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Marine Life Protection Act Initiative

Draft Marine Birds and Marine Mammals Evaluations for the Round 3 NCRSG MPA Proposal in the MLPA North Coast Study Region

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Methods Overview

Analyses quantify MLPA North Coast Study Region marine bird and marine mammal populations likely to benefit from marine protected areas (MPAs) for three use categories:

1. Breeding
2. Resting
3. Foraging

Notes about Round 3 Analyses

- Include Round 3 NCRSG MPA Proposal and Proposal 0
- Directed by task force to conduct two evaluations of the Round 3 MLPA North Coast Regional Stakeholder Group (NCRSG) MPA Proposal
  - Standard evaluation (NCP) includes all recreational take proposed in each MPA, including recreational take intended only to accommodate tribal uses but open to all recreational users
  - Supplemental evaluation (SUP) does not include proposed recreational take intended only to accommodate tribal uses
- Marine bird analyses include state marine reserves (SMRs), special closures and some state marine conservation areas (SMCAs)
- Marine mammal analyses consider only SMRs and special closures, therefore did not include supplemental evaluation

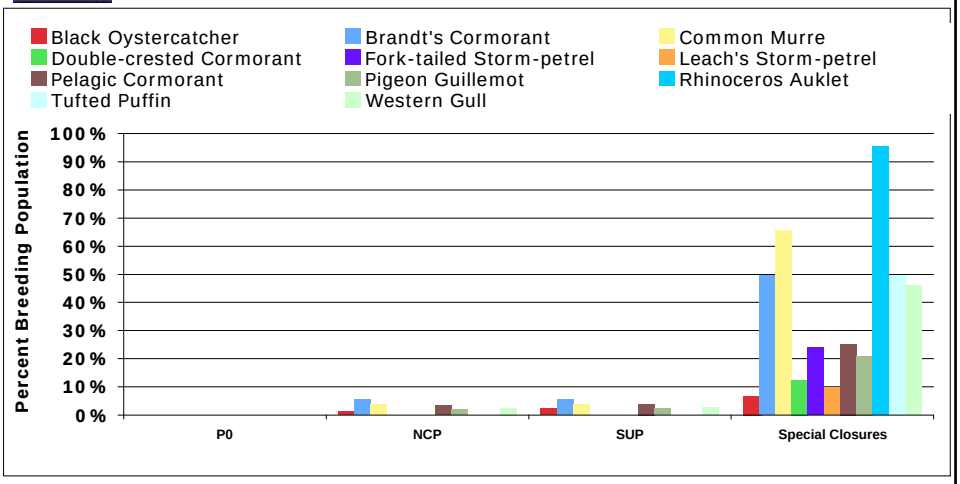
Marine Bird and Mammal Analyses

Analysis 1: Protection at Breeding Sites

Investigated:

- **Percent (%) of marine bird breeding populations protected in bioregion**
- **Number of pinniped rookery sites protected**
- **Protection of important marine bird breeding hot spots**
- **Protection of important pinniped population hot spots**

Percent of Bird Breeding Population



P0 = Proposal 0 (existing MPAs) *NCP = NCRSG MPA Proposal*
SUP = NCRSG MPA Proposal - Supplemental Evaluation
Special Closures = NCRSG Special Closures Recommendation

Marine Bird Breeding Hot Spots

Breeding Hot Spots	Proposal 0	NCP	SUP	Special Closures
Castle Rock				Castle Rock Special Closure
False Klamath Rock				False Klamath Rock Seasonal Special Closure
Green Rock				
Flatiron Rock				
False Cape Rocks				
Steamboat Rock		South Cape Mendocino SMR	South Cape Mendocino SMR	Steamboat Rock Seasonal Special Closure
Rockport Rocks				Rockport Rocks Seasonal Special Closure
Cape Vizcaino				Vizcaino Rock Seasonal Special Closure

Marine Mammal Rookeries

	Name	Steller Sea Lion Rookeries	Harbor Seal Rookeries	Total Pinniped Rookeries
Proposal 0		0	0	0
NCP	Ten Mile SMR	0	2	3
	Point Cabrillo SMR		1	
Special Closures	Southwest Seal Rock Special Closure	1	0	5
	Castle Rock Special Closure	0	1	
	Sugarloaf Island Special Closure	1	0	
	Rockport Rocks Seasonal Special Closure	0	1	
	Vizcaino Rock Seasonal Special Closure	0	1	
Total Available in Study Region		2	62	64

Note: Mammal analyses considered only SMRs and special closures, so NCP and SUP would be the same

