

# April 13, 2006

## GFNMS Advisory Council Meeting

### **MLPA Update**

Blue Ribbon Task Force Recommendation **Finalized**

### **SMPA Update**

Ecotrust study completed

New Timeline

Workgroup identified preliminary areas of interest for federal waters



**MLPA/SMPA status report April 13, 2006**

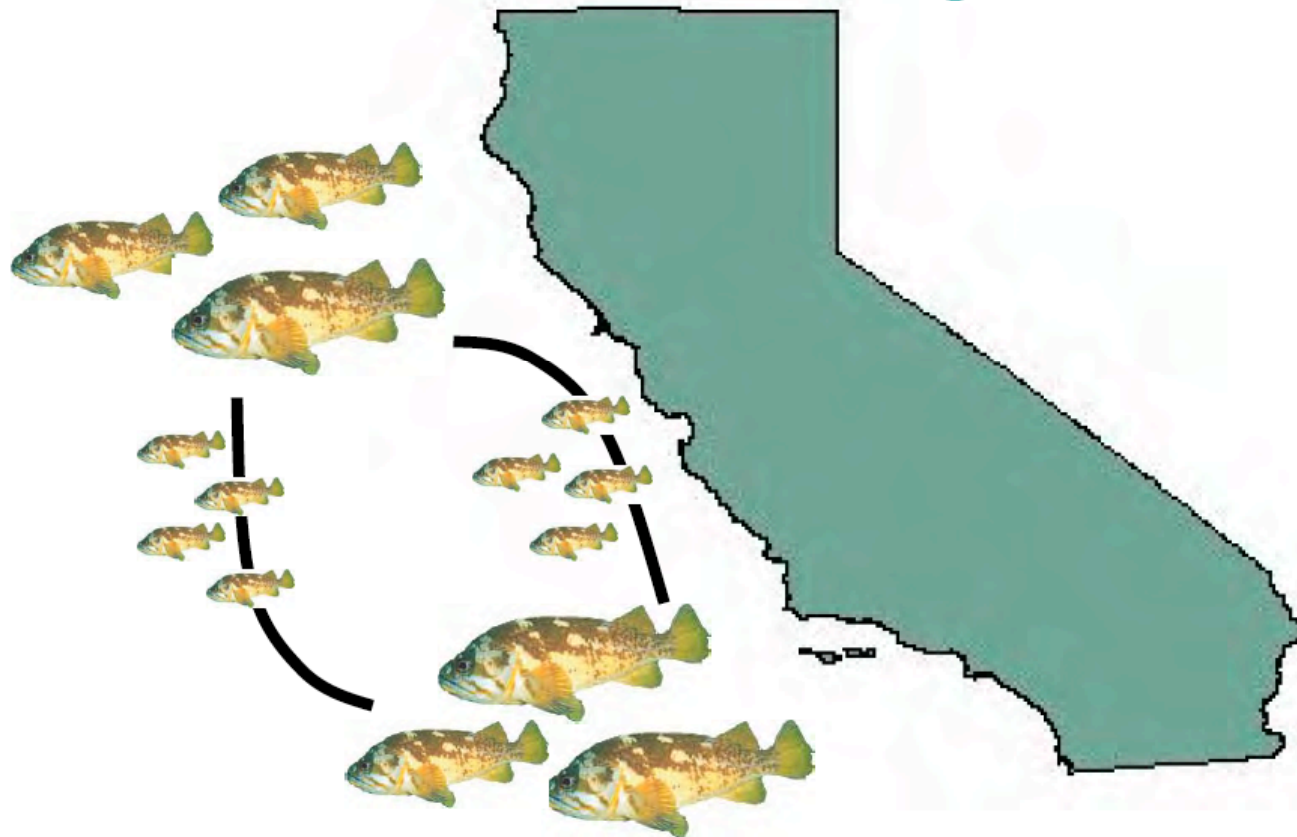
# MLPA IMPLEMENTATION UPDATE

1. Scientific basis for MPA Network design
2. Blue Ribbon Task Force decision to forward 3 MPA network packages to CA Dept of Fish and Game Commission: preferred alternative identified
3. Issues regarding process
4. Future steps



