

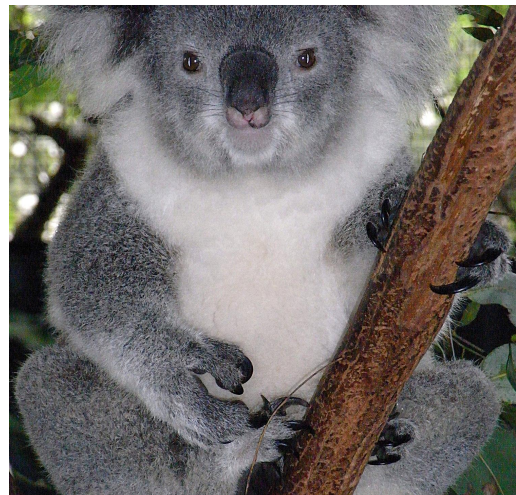


SEAWEED DOWNUNDER

Overview of the seaweed industry in Australia

Jo Lane
Sea Health Products

Seagriculture - USA
Alaska September 2024



Kelp water container from Tasmania made from bull kelp (*Durvillaea potatorum*), dated 1850.



Source: National Museum of Australia, © Trustees of the British Museum



Australian Seaweed Industry Blueprint

A Blueprint for Growth

by Jo Kelly
Australian Seaweed Institute

August 2020

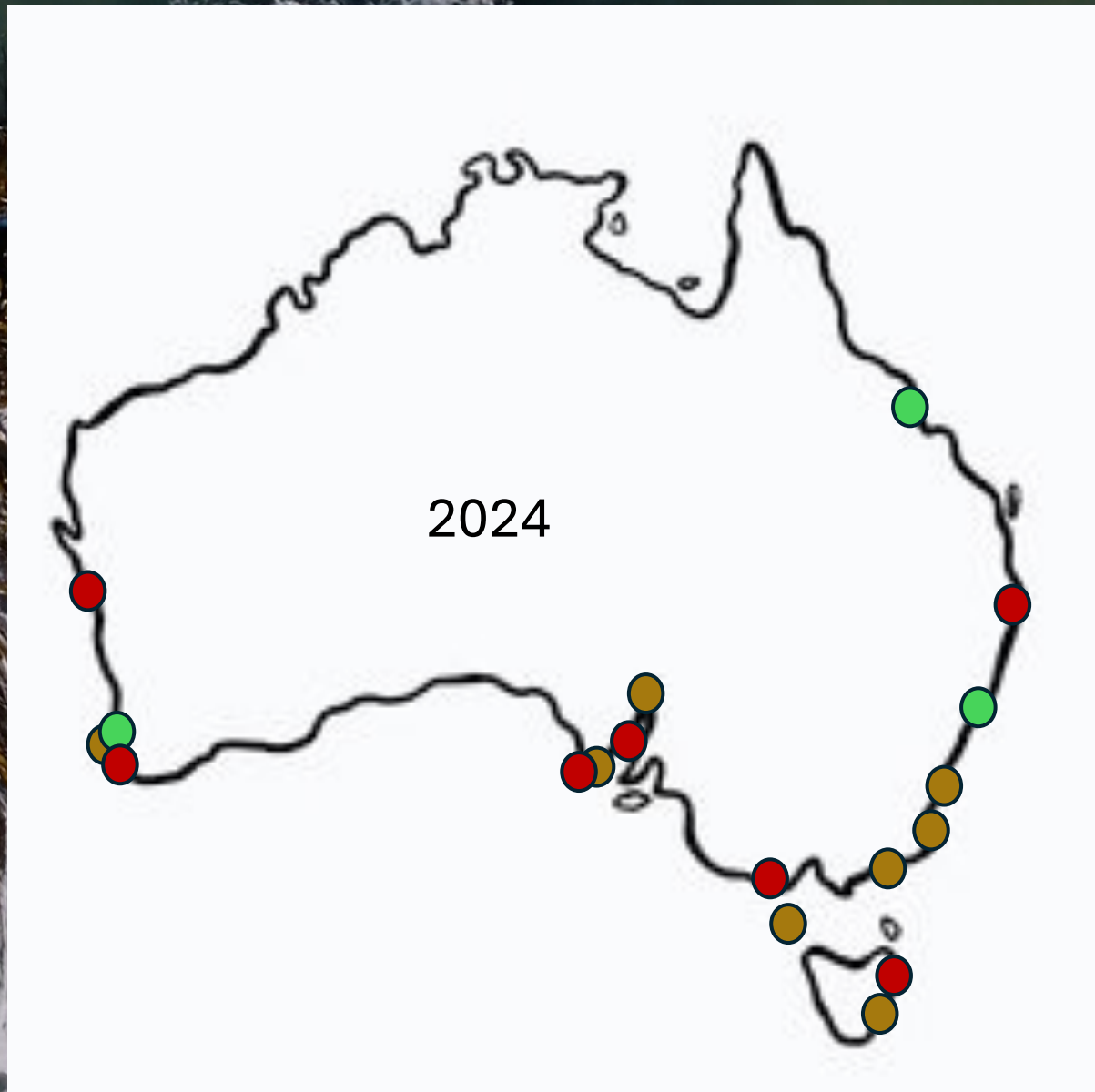
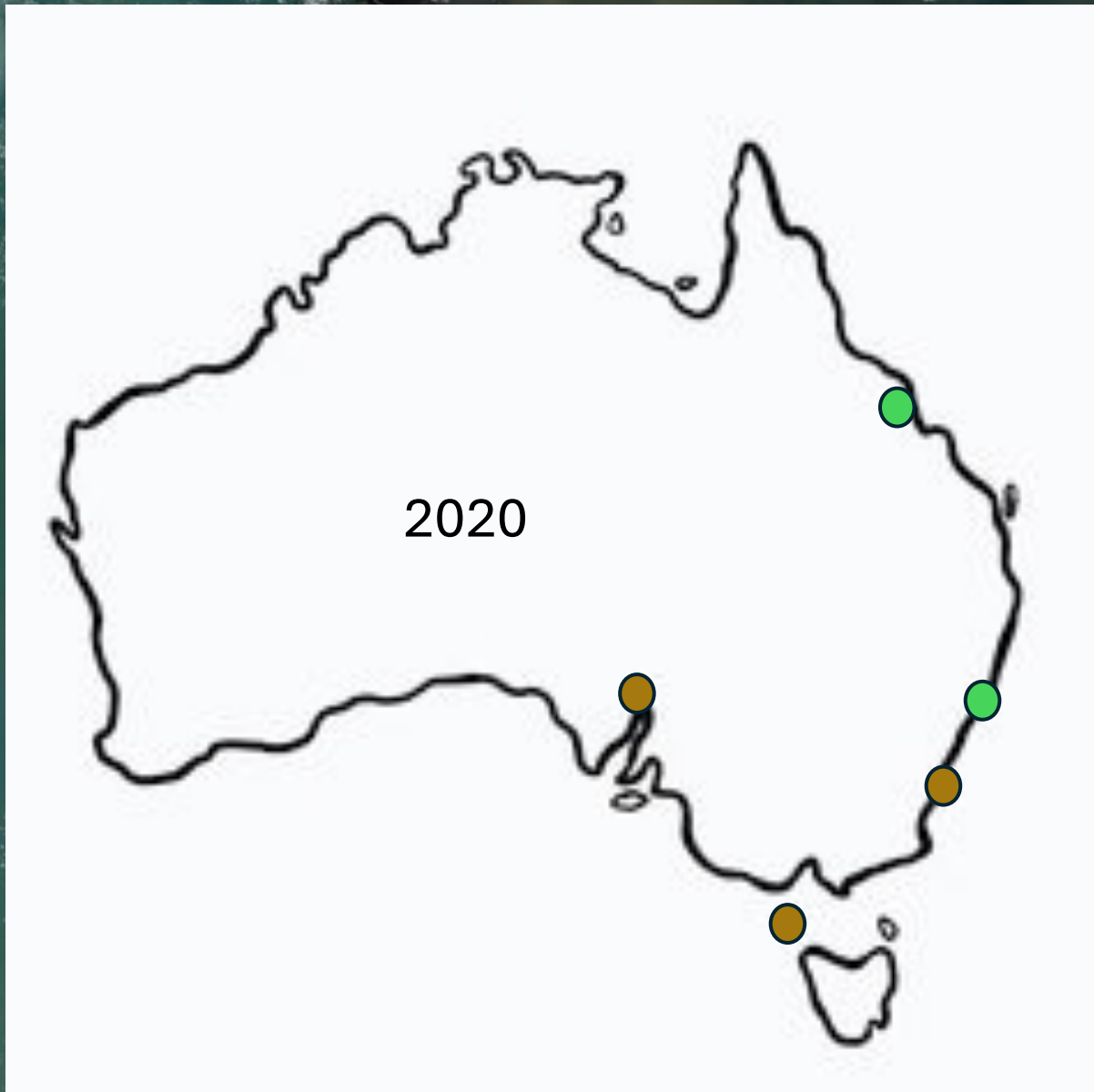




