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## Marine Life Protection Act Initiative




### Levels of Protection in the MLPA North Coast Study Region

Presentation to the MLPA Master Plan Science Advisory Team  
December 17, 2009 • Eureka, CA

**Dr. Mark Carr • Member, MLPA Master Plan Science Advisory Team**

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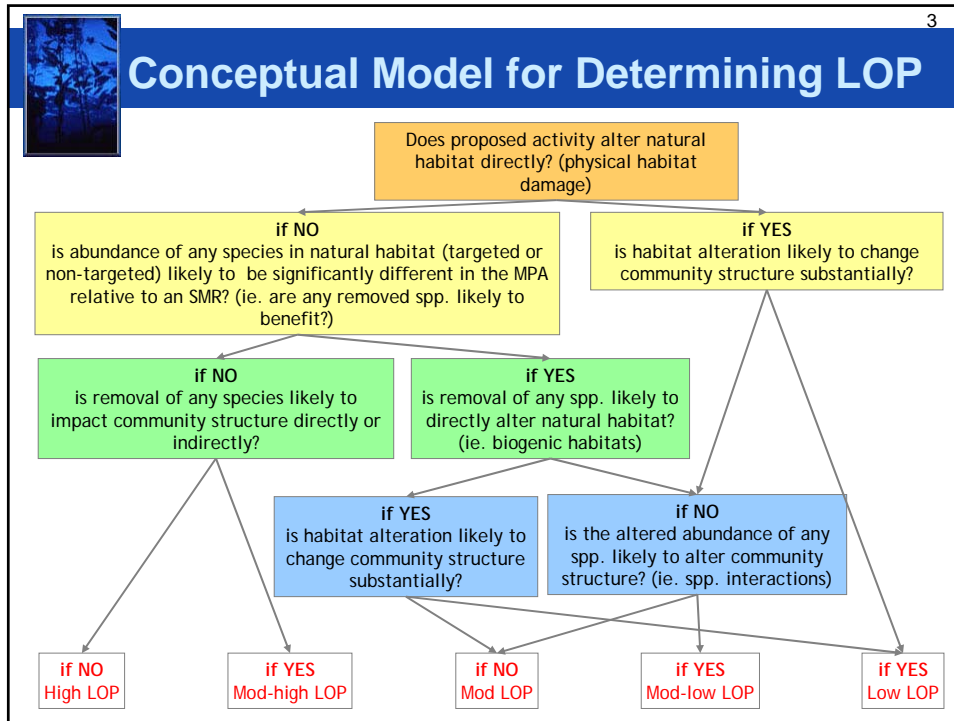


## Protection in MPAs

**Key Question:**

“How much will the ecosystem differ from a state marine reserve if a proposed activity is allowed?”

