SOUTHERN BLUEFIN TUNA

Partnerships in data and information

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Chief Executive

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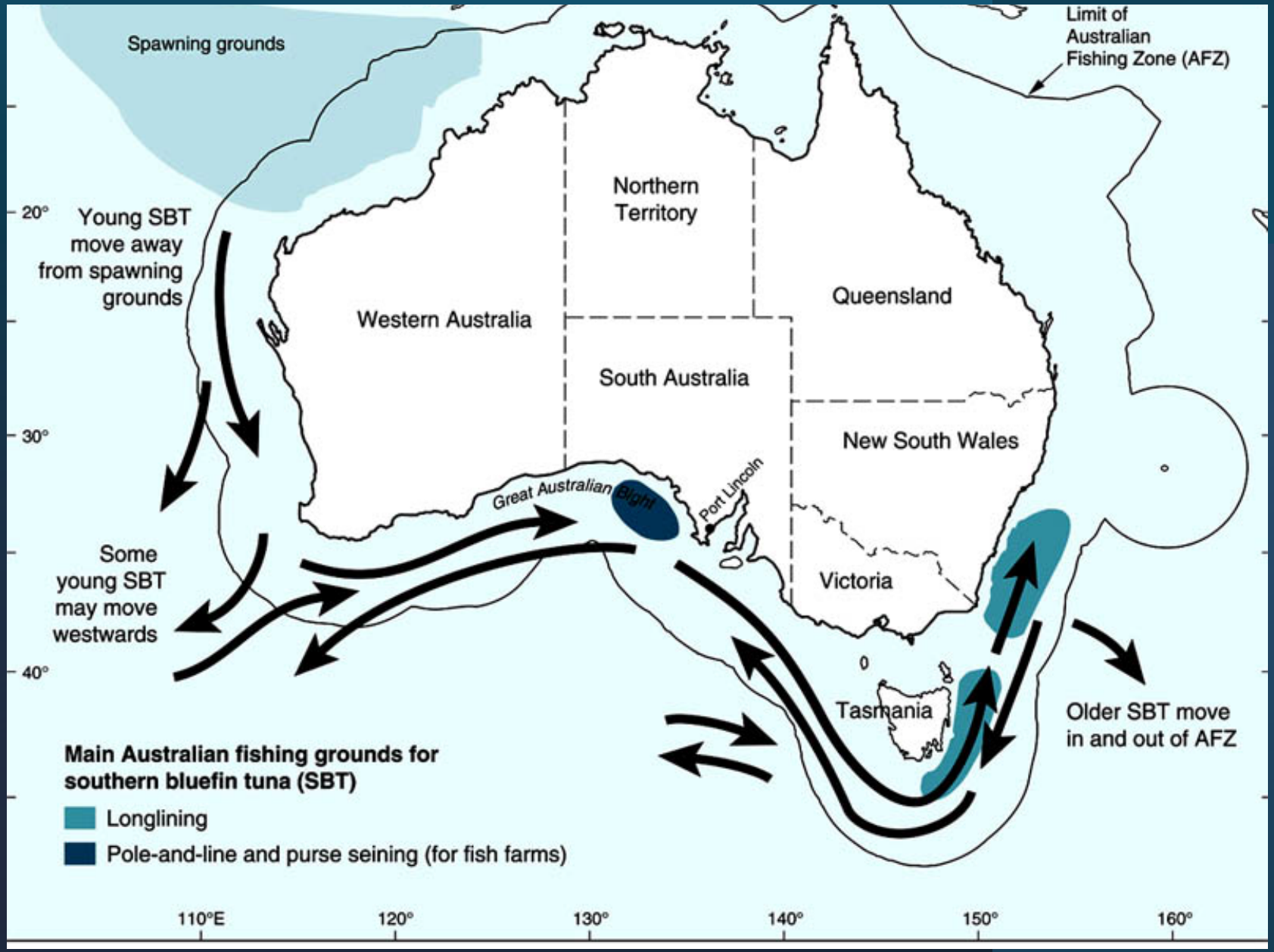
ASBTIA
Australian Southern Bluefin Tuna Industry ASSOCIATION


Spawning grounds
Limit of Australian Fishing Zone (AFZ)
Northern Territory
Young SBT move away from spawning grounds
20°
Western Australia
Queensland
South Australia
New South Wales
30°
Great Australian Bight
Port Lincoln
Victoria
Some young SBT may move westwards
40°
Tasmania
Older SBT move in and out of AFZ
Main Australian fishing grounds for southern bluefin tuna (SBT)
Longlining
Pole-and-line and purse seining (for fish farms)
110°E
120°
130°
140°
150°
160°

