Dynamic Seas

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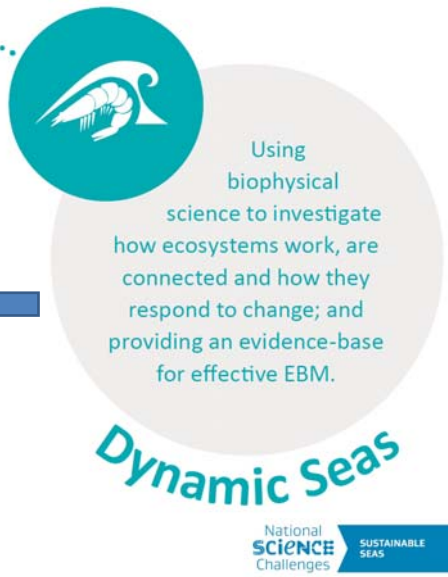
SS 1st Annual Conference Presentation (2 May 2017)

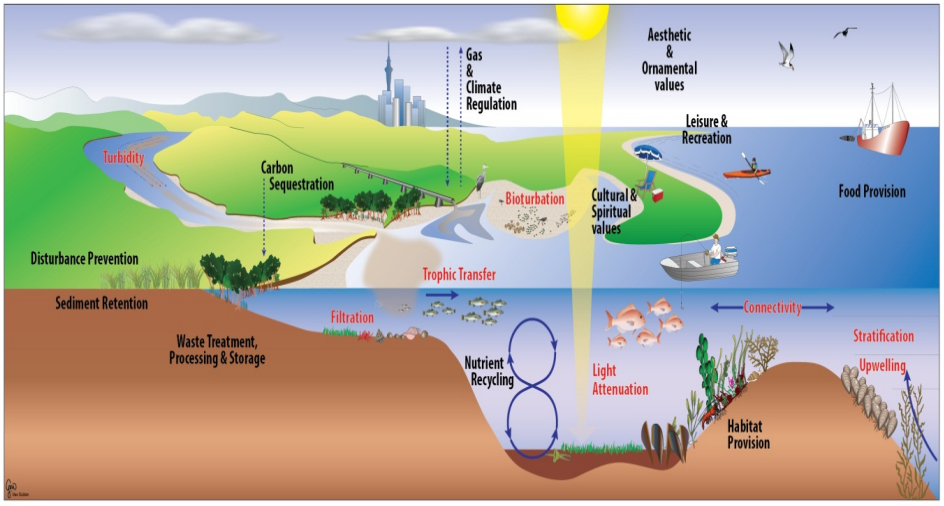
PLs: S Thrush, S Wing, C Pilditch, C Stevens, M Clark, M Knapp, D Leduc

What we do

(Pg 7 in Research Booklet)



Why we do it



The Ocean as a highly connected 'Final Resting Ground' for accumulating contaminants & stressors

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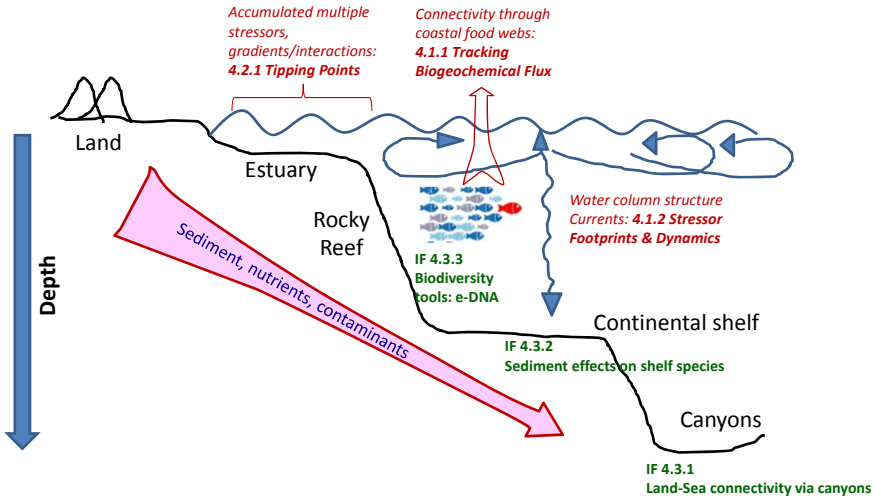
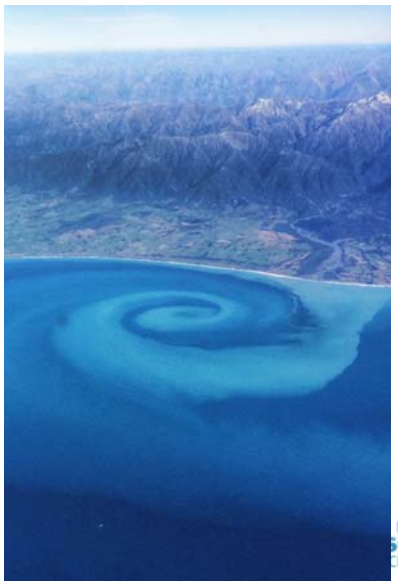
What we are doing: the Projects



