



Marine Birds and Mammals Evaluation for the April 2008 North Central Coast Marine Protected Area Proposals

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Methods

Same as in Round 3 evaluations....



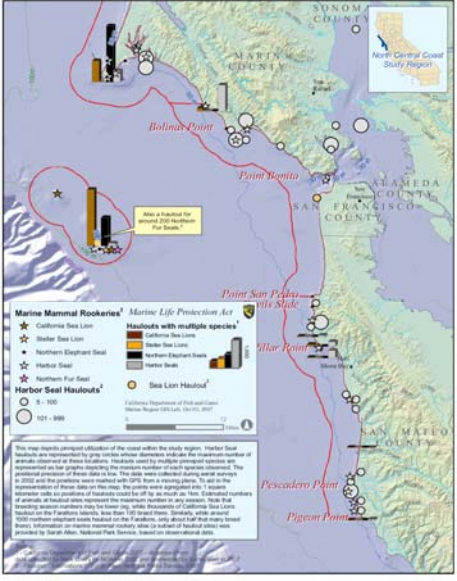
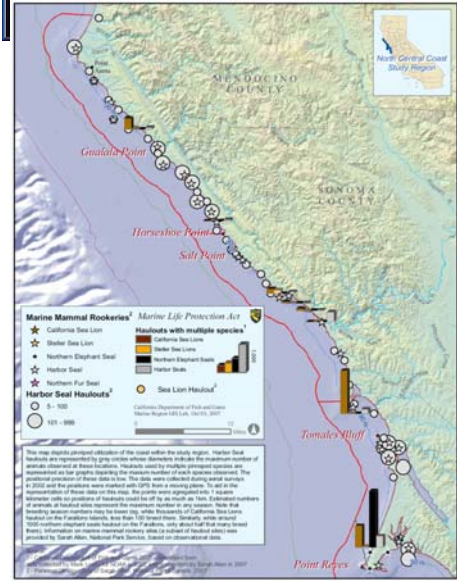
Evaluation Results: Marine Mammals

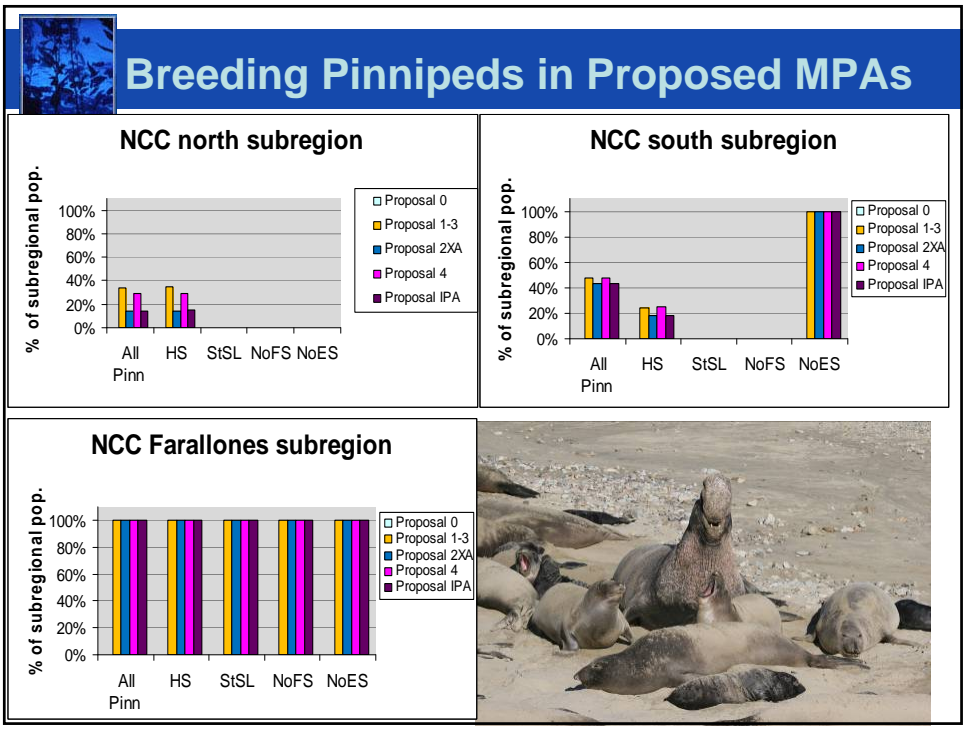
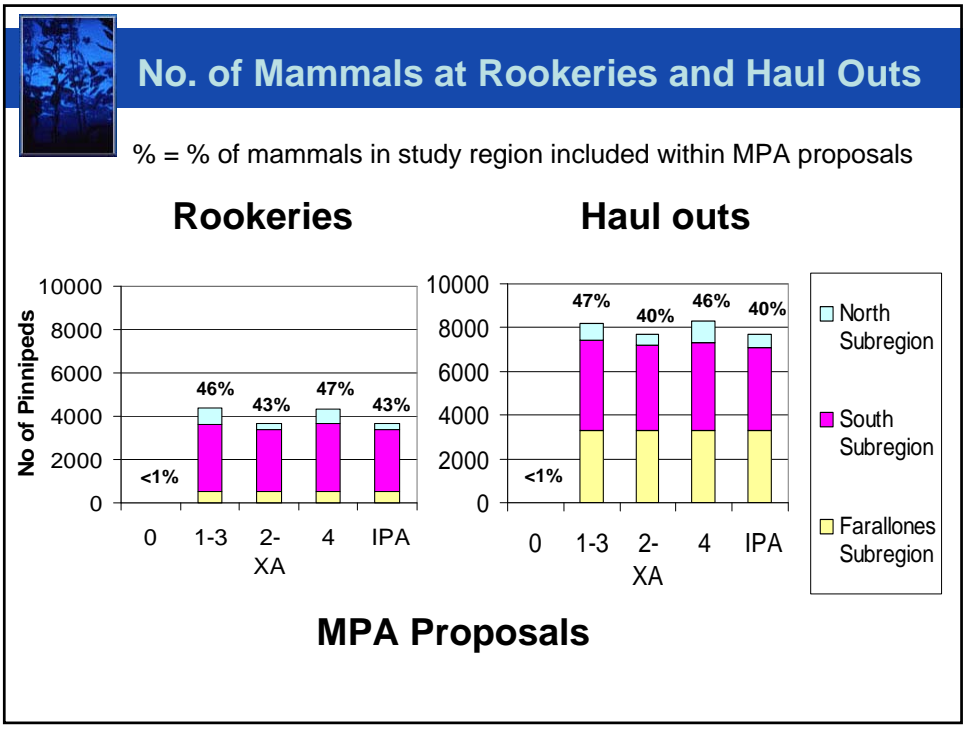