Australian SBT Aquaculture

- https://www.youtube.com/watch?v=UCXxVrc8NFg&t=90s

- **Australia only country in the world where SBT growout aquaculture is possible**
  - **SBT aggregations in GAB**
  - **Catch 2-3 year old wild SBT for growout (for 4-6 months) - very low cost per kg**

- **CCSBT harvest strategy model (Management Procedure) relies on science and is precautionary – no risk, and CCSBT has strong regulations.**

- **SBT wild stock now recovering strongly (see www.ccsbt.org) and catch quota increasing.**
  - **Australian has 35% of the total CCSBT quota**
  - **Fish no longer listed as conservation dependent**
  - **Australian quota has increased from 4,015t (2011) to 7,300t in 2024**
  - **Quota increase is 17% for triennium 2024-2026 (max. increase allowed)**
  - **Model indicates further 11-17% quota increase for 2027-2029**

- **SBT unlikely to be negatively impacted by climate change, however**
  - **Variability of upwelling changes migratory behaviour/s – SBT and prey species**
  - **Marine heatwaves may be a concern in our ranching areas**
  - **Data collection and monitoring trends will be important**

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Science and data underpins all of our key decisions

- Strong scientific and management input
  - CCSBT Management Procedure, leading edge stock assessment (gene tagging, Close-Kin mark recapture)
  - CCSBT/AFMA Quota decisions
- Social licence – ongoing data, monitoring and reporting
- Delisted from 'Conservation Dependent' as stock recovers
  - Can now pursue Marine Stewardship Council, support from environmental groups and stronger community support
- SA Government approved in November 2023 a new expansion Plan for SA tuna and other aquaculture in the major area off Port Lincoln
  - Underpinned by IMOS data

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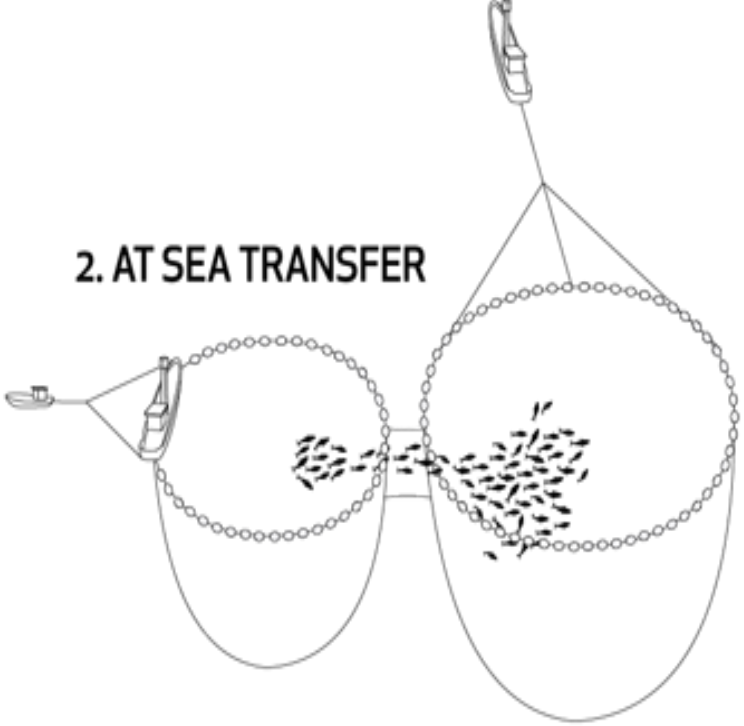
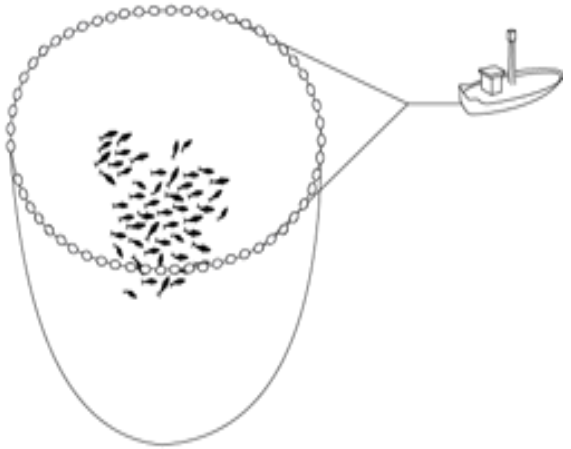
1. CATCH