Marine Mammal Hot Spots

Population Hot Spots	Proposal 0	NCP	Special Closures
Southwest Seal Rock*			Southwest Seal Rock Special Closure
Sugarloaf Island*			Sugarloaf Island Special Closure
Vicinity of Castle Rock, Crescent City			Castle Rock Special Closure
South Bay, Humboldt Bay		South Humboldt Bay SMRMA	
Arcata Bay, Humboldt Bay			
Mouth of the Eel			

* Steller Sea Lion Rookery

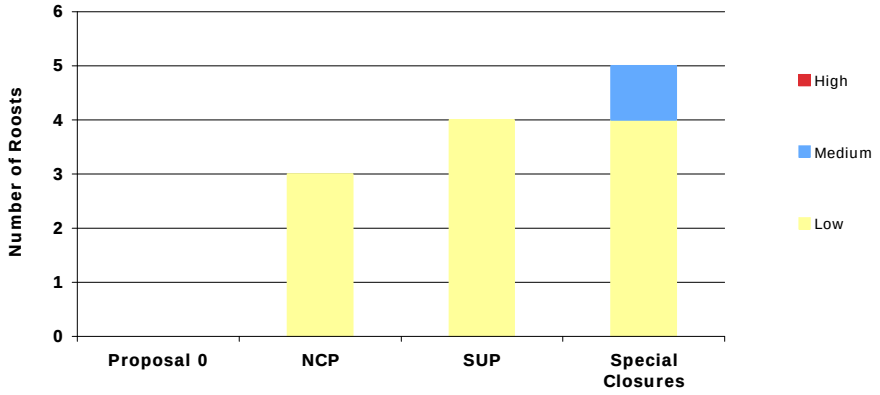
Marine Bird and Mammal Analyses

Analysis 2: Protection at Roosting and Haulout Sites

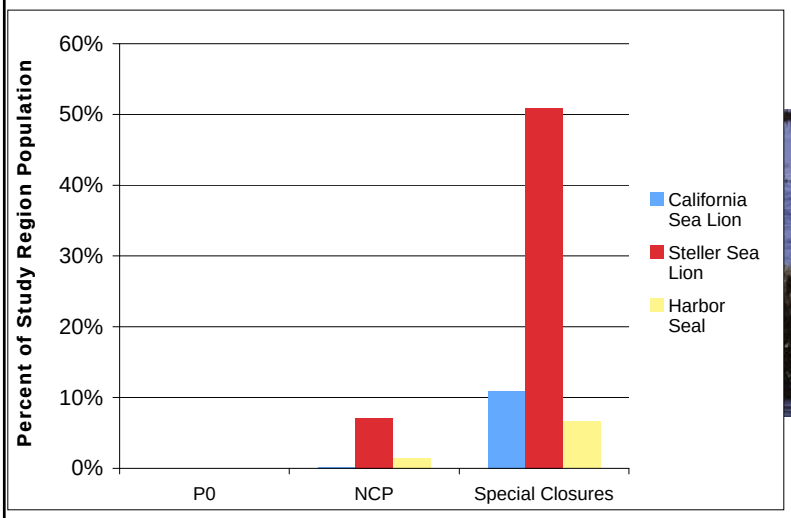
Investigated:

- **Number and size of Brown Pelican roosts**
- **Percent (%) of study region populations protected for pinnipeds**

Brown Pelican Roosts



Percent of Haulout Population



Note: Mammal analyses considered only SMRs and special closures, so NCP and SUP would be the same

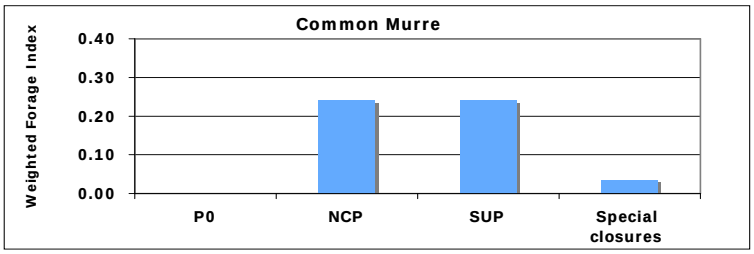
Marine Bird and Mammal Analyses

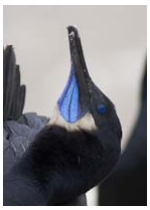
Analysis 3: Protection at Near-colony and At-sea Foraging Sites