Australian
Sustainable
Seaweed
Alliance

- ❖ *Asparagopsis* identified as reducing methane emissions and became major focus in Australia
- ❖ Development of NHN to assist growth of the industry and knowledge gaps
- ❖ Other potential species to focus on next include **kelps**.

Australian seaweed industry small but growing



Green
Ulva/Caluerpa

Brown - *Ecklonia/Macrocyctis/
Durvillea and Wakame*

Red
Asparagopsis



CleanEyre Global.
FEEDING THE LAND FROM
THE SEA FOR CLEAN AIR.



*Fremantle
Seaweed*



*Fremantle
Seaweed*

*Fremantle
Seaweed*



AUSTRALIA IS DEPENDENT ON SEAWEED IMPORTS

**\$40
MILLION**

Australian
Seaweed
Market

IMPORTED

**\$14
BILLION**

Global Seaweed
Market
(AUD)



WE NEED MORE AUSTRALIAN SEAWEED

AS THE DEMAND FOR LOCALLY SOURCED, SUSTAINABLE PRODUCTS INCREASES

Opportunity to create an innovative and sustainable industry with economic, social and environmental benefits.

Current hand-harvesting methods are severely inadequate to meet the projected demand

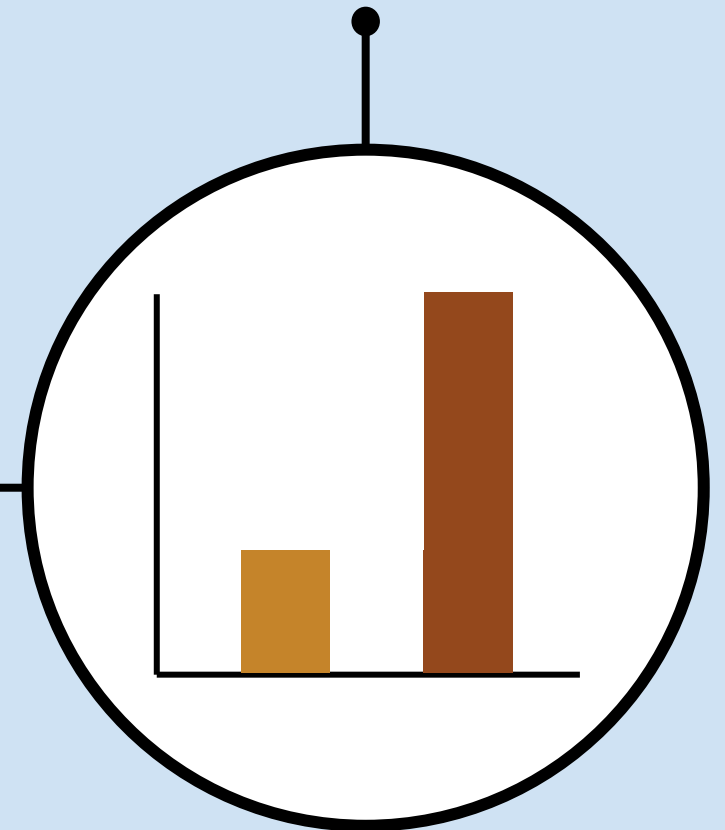


Declining Kelp Forests

Hand harvest



Unable to meet demand



Urchin barrens



Kelp is a valuable and versatile resource



- food
- agricultural feed
- fertiliser
- cosmetics
- bioplastics
- bioactives and nutraceuticals

