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# Welcome to the Dolphin Stakeholder Workshop



# Agenda

6:00-6:45 - Introductions and Overview Presentation

6:45-7:40 - Breakout Groups

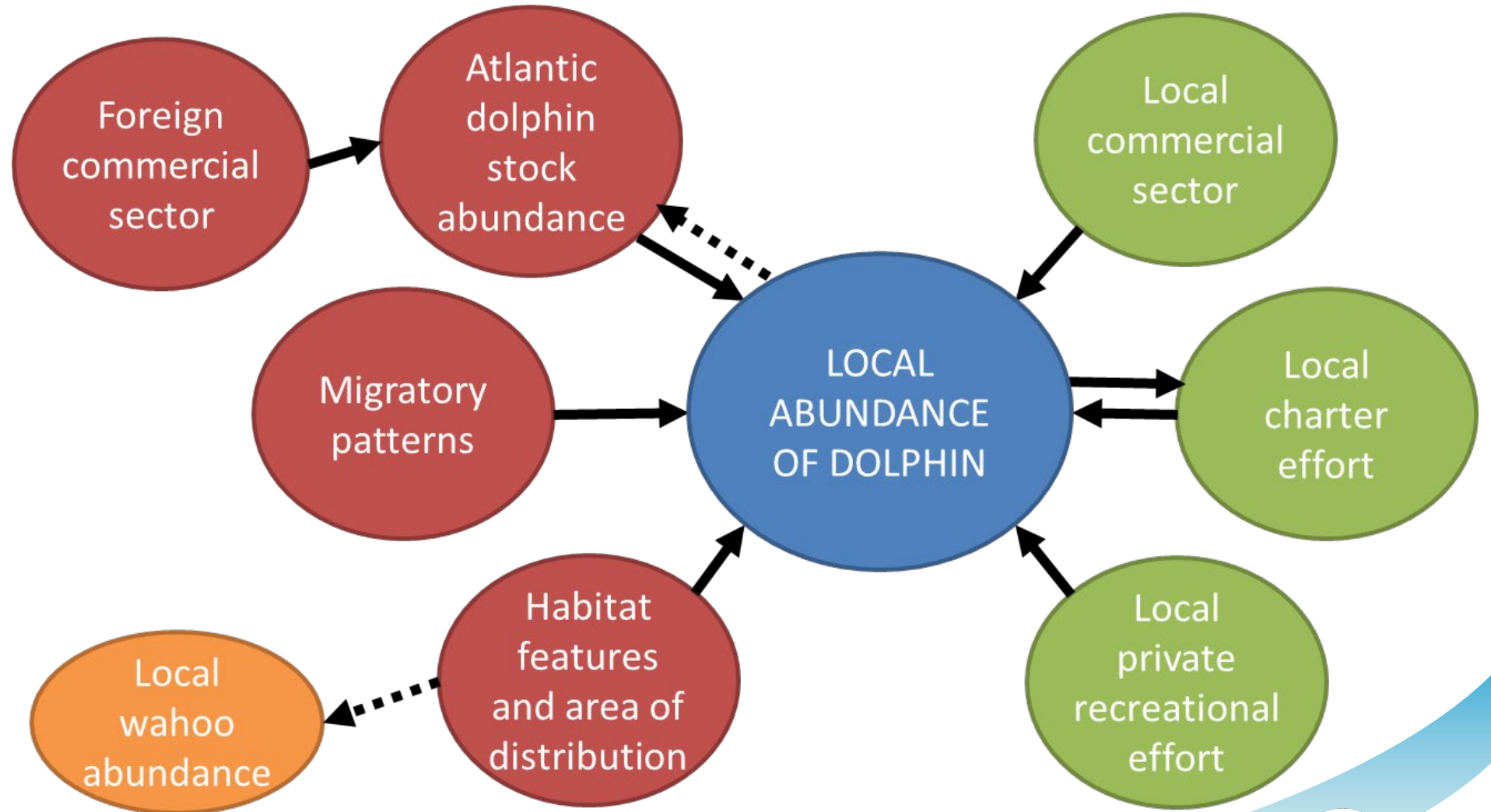
7:40-7:45 - Break

7:45-8:15 - Reconvene in Big Group

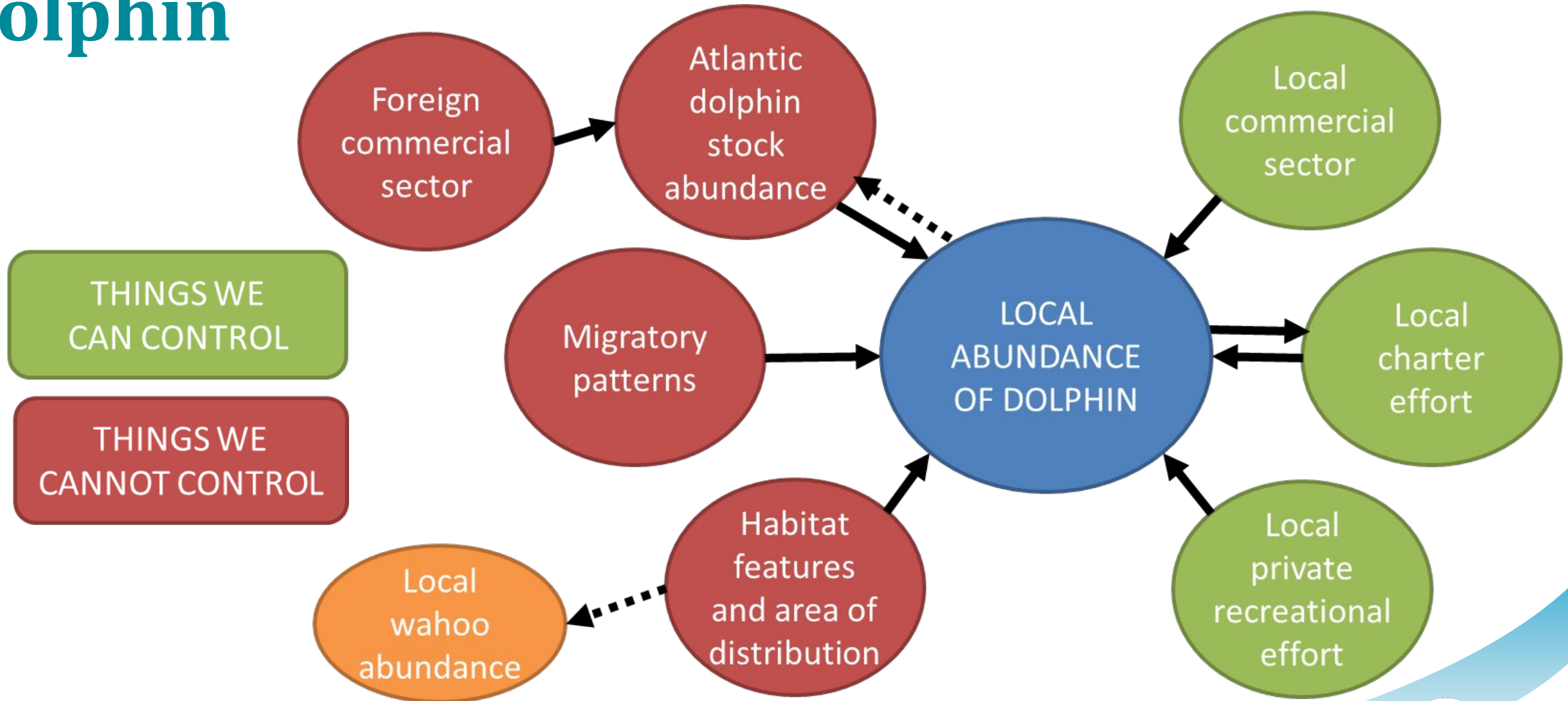
8:15-8:30 - Wrap-up and Next Steps



