

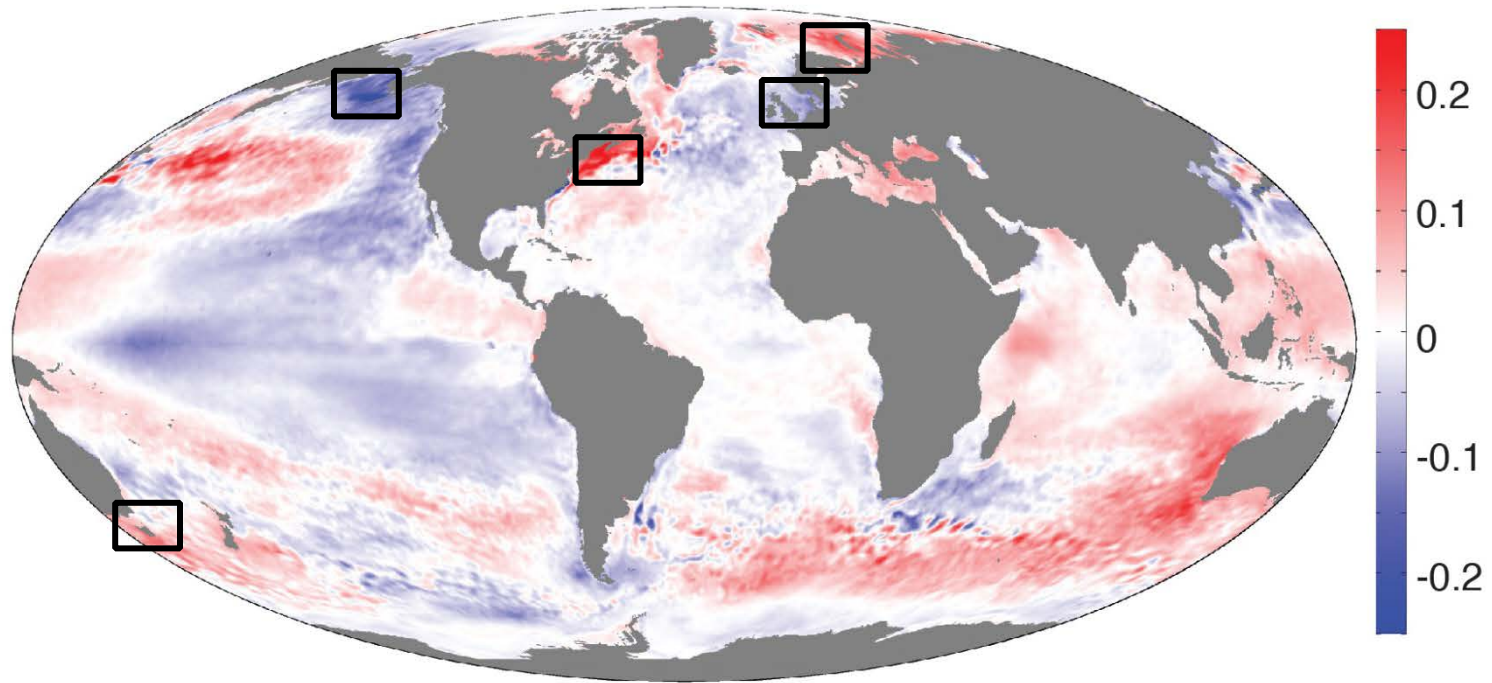
Cross-scale interactions in coupled social-ecological systems:

An organizing framework for assessing climate impacts and adaptation in marine fisheries