# MPA NETWORK SCIENCE-BASED DESIGN

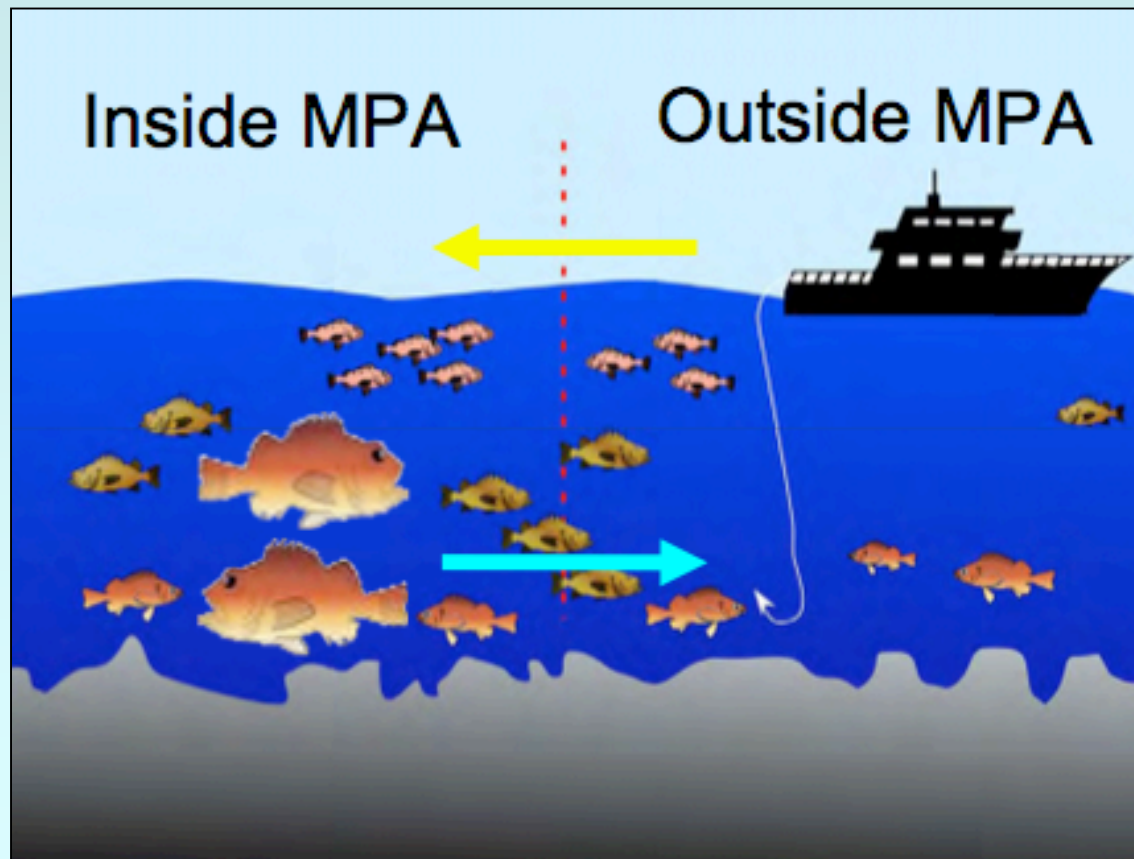
## Connections through Movement Of Adults and Young



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# DETERMINING MPA SIZE

To achieve sustainable populations:  
MPA Size > movement of juveniles and adults of a species



