

# SEAGRASS SCENES FROM SEA TO SKY: TEMPERATE SEASCAPE CONNECTIVITY SUPPORTS ROCKFISH NURSERIES

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## Study Description

Seascapes contain complex habitat mosaics in the nearshore environment, connected by the flux of fauna and material across habitat boundaries. In a recent study from British Columbia, Canada, we found that neighboring kelp forest and sand habitats altered seagrass meadow (*Zostera marina*) nursery function to young-of-the-year (YOY) rockfish by affecting rockfish diets, body condition, and recruitment across the meadow. Moreover, ~50% of basal energy assimilated in the seagrass food web originated from allochthonous kelp production. We conclude that seagrass nursery function was enhanced by adjacent kelp forests, and seascape connectivity should be included in coastal habitat conservation.

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Photo 1. Young-of-the-year rockfish of the copper (*Sebastes caurinus*)–quillback (*Sebastes maliger*) juvenile rockfish complex. After a pelagic larval stage, these rockfish recruit to nearshore habitats such as seagrass meadows and kelp forests. Photo credit: Tristan Blaine.

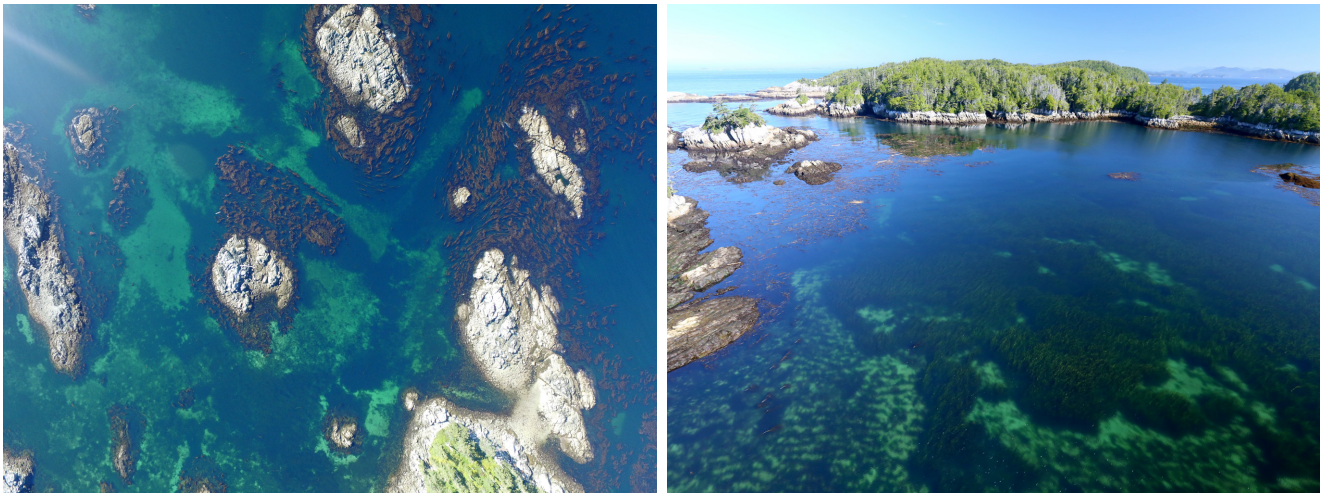


Photo 2. Temperate seascapes located on the central coast of British Columbia, Canada. Left: Aerial imagery of a nearshore habitat mosaic created by sub-tidal *Zostera marina* seagrass (dark sub-tidal areas), canopy-forming kelp *Nereocystis luetkeana* (blades at water surface), and unvegetated sand (light sub-tidal areas). Right: *N. luetkeana* forests border small rocky reefs and islets, surrounding a semi-protected *Z. marina* meadow. Photo credit: Keith Holmes.

These photographs illustrate the article “Nearshore seascape connectivity enhances seagrass meadow nursery function” by A. M. Olson, M. HESSING-LEWIS, D. HAGGARTY, and F. JUANES published in *Ecological Applications*. <https://doi.org/10.1002/eap.1897>