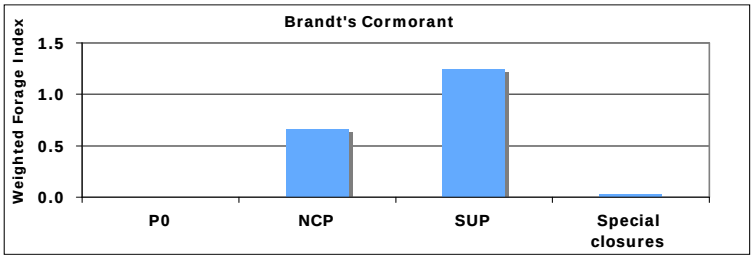
Investigated:

- **amount of foraging area**
- **number of animals protected**

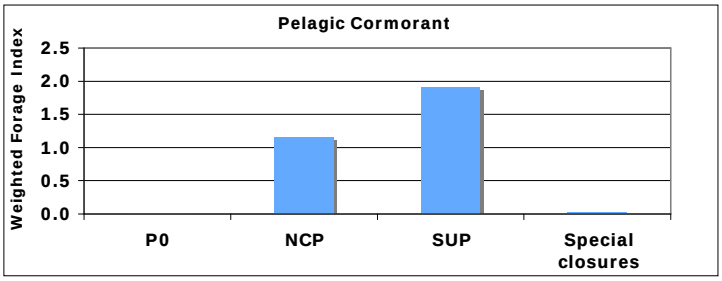
Near-colony Foraging Areas

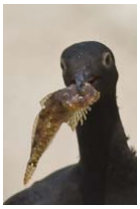


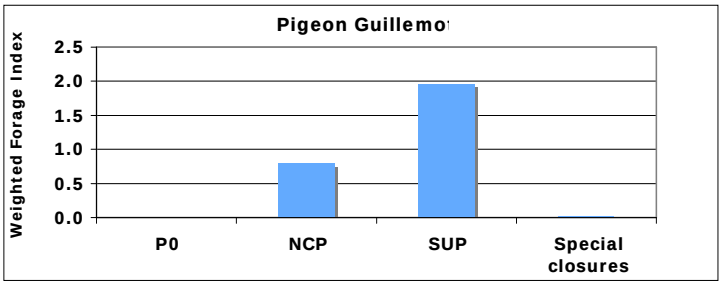




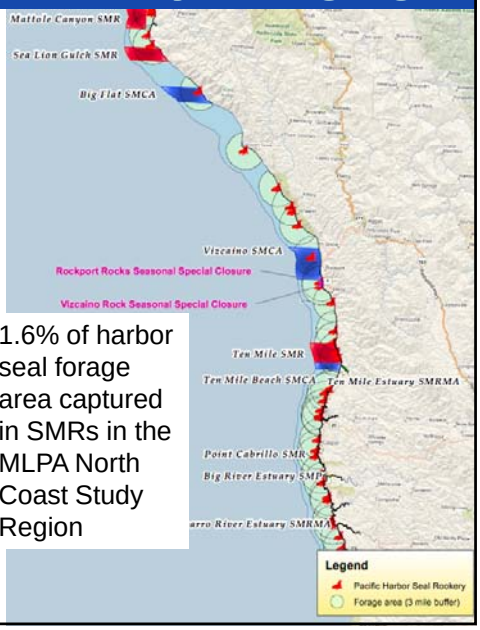
Near-colony Foraging Areas







Harbor Seal Near-colony Foraging

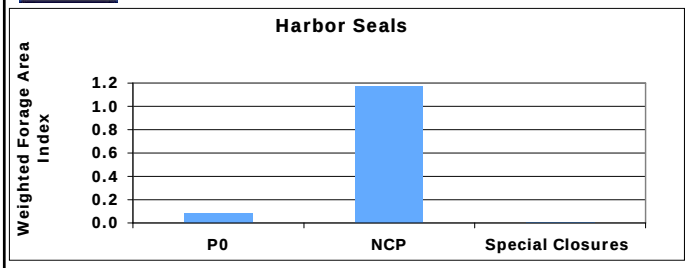


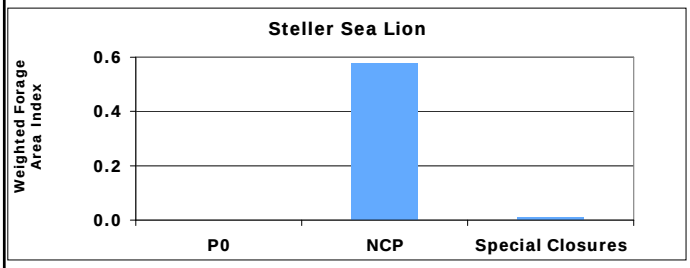
1.6% of harbor seal forage area captured in SMRs in the MLPA North Coast Study Region