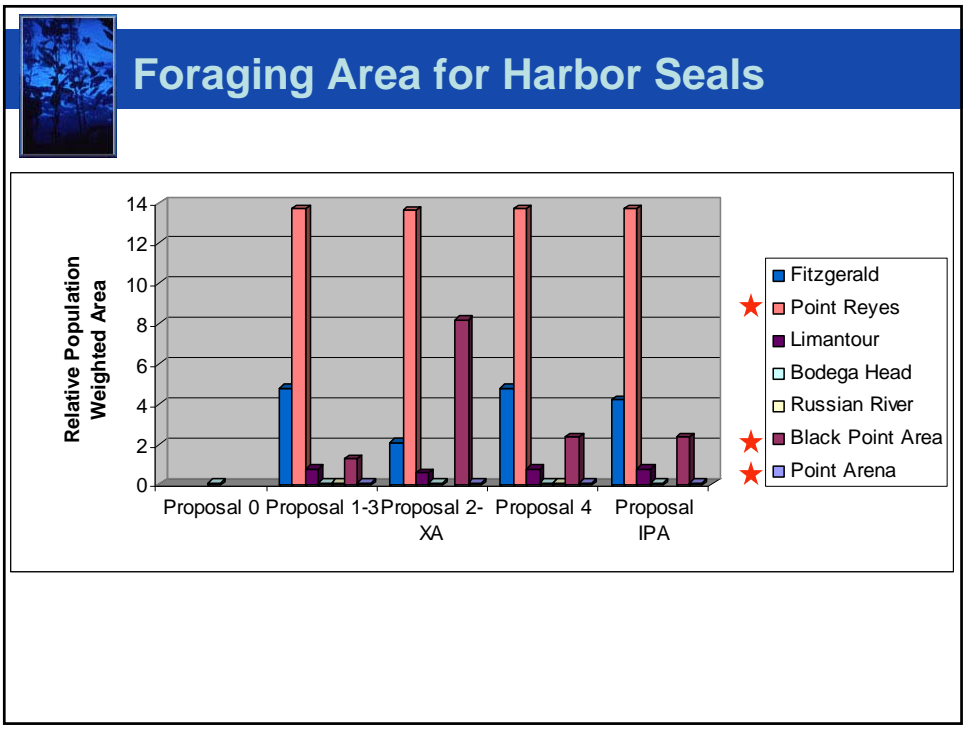
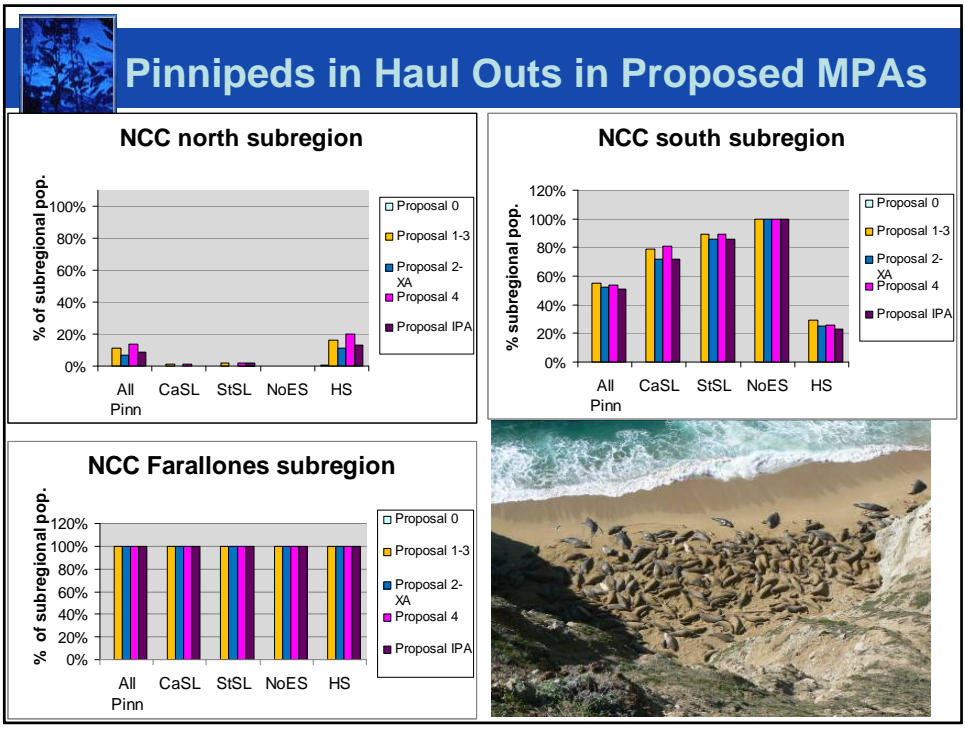
In north central coast:
5 species of pinnipeds


