

## Marine Life Protection Act Initiative



### Marine Birds and Marine Mammals Evaluations for Round 2 MPA Proposals in the MLPA South Coast Study Region

Presentation to the MLPA Blue Ribbon Task Force  
July 28, 2009 • Santa Monica, CA

Dan Robinette and Dr. Susan Chivers, MLPA Master Plan Science Advisory Team

## Benefits for Marine Birds and Mammals



### Direct Benefits

1. Decreased disturbance at breeding and resting sites
2. Decreased human interactions at foraging sites  
e.g., bycatch, gear entanglement, light attraction

### Indirect Benefits

1. Reduced competition with humans for food resources  
Prey availability is an important factor  
regulating annual breeding population and  
reproductive success.





## Methods Overview

### Five Analyses to Evaluate Direct and Indirect Benefits

1. Protection of seabird and pinniped breeding sites
2. Protection of seabird roost and pinniped haulout sites, and sea otter habitat
3. Protection of nearshore foraging areas
4. Protection of neritic foraging 'hot spots'
5. Protection of estuarine and coastal habitat

### Notes about Round 2 Analyses

- Marine mammal analyses considered only proposed state marine reserves (SMRs)
- Proposed state marine conservation areas (SMCAs) were included in bird analyses depending on allowed uses
- Pending military closures were reviewed separately to determine the level of benefit they provide marine birds and mammals and were included where appropriate

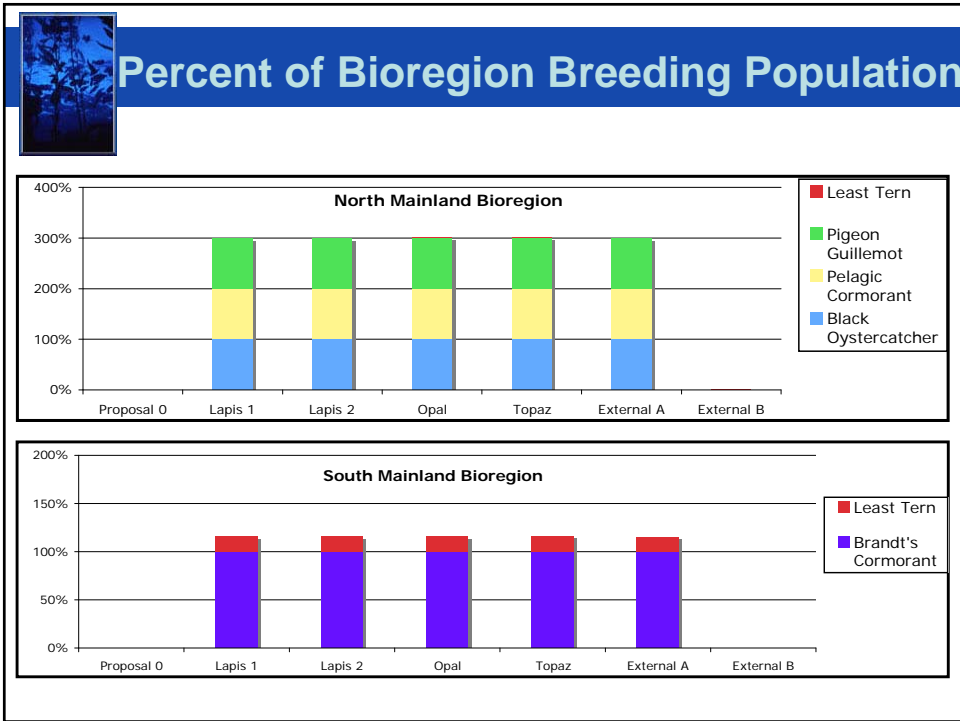
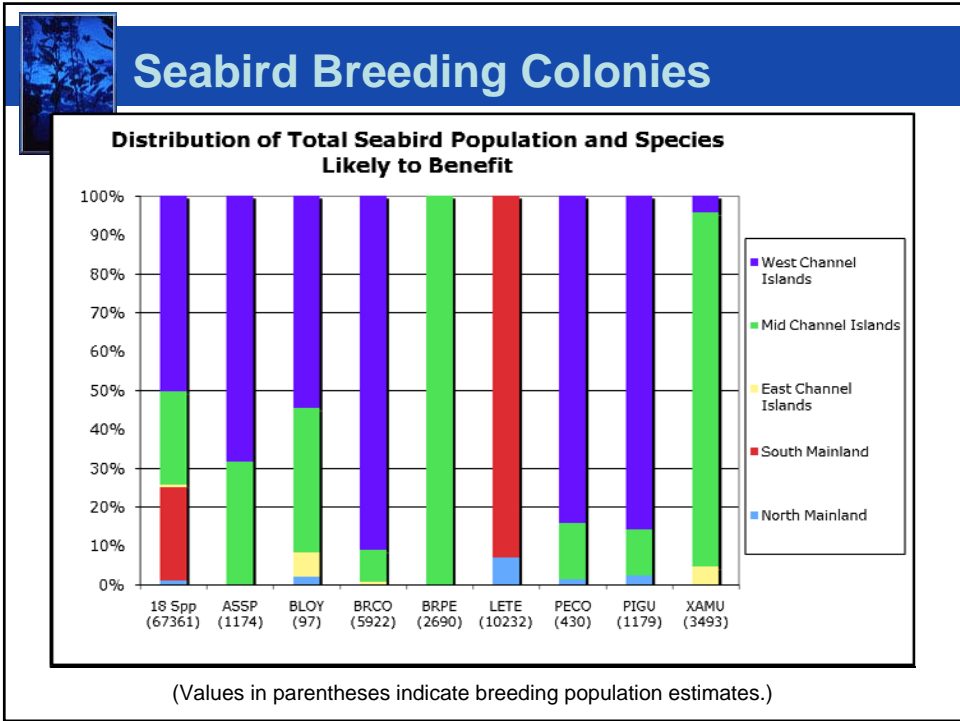