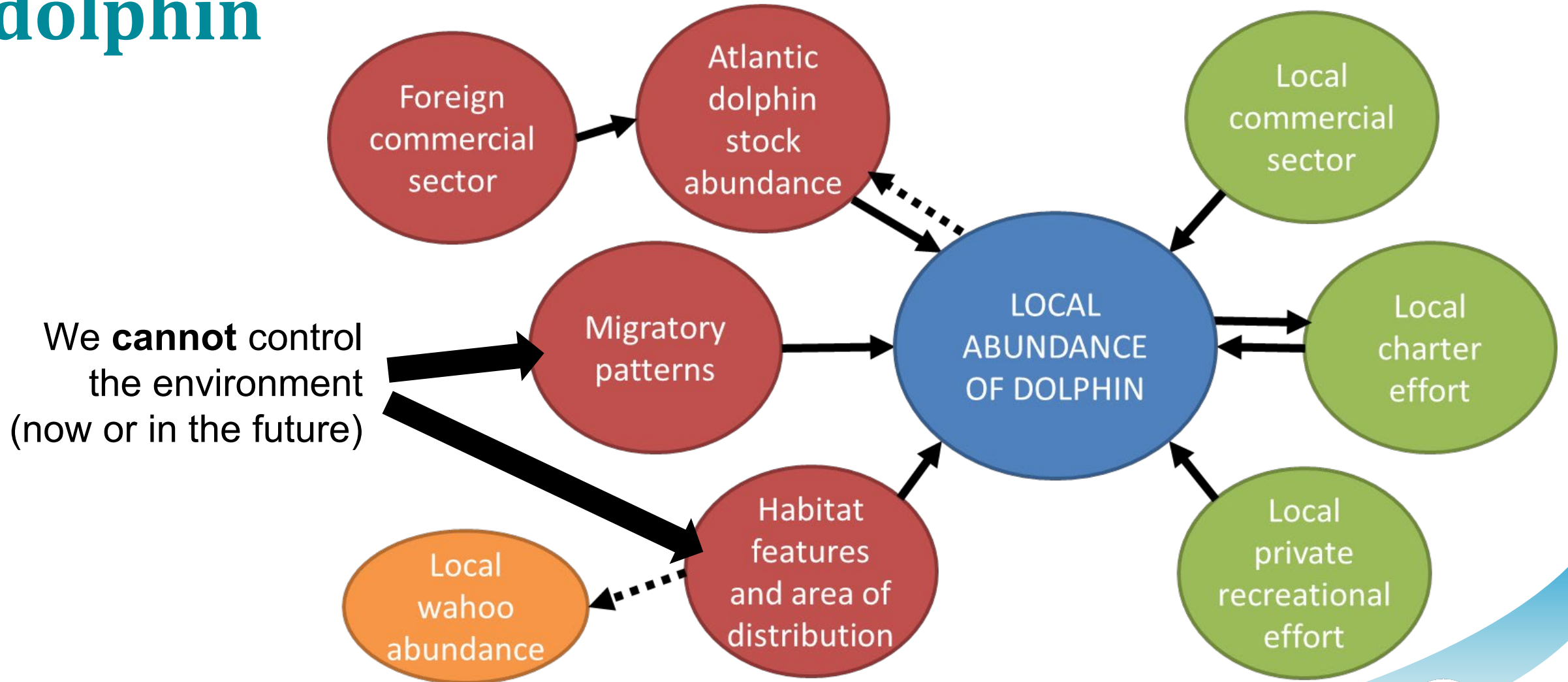
# Discussion focused on **local abundance of dolphin**



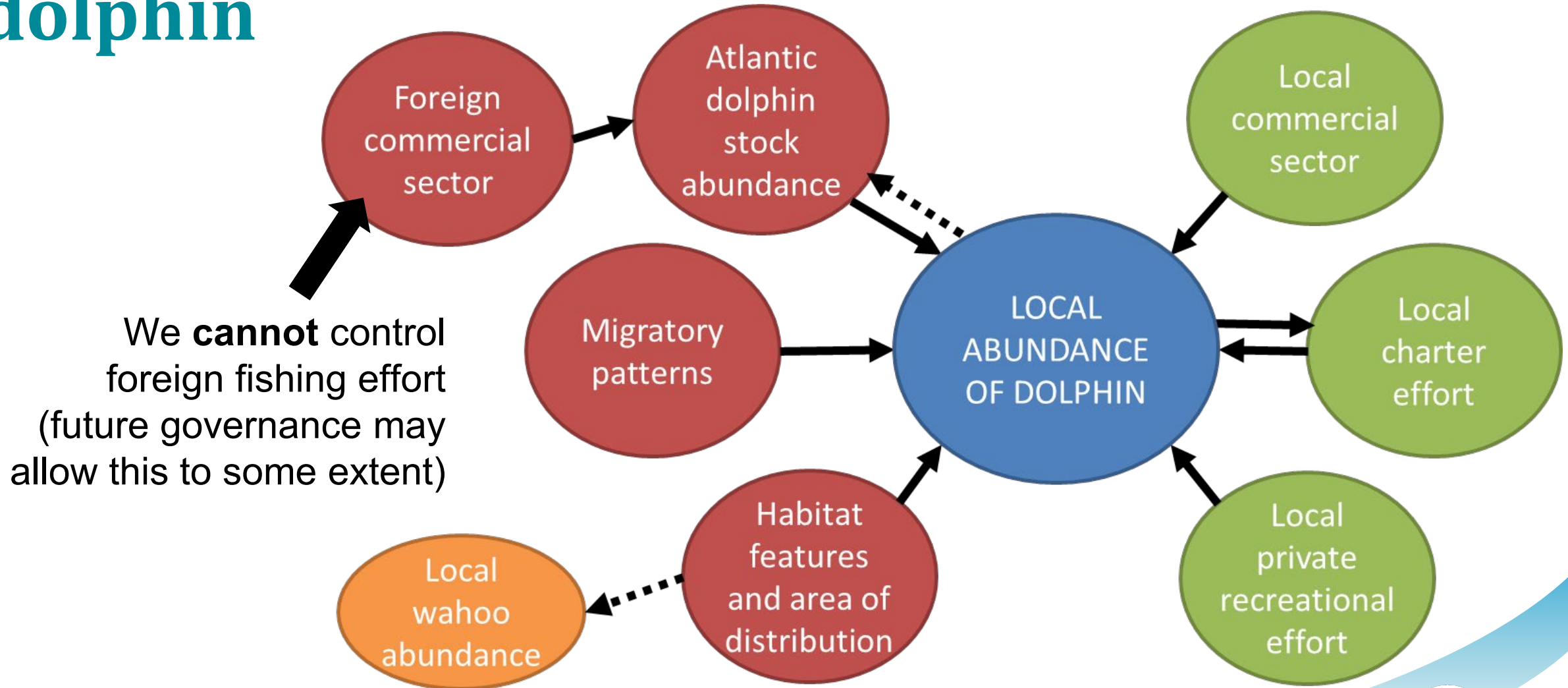
# Discussion focused on **local abundance of dolphin**