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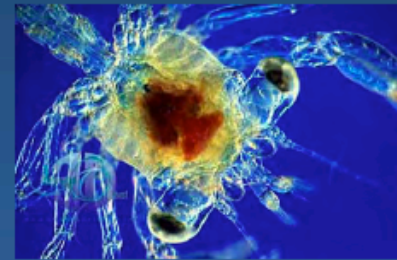
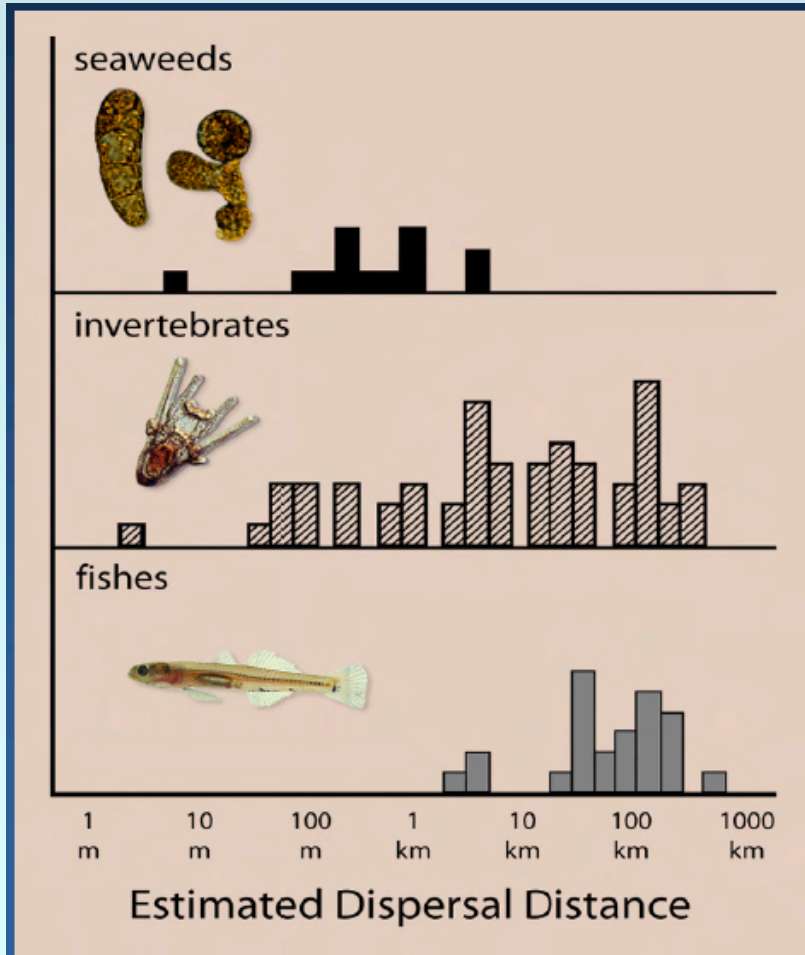
# Adult Movement for Species of Interest

0 – 1 km	1 – 10 km	10 – 100 km	100 – 1000 km	> 1000 km
<p><b>Invertebrates</b>                      Abalone                      Mussel                      Octopus                      Sea Star                      Snail                      Urchin</p> <p><b>Rockfishes</b>                      Blk. &amp; Yellow                      China Gopher                      Kelp</p> <p><b>Other Fishes</b>                      Gobie                      Sculpin</p>	<p><b>Rockfishes</b>                      Black                      Brown                      Copper                      Greenspotted                      Olive                      Vermilion</p> <p><b>Other Fishes</b>                      Cabezon Ca.                      Halibut                      Lingcod</p> 	<p><b>Invertebrates</b>                      Dung. Crab*</p> <p><b>Rockfishes</b>                      Bocaccio                      Canary                      Yellowtail                      Widow</p> <p><b>Other Fishes</b>                      Anchovy                      Herring                      Sardine</p> <p><b>Birds</b>                      Gulls                      Cormorants</p> <p><b>Mammals</b>                      Harbor Seal                      Otter</p>	<p><b>Fishes</b> Big                      Skate Pacific                      Halibut                      Sablefish*                      Salmonids*                      Sturgeon                      Whiting*</p> <p><b>Birds</b>                      Gulls*</p> <p><b>Mammals</b>                      Porpoises                      Sea Lions*</p>	<p><b>Invertebrates</b>                      Jumbo Squid*</p> <p><b>Fishes</b>                      Sharks*                      Tunas*</p> <p><b>Turtles*</b></p> <p><b>Birds</b>                      Albatross*                      Pelican*                      Shearwater*                      Shorebirds*                      Terns*</p> <p><b>Mammals</b>                      Dolphins Sea                      Lions* Whales*</p>

