

Marine Life Protection Act Initiative



Connectivity in the MLPA South Coast Study Region

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Connectivity in Southern California

- What is the level of connectivity between the northern Channel Islands and Santa Barbara Island (where the Channel Islands marine protected areas are located) and the mainland of the MLPA South Coast Study Region?



Methodology: Assessing Connectivity

- Assess “regional connectivity” using model of larval dispersal

Species	Spawning Season	Pelagic Larval Duration
Kelp bass	Apr-Nov	25-33 days
Red sea urchin	Dec-Feb	40-60 days
Lingcod	Nov-Apr	30-120 days
Blue rockfish	Jan-May	60-120 days
Canary rockfish	Dec-Apr	60-120 days
Cabezon	Oct-Mar	90-120 days



Regional Connectivity: Kelp Bass

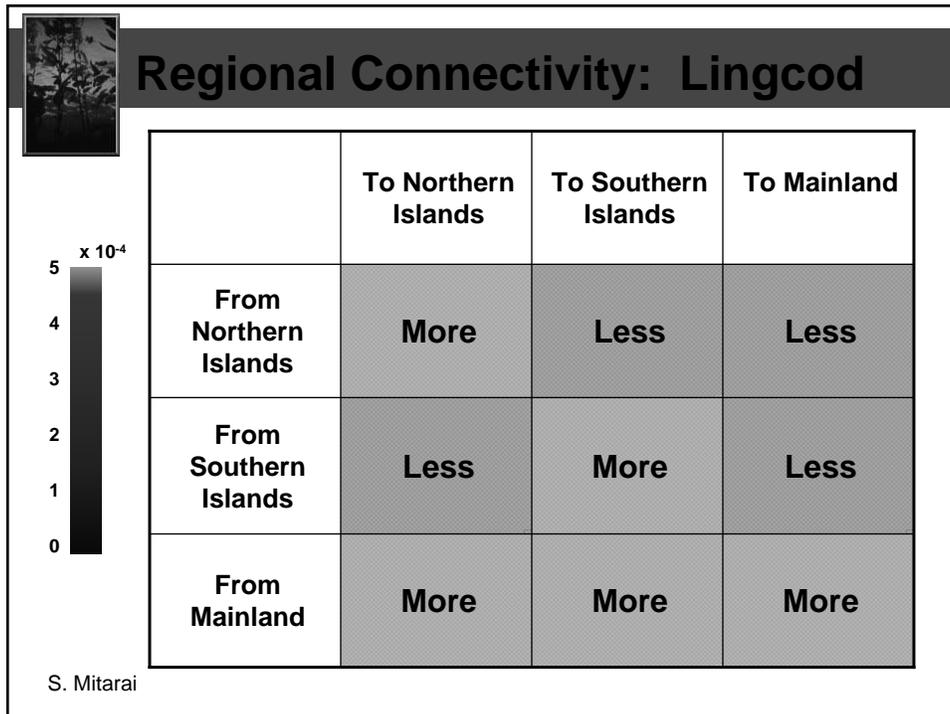
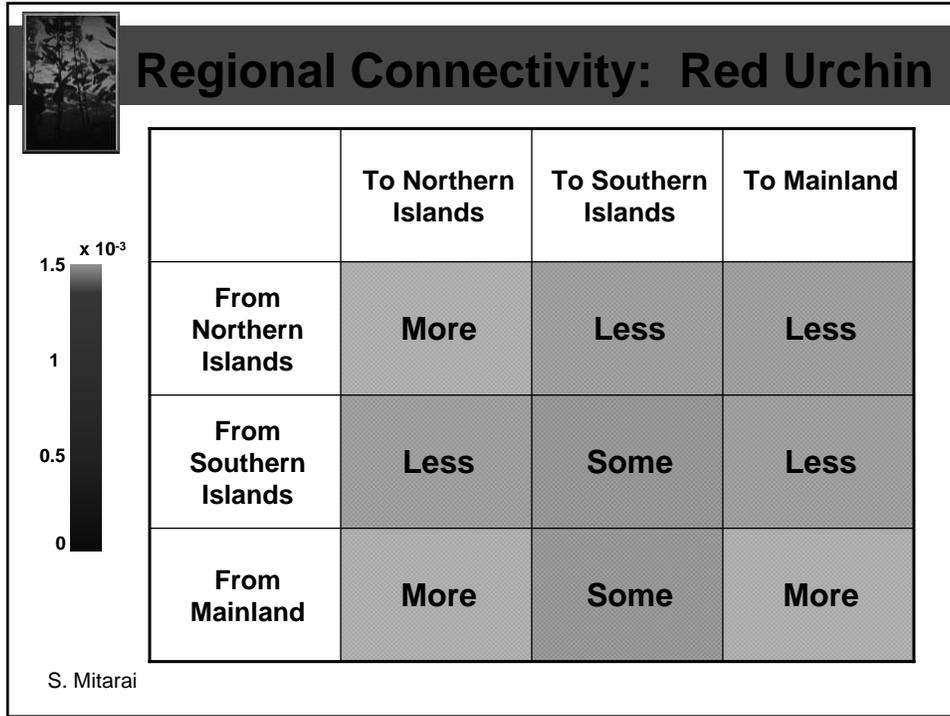
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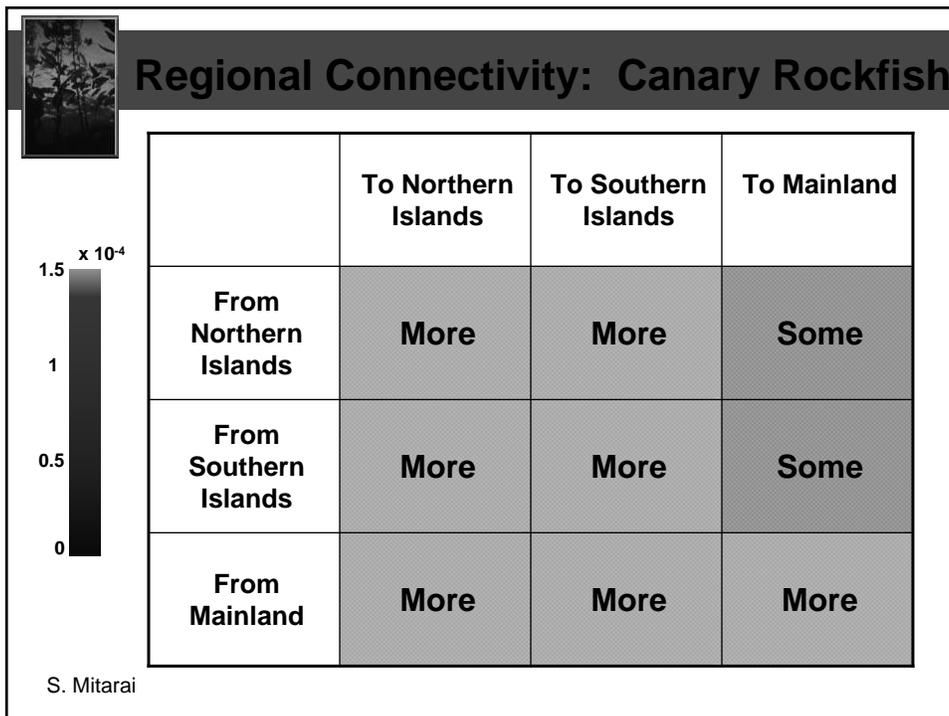
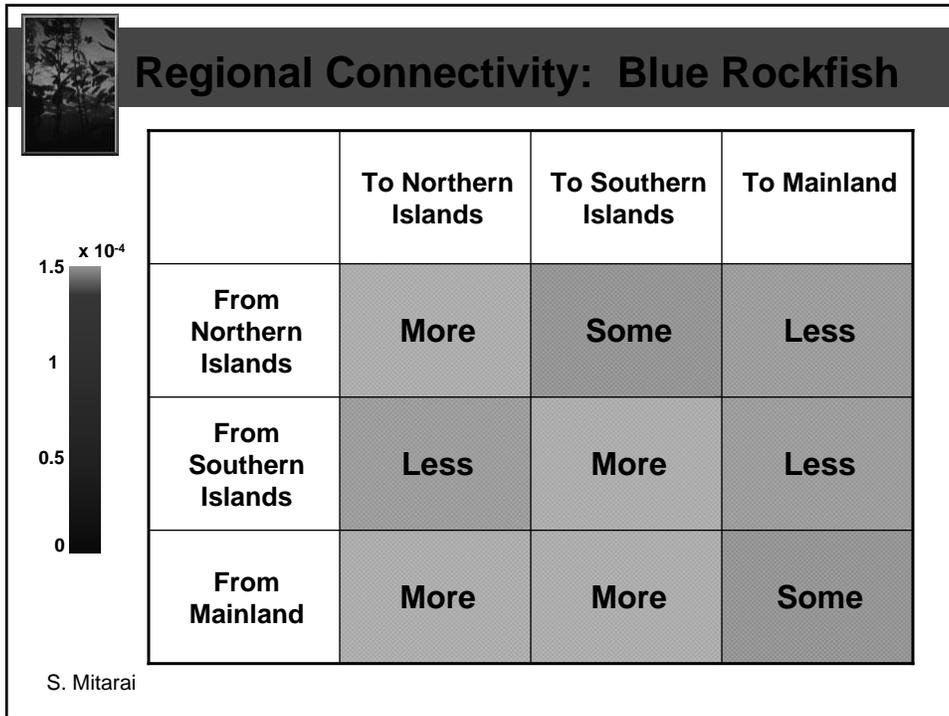


