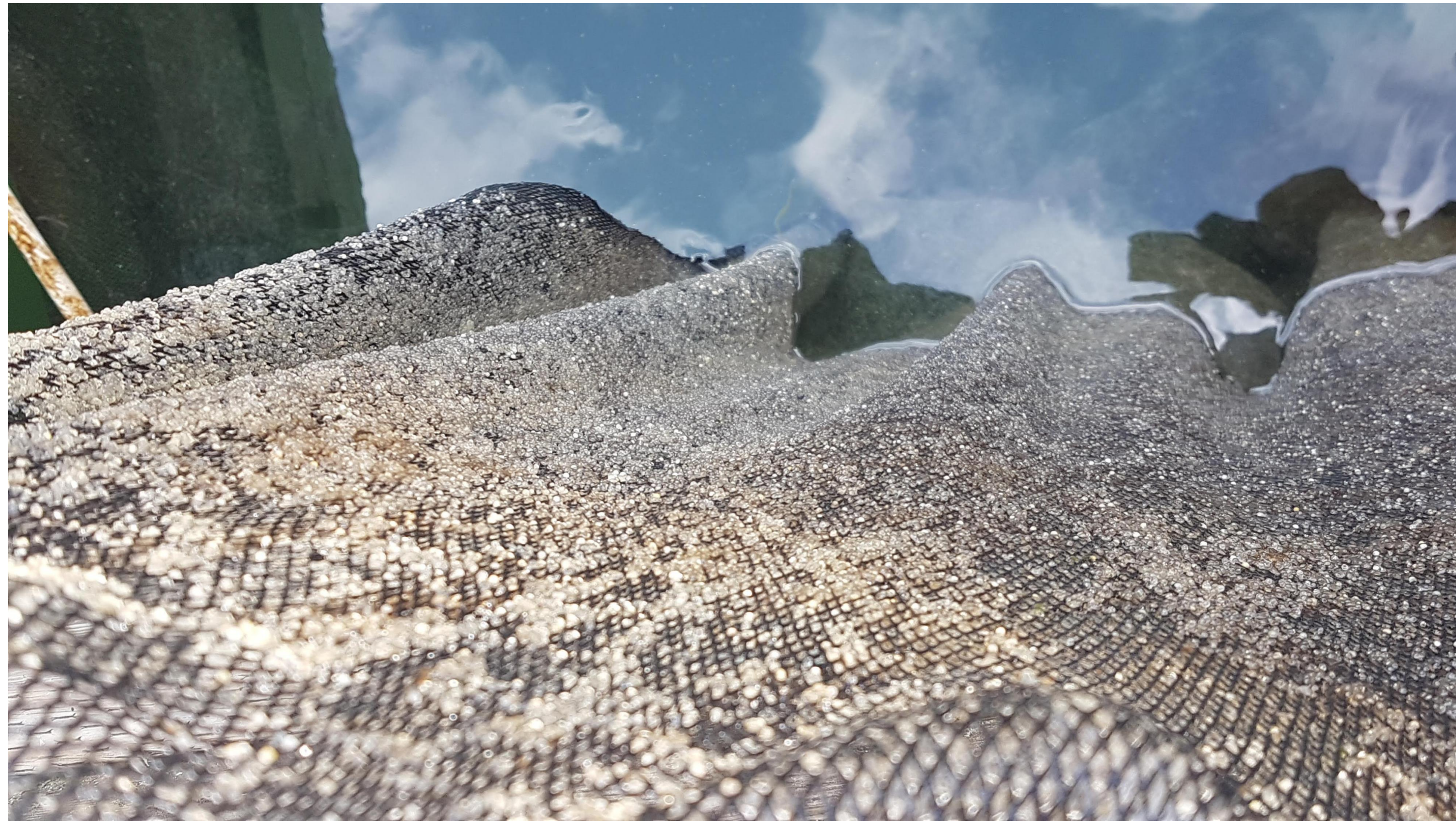
Pollution mitigation (1)



Squamish Streamkeepers

Howe Sound, Squamish, BC, Canada

Pollution mitigation (2)



Ocean Wise

False Creek, Vancouver, BC, Canada

Small-scale herring fisheries

benefits:

- local communities
- local herring stocks
- coastal ecosystems

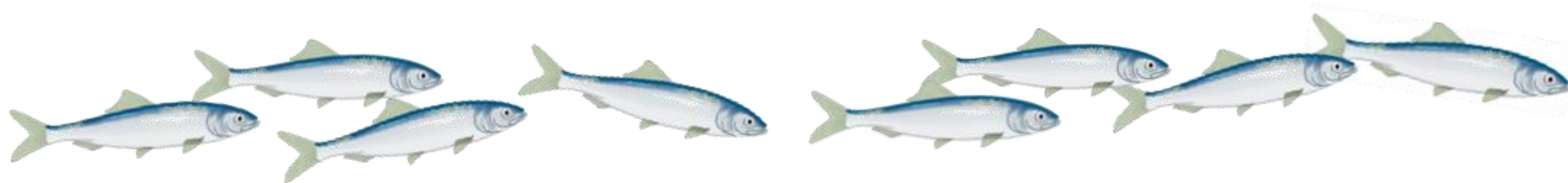


Kate Golden

Conclusions

satoumi approach could help manage Pacific herring fisheries, habitats in waters with high human impacts

- this includes many waters in western North America
- some elements of *satoumi* are already in place there
- an integrated management framework is needed



Acknowledgments

- Ota Yoshitaka (University of Washington)
- Makino Mitsutaku (University of Tokyo, FRA)



FRA



Thank you!

どうもありがとうございました!