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# Discussion focused on **local abundance of dolphin**



# Other insights from participatory workshops:

- Perceptions that a variety of factors are increasing commercial and recreational pressure on dolphin → potential for increased conflicts
- Differences in reliance on the species across the region
- Differences across the region in how the species is valued

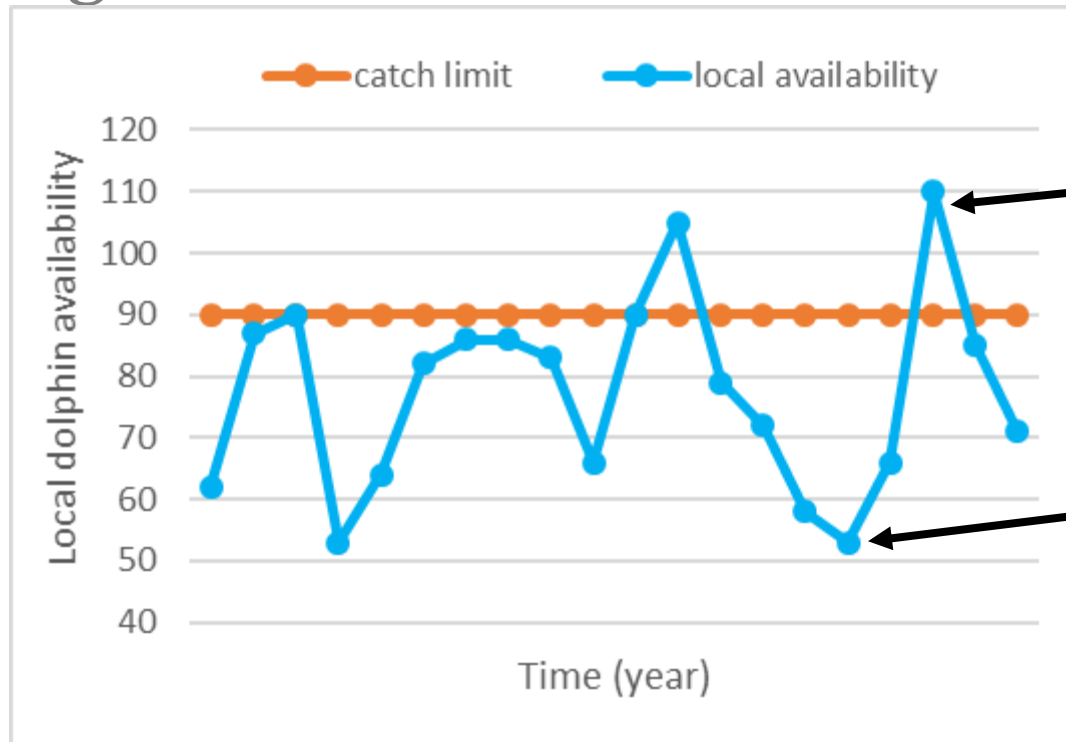
**Need management method to reduce local conflicts and account for diverse objectives and preferences**





# Problem with current management

Current management is a static catch limit based on the third highest catches observed between 1994-2007



In years where stock is plentiful, static catch limits do not allow fishery to take advantage of fish

In years where fish are scarce, management does not ensure access across all sectors and regions

Given that many factors controlling abundance in local waters are out of domestic management control....