Progress Summary



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Ecosystem Connectivity: Biogeochemical flux

Biochemical fluxes in bivalve communities

Material Dynamics in Aquaculture Systems

Trophic dynamics of fish communities

Jan-Feb 2017 voyage to case study area, primary sampling and data collections for 3 PhD projects

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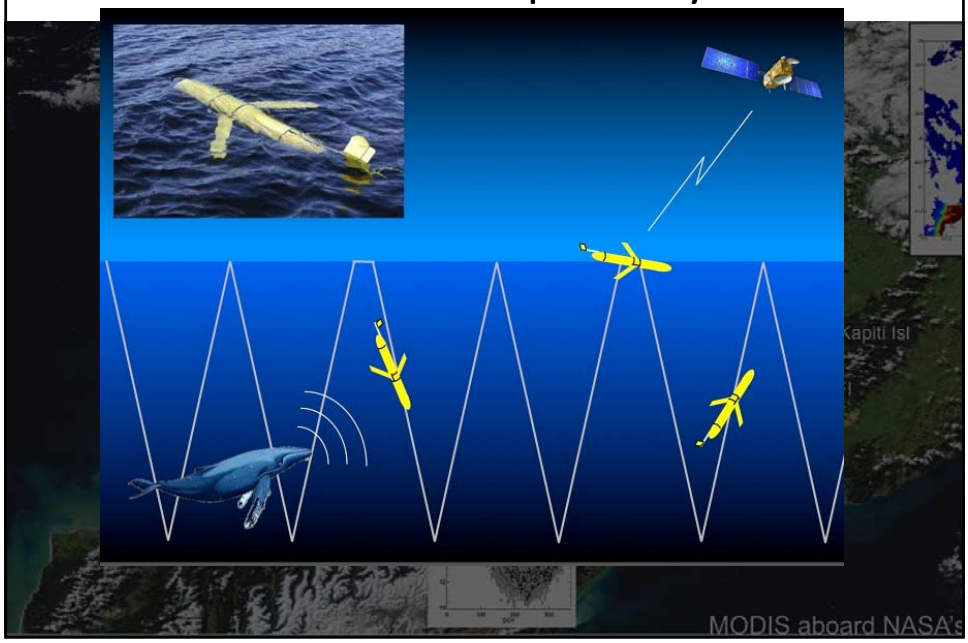
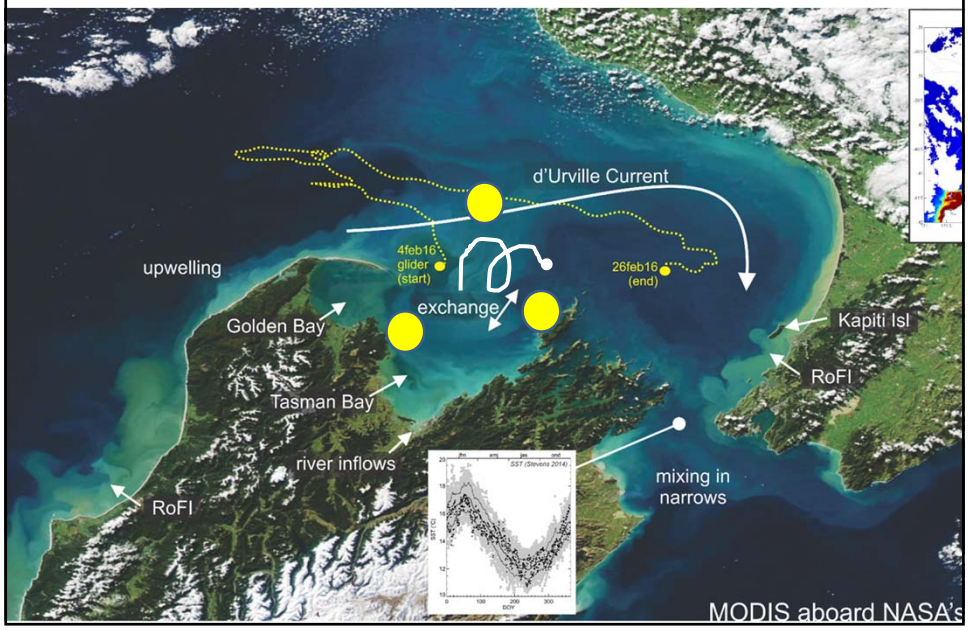
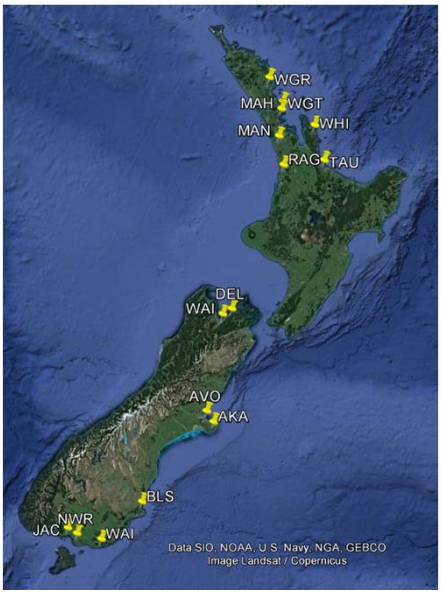
Ocean Gliders to capture dynamics



