

Draft List of Invertebrates Likely to Benefit from the Establishment of Marine Protected Areas in California

(Updated August 2007)

Species	Primary Bottom type (Rock/Sand)	Shallow Depth (ft.)	Deepest Depth (ft.)	sm-mod adult home range (sm 0-5 km mod 10-20 km)	Currently mod-large take	Historically mod-large take	Low Pop. Estimate (<40% unfished)	Size structure shifted toward sm indiv	life history trait vulnerable	life stage to benefit (e.g., spawning activity, nursery area)	habitat impacted (by human activity)	Ecologically Important (keystone or habitat forming)	Comments
				"ND" = No data	"ND" = No data	"ND" = No data	"ND" = No data	"ND" = No data	"ND" = No data	"ND" = No data	"ND" = No data	"ND" = No data	
black abalone	Rock	Intertidal	20	1	0	1	1	1	1	0	1	0	Only benefit in areas absent of sea otters
brown rock crab	Both	0	>330	1	1	1	ND	ND	0	0	0	0	Only benefit in areas absent of sea otters
corals	Rock	40	>500	1	0	0	ND	ND	1	0	1	1	Possible impacts from trawling or other bottom contact
Dungeness crab	Sand	0	755	0	1	1	ND	0	0	0	0	0	Due to management regime, no size shift
ghost shrimp	Sand	Intertidal	1	1	1	0	ND	ND	0	0	1	0	fish bait
gorgonians	Rock	40	>500	1	0	0	ND	ND	1	0	1	1	Possible impacts from trawling or other bottom contact
limpets	Rock	Intertidal	98	1	0	0	ND	1	0	0	1	1	removal impacts other species
littleneck clams	Coarse Sand	Intertidal	Intertidal	1	0	0	ND	ND	0	0	1	0	
market squid	Pelagic/Sand			0	1	1	0	ND	0	0	0	1	Both forage species and predators on small fishes
moon snail	Sand	Intertidal	499	1	0	0	ND	ND	0	0	1	0	
mud shrimp	Sand	Intertidal	1	1	0	0	ND	ND	0	0	1	0	
mussels	Rock	Intertidal	131	1	0	0	ND	ND	0	0	1	1	removal impacts other species

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Pismo clam	Sand	0	82	1	0	1	0	1	1	0	0	0	very slow growing adults, long lived, 50 years, Only benefit in areas absent of sea otters
purple urchin	Both	0	302	1	0	0	ND	ND	0	0	0	1	Only benefit in areas absent of sea otters, removal impacts other species
red abalone	Rock	Intertidal	200	1	0	1	1	1	1	0	0	0	short-lived, non-feeding larval stage, Only benefit in areas absent of sea otters
red rock crab	Both	0	750	1	1	1	ND	ND	0	0	0	0	Only benefit in areas absent of sea otters
red urchin	Both	Intertidal	295	1	1	1	0	ND	0	0	0	1	Only benefit in areas absent of sea otters, removal impacts other species
rock scallop	Rock	0	98	1	ND	ND	ND	ND	1	0	0	0	Evidence of positive impact in So. Cal reserves
sand crab	Sand	Intertidal	1	1	0	0	ND	ND	0	0	0	0	
sea hares	Both	0	59	1	0	0	ND	ND	0	0	0	0	
sea pens	Sand	25	>300	1	0	0	ND	ND	1	0	1	1	Possible impacts from trawling or other bottom contact
sea stars	Both	Intertidal	>600	1	0	0	ND	ND	0	0	1	1	Keystone species in intertidal
sponges	Rock	Intertidal	>2000	1	0	0	ND	ND	1	0	1	1	Possible impacts from trawling or other bottom contact

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spot prawn	Sand/Interface	150	1600	1	1	1	ND	ND	0	0	0	0	
turban snail	Rock	Intertidal	249	1	0	0	ND	ND	0	0	1	0	
worms	Both	Intertidal	>600	1	0	0	ND	ND	0	0	1	0	