Wando, South Korea

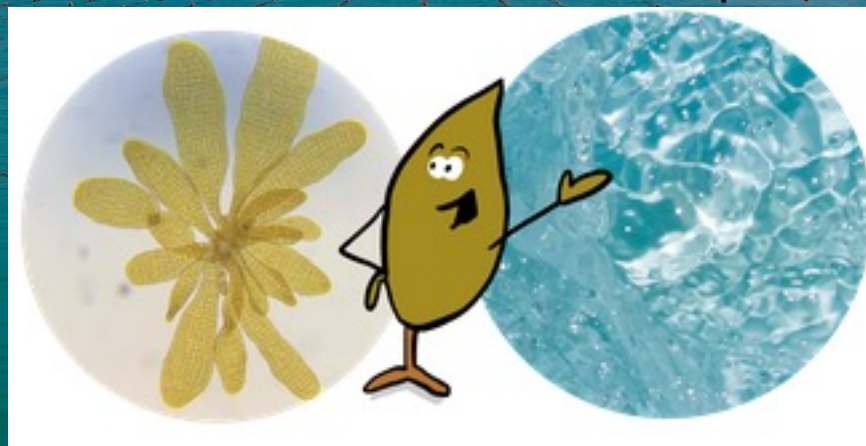


The Faroe Islands



Challenges to the development of kelp farming aquaculture in Australia

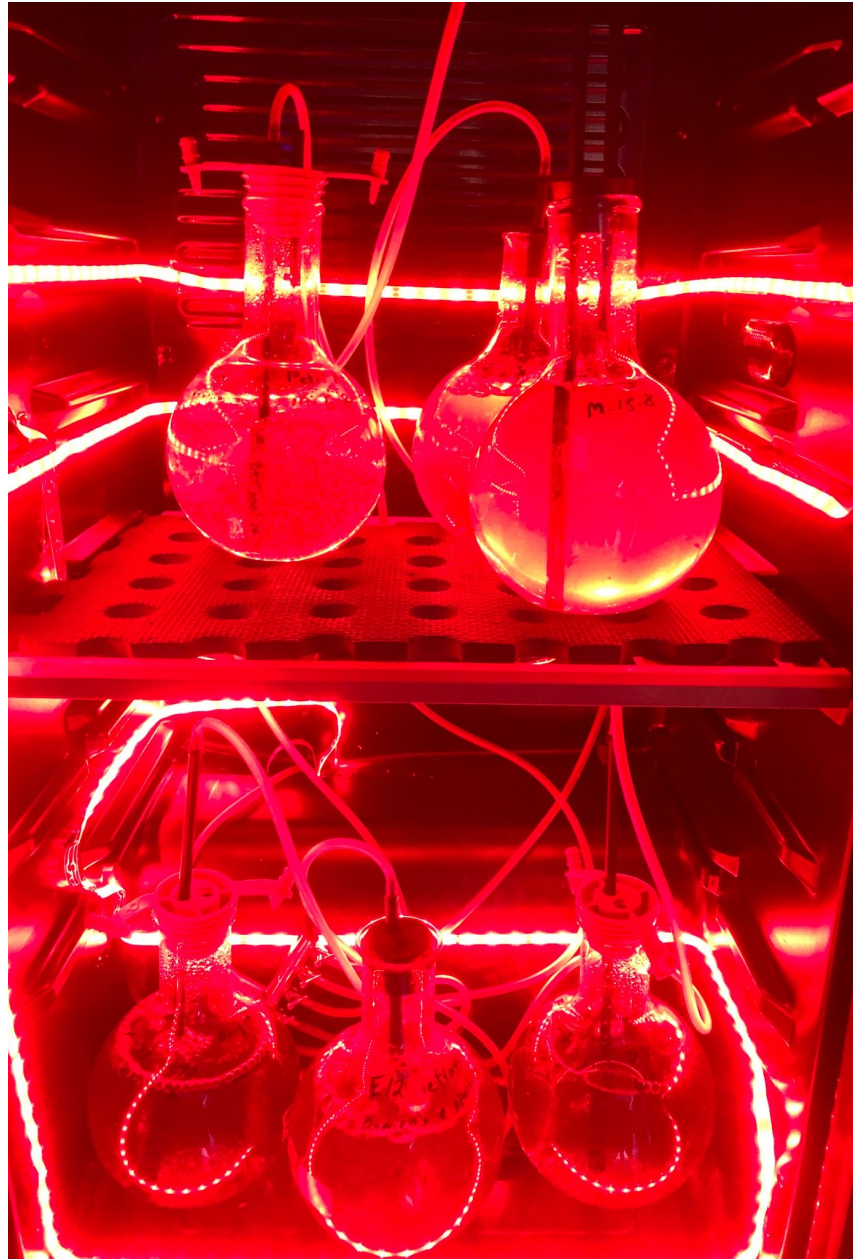
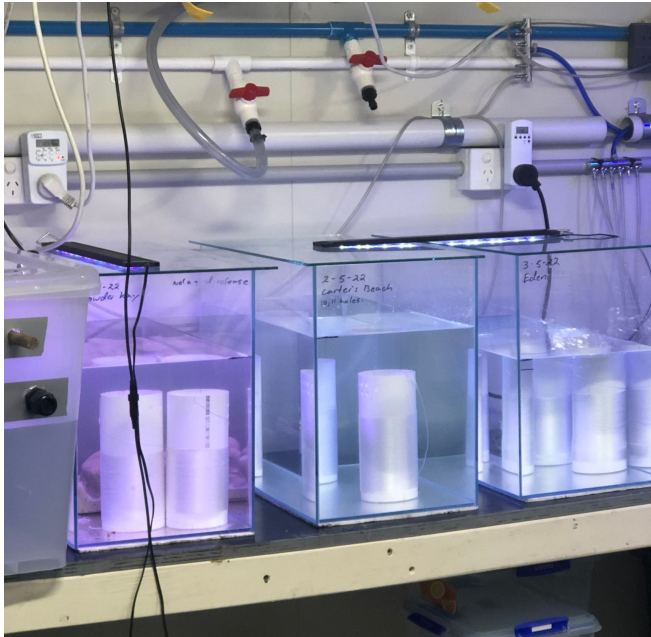
Seedstock hatchery knowhow