\* Seasonal Migration

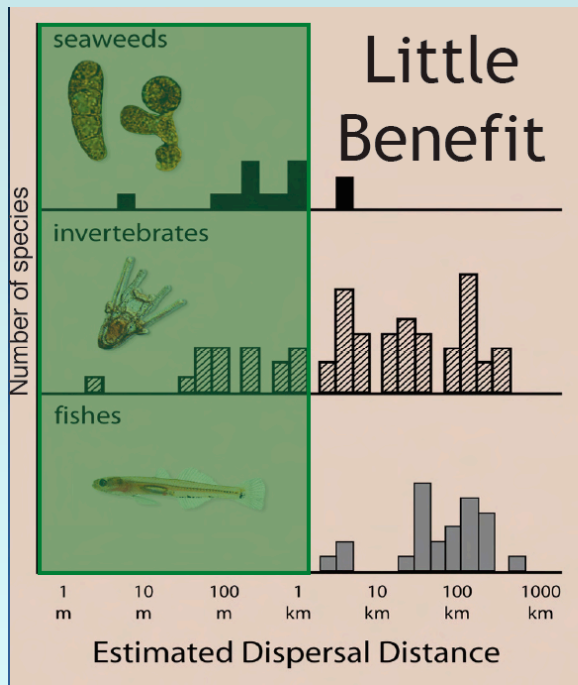
# DETERMINING MPA SIZE

Larval movement based on DNA analysis of various species

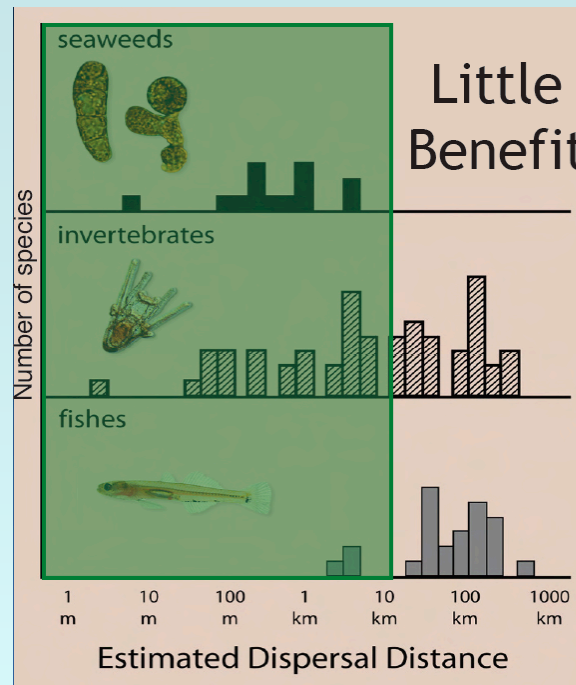


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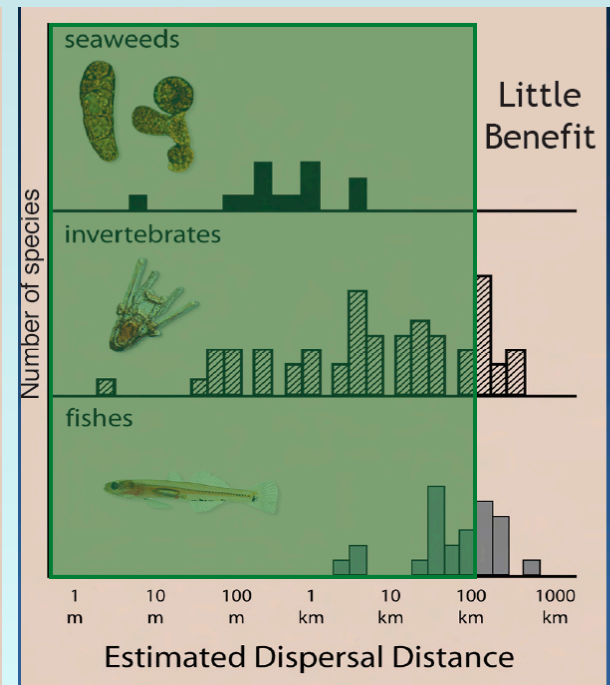
# DETERMINING MPA SIZE