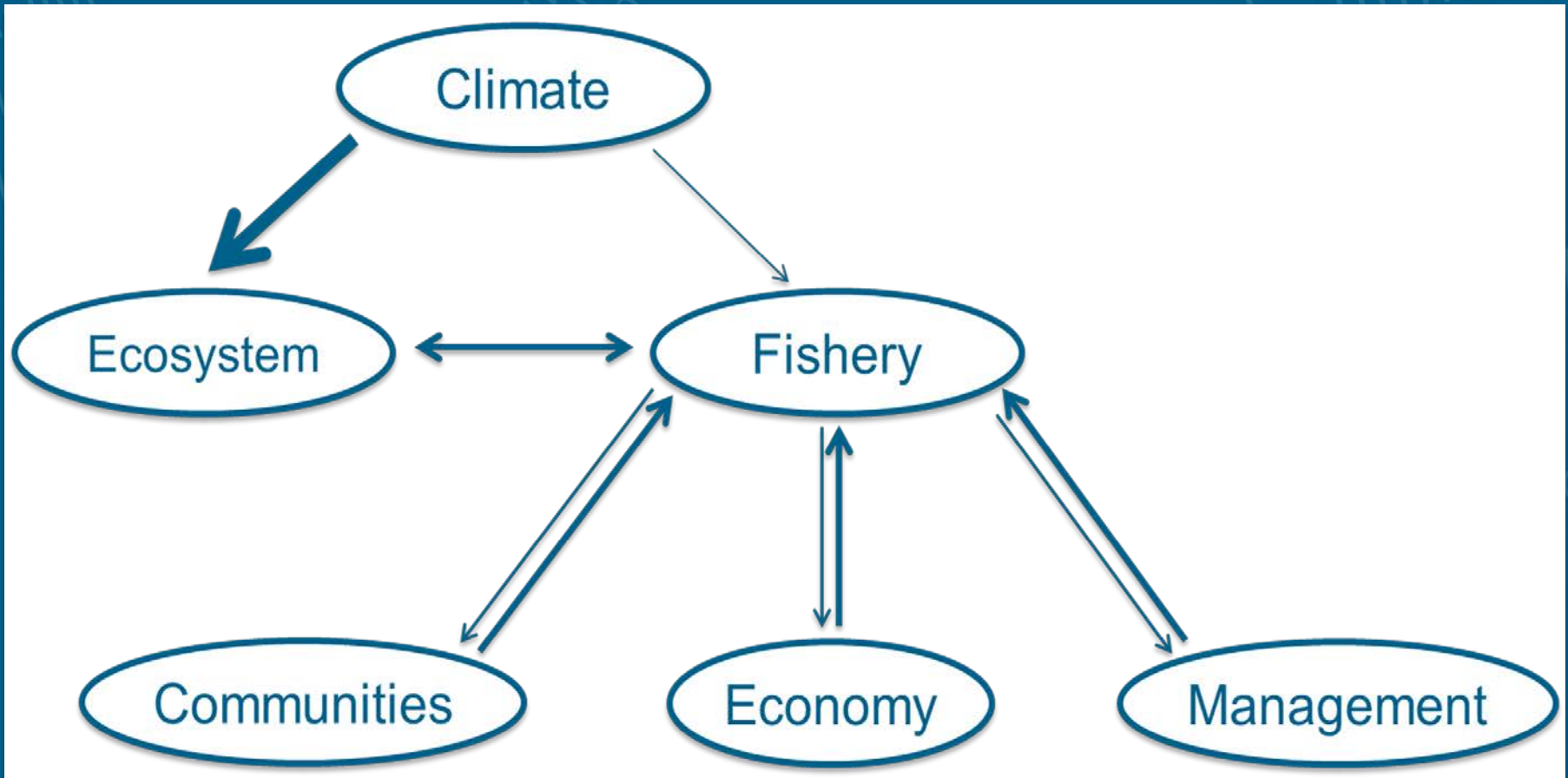
Kathy Mills & Andy Pershing
March 21, 2015