Credit: Frank Hernandez



Credit: fao.org



Credit: Dino Barone

and many conflicts are related to local usage patterns....



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# We need a management method that allows us to:

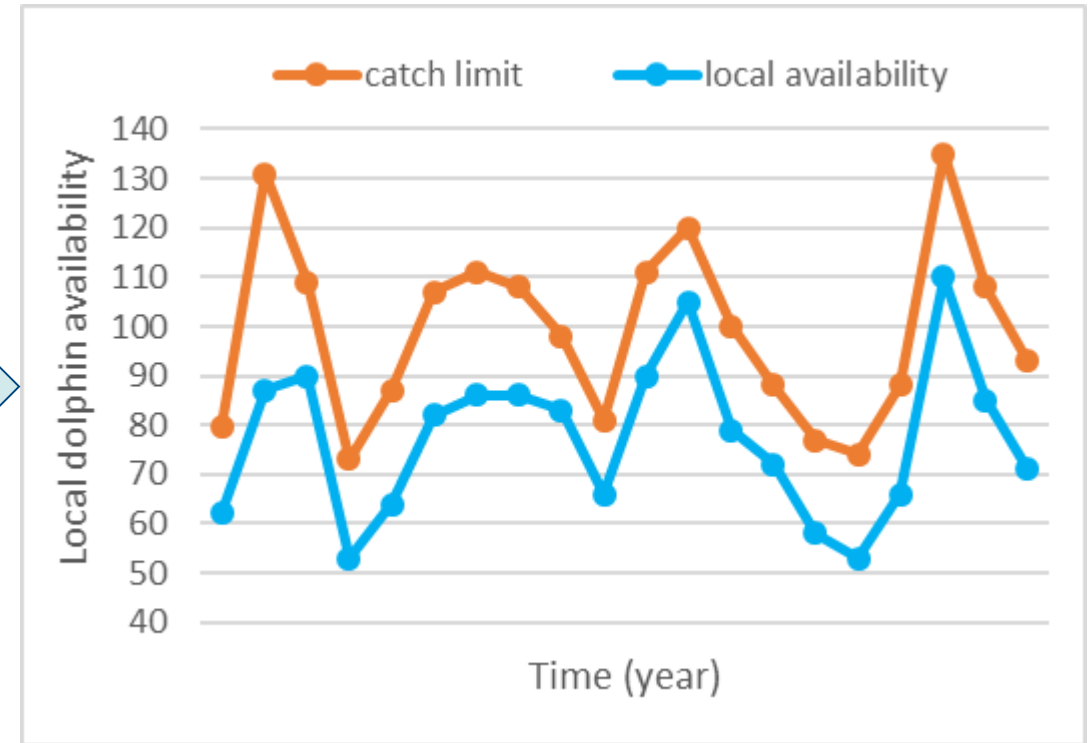
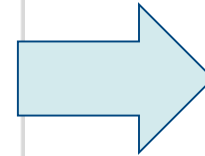
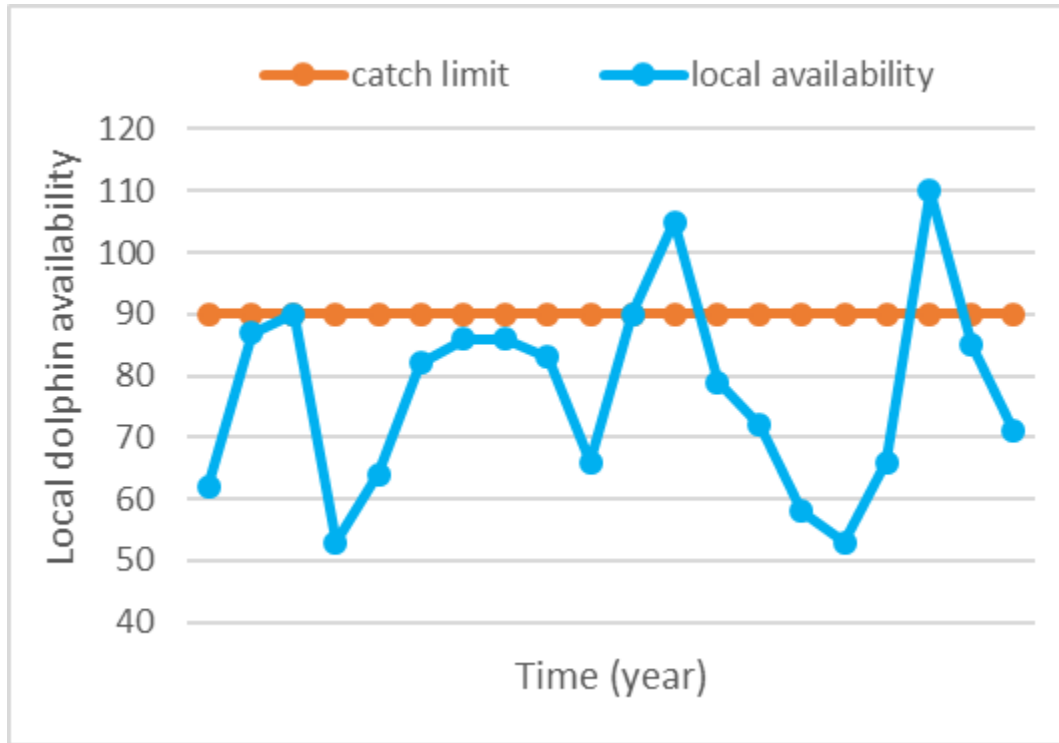
1. predict the amount of dolphin the SAFMC will have each year