1 km

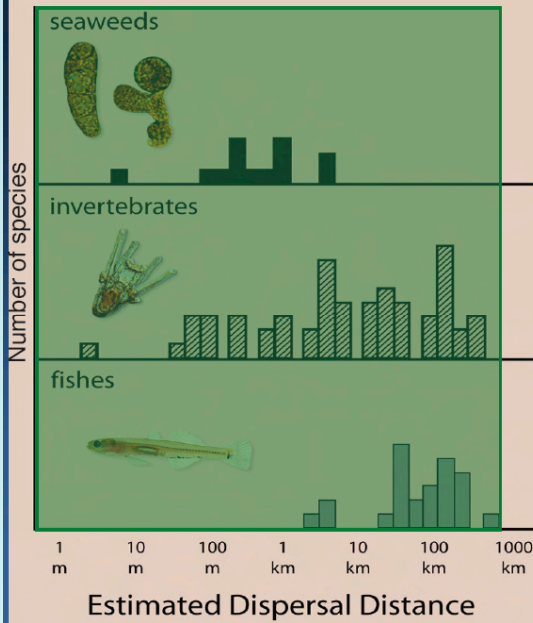


10 km



100 km





**Why Not  
1 Very  
Large  
Reserve?**



**Probably  
Not the  
Best  
Option**

- Too big
- Not big enough
- Loses potential fisheries benefits

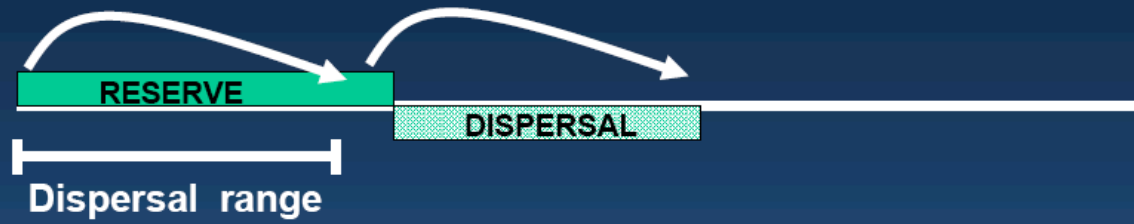


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# Many Other Benefits of Networks

## Single Large Reserve



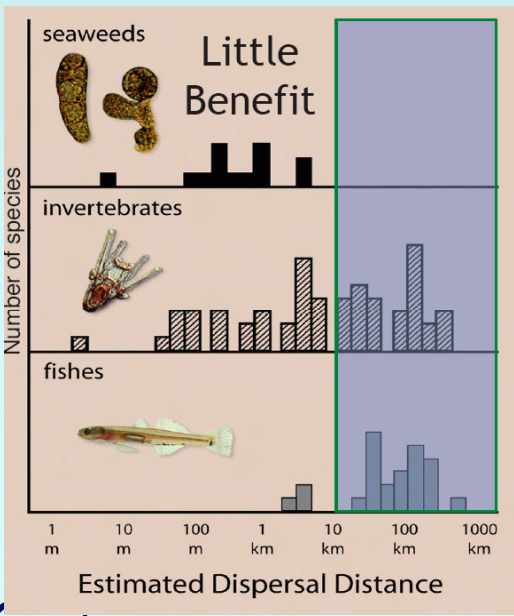
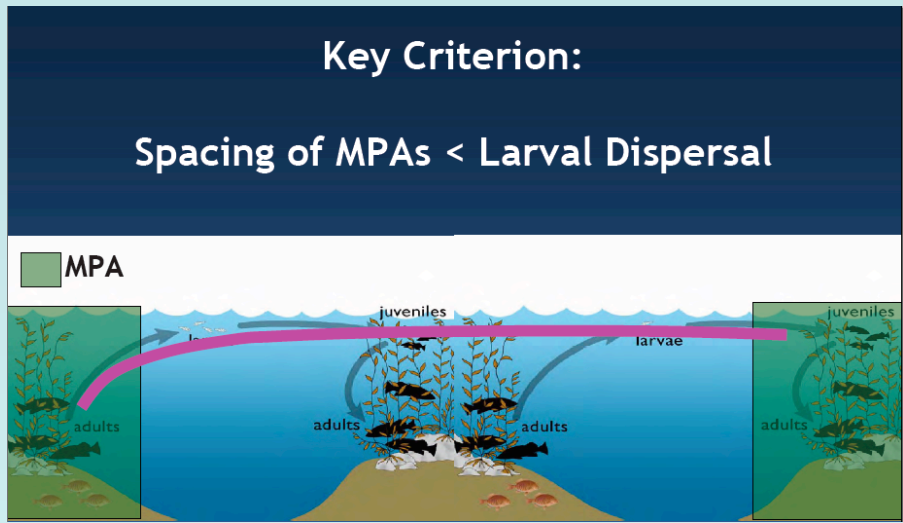
## Network of Several Reserves