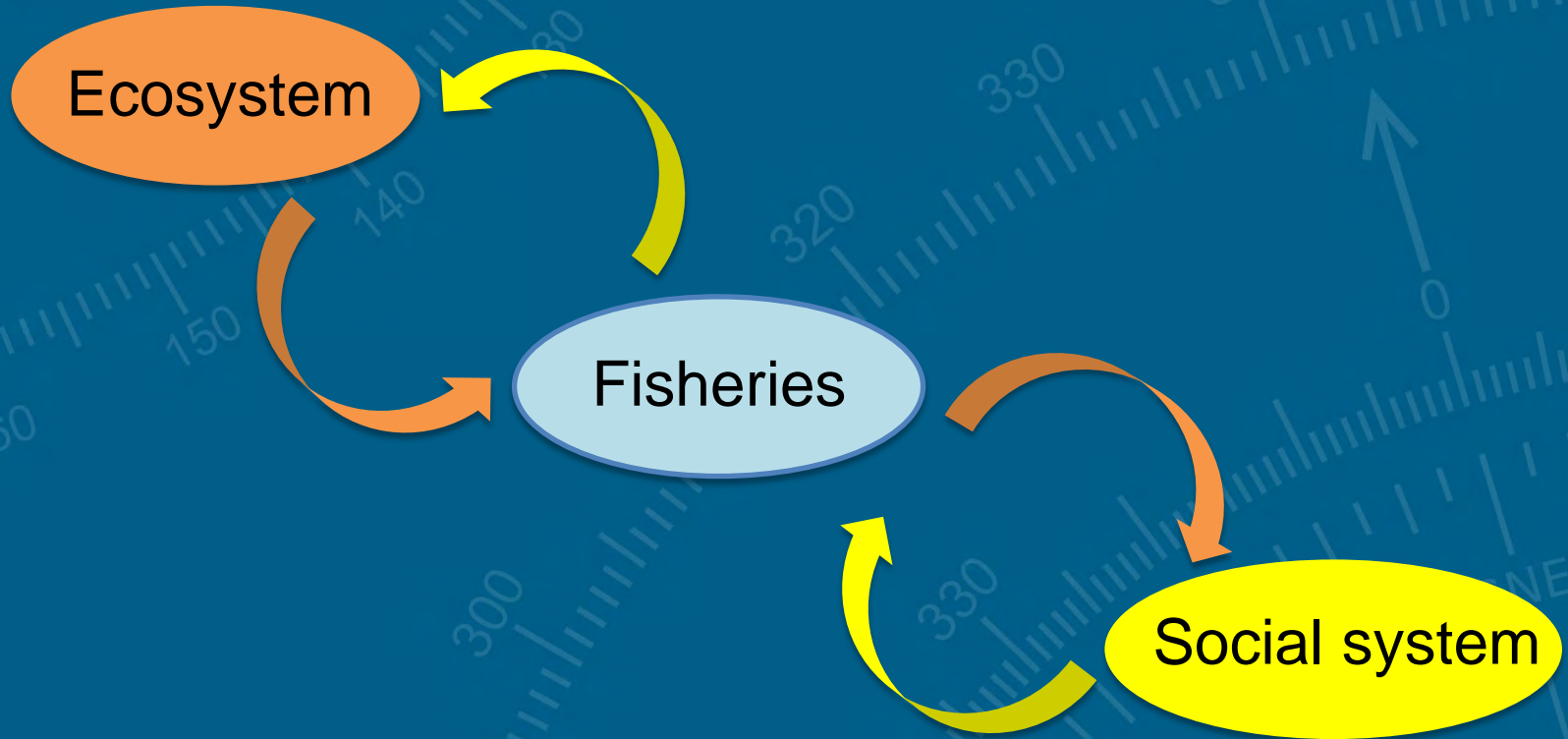
Who is here? And why?



Who is here? And why?



Who is here? And why?



Definitions of climate adaptation

“Adjustment in natural or human systems to a new or changing environment that exploits beneficial opportunities or moderates negative effects.” (NAS 2010)