- 42 colonies
- 76 haul out sites
- 9,300 breeding
- 17,900 resting/molting

Marine Mammal Haul Outs and Rookeries












Marine Mammals in Special Closures



Special Closure location	Proposal 0	Proposal 1-3	Proposal 2-XA	Proposal 4	Proposal IPA
North subregion (none)					
South subregion					
Point Reyes		1000 ft 4 species	1000 ft 4 species	1000 ft 4 species	1000 ft 4 species
Pescadero		300 ft 1 species			
Farallones subregion					
North Farallon Islands		300 & 1000 ft 2 species	300 ft 2 species	300 & 1000 ft 2 species	300 ft 2 species
South Farallon Islands	300 ft 5 species	300 ft 5 species	300 ft 5 species	300 ft 5 species	300 ft 5 species



Summary for Marine Mammals



(c) Chuck Davis/Tidal Flats, Ltd.

Areas of similarity amongst the proposals

- North & South Farallon Islands for breeding and haul out sites
- Point Reyes Headland SMR for breeding and haul out sites
- Limantour Estero SMR for breeding and haul out sites
- All covered 43-48% of rookeries in south region

Areas of difference


Proposals 2-XA and IPA included 14% of rookeries in north region versus 34% - 29% for proposals 1-3 and 4


Other observations

- No proposals included the Steller sea lion rookery at Fort Ross
- Special closures only benefited Farallon Islands and Point Reyes
- Half of marine mammal hot spots fall within SMRs or SMCAs
- Harbor seal foraging area only significant for Point Reyes and Fitzgerald for all proposals
- Proposal IPA is similar to Proposal 2-XA in most evaluations