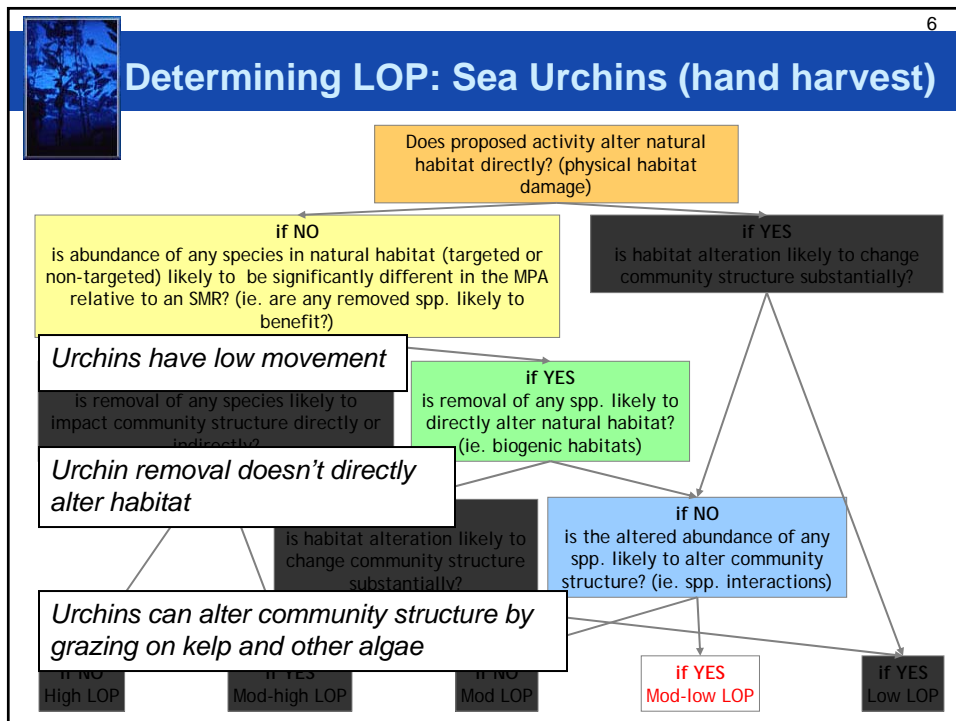
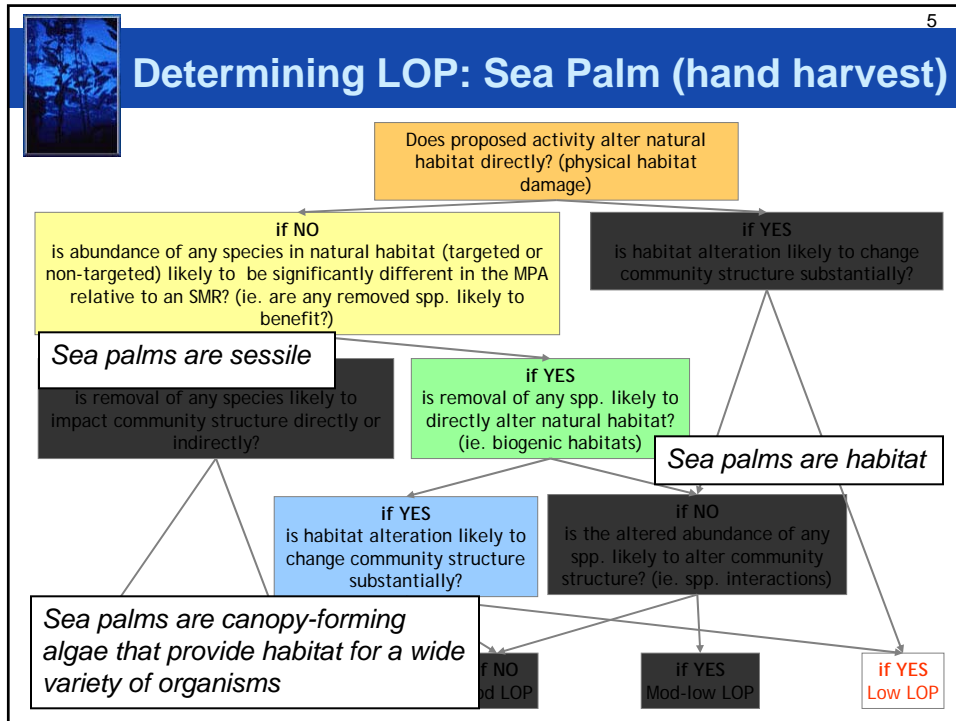
<p><b>Large Difference If:</b></p> <ul style="list-style-type: none"> <li>• Habitat is damaged</li> <li>• Many species are removed</li> <li>• Ecologically important species are removed</li> </ul>	<p><b>Small Difference If:</b></p> <ul style="list-style-type: none"> <li>• No habitat damage</li> <li>• Low associated catch</li> <li>• Removed species are highly mobile</li> </ul>
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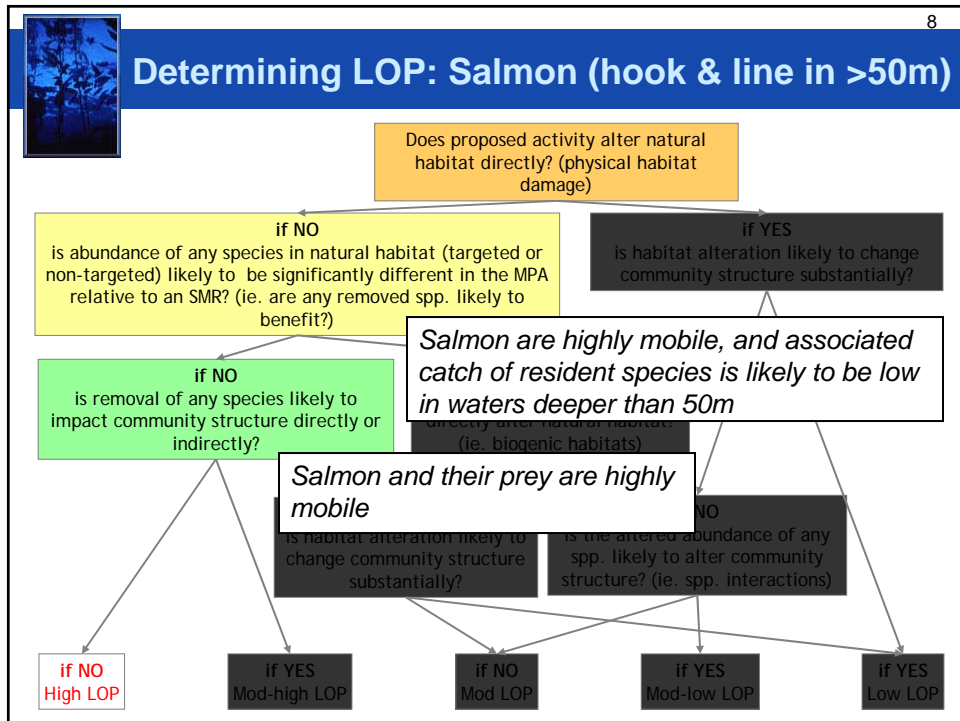
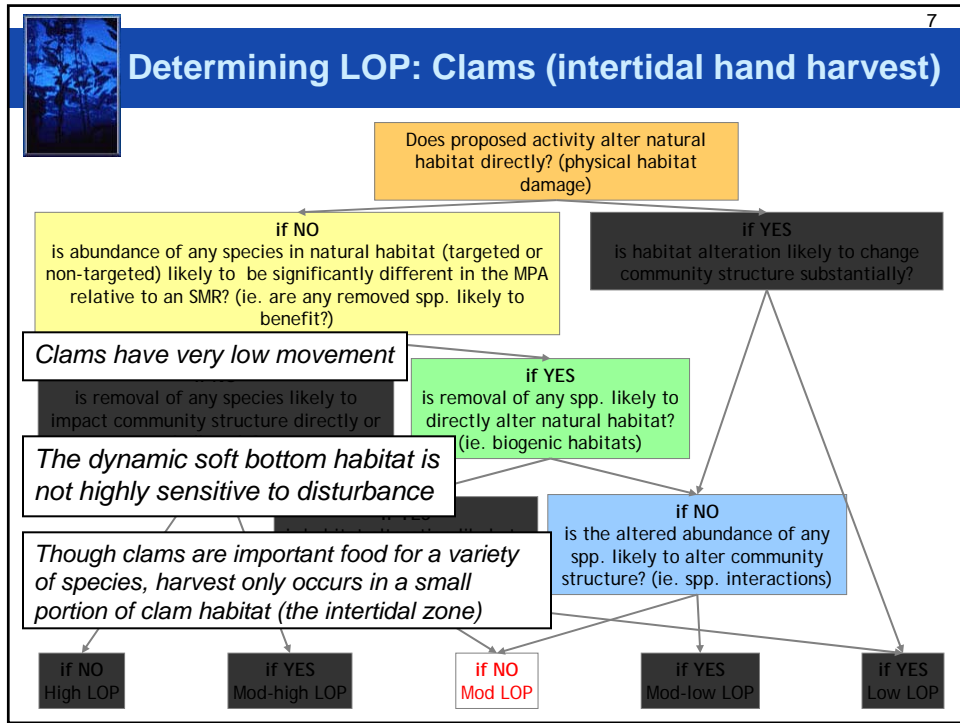