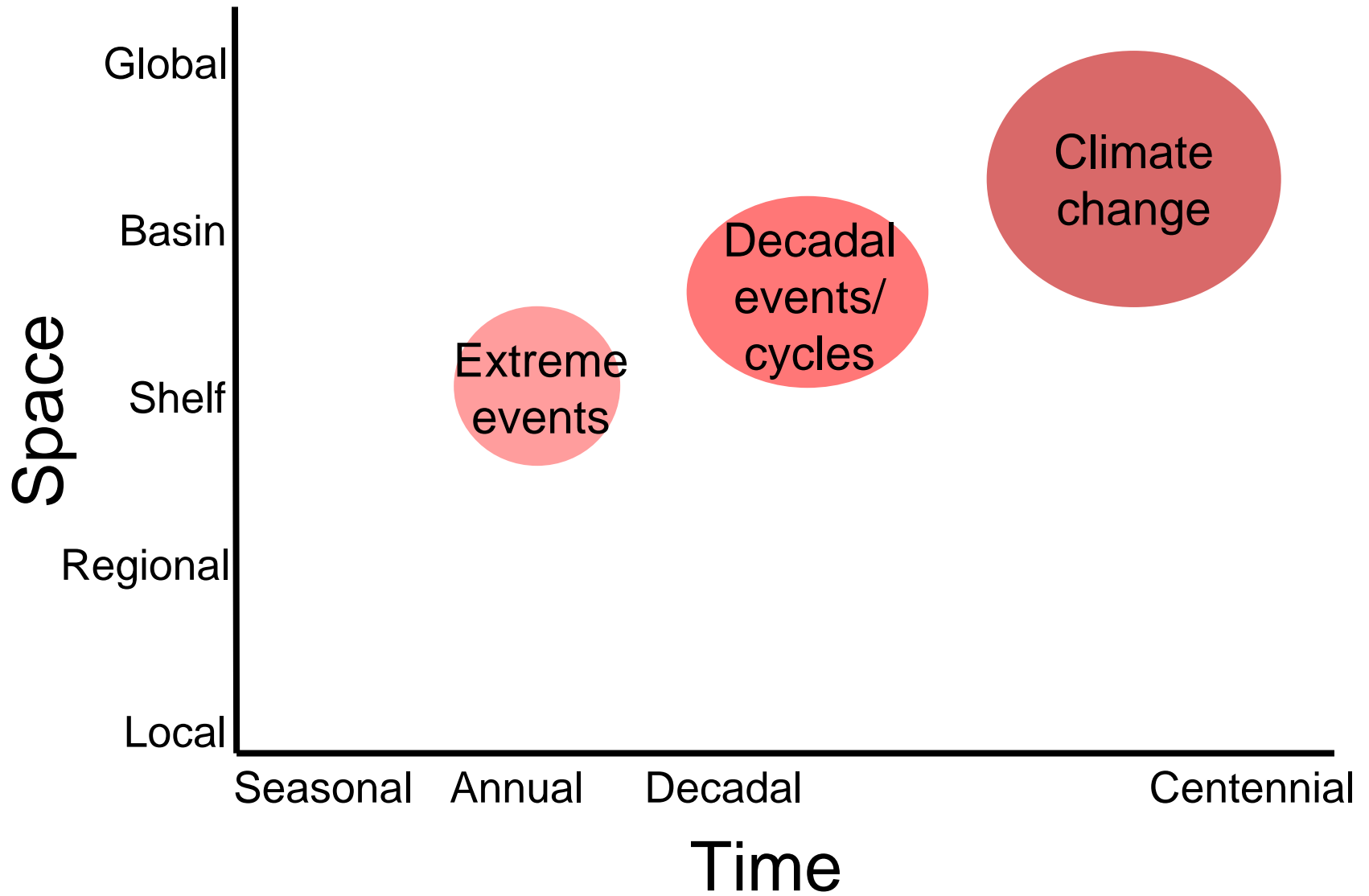
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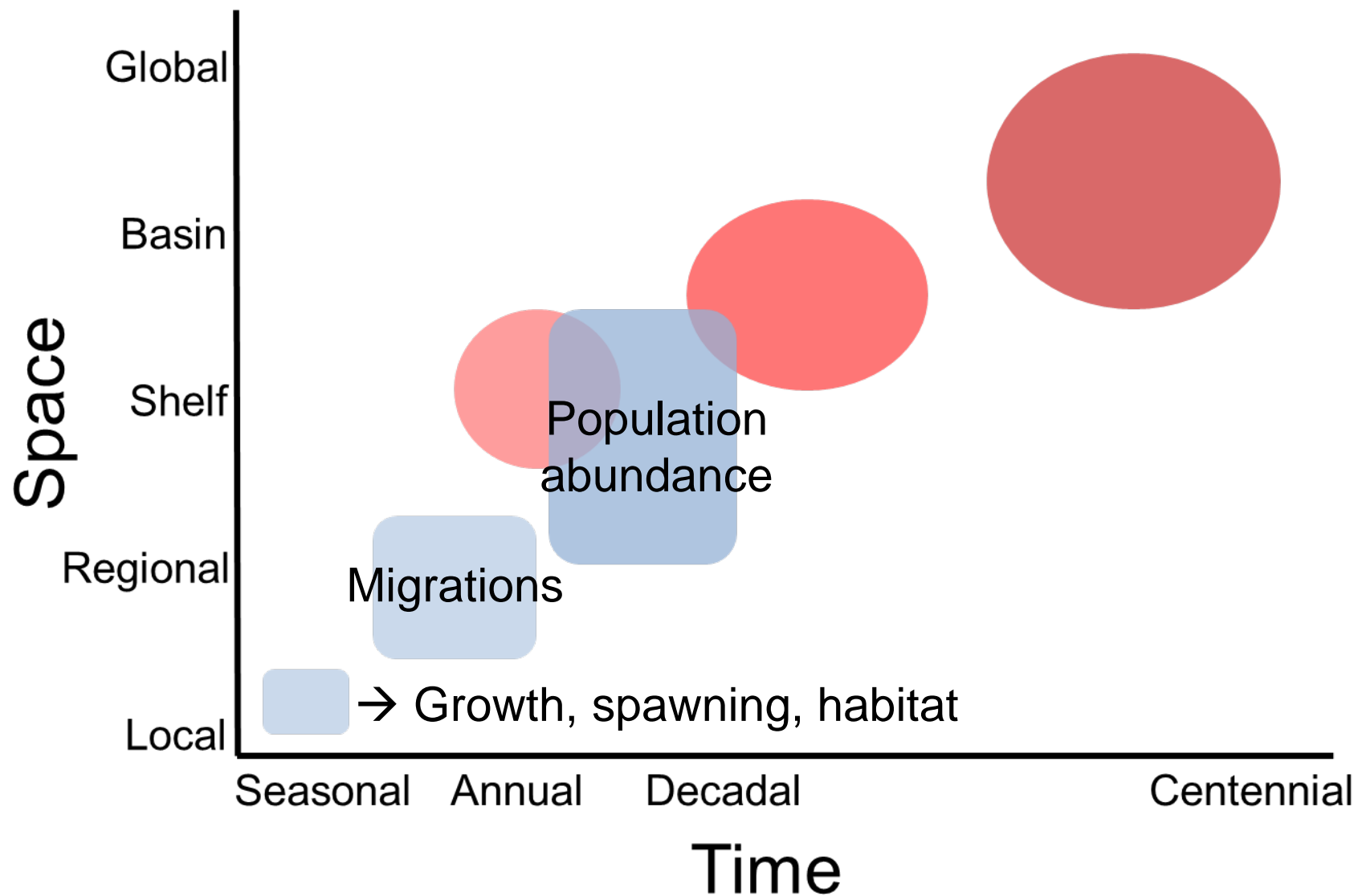