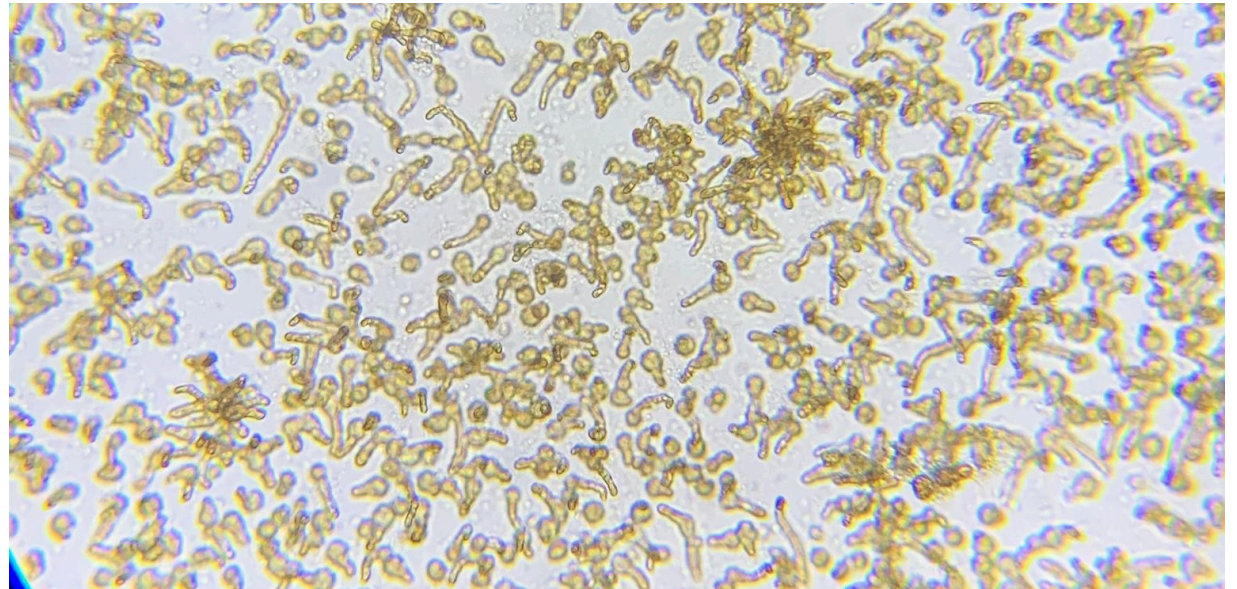
Access to marine leases
Complex Regulations