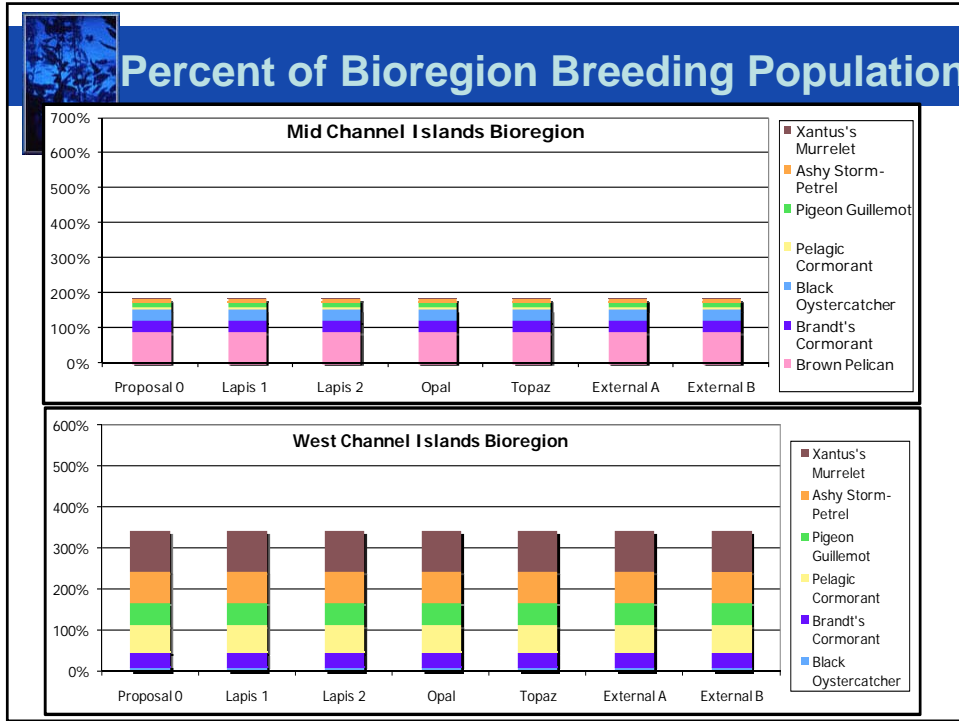
## Marine Bird and Mammal Analyses

### Analysis 1: Protection at Breeding Sites

Investigated % of bioregion marine bird breeding populations protected and number of rookery sites







## Number of Pinniped Rookeries

Number of Pinniped Rookeries in State Marine Reserves

	California Sea Lion	Northern Fur Seal	Northern Elephant Seal	Harbor Seal
<b>North Mainland</b>				
Proposal 0	N/A	0	0	0
Lapis 1	N/A	0	1	2
Lapis 2	N/A	0	1	2
Opal	N/A	0	1	2
Topaz	N/A	0	1	2
External A	N/A	0	1	2
External B	N/A	0	0	0
<b>South Mainland</b>				
Lapis 1	N/A	0	0	1
<b>Mid Channel Islands</b>				
All	1	0	1	N/A
<b>West Channel Islands</b>				
All	1	1	5	N/A



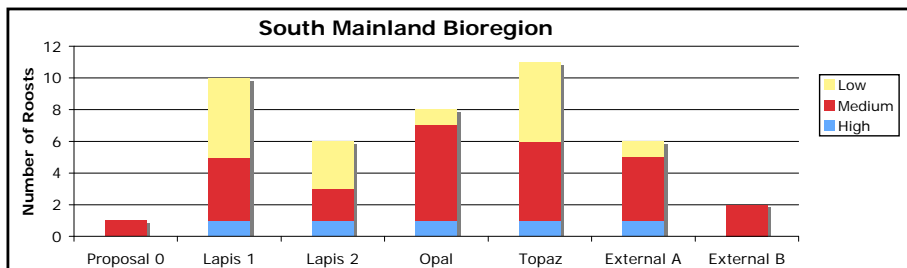
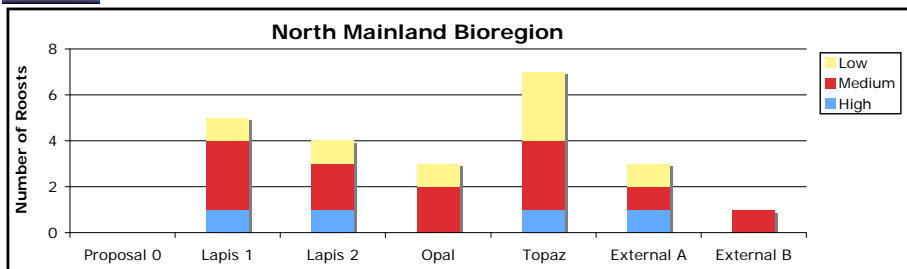
## Marine Bird and Mammal Analyses