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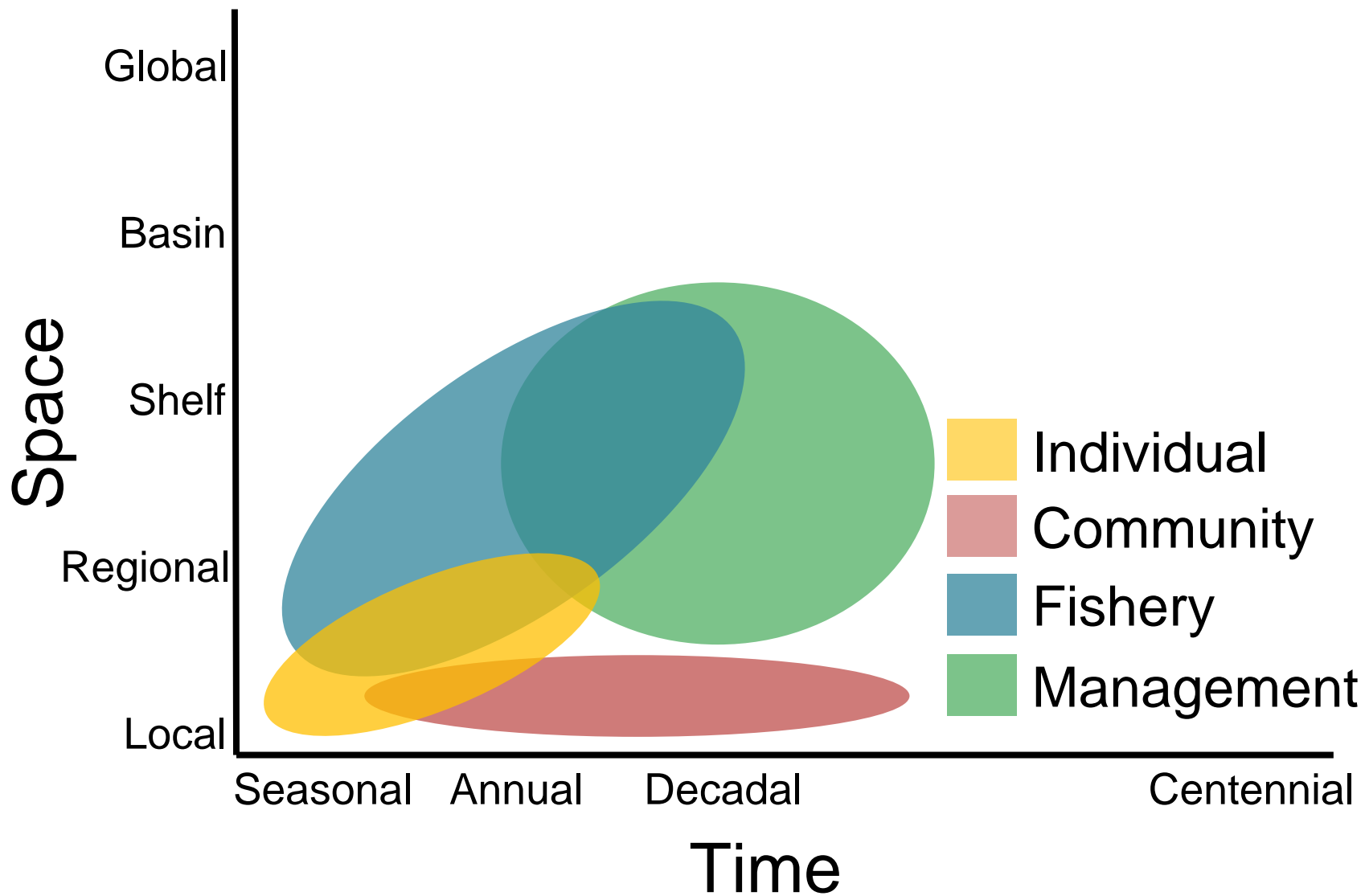
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