and

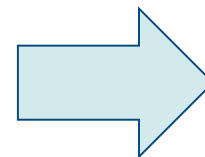
2. maximize the usage of those fish across sectors and region



# Management solution



Fishery cannot take advantage of good years; inequities in distribution by area and sector during bad years



All sectors and areas able to profit from good years; equally unhappy in bad years



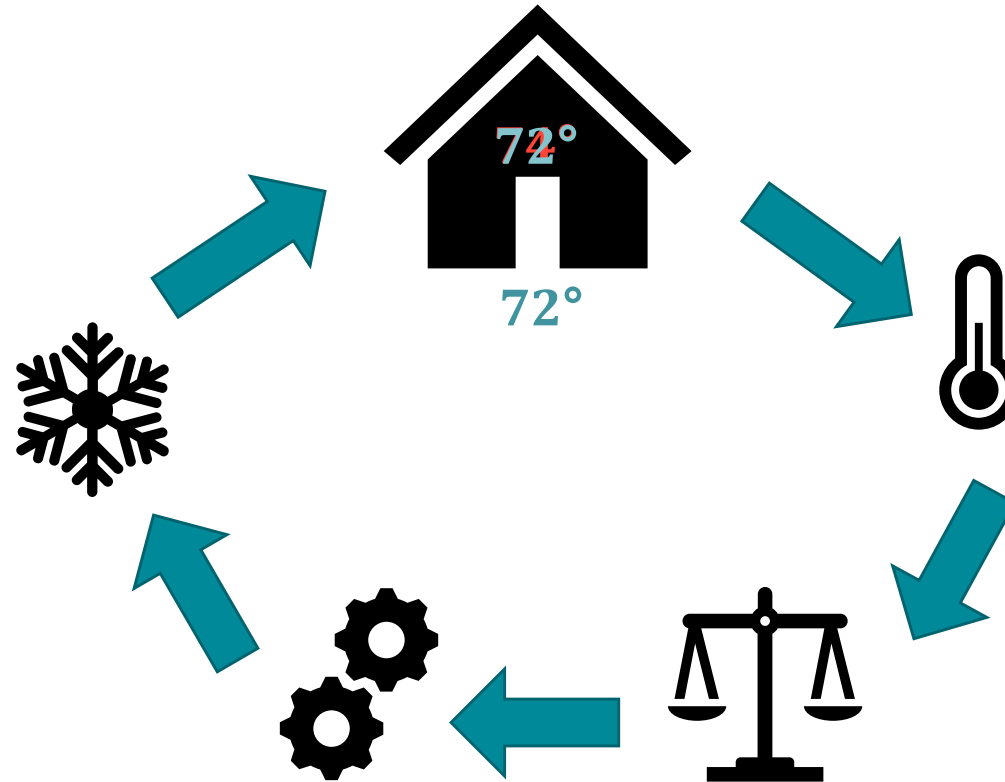
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# Developing Management Procedures for dolphin in the South Atlantic