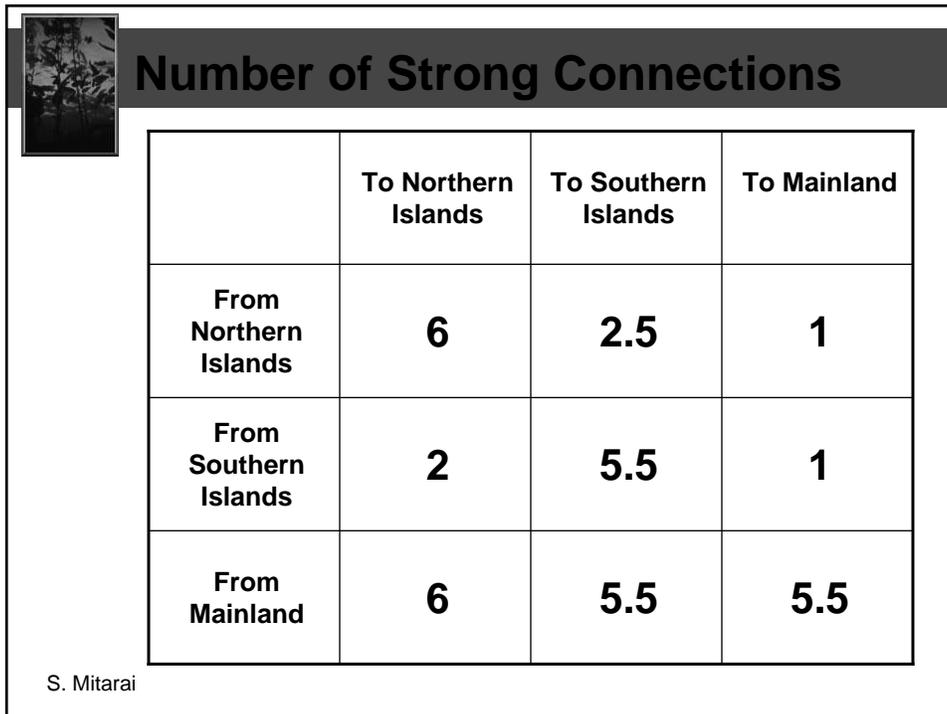
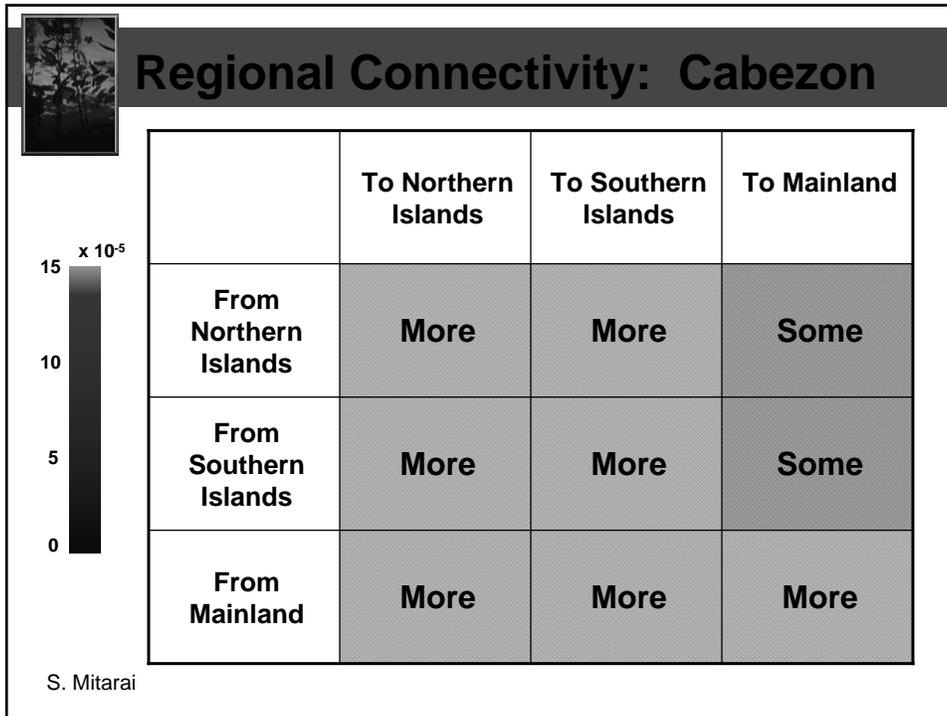
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	To Northern Islands	To Southern Islands	To Mainland
From Northern Islands	More	Less	Less
From Southern Islands	Less	More	Less
From Mainland	More	More	More to SBI & Cat I

S. Mitarai; SBI = Santa Barbara Island and Cat I = Catalina Island









Summary

- **For species with short larval duration, mainland and islands are not strongly connected**
- **For species with longer larval duration, strong connection from mainland to islands, but not the other direction**
- **Connection between northern islands and southern islands is weak, except for species with longer larval duration (cabezon and rockfish)**