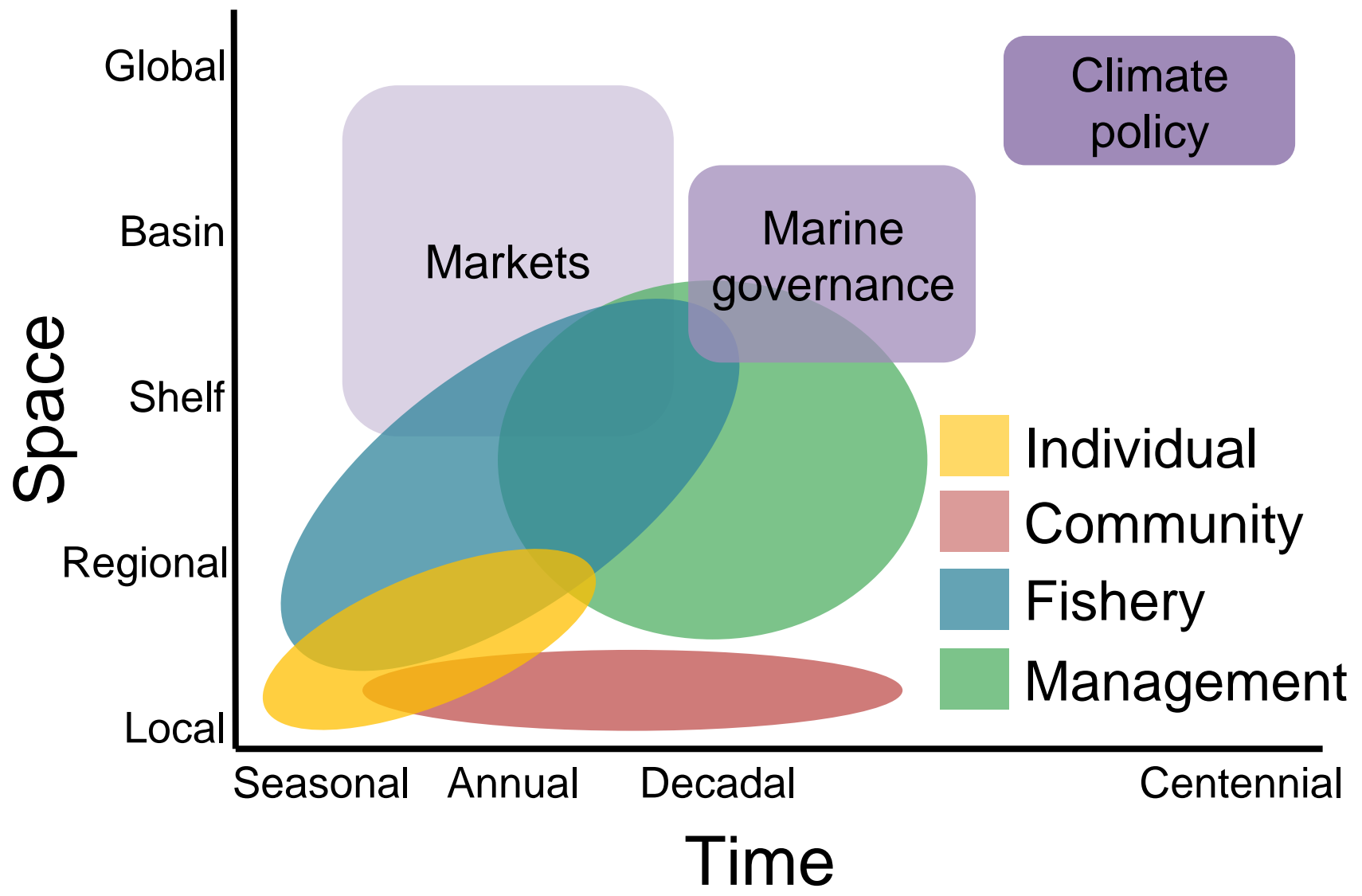
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How can marine fisheries prepare for and be resilient to change?