Steller Sea Lion Near-colony Foraging

10% of Steller sea lion forage area captured in SMRs in the MLPA North Coast Study Region

Near-colony Foraging Areas





Note: Mammal analyses considered only SMRs and special closures, so NCP and SUP would be the same

Neritic Foraging Analysis

Birds

Name	Species Diversity	Area (sq. mi)	Grebes and Scoters	Guillemots and Pelagic	Marbled Murrelets	All Other Seabirds
			Average Number of Animals Sighted			
Proposal 0	-	-	-	-	-	-
NCP	14	13.85	-	-	-	1129.02
SUP	17	22.12	287.47	88.51	197.67	1129.02
Special closures	16	0.23	-	0.88	-	3.91

Mammals

Name	Area (sq. mi)	All Pinnipeds	Harbor Porpoise	Gray Whale
		Average Number of Animals Sighted		
Proposal 0	-	-	-	-
NCP	5.28	55.1	-	-
Special closures	0.23	2.2	-	0.1

Neritic Foraging: Gray Whales

Gray Whale Foraging Index (based on shore surveys)

	MPA or Special Closure Name	Whales Weighted Forage Area
Proposal 0	None	0.00
NCP	None	0.00
Special Closures	Castle Rock Special Closure	0.01

Marine Bird and Mammal Analyses

Analysis 4: Protection of Waterfowl and Shorebirds and their Habitats

Investigated shorebird protection in Humboldt Bay, number and quality of estuaries protected and percent of available shorebird and waterfowl habitat protected

Estuarine and Coastal Habitat

- Shorebird analysis: no major benefits in Humboldt Bay
- Waterfowl analysis: no added benefits over P0
- Estuarine habitats are captured in SMPs or SMRMAs that allow waterfowl hunting. Those MPAs are:
  - South Humboldt Bay SMRMA
  - Ten Mile Estuary SMRMA
  - Big River Estuary SMP
  - Navarro River Estuary SMRMA

Round 3 Summary: Birds

- NCP
  - Inclusion of special closures provides benefits for breeding and roosting seabirds. Key special closures: Castle Rock, Steamboat Rock, Rockport Rocks and Vizcaino Rock
  - Lacking protection at Flatiron Rock
- SUP
  - Removing recreational uses intended to accommodate tribes adds Pyramid Point SMCA. Added benefits include:
    - Increased nearshore and neritic hotspot foraging for 3 species or species groups (Marbled Murrlet, Cormorants, and Divers)

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Round 3 Summary: Mammals

- Very few proposed SMRs would benefit marine mammals
- Sugarloaf Island and Southwest Seal Rock special closures significant for Steller sea lions
- Captured one of four harbor seal breeding hot spots at Castle Rock Special Closure
- Harbor seal haulouts and pinniped foraging areas received few benefits
- Provided no benefits to summering gray whales or harbor porpoise

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Round 3 Summary: Special Closures

NCRSG Special Closures Recommendation

- Significant for nesting seabirds
- Seasonal closures are between March 1 and August 31, important breeding time
- Significant for breeding Steller sea lions
- Few benefits for breeding harbor seals
- Few benefits to foraging marine mammals

Round 3 Summary Table: Birds

Analysis	P0	NCP	SUP	Special Closures
Seabird Breeding Colonies		++	++	+++
Seabird Roost Sites				++
Seabird Breeding Hot Spots		++	++	+++
Nearshore Foraging - Seabird		.	+	
Seabird Neritic Foraging		.	+	
Waterfowl		_	_	
Shorebirds		_	_	
Estuarine and Coastal Habitats		_	_	

'+++', '++', '+' = very positive to positive benefit *'.' = limited benefit* *'-' = low benefit*
blank space = no benefit

Round 3 Summary Table: Mammals

Analysis	P0	NCP	Special Closures
Pinniped Hot Spots Overall			+
Steller Sea Lion Hot Spots			+++
Harbor Seal Hot Spots			
Pinniped Haulout Overall			
Steller Sea Lion Haulout			
Harbor Seal Haulout			
California Sea Lion Haulout			
Nearshore Foraging - Pinniped			
Gray Whale Foraging			
Harbour Porpoise Foraging			
Marine Mammal Neritic Foraging			

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