

Global Shellfish Reef Restoration

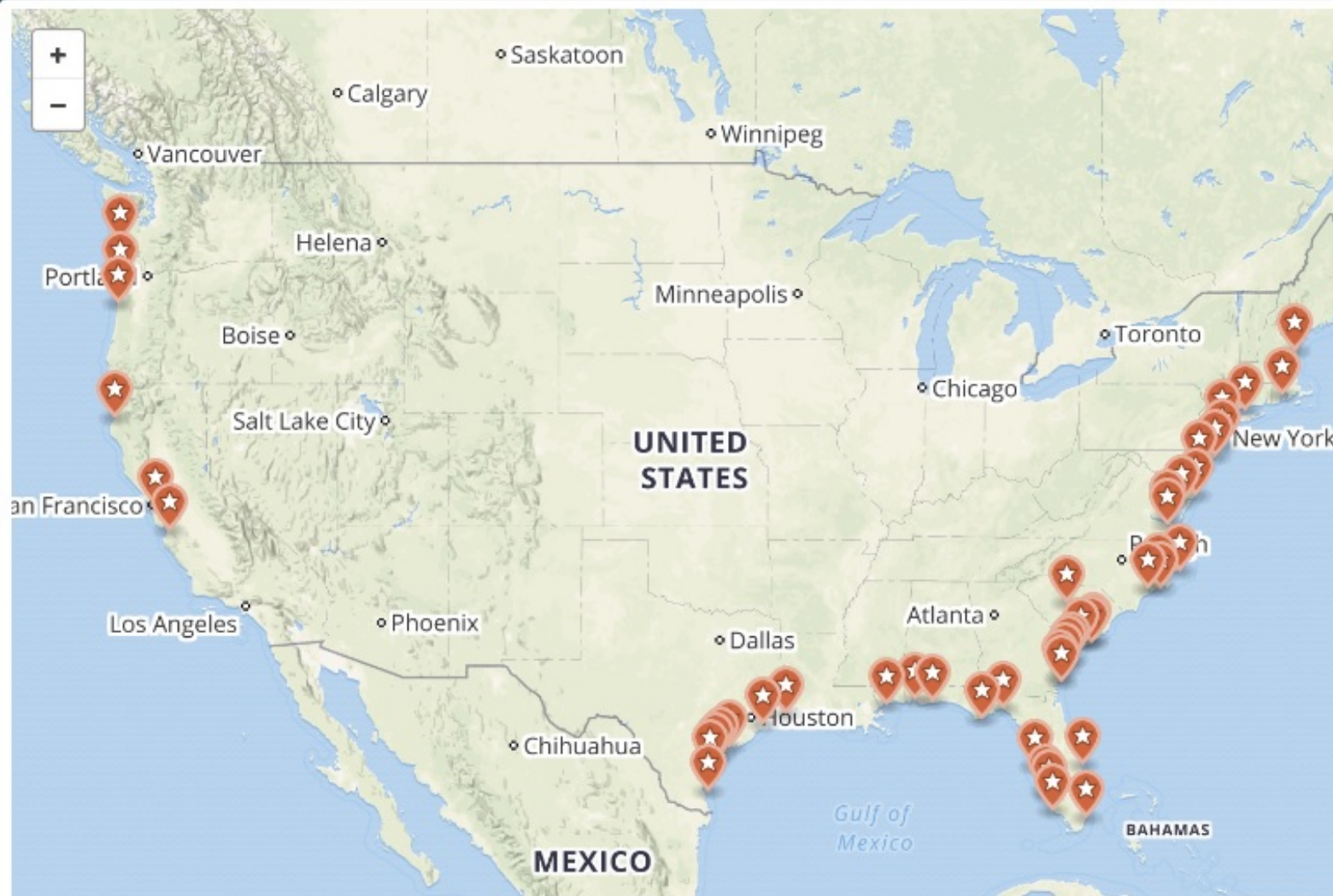
Hauraki Gulf Marine Park Conference

- Shellfish reef restoration started in US ~20 years ago
- Driven by litigation & economic stimulus spending
- Since 2014, global explosion in projects
- Quantifying services and valuing services is key