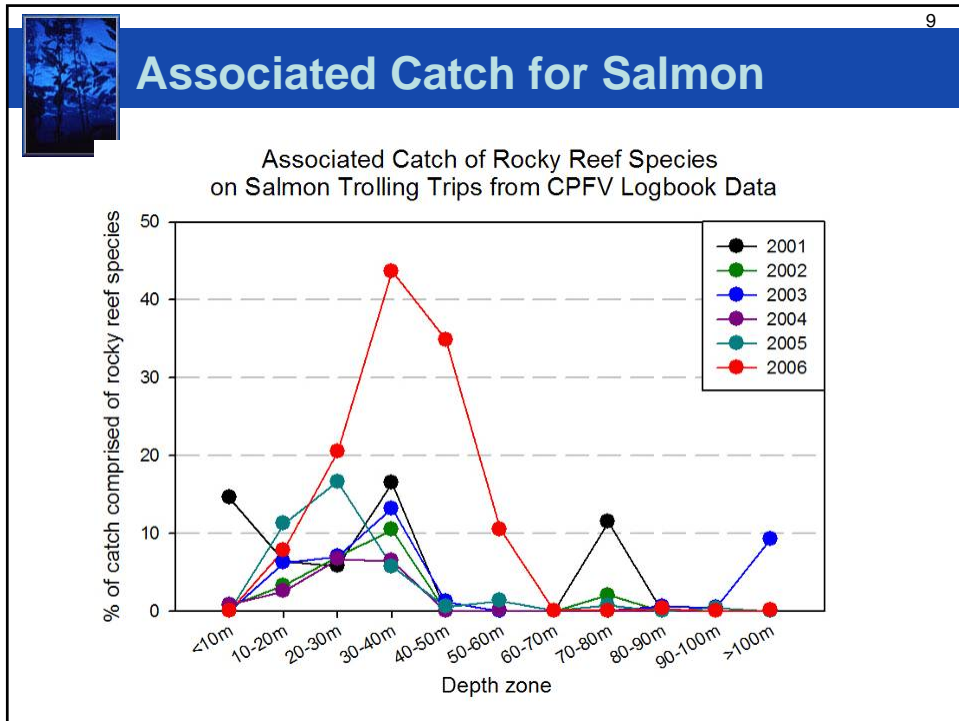
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## Levels of Protection – North Coast