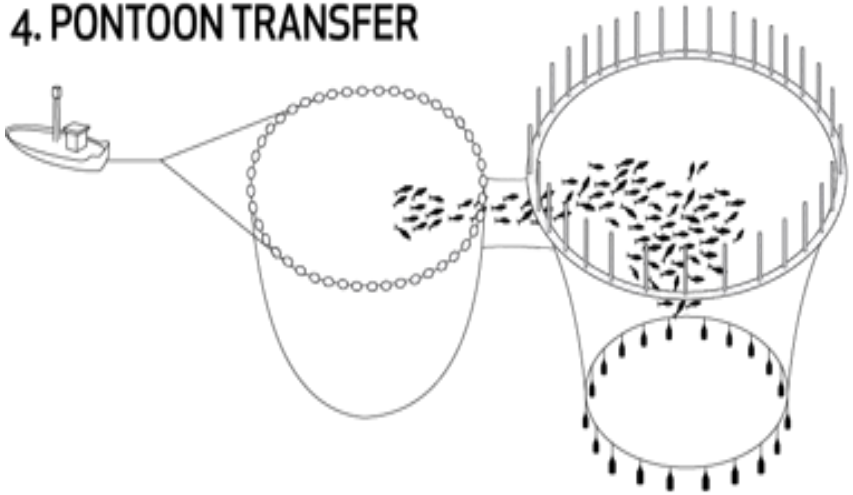
2. AT SEA TRANSFER



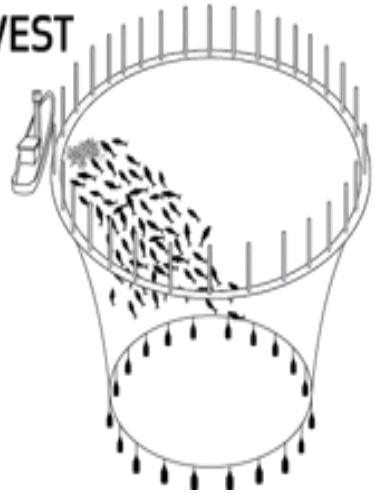
3. TOW



4. PONTOON TRANSFER



5. FEED & HARVEST



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Data and catching

- ***With a culture of adapting to change, innovation, continuous improvement***
  - Global tuna ranching invented in Port Lincoln in 1991
- Patterns like La Nina weather conditions makes catching more difficult.
  - Need to understand long term environmental trends

We use data and models to identify schools, position our tow cages, target aerial spotting/guide planes and vessels

Data – ocean models, water temp, chlorophyll, weather

Tools - Buoy weather, Windy App, BoM, CSIRO

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Data – transfer and towing

It can take up to 3 weeks for the return trip

Find the best path home – tides, waves, algal blooms (we need to avoid them, esp. HAB), water temp

