

Table S1. List of the terms and search criteria used in the bibliographic review performed on the all data bases in the Web of Knowledge inside the respective searches for Marine protected area + effect; Marine protected area + ecosystem service and marine protected area + benefit.

search criteria	Term	# articles	%	search criteria	Term	# articles	%	search criteria	Term	# articles	%
effect*	effect	3,910	100.00	ecosystem service	Ecosystem Service	853	100.00	benefit	benefits	1722	100.00
Physical attributes, habitats, seascapes and ecosystems				provisioning services				provisioning service benefits			
climate	climate	11	0.28	wind or wave	wind or waves	54	6.33	wind energy and wave energy	wind energy and wave energy	1	0.06
"on hydrology"	on hydrology	0	0.00	wind facilit* or wave facilit*	wind or wave facilities	5	0.59	seafood quality	seafood quality	1	0.06
"on habitat"	on habitat	84	2.15	wind or wave and energy	wind or waves energy	25	2.93	recreational fishing or "recreational fishery" or "recreational fisheries" or "sport fishing"	recreational fishing	68	3.95
coast* near/4 integrity	coastal integrity	2	0.05	protect NEAR/4 rocky shore	protect rocky shore	0	0.00	abiotic resource	abiotic resources	0	0.00
refuge near/4 life history or refuge near/4 larva* or refuge near/4 juvenil*	refuge areas for life history	2	0.05	protect NEAR/4 beach	protect beaches	3	0.35	"ornamental" or "ornamental resource"	ornamental resources	3	0.17
Refuge	refuge	113	2.89	beach	beaches	41	4.81	traditional fishing or traditional fisher* commercial fishing or "commercial fisheries" or "commercial fishing"	traditional fishing	73	4.24
habitat NEAR/4 naturality	habitat naturality	0	0.00	rocky shore	rocky shore	5	0.59		comercial fishing	445	25.84
habitat NEAR/4 complexity	habitat complexity	75	1.92	protect NEAR/4 dune or protect NEAR/4 sand dune	protect sand dunes	2	0.23	chemical	chemical	30	1.74
habitat near4 quality	habitat quality	60	1.53	dune OR sand dune	sand dunes	11	1.29	chemic* near/5 benef* or chemic* near/5 resource*	chemical resources	0	0.00
"critical habitat" or "key habitat"	critical or key habitat	28	0.72	vegetal or shell or sand	vegetal/shell/sand	28	3.28	medical or medicinal	medical or medicinal	11	0.64
Species, populations and fisheries				bigger fish or larger fish or bigger individ* or larger individ*	bigger fish	111	13.01	Pharmaceutical	Pharmaceutical	3	0.17
individual* NEAR/4 size or fish* NEAR/4 size	individual size	204	5.22	smaller fish	smaller fish	57	6.68	genetic resource	genetic resources	38	2.21
"size at maturity"	size at maturity	13	0.33	fish size	fish size	41	4.81	genetic near/4 resource*	genetic resource	10	0.58
population NEAR4 abundance or fish NEAR4 abundance	population abundance	213	5.45	more abundant fish	more abundant fish	14	1.64	Traditional resources	traditional resources	0	0.00
population near/4 structure	population structure	286	7.31	less abundant fish	less abundant fish	5	0.59	habitat near/5 benefit*	Habitat	49	2.85
"life span"	life span	7	0.18	fish abundance	fish abundance	59	6.92	Regulating service benefits			0.00
"carrying capacity"	carrying capacity	32	0.82	higher biomass	higher biomass	48	5.63	coastal protection	coastal protection	16	0.93
"spawning stock"	spawning stock	21	0.54	biomass	biomass	88	10.32	"climate change" and mitigation	climate change mitigation	25	1.45
larva NEAR4 survival	larval survival	9	0.23	species fecundity or reproductive capacity	species fecundity/reproductive capacity	4	0.47	"climate regulation" or "climate mitigation"	climate regulation/mitigation	8	0.46
"life history"	life history	243	6.21	fishery stock	fishery stock	38	4.45	spawning stock	spawning stock	11	0.64
home-range or home range or homerange	home range	55	1.41	traditional resources	traditional resources	30	3.52	ecosystem stability	ecosystem stability	1	0.06
at-risk NEAR/4 species	at-risk species	19	0.49	new resource or new potential resource	new/potential resources	227	26.61	stability and ecosystem	stability and ecosystem	11	0.64
"rare species"	"rare species"	7	0.18	chemical defense or resistant material	chemical defenses/resistant materials	1	0.12	stability	stability	27	1.57
"key species"	"key species"	23	0.59	Regulating services				market stability	market stability	1	0.06
"endemic species"	"endemic species"	42	1.07	erosion or sedimentation	erosion/sedimentation	69	8.09	market	market	83	4.82
"focal species"	focal species	9	0.23	prevent sedimentation or avoid sedimentation or reduce sedimentation	prevent sedimentation	10	1.17	shoreline and stability	shoreline and stability	1	0.06
commercial fishing or "commercial fisheries" or "commercial fishing"	commercial fishing	923	23.61	prevent erosion or avoid erosion or reduce erosion	prevent erosion	20	2.34	larval dispersal	larval dispersal	51	2.96
traditional fishing or traditional fisher* fisher	traditional fishing	95	2.43	protect NEAR/4 shore	protect the shore	1	0.12	uncertain	uncertain	0	0.00
Ecosystem functioning and regulations				at-risk NEAR/4 species	at-risk species	2	0.23	ecosystem imbalance	ecosystem imbalance	1	0.06
biodiversity	biodiversity	1061	27.14	"rare species"	"rare species"	2	0.23	"prevention mass mortality"	Prevention of mass mortality	0	0.00
Connectivity	Connectivity	213	5.45	"key species"	"key species"	3	0.35	cultural service benefits			0.00
species NEAR4 richness	species richness	284	7.26	"endemic species"	"endemic species"	7	0.82	Landscape and seascape ecotourism	landscape/seascape ecotourism	87	5.05
"interspecific relationship"	Interspecific relationship	9	0.23	"focal species"	focal species	1	0.12	apical specie or long-living predator	apical specie or long-living predator	1	0.12
"natural selection"	Natural selection	12	0.31	at-risk NEAR/4 ecosystem	at-risk ecosystems	2	0.23	at-risk NEAR/4 ecosystem	at-risk ecosystems	2	0.23
"genetic diversity"	genetic diversity	62	1.59	at-risk NEAR/4 communit*	at-risk communities	1	0.12	recreational	recreational	176	10.22
genetic or genomic	genetic	186	4.76	rare NEAR/4 communit* OR singular NEAR/4 communit* OR unique NEAR/4 communit*	unique communities	1	0.12	Reference condition	Reference condition	0	0.00
"genetic structure"	genetic structure	54	1.38	rare NEAR/4 ecosyst* OR singular NEAR/4 ecosyst* OR unique NEAR/4 ecosyst*	unique ecosystems	7	0.82	tourist or touristic or tourism	tourist or touristic or tourism	214	12.43
"food web"	food web	121	3.09	"key ecosystem"	key ecosystems	6	0.70	aquatic activity	aquatic activity	0	0.00