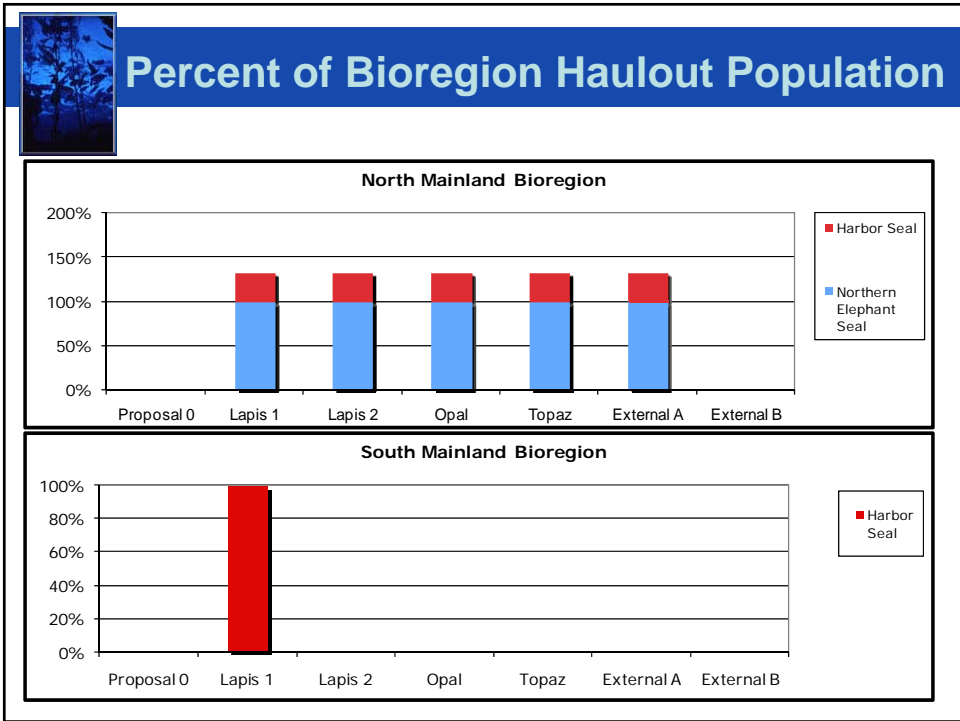
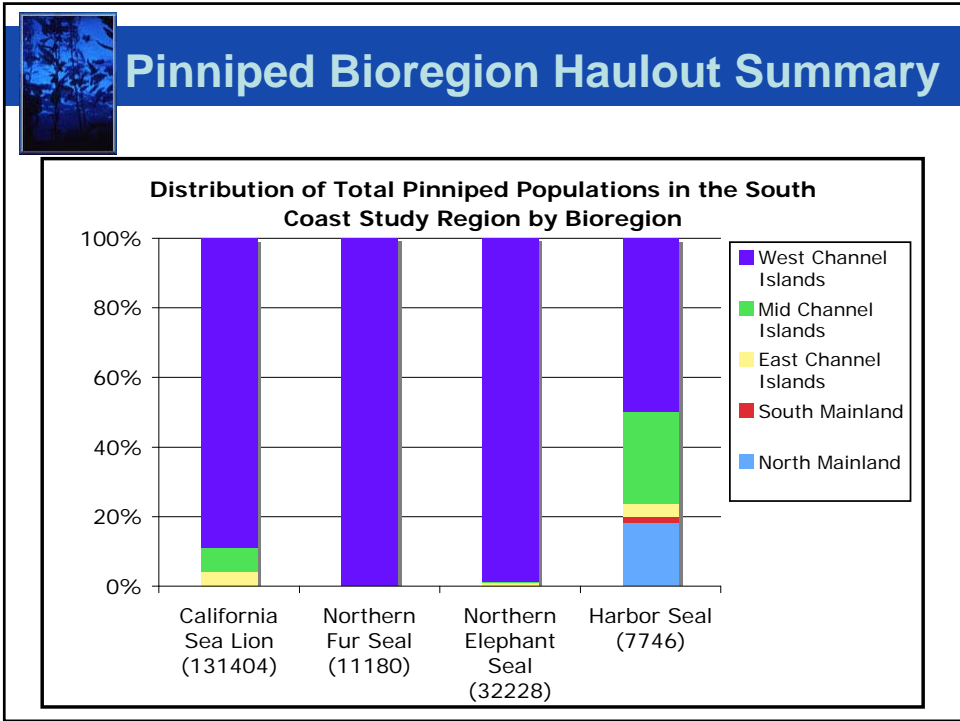
### Analysis 2: Protection at Roosting and Haulout Sites and Sea Otter Use Areas