Opportunity to underpin this through products like optimal routing

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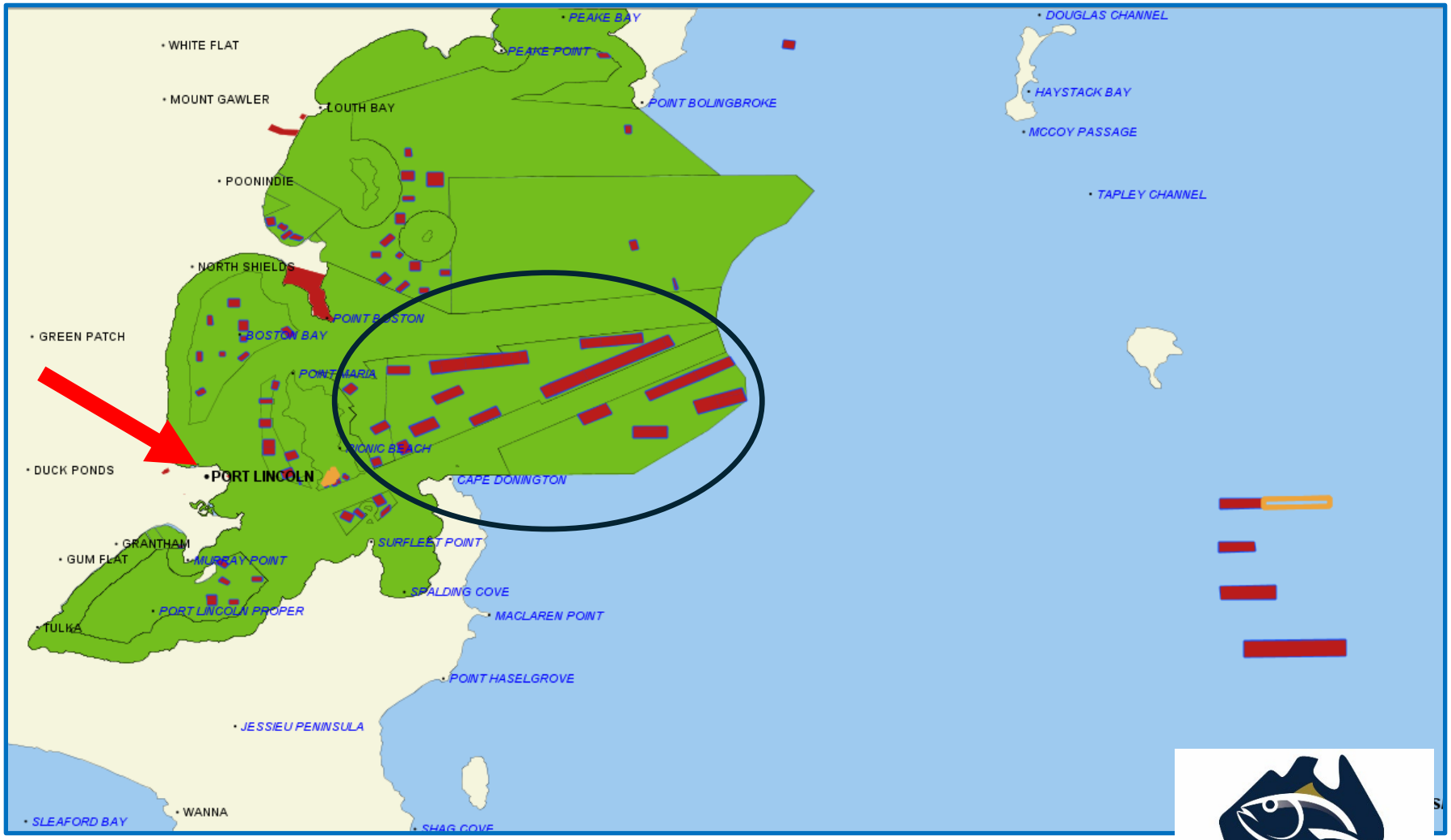
PEAKE BAY
DOUGLAS CHANNEL
WHITE FLAT
PEAKE POINT
MOUNT GAWLER
LOUTH BAY
POINT BOLINGBROKE
HAYSTACK BAY
MCCOY PASSAGE
POONINDIE
TAPLEY CHANNEL
NORTH SHIELDS
POINT BOSTON
GREEN PATCH
BOSTON BAY
POINT MARIA
PICNIC BEACH
DUCK PONDS
PORT LINCOLN
CAPE DONINGTON
GRANTHAM
SURFLEET POINT
GUM FLAT
MURRAY POINT
SPALDING COVE
PORT LINCOLN PROPER
MACLAREN POINT
TULKA
POINT HASELGROVE
JESSIEU PENINSULA
WANNA
SLEAFORD BAY
SHAG COVE

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Data – ranching and growout

- Holding tuna in the best environment
  - High energy aquaculture zone – regular environmental monitoring
- Feed optimum amounts of feed at the right time
- Biomass limits - ‘flushing rate,’ water temp
  - IMOS Data underpins flushing rates
- Fish health – environmental impacts

Feeding – water temp, algal blooms, tides, swell

Harvest – growth rates change with temperature

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Data is important.!!!

- Better coastal data can help us save money, and optimise grow out.....improving sustainability and profitability
- Fisher interface is typically at the model or tool level – they don't always know where data comes from
- How can fishers be a data source – independent, on the water, anecdotal/observational information?
  - FishSOOP, ++ ??

<u>We Need.....</u>

- Environmental data that supports our stewardship and tells our story – social licence is important
- Real-time data must be the goal
- Consistent models to improve decision making
  - Reduced costs
  - Improved fish health
  - Support for interpretation/capacity building

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Thank you for your time and interest in our industry and we look forward to exploring future opportunities

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W: www.asbtia.org