# Management Procedure (Harvest Strategy) Approach



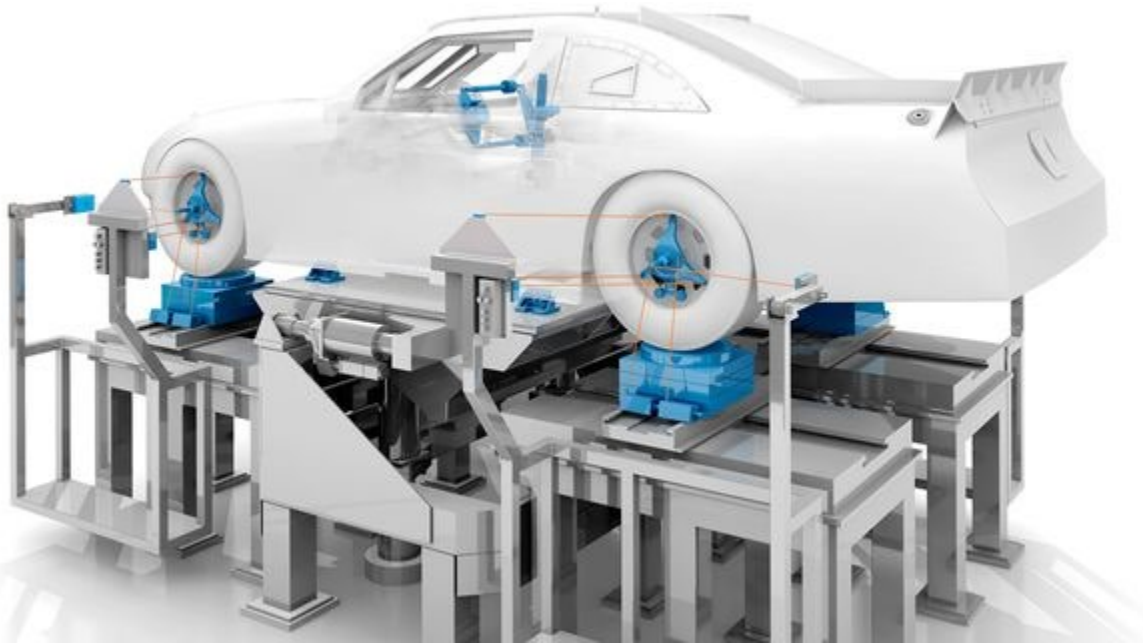
# Management Procedure (Harvest Strategy) Approach



