

SUSTAINABLE SEAS

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## Interactive tools for enabling participation and knowledge exchange

Project 5.1.4- Participatory tools

#### Ross Vennell, Heni Unwin (Presenters) and Jeremy McKenzie

"A project at the boundary of science and society, to develop and implement tools for facilitating participation in decision making and communicating science"



# A tale of two Talks

### 1. Tracking plastic in a virtual ocean:

A connectivity tool to allow wider public to learn and play with spatial connections of areas within Cook Strait and Tasman-Golden Bay

2. Online tool for managers and stakeholders

Enabling them to see consequences of management decisions for scallops fishery in Tasman-Golden Bays.







## **Plastics and Coastal Connectivity**

#### Where's my jandel gone?



nature.com



SS Dynamic Seas- 4.4.2: Stressor footprints and dynamics

## An online connectivity tool:



challenge: computational speed!

2GB file

#### Currents from Models



SS- Dynamic Seas-Stressors NIWA, 1km ROMS

SS- IIF Bacterial Forecasting MetOcean, SCHISIM

SCIENCE SUSTAINABLE SEAS

National

Challenges

liact co.ordinates

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# Project Aims/ The why?

 Connection

 Environment & Species
 Science & People





## Cook Strait Demo







http://sustainablecoastlines.org/media/image-galleries/?set=72157667675631795



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### Online tool for managers and stakeholders

**Bayes Decision Network** 





Challenges

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Jeremy demo Tue!

#### Expert Elicitation was used to build the TBGB BDN model

A two-day workshop and comprised a broad group of nine NIWA and Cawthron Institute scientists who's joint knowledge on TBGB marine ecosystem processes and resource management.



# Research team

### **Cawthron Institute**

Ross Vennell, Heni Unwin, Chris Cornelisen, Mark Newton

### NIWA

Jeremy McKenzie, Judi Hewitt; Carolyn Lundquist; Michelle Masi, Fabrice Stephenson; Ian Tuck, James Williams

International Collaborator

Dr Mika Rahikainen, University of Helsinki