Importance of Community









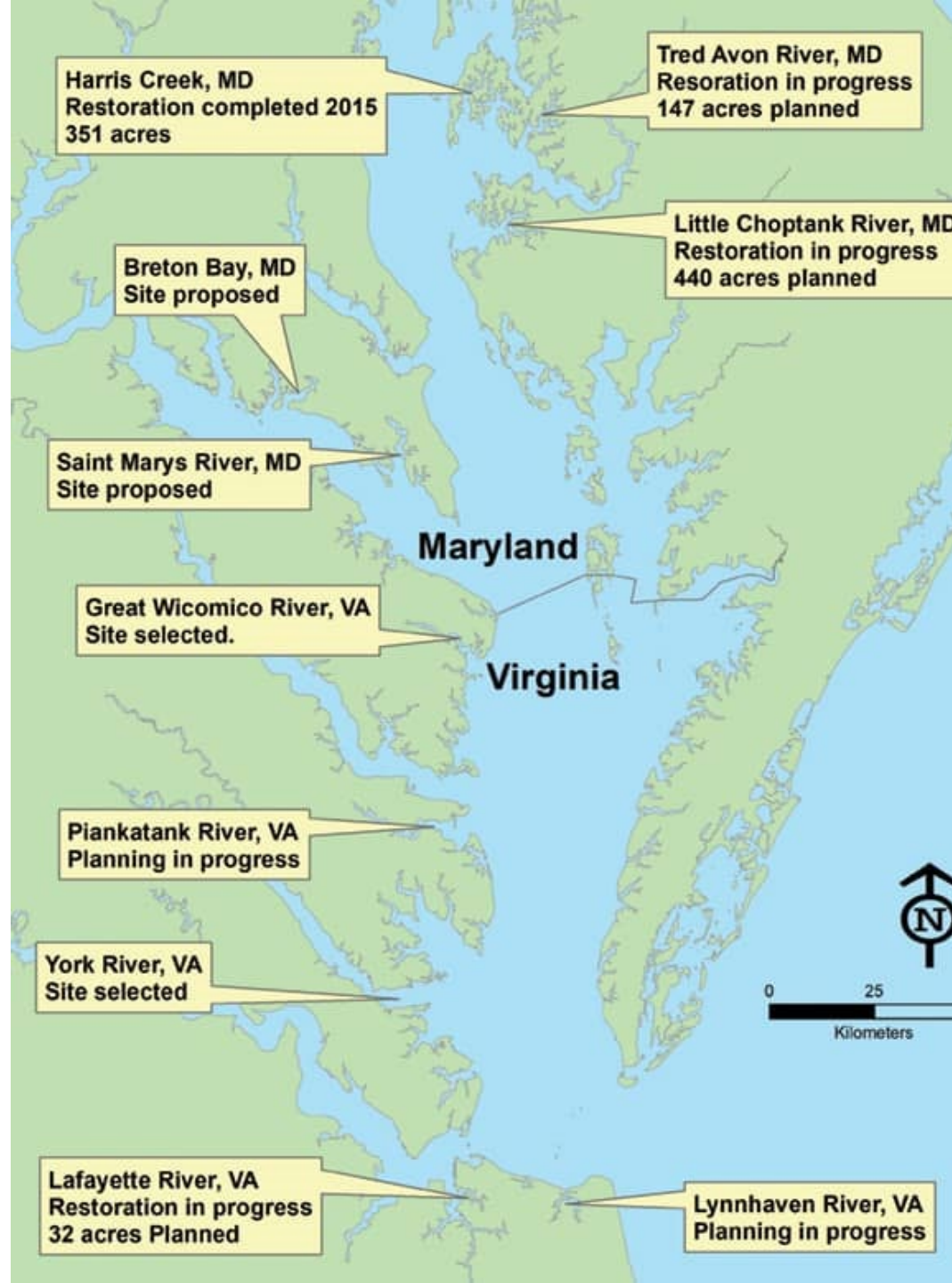
TNC ~170 projects

NOAA ~190 projects

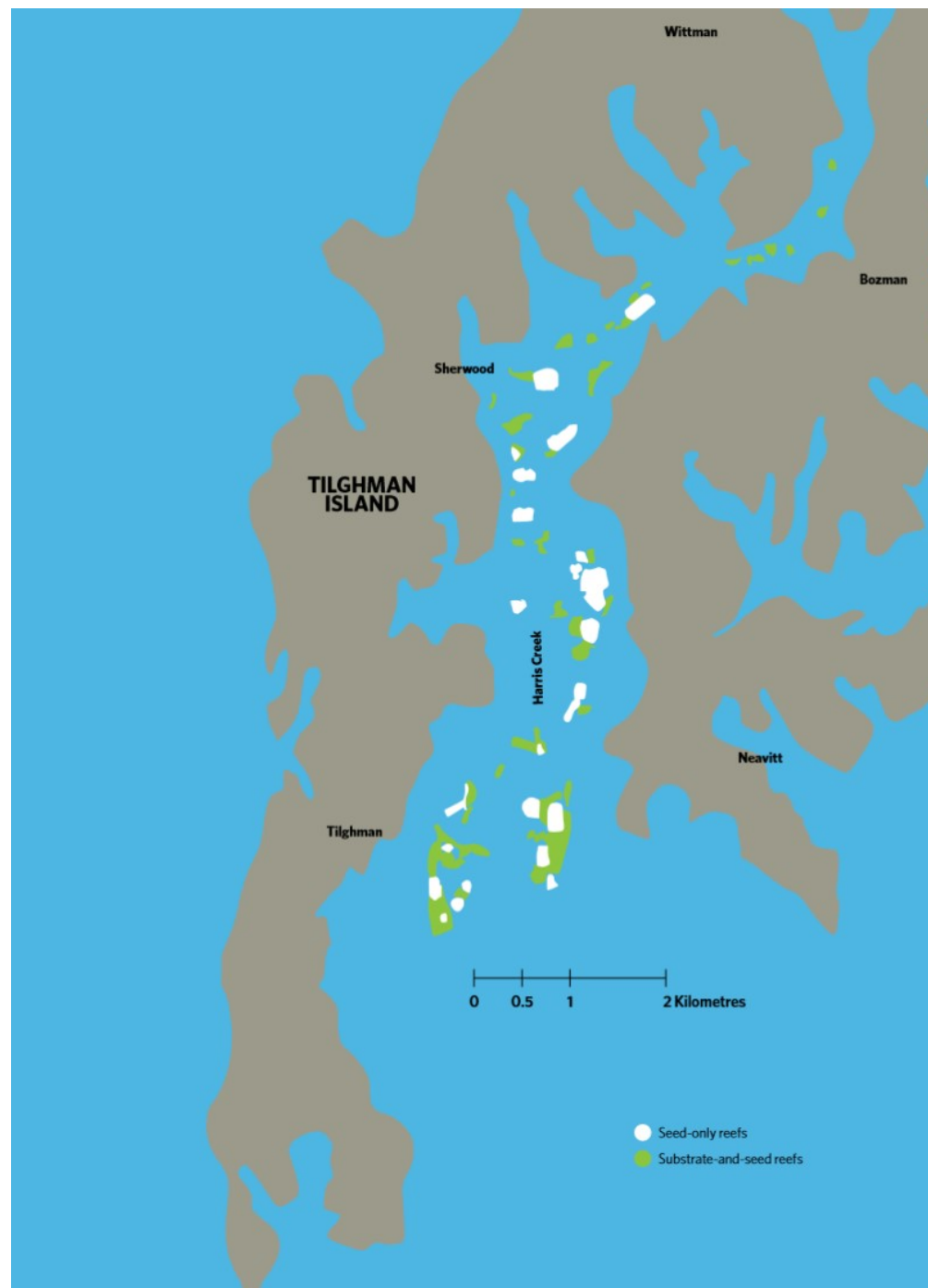
Shellfish reefs are also efficient job-creators, especially compared to traditional ‘grey’ infrastructure:

INFRASTRUCTURE		JOB PER \$1M
	MINE DEVELOPMENT	2.5
	SPORTING COMPLEX DEVELOPMENT	4.9
	REGIONAL AIRPORT UPGRADES	1.4
	MAJOR ROAD UPGRADES	5.9
	HORTICULTURE EXPANSION	4.8
	SHELLFISH REEFS	8.5

Chesapeake Bay



Harris Creek



- Started in 2011
- 142 ha completed 2015
- 2.5 billion spat-on-shell added
- >200,000 m³ of shell and rock
- \$53 Million USD

Regional Economic Analysis 2019

- 160% increase in blue crab production
- 650% increase in white perch production
- \$11 Million/yr for blue crab alone
- \$22.8 Million/yr total production
- 7.8 Million/yr labour income
- \$13.3 Million/yr value added
- 319 annual jobs





Hong Kong



China



UK & Europe



Hauraki Gulf
NZ

Revive



Windara Reef
SA

Port Phillip Bay





RESTORATION GUIDELINES FOR SHELLFISH REEFS

Editors: James Fitzsimons, Simon Branigan, Robert D. Brumbaugh,
Tein McDonald and Philine S.E. zu Ermgassen