Attracting Investment





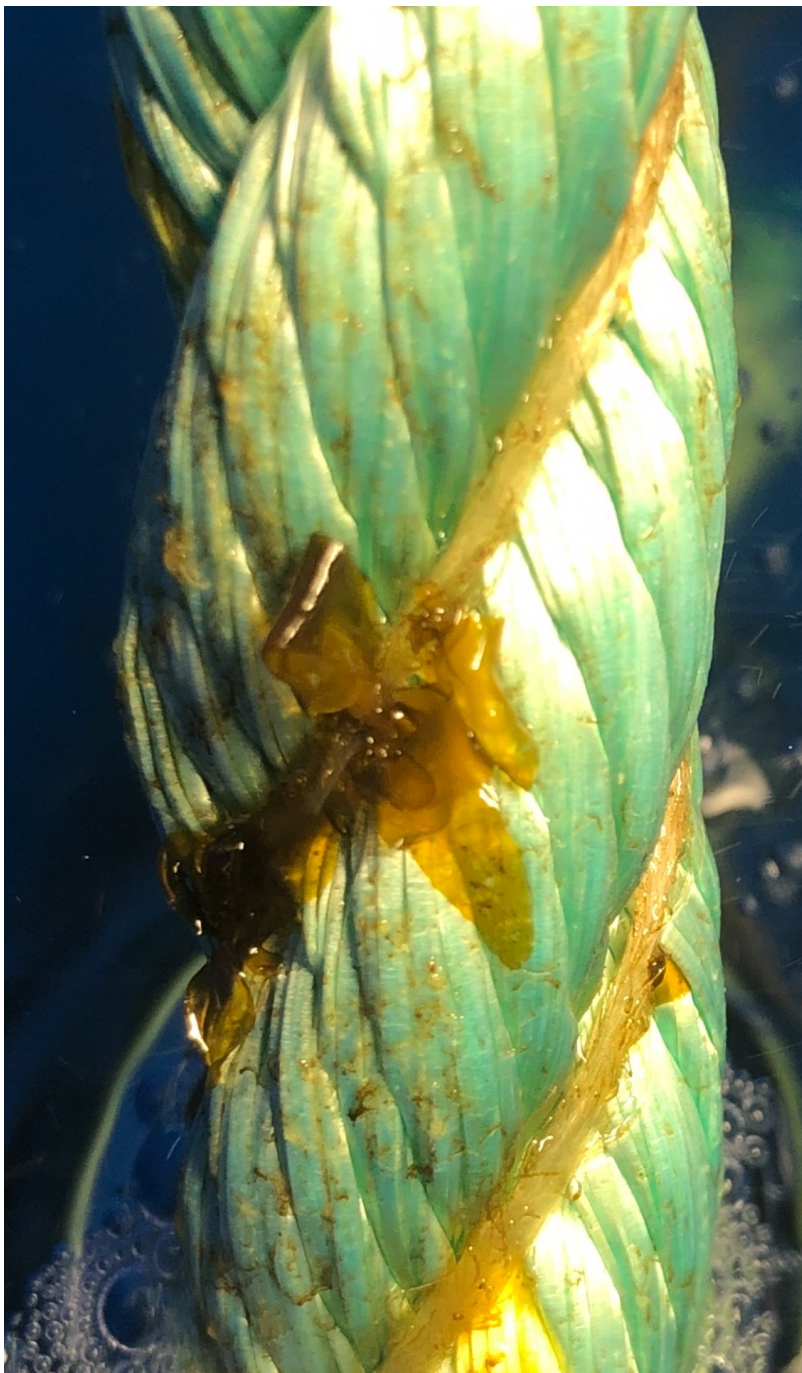
3 hatcheries – NSW, SA and Port Lincoln with red room for gametophyte strains



Ecklonia radiata



Successful Ocean Trials in NSW



Successful landbased trials in SA

Table 2. State-based comparison of governance for seaweed aquaculture development in Australia.