Level of Protection	MPA Types	Activities Associated with this Protection Level
Very high	SMR	No take
High	SMCA	Salmon (H&L in water depth >50m); coastal pelagic finfish (H&L)
Mod-high	SMCA	Dungeness crab (traps/pots); salmon (trolling in water depth <50m)
Moderate	SMCA SMP	Smelts [jacksmelt, topsmelt, and true, surf and night smelt] (H&L, hand nets); redtail surfperch (H&L from shore); California halibut (H&L); coonstripe shrimp and spot prawns (trap); clams (hand harvest in the intertidal); turf algae [ <i>Porphyra</i> spp. (Nori, Laver), <i>Ulva</i> spp. (Sea Lettuce), <i>Chondrocantus/Gigartina exasperata</i> (Turkish Towel) and <i>Mastocarpus</i> spp. (Mendocino Grapestone)] (hand)
Mod-low	SMCA SMP	Pacific halibut (H&L); sea urchin (hand); lingcod, rockfishes, cabezon, and greenlings (H&L, spear, trap); abalone (non-scuba hand harvest)
Low	SMCA SMP	Rock scallop (hand); ghost shrimp (hand); mussels (hand); bull kelp (any method); sea palm (hand); Canopy forming algae [ <i>Alaria</i> spp. (Wakame), <i>Lessoniopsis littoralis</i> . (Ocean Ribbons), <i>Laminaria</i> spp. (Kombu), <i>Saccharina/Hedophyllum sessile</i> ('Sweet' Kombu), <i>Egregia menziesii</i> (Feather Boa) and <i>Fucus</i> spp. (Bladder wrack or Rockweed)] (hand)