All Seabird Colonies in NCCSR

- 66 colonies
- 12 species
- > 335,000 birds

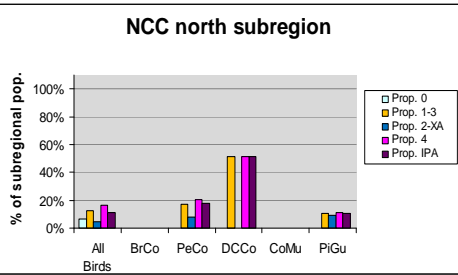




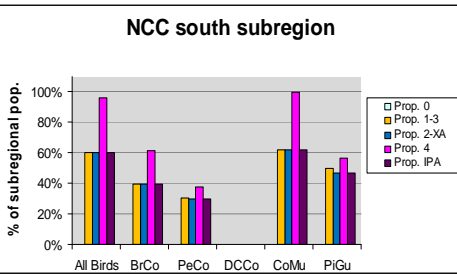
# of Species	Colony Size
3	6 - 1951
4	1952 - 16235
5	16236 - 72203
6	72204 - 184442
7	184443 - 335554
9	
12	

Breeding Seabirds in Proposed MPAs

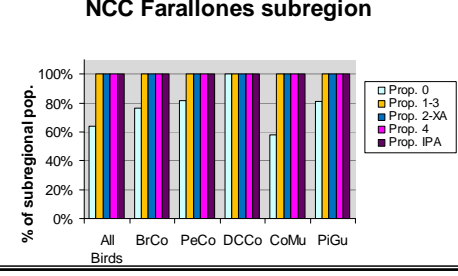
NCC north subregion



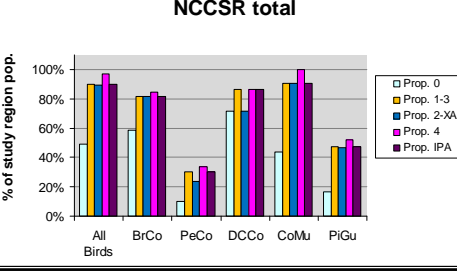
NCC south subregion




NCC Farallones subregion



NCCSR total




Major Brown Pelican Roosts





23 roosts

Pelican hot spots

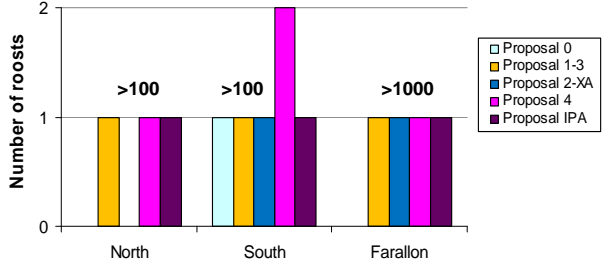
- South Farallon Islands
- Devil's Slide / San Pedro Rock
- Seal Rocks
- "Drakes Bay" area
- Point Reyes
- Bird Rock (off Tomales Point)
- Dillon Beach Rocks
- Bodega Rock / harbor
- Russian River area
- Gualala Point Island