Examples of cross-scale interactions and questions:

- Short-term climate event affects migration timing
 - Fishermen able to respond
 - Can supply chain and market absorb change?
 - Fishermen not able to respond
 - Why not? Management or market constraints?

Examples of cross-scale interactions and questions:

- Short-term climate event affects migration timing
 - Fishermen able to respond
 - Can supply chain and market absorb change?
 - Fishermen not able to respond
 - Why not? Management or market constraints?
- Multi-decadal shifts in distribution
 - Fishermen may switch to other species:
 - Do they have appropriate gear? vessels? shoreside facilities?
 - Fishermen may try to follow the fish:
 - Do they have access? How will equity issues with fishermen in new area be accommodated?
 - Accommodated in assessments and management?

Workshop plan

Goal: Synthesis paper

1. Ingredients or dimensions of climate adaptation
2. Case studies of adaptation in marine fisheries
3. Lessons across cases and advances needed to forward climate adaptation in fisheries

Workshop plan

1. Ingredients or dimensions of climate adaptation
 - Elements of adaptation identified in presentations
 - Broader discussion of key ingredients
 - Identify ingredients to track in case studies
2. Case studies of adaptation in marine fisheries
3. Lessons across cases and advances needed to forward climate adaptation in fisheries

Workshop plan

1. Ingredients or dimensions of climate adaptation
2. Case studies of adaptation in marine fisheries
 - Climate impacts
 - Context and preconditioning factors
 - Adaptation actions and outcomes
 - Barriers and limitations to adaptations
 - Key lessons
 - Use of key ingredients
3. Lessons across cases and advances needed to forward climate adaptation in fisheries

Workshop plan

1. Ingredients or dimensions of climate adaptation
2. Case studies of adaptation in marine fisheries
3. Lessons across cases and advances needed to forward climate adaptation in fisheries
 - Lessons that are valuable across regions
 - Common barriers
 - Advances to support adaptation
 - “Grand challenges” for adaptation in fisheries

Thank you!