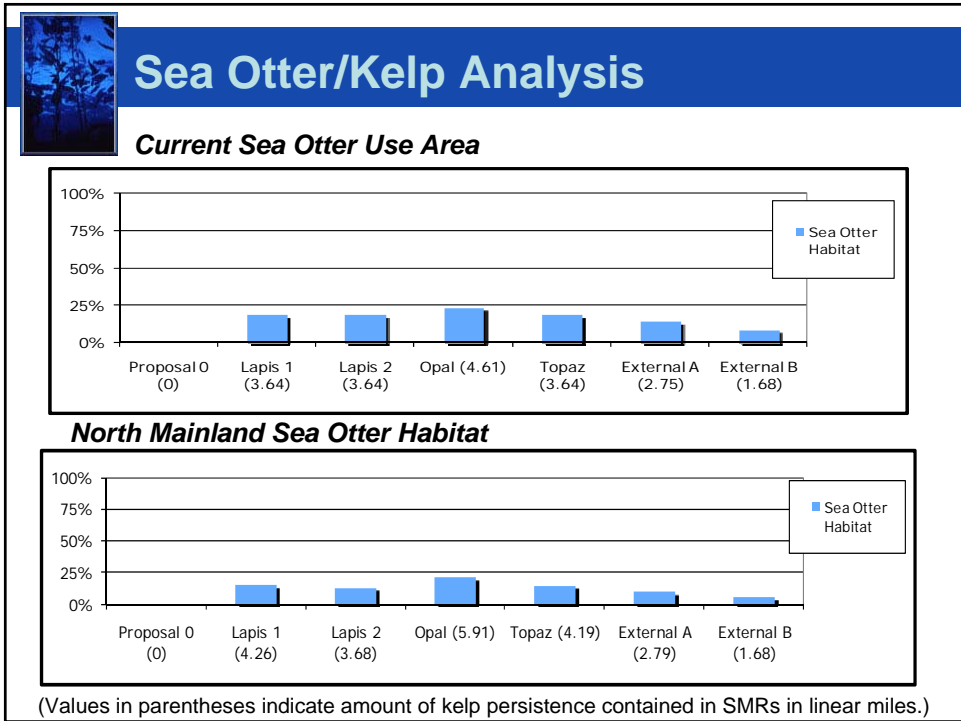
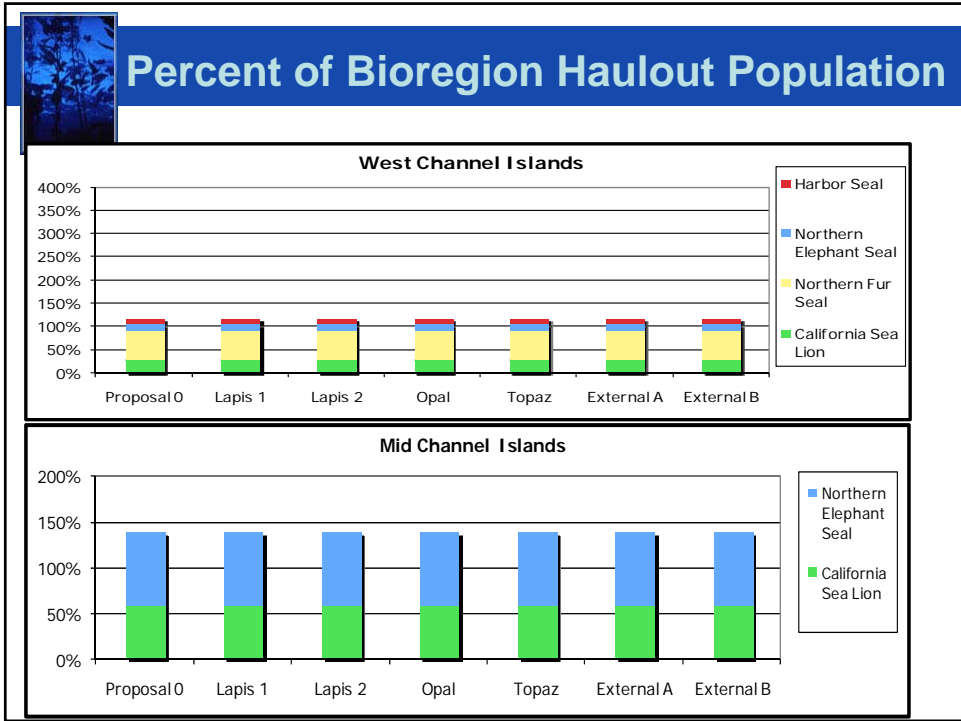
Investigated % of bioregion populations protected for marine birds and pinnipeds; investigated % of sea otter habitat (kelp) protected