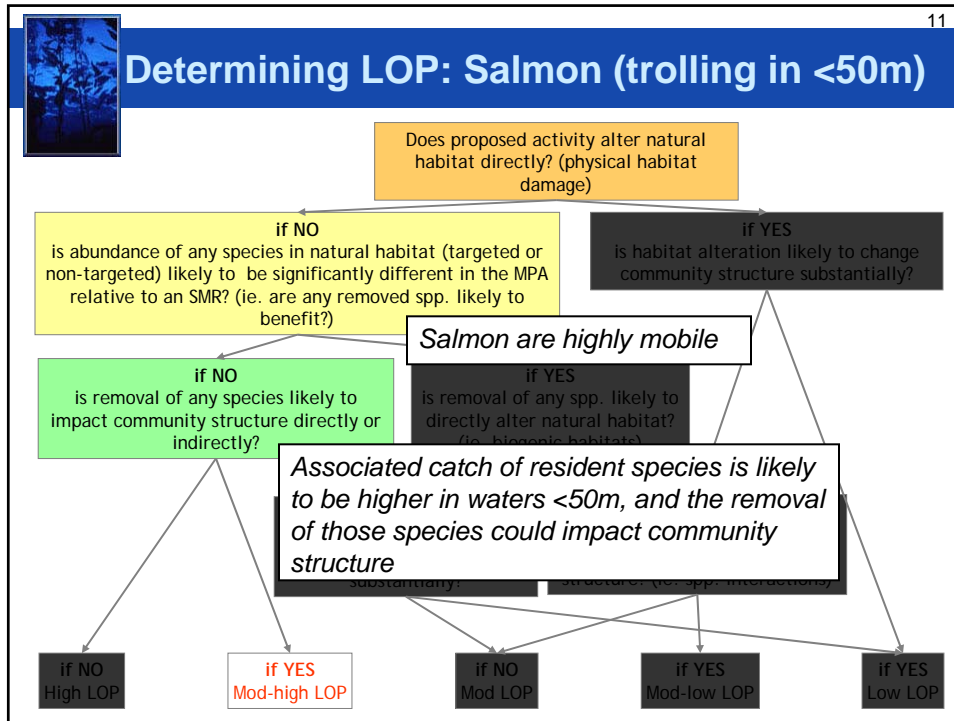


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## Associated Catch for Salmon

Summary of CPFV trips observed in the NCCSR using trolling as the fishing mode, 2003 to 2006. Data was queried from the CRFS database. Trips were categorized by depths less than 50m and greater than 50m.

Depth Category Observed Depths	< 50 m			> 50m		
	Species Caught	Total #	Total %	% Trips Observed	Total #	Total %
Chinook	90	61.64	100.00	80	64.52	97.73
coho	15	10.27	15.38	31	25.00	34.09
black rockfish	10	<b>6.85</b>	15.38	0	0.00	0.00
Pacific mackerel	9	<b>6.16</b>	5.77	0	0.00	0.00
striped bass	6	<b>4.11</b>	7.69	0	0.00	0.00
lingcod	8	<b>5.48</b>	5.77	0	0.00	0.00
blue rockfish	3	<b>2.05</b>	5.77	0	0.00	0.00
thresher shark	3	2.05	1.92	0	0.00	0.00
spiny dogfish	2	1.37	1.92	3	2.42	4.55
jack mackerel	0	0.00	0.00	5	4.03	11.36
Pacific hake	0	0.00	0.00	2	1.61	2.27
Pacific sardine	0	0.00	0.00	2	1.61	2.27
steelhead trout	0	0.00	0.00	1	0.81	2.27
<b>Total # Fish Caught</b>	<b>146</b>			<b>124</b>		
<b># of Trips Observed</b>	<b>52</b>			<b>44</b>		



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