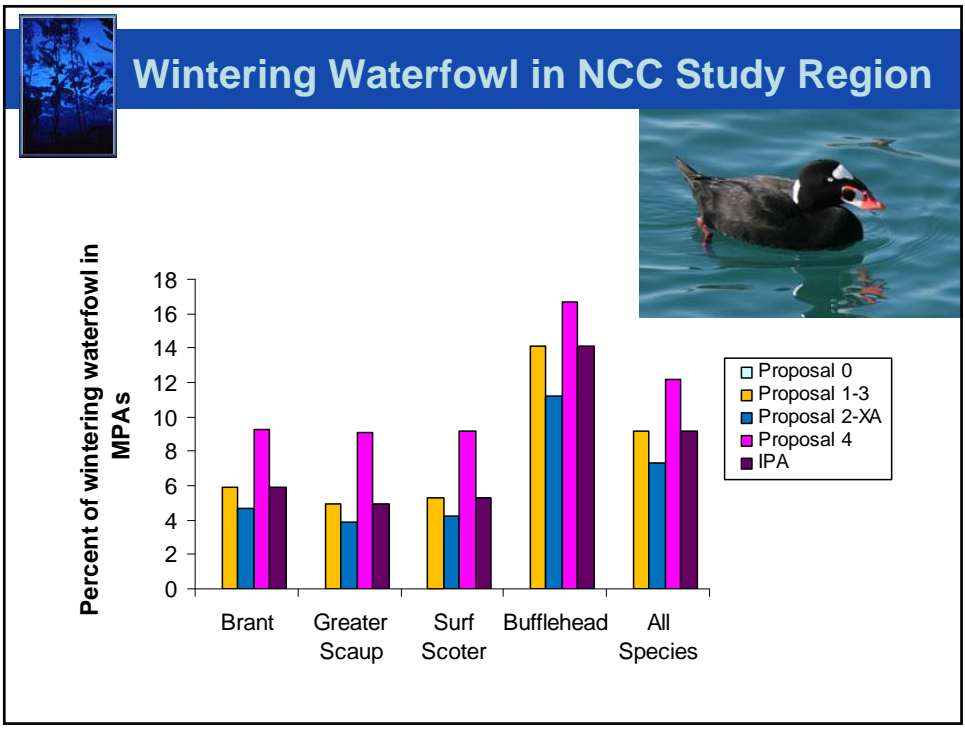
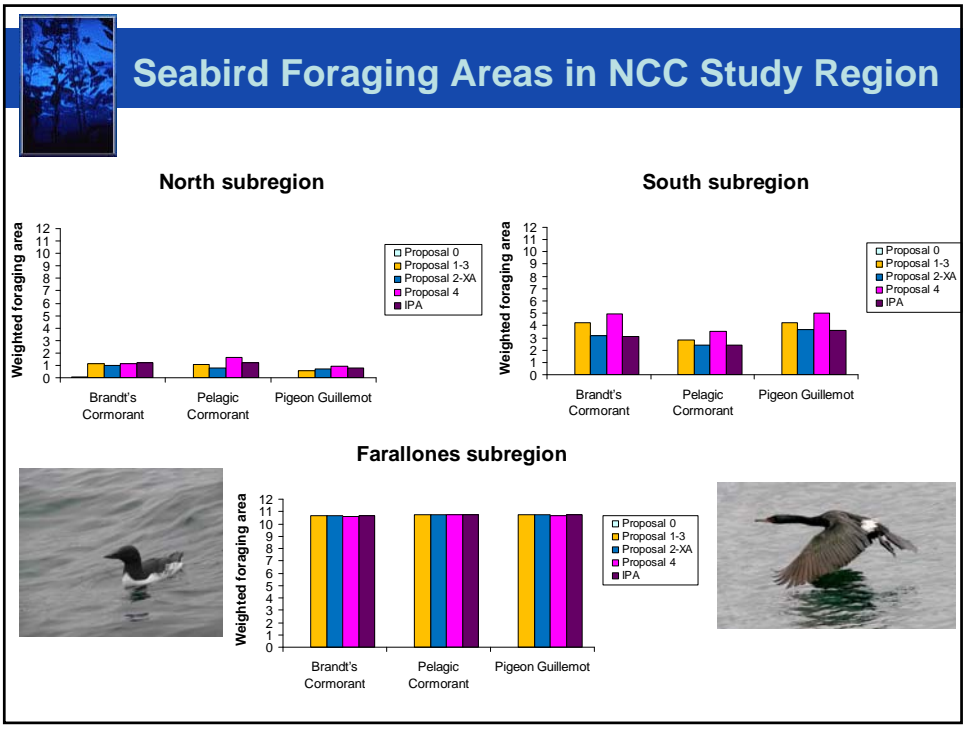
Major Brown Pelican Roosts by Subregion

Pelican Roosts within MPAs



Subregion	Proposal 0	Proposal 1-3	Proposal 2-XA	Proposal 4	Proposal IPA
North	0	1 (>100)	0	1 (>100)	0
South	0	1 (>100)	0	1 (>100)	0
Farallon	0	0	0	1 (>1000)	0





Proposed Special Closures

Proposal	0	1-3	2-XA	4	IPA
Arched Rock				300 feet	
Gull Rock				300 feet	
Point Reyes		1,000 feet		1,000 feet	1,000 feet
Point Resistance		500 feet	300 feet		300 feet
Stormy Stack		300 feet	300 feet	300 feet	
Devil’s Slide Rock		1,000 feet	300 feet	1,000 feet	
Pescadero *		300 feet			
North Farallon Islands	300 feet	1,000 feet 300 feet	300 feet	1,000 feet 300 feet	1,000 feet 300 feet
South Farallon Islands	300 feet	300 feet	300 feet	300 feet	300 feet

* Little benefit to seabirds



Summary for Marine Birds

- **Breeding colonies**
 - North subregion: Relatively little coverage (4 > 1-3 > 2-XA / IPA).
 - South subregion: Greater coverage (4 > 1-3 > 2-XA / IPA).
 - Farallon Islands subregion: Greatest coverage (all =)
- **Seabird roosts:** Few roosts covered
- **Seabird foraging areas:** Same as breeding colonies
- **Waterfowl**
 - (4 > 1-3 / IPA > 2-XA)
 - Lack of coverage in Tomales Bay = largest concentrations
- **Special closures:** Largest colonies in NCCSR covered between all proposals. North subregion under-represented.