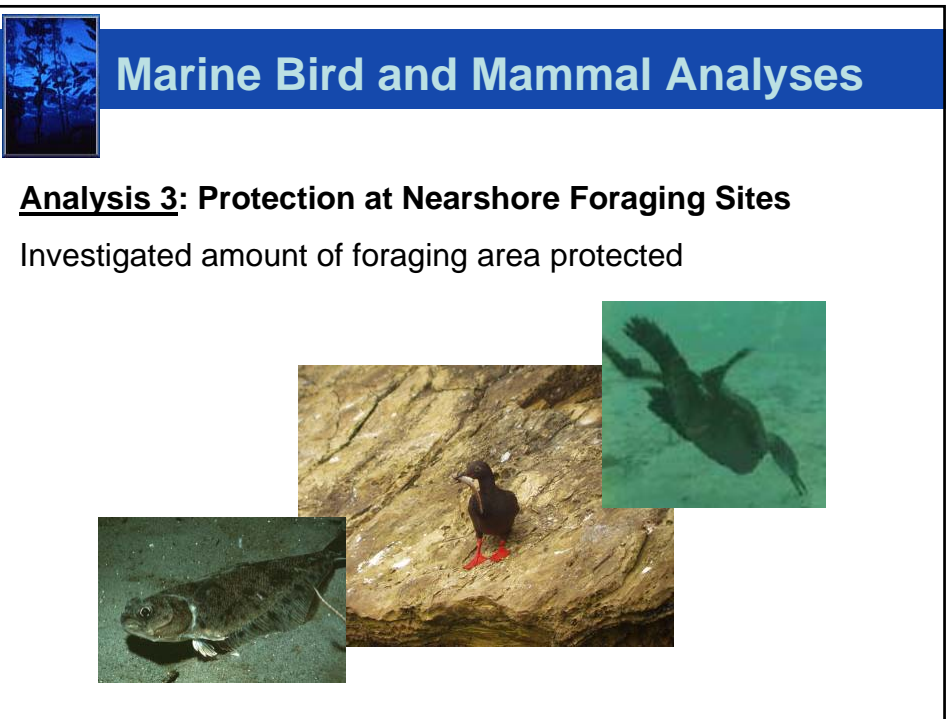
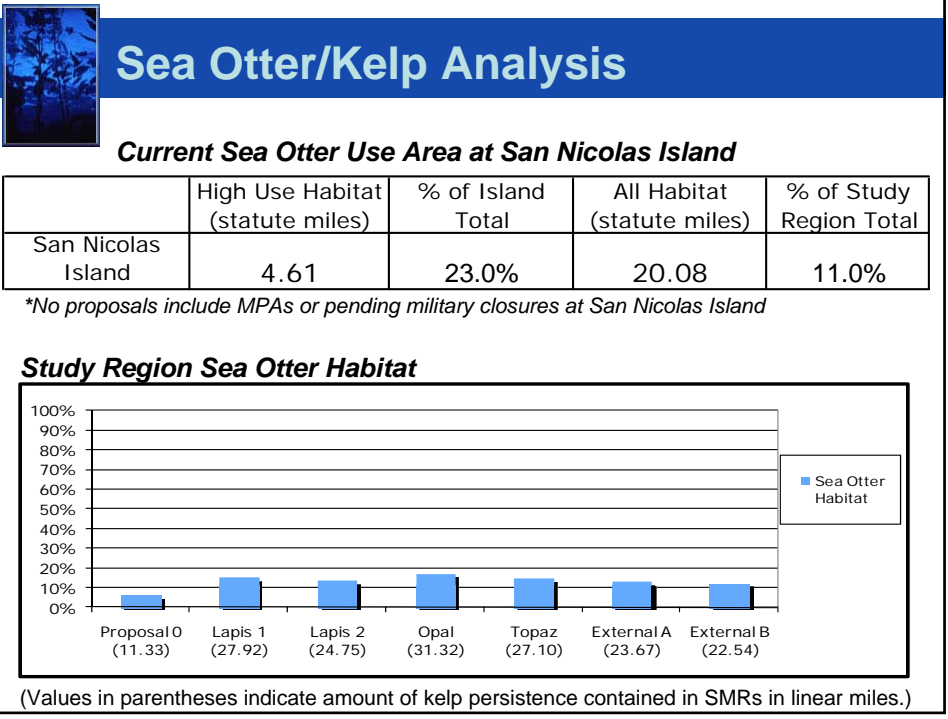