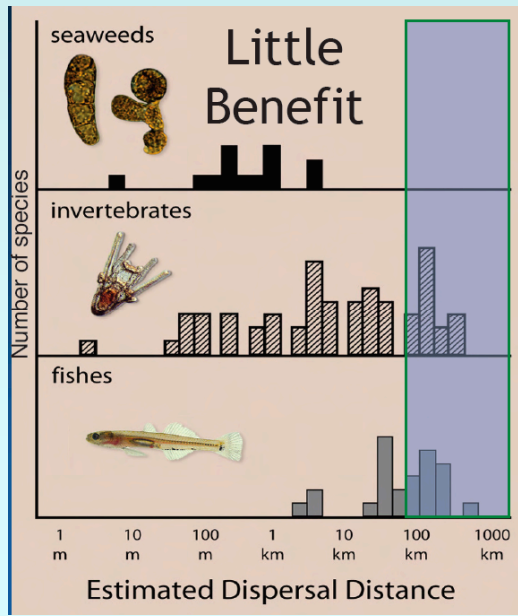
- Same protection in much smaller area
- Greater fisheries benefits
- More flexibility in design = fewer costs
- Greater geographic / habitat / species representation
- Spreads risks of catastrophes



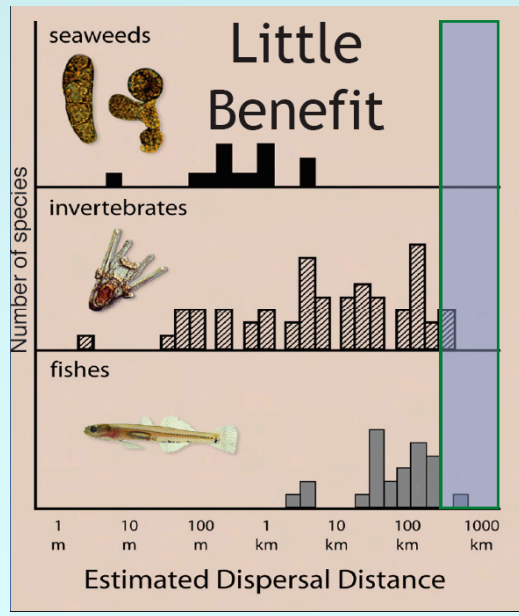
# Dispersal between MPAs is Just as Beneficial as Retention within MPAs