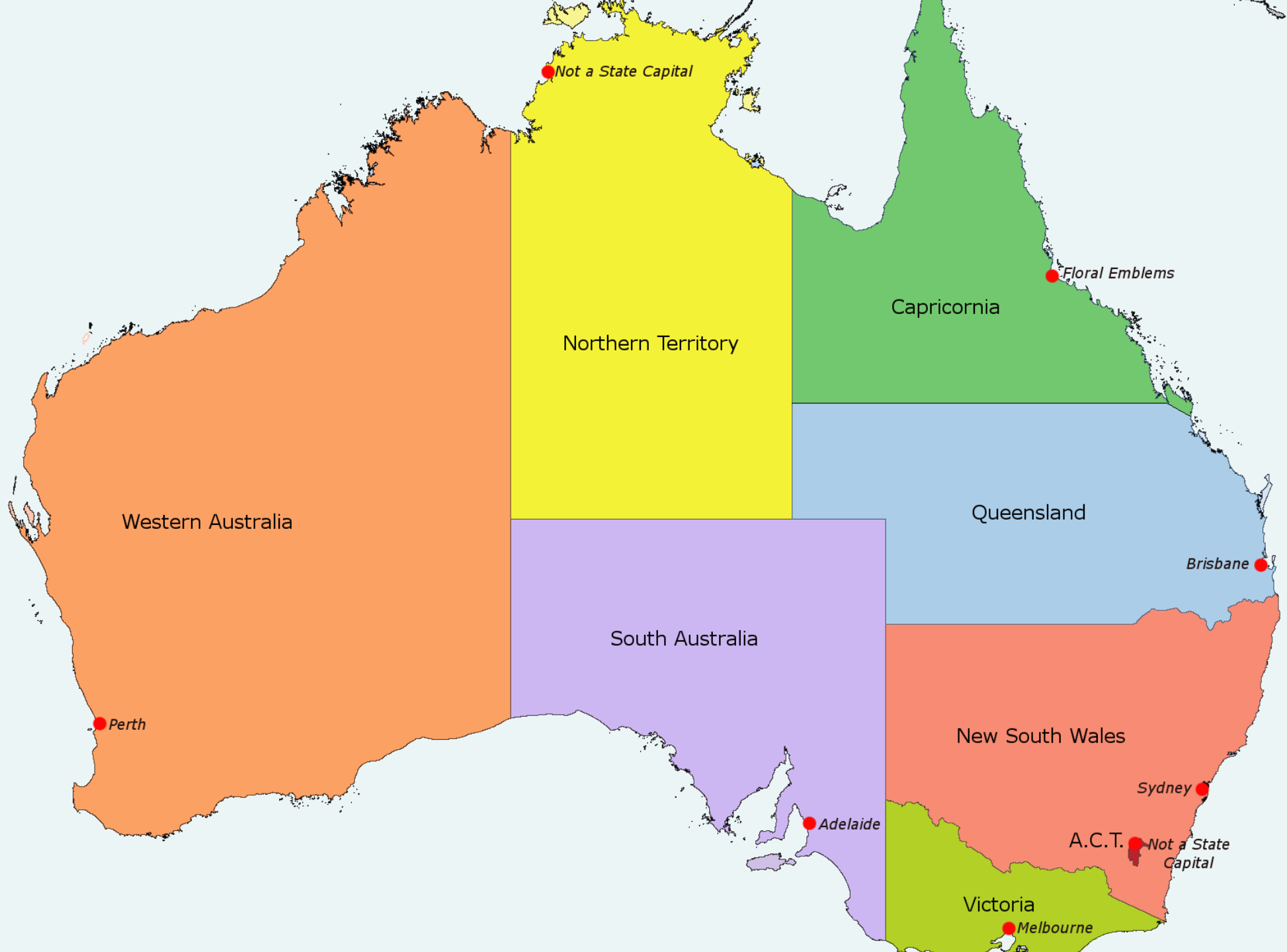
	Queensland	New South Wales	Victoria	Tasmania	South Australia	Western Australia	Northern Territory
Specific seaweed sector strategy/policy?	No	No ¹	No	No	Yes	Yes	No
Provision for seaweed aquaculture in existing legislation?	Yes	Yes	No ²	Yes	Yes	Yes	Yes
One-stop shop for all aquaculture approvals?	No	No	Yes	Yes ³	Yes ³	Yes ³ – proclamation of the ARMA ⁴ will fully embed this	No
Designated zones for seaweed aquaculture in formal marine spatial planning?	Some – Great Sandy Regional Marine Aquaculture Plan	No	No	Yes	Yes	No	No
Commercial seaweed aquaculture approved/ allocated?	No	Yes	No	Yes	Yes	Yes	No
Provision for pilot/trial/ research licence?	Yes – development application still required	No – full state significant development process applies	Yes	Yes	Yes	Yes	Yes
Research/trials conducted or in progress	Yes – two small-scale pilots underway in different regions	No – application(s) are under consideration	Yes – some small-scale pilots on sites within aquaculture reserves	Yes	Yes	Yes	Yes