## Mainland Brown Pelican Roosts

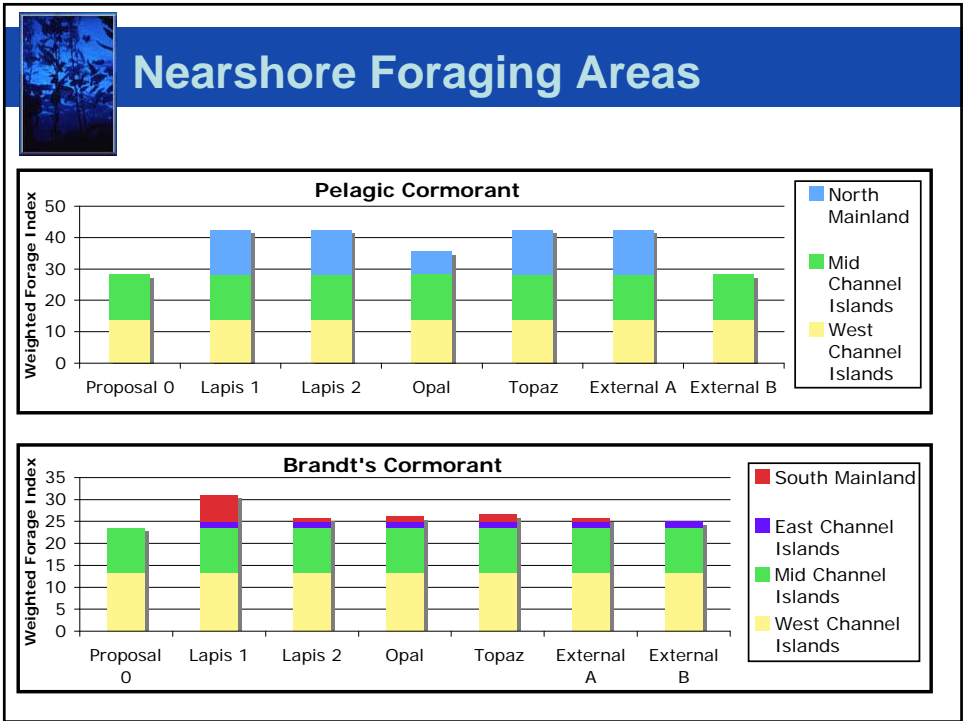
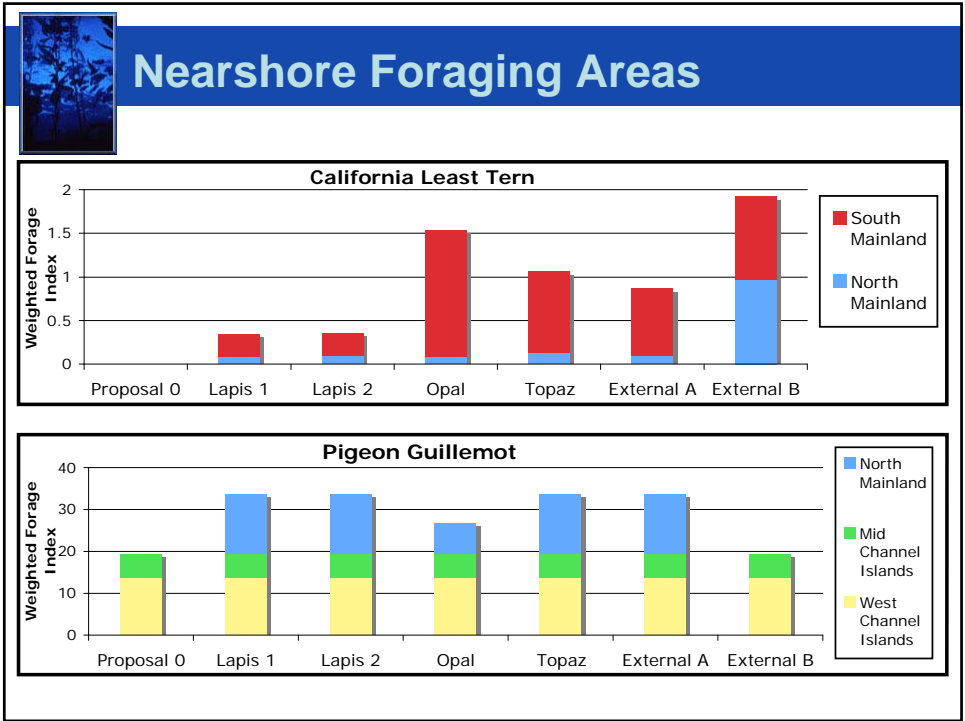