The Nature
Conservancy 

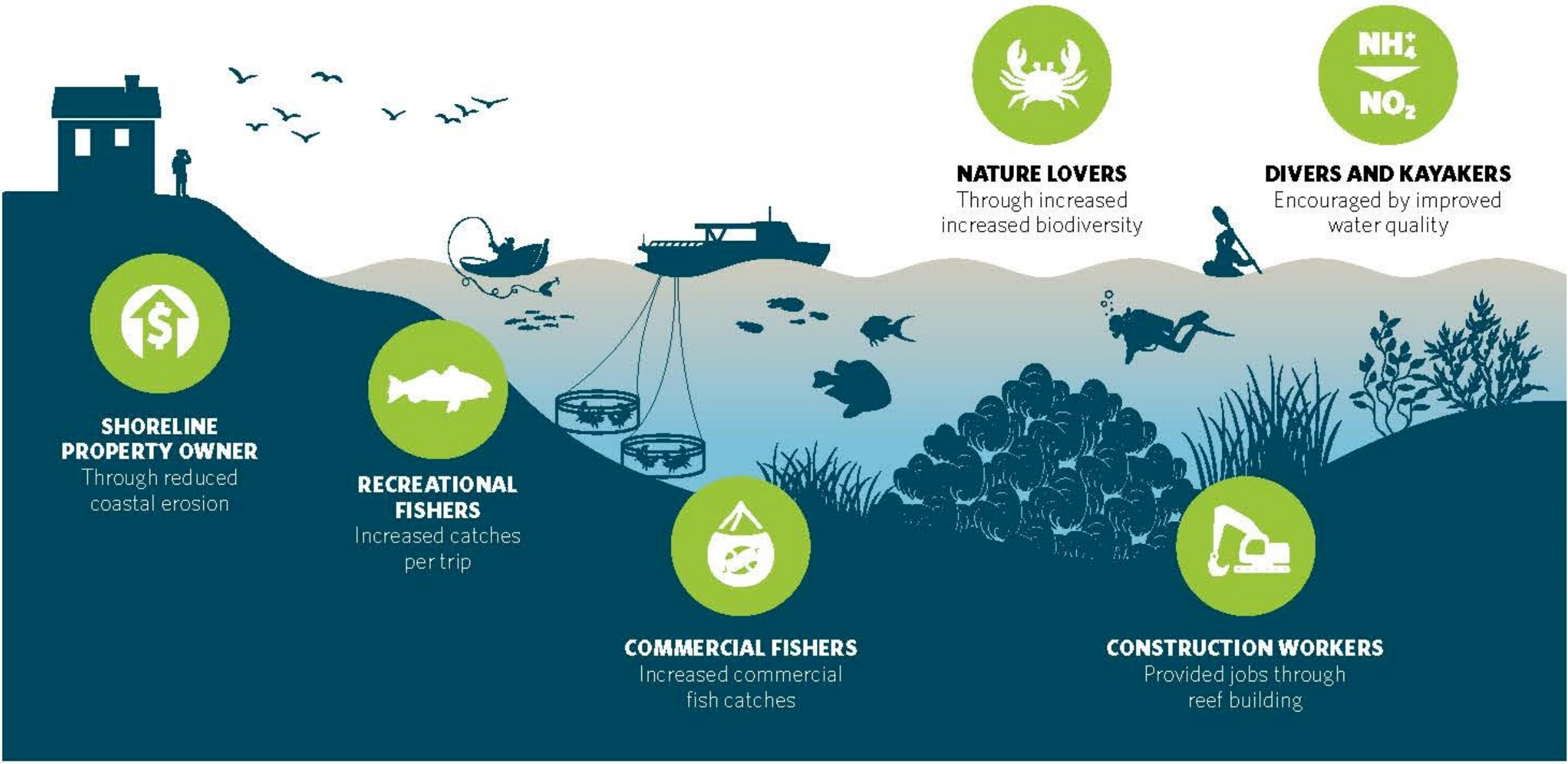


Figure 2.2: *Shellfish reefs*

Acknowledgments

Photographers: Dazheng Dong (Zhejiang, China), Shaun Lee (Hauraki Gulf), Kyle Obermann (Deep Bay, Hong Kong), Stephanie Westby (Harris Creek), Matt Uttley (Essex, UK)

Maps & Restoration Guidelines Cover: Tanya White from Johanna Villani Design; Chesapeake Bay Map from Esri

Restoration Guidelines Authors: Simon Branigan, TNC; Robert D. Brumbaugh, TNC; Bryan M. DeAngelis, TNC; Laura Geselbracht, TNC; Chris L. Gillies, TNC; Boze Hancock, TNC; Andrew Jeffs, University of Auckland; Ian McLeod, James Cook University; Bernadette Pogoda, Alfred Wegener Institute Helmholtz Centre for Polar and Marine Research; Stephanie Westby, National Ocean and Atmospheric Administration; Philine zu Ermgassen, University of Edinburgh.

Any questions?

www.natureaustralia.org.au

The Nature
Conservancy