Ocean Glider deployments



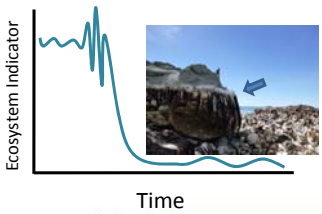
National Science Challenge – National Experiment



- 15 estuaries
- 22 sites
- Gradient in turbidity

Identification of Tipping Points in Sediment X Nutrient interactions along a latitudinal gradient

+ Rocky Reef: Sediments and light affecting kelp



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Linkages across the Domain

"the amount of engagement across the country needed to get this national experiment running was impressive - stakeholders, iwi, researchers across 6 organisations, etc. It would not have been possible without the Challenge"

Maori & VM

- Consultation on nationwide experiment in estuaries.
- VM workshop (Otago) bringing science to schools and communities
- Tipping Point workshop and planning experiments
- Cross-programme linkages through Our Seas, Valuable Seas and Tangaroa

Across Challenge

- 7 PhD students, 1 Msc (so far)
- Data/workshop interactions with all programmes
- Strong International Collaborations

Other Stakeholders

- *Southland Regional Council* (help with experiments)
- *Auckland Council* (planning experiments)
- *Taranaki Regional Council* (rocky reef data on sand deposition)
- *Bay of Plenty Regional Council* (estuarine data on nutrients and expansion of nuisance algae)
- *Marlborough District Council* (flux experiments, earthquake tipping points)
- King Salmon NZ (biochemical fluxes, salmon and mussel farming)

Outreach

- Newspaper (Our Blue Backyard)
- Radio discussions (Resilience and tipping points)
- Media interviews and Our Changing World (Kaikoura earthquakes)
- Seminars and public talks
- Scientific publications

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Dynamic Seas Project Leaders

Tipping Points
(Simon Thrush, Conrad Pilditch)

Stressor footprints & dynamics
(Craig Stevens)

Connectivity and flux
(Steve Wing)

Innovation Fund Projects

Sediment effects on shelf species

Malcolm Clark

Land-sea connections in canyons

Daniel Leduc

Biodiversity, e-DNA

Michael Knapp

We've been busy!