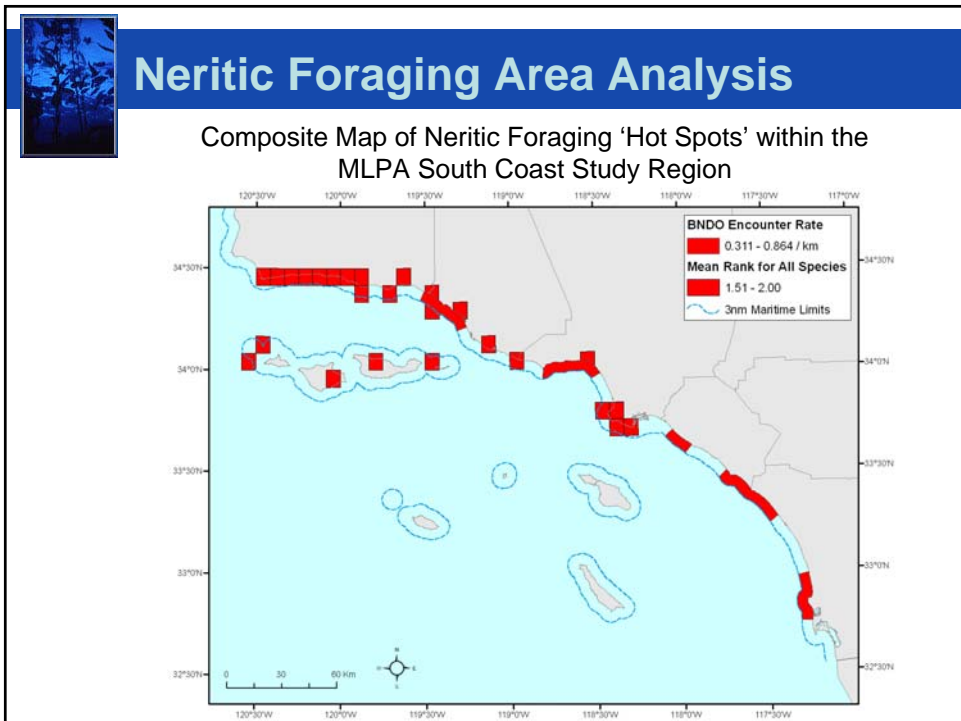
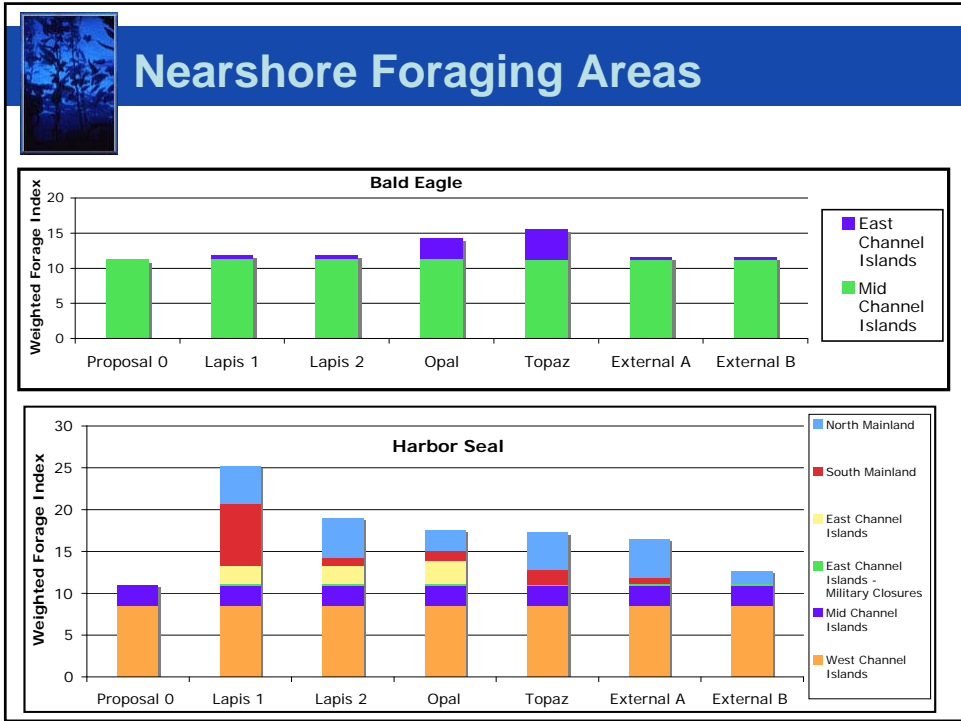








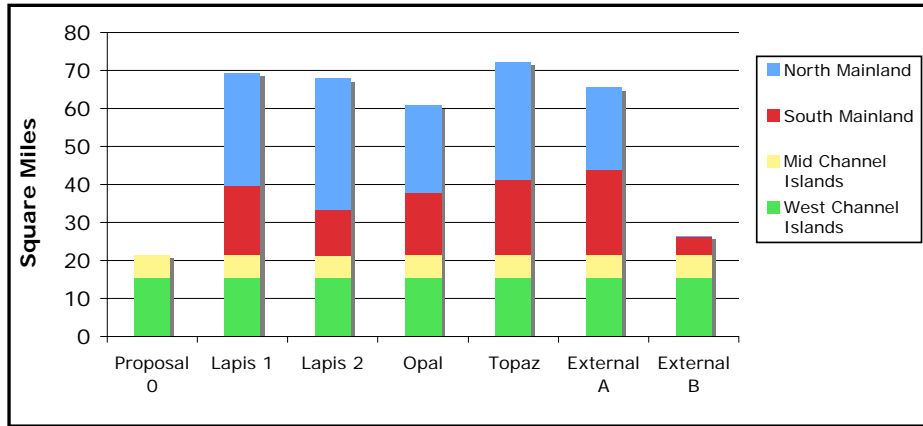






## Neritic Foraging Analysis

Overlap of foraging 'hot spots' and SMRs and some SMCAs in square miles



## Marine Bird and Mammal Analyses

### Analysis 4: Protection in Estuarine and Coastal Habitats

Investigated percent of available estuary, tidal flat, coastal marsh, and beach habitat protected