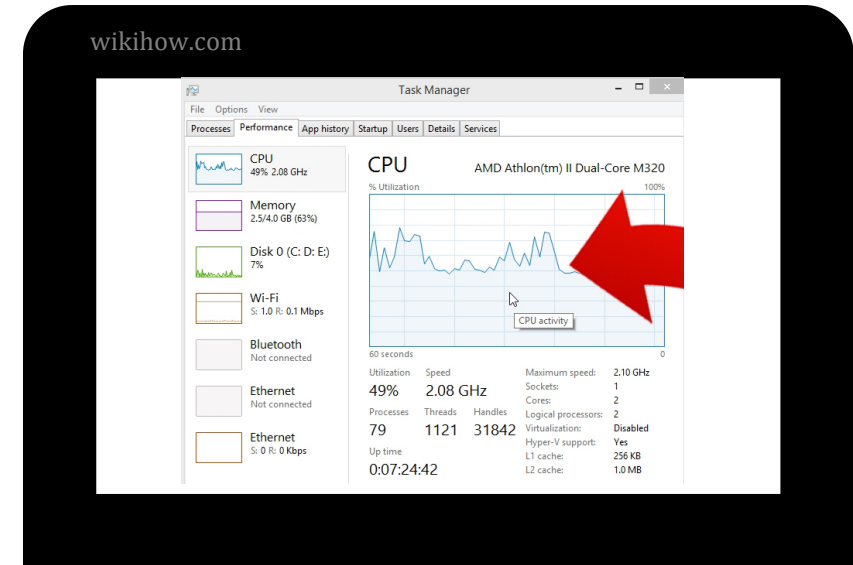
# Torture / Stress Testing

→ Simulation Analyses

- ✓ Identify uncertainties in the stock and fishery dynamics



caranddriver.com

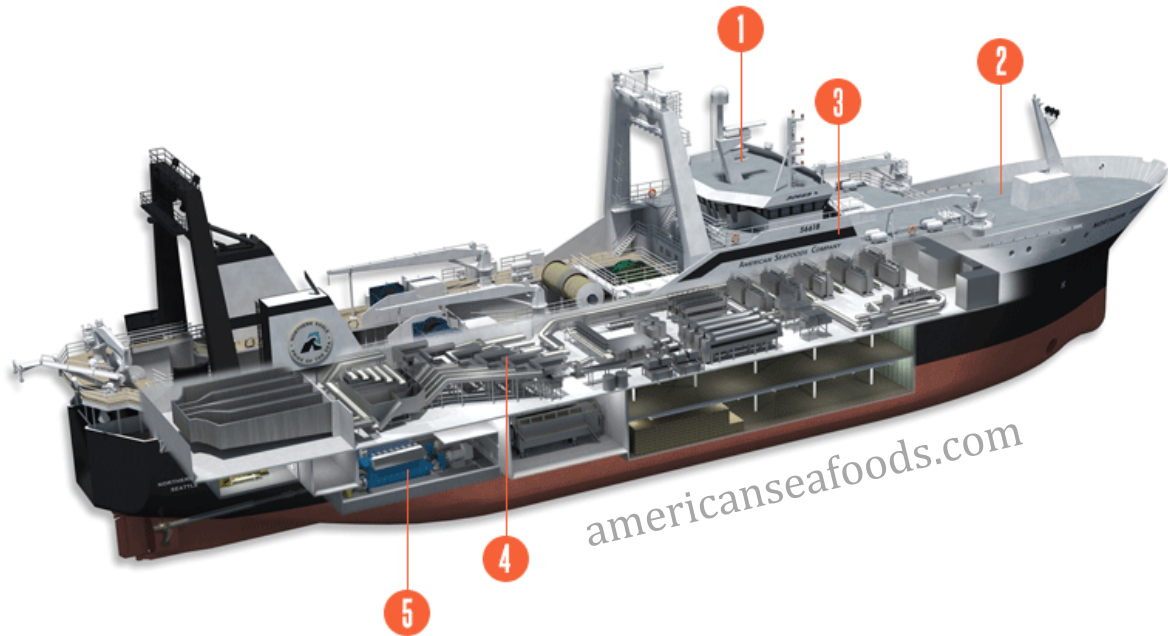


# Management Strategy Evaluation



# What defines a good management procedure?

- Depends on the management objectives of the fishery.
- Management objectives depend on what you want to get out of the fishery now and in the future.

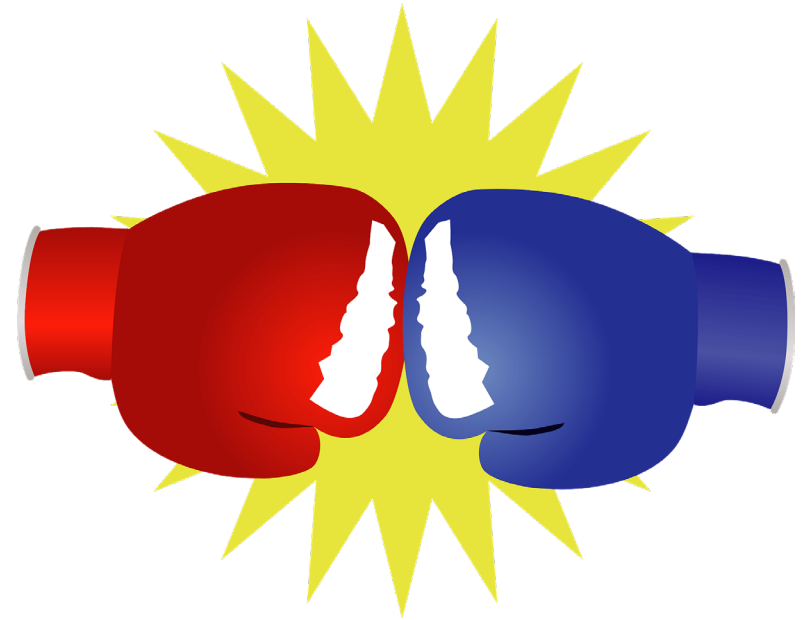


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# Balancing trade-offs



# Management objectives

- ✓ Define management objectives for dolphin

- ***Conceptual* management objectives** – identify broad objectives for the system (e.g., maximize catch)
  - How can we measure catch to maximize fishery objectives
    - Total catch summed across 10 years?
    - Catch every year?
    - Size/quality of catch?
    - Allowable trip/bag limits?



# Management objectives

- ✓ Define management objectives for dolphin

- **Conceptual management objectives** – identify broad objectives for the system (like maximize catch)
  - Be comfortable
  - Stay within budget
  - Environmentally friendly
- **Operational management objectives** – operationalize management objectives for analyzing MSE results
  - Ensure internal temperature stays between 69° - 75° at least 70% of the time
  - Ensure internal temperature does not exceed 80°
  - Keep gas/electricity bill less than \$50/mo at least 90% of the time



# Thank you!

<https://www.fisheries.noaa.gov/event/workshops-discuss-dolphinfish-mahi-mahi-management-strategy>

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