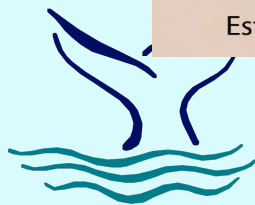
**10 km**



**100 km**

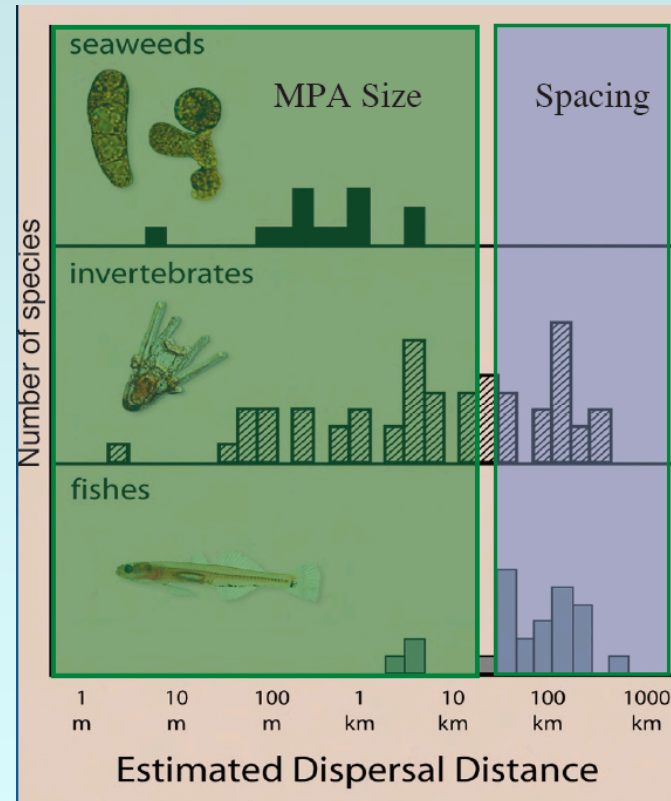
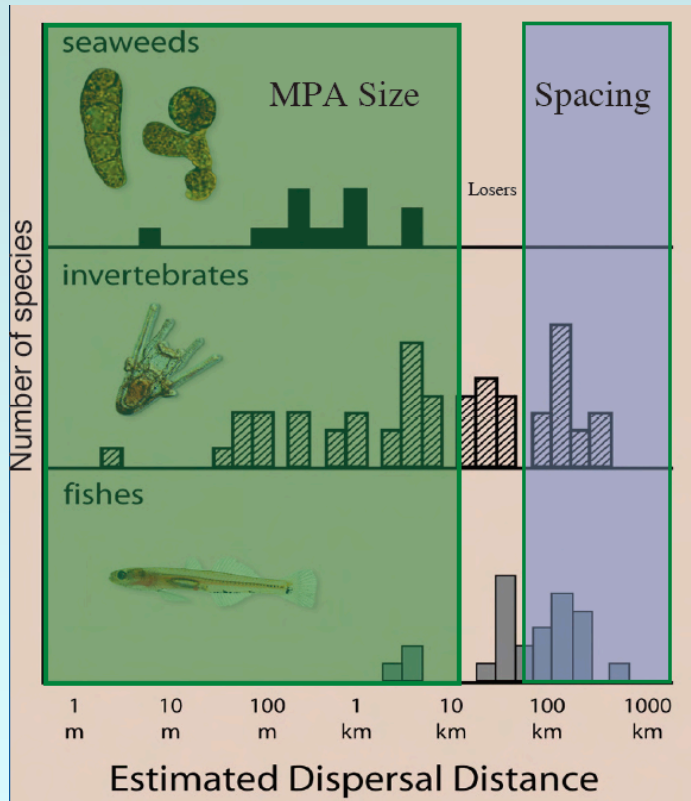


**500 km**



# DETERMINING MPA SPACING

Networks may maximize the #species that benefit



**10 km reserves  
spaced 100 km apart**

**20 km reserves  
spaced 50 km apart**



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## MPA **SIZE** and **SPACING** Guidance

- For an objective of protecting adult populations, based on adult neighborhood sizes and movement patterns, MPAs should have an **alongshore span of 5-10 km (3-6 m or 2.5-5.4 nm) of coastline, and preferably 10-20 km (6-12.5 m or 5.4-11 nm)**. Larger MPAs would be required to fully protect marine birds, mammals, and migratory fish.
- For an objective of facilitating dispersal of important bottom-dwelling fish and invertebrate groups among MPAs, based on currently known scales of larval dispersal, MPAs should be **placed within 50-100 km (31-62 m or 27-54 nm) of each other**.



# MPA Package Evolution

## FINAL BRTF PACKAGES (Mar 2006):

Package 1 “fishing package”

Package 2R modified “conservation package”

\*Package 3R(R)modified “hybrid”

## ~~Outside packages~~

~~Package AC “NRDC/PRBO”~~

~~Package B~~

\* *Preferred Alternative*

## CONSERVATION AREA

Package	% MPA	# MPAs
1	15%	29
2R	19%	30
<b>3R</b>	<b>17%</b>	<b>31</b>
Status Quo	3.75%	13



# General Issues

1. Public concern that stakeholders did not reach consensus
2. Public and stakeholder concern that CCRSG packages were edited by the Blue Ribbon Task Force
3. Kelp harvesting at Ano Nuevo, Cambria - impact on proposed SMR?
4. Vandenberg Air Force Base - ability to implement MLPA there?



# Future Steps

1. BRTF recommendations forwarded to DFG
2. DFG will assess and review packages
3. DFG presents its recommendations to CDFG Commission
4. CDFG will conduct public process, develop EIR, and make final decision on MLPA network
5. Next project area has not been determined yet



# MBNMS-MPA Workgroup

MBNMS MPA EFFORT	2006												2007											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Begin to Identify Areas of Interest in Federal Waters			■	■	■																			
Release of Draft MP/DEIS						■	■																	
Release of FEIS									■	■	■													
Identify Suite of Alternatives for MPAs in Federal Waters									■	■	■	■												
Forward Alternatives to Sanctuary Advisory Council															■	■	■	■						
Coordinate with PFMC and Provide Opportunity to Prepare Draft Regulations																	■	■	■	■	■	■	■	



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