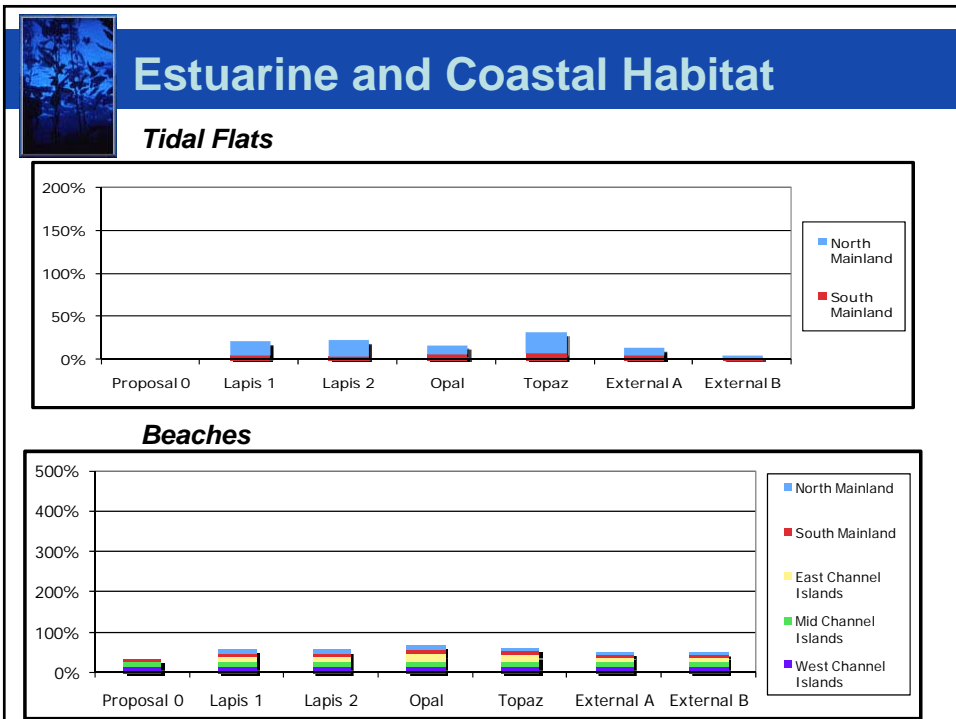
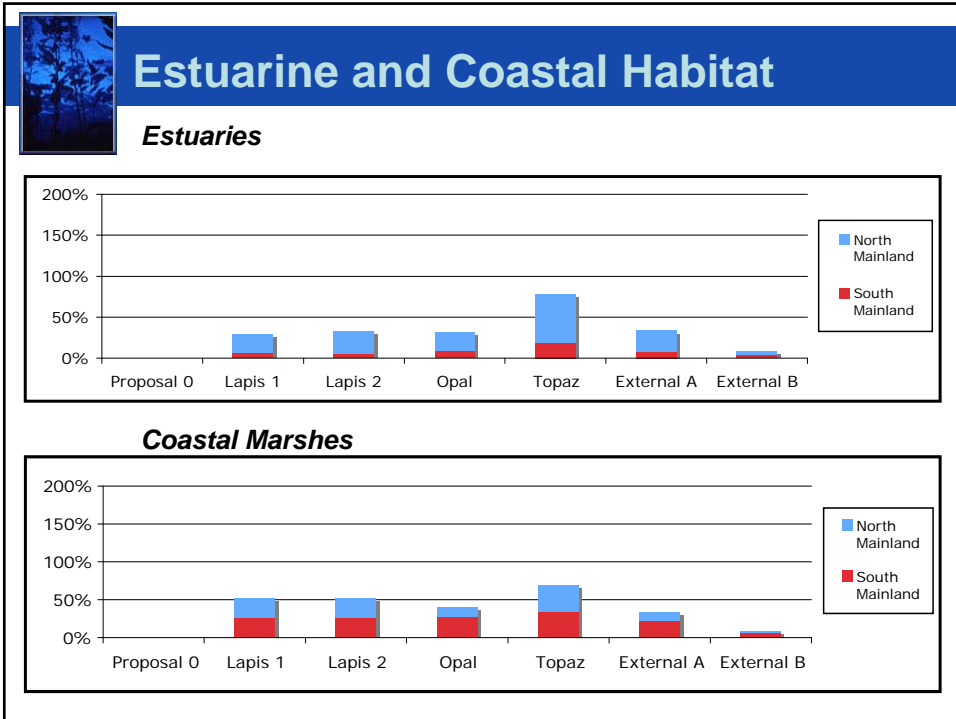
Photo by George Jansson



Photo by Marshall Liff



© Marie Read



Summary of Round 2 Analyses						
Analysis	Lap1	Lap2	Opal	Topz	ExtA	ExtB
Seabird Breeding Colonies	=	=	=	=	=	=
Pinniped Breeding Rookeries	+					
Seabird Roost Sites				+		
Pinniped Haul-out Sites	+					
Sea Otter Habitat Protection			+			
Least Tern Foraging North Mainland						+
Least Tern Foraging South Mainland			+			
Bald Eagle Foraging				+		
Harbor Seal Foraging	+					
Neritic 'Hot Spot' Foraging				+		
Estuary/Coastal Marsh/Tidal Flats				+		
Beach Habitat			+			

**Summary of Round 2 Analyses**

**Other Key Points**

- All proposals identical for Mid and West Channel Islands
- No breeding colonies protected in East Channel Islands by any proposal
- Proposal 0 and External B provide no protection to breeding colonies in North and South Mainland
- All proposals protect a small percentage of Least Tern breeding colonies
- Low percentage of estuarine and coastal habitats protected to the level beneficial to birds