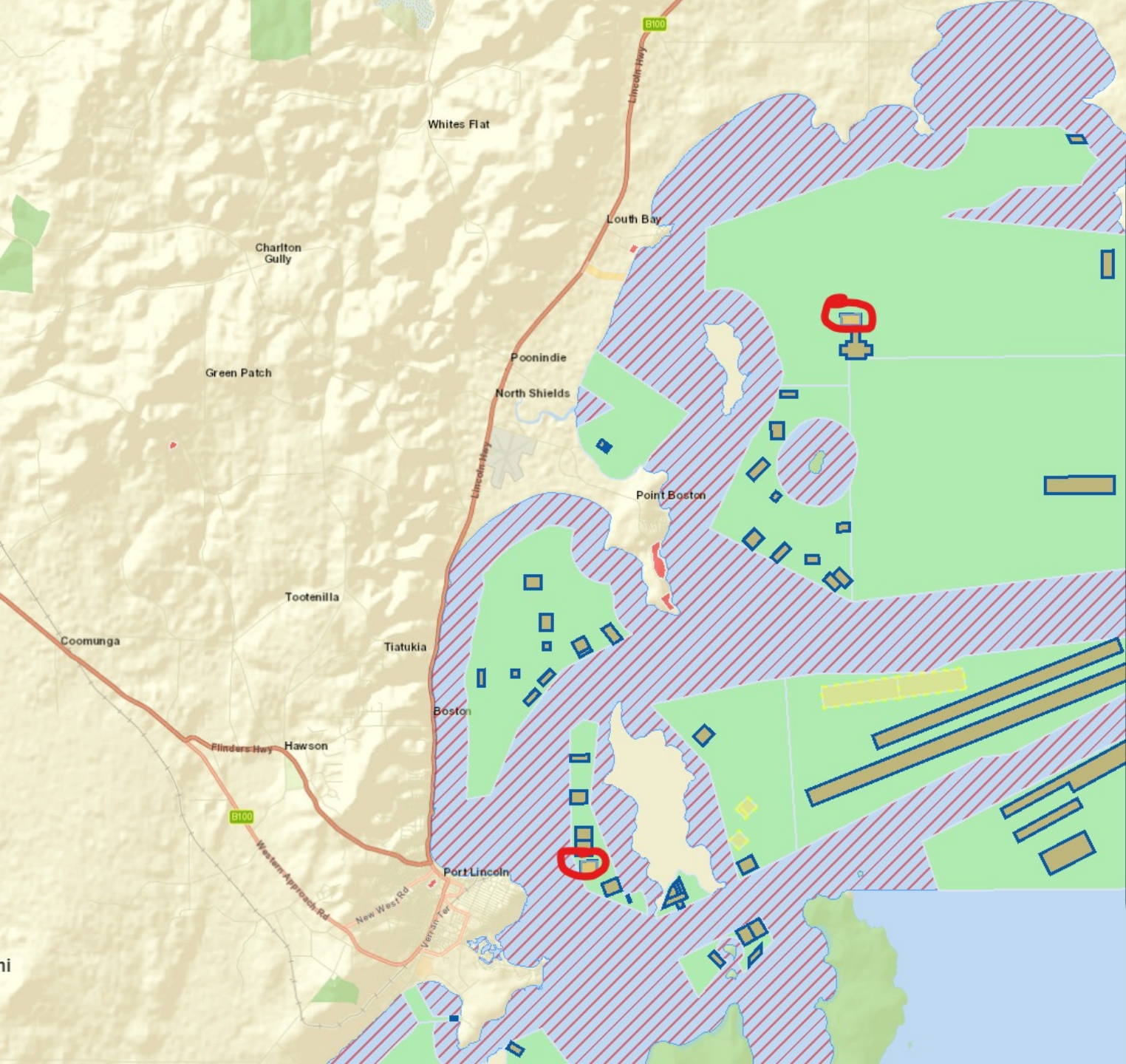
¹ Aquaculture strategy mentions seaweed.

² Review of seaweed aquaculture governance arrangements in progress at time of publishing.

³ Application and assessment process managed by a single agency. Separate permit from Fisheries for collection of broodstock/seedstock.

⁴ *Aquatic Resources Management Act 2016*.





2 x 20 hectare lease sites approved

Boston Bay - protected

Louth Bay - exposed

New research project to gather growth data

- 2 sites
- 2 depths
- 2 substrates
- Nutrient absorption

Eden, South Coast NSW



Kelp farming Opportunities

Reliable, consistent supply

IMTA/diversification

Growing a new Australian industry

Economic, environment and social benefits



Thank You!

*See you in Adelaide for
Seagriculture Asia Pacific*

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With thanks to ASSA
for their support