facilitate NEAR/4 species NEAR4 invasive or increase NEAR/4 species NEAR/4 invasiv or propitiate NEAR/4 species NEAR/4 invasiv or increase NEAR/4 species NEAR/4 alien or favour NEAR/4 species NEAR/4 alien or facilitate NEAR/4 species NEAR/4 alien	facilitate invasive spp	0	0.00	migratory specie or waterbird species flux or genetic flux or	migratory specie or waterbird	16	1.88
increase NEAR/4 water NEAR/4 quality	increase water quality	3	0.08	connectivity	species flux or genetic flux or connectivity	56	6.57
decrease NEAR4 water NEAR4 quality	decrease water quality	3	0.08	community stability	community stability	7	0.82
wilderness	wilderness	11	0.28	rare specie or localized specie or endemic specie	rare specie or localized specie or endemic specie	27	3.17
fish NEAR/4 movements	fish movements	48	1.23	sedentary specie diversity or resident specie diversity	sedentary specie diversity or resident specie diversity	2	0.23
recover and fish and assemblage near4 structure	recover fish assemblage structure	3	0.08	genetic or genomic	genetic or genomic	27	3.17
parasits	parasits	0	0.00	genetic diversity or gene pool	genetic diversity or gene pool	15	1.76
non target species or non-target species	non target species	122	3.12	large mammal or migration route	large mammal or migration route	38	4.45
increase near4 non-target or more abundant near4 non-target	more abundant non-target spp	4	0.10	homeostatic mechanism or resilience	homeostatic mechanism or resilience	116	13.60
aesthetic or cultural	aesthetic or cultural	65	1.66	cascade effect	cascade effect	11	1.29
aesthetic or cultural	ancient activities	0	0.00	massive proliferation	massive proliferation	0	0.00
"ancient activit*"	ancient activities	0	0.00	proliferation	proliferation	1	0.12
"human history"	human history	2	0.05	algal cover or seagrass	algal cover or seagrass	87	10.20
human tradition*	Human traditions	45	1.15	primary production	primary production	18	2.11
cultur* heritage	Cultural heritage	12	0.31	representative ecosystem	representative ecosystem	35	4.10
scien* near/5 knowledg* or research	scientific knowledge or research	198	5.06	emblematic ecosystem or	emblematic ecosystem or	30	3.52
scien* near/5 knowledg*	scientific knowledge	11	0.28	representative ecosystem	representative ecosystem	16	1.88
Total terms		88		"interspecific relationship"	"interspecific relationship"	0	0.00
				ecosystem stability	ecosystem stability	16	1.88
				global change or climat* near/3	global change or climat* near/3	240	28.14
				change	change	90	10.55
				water quality	water quality	19	2.23
				disease	disease	24	2.81
				extinction	extinction	33	3.87
				invasive specie or alien specie or introduced specie	invasive/alien species	4	0.47
				pristine conditions or pristine characteristic	pristine conditions	44	5.16
				specie behaviour or specie behavior	species behaviour	8	0.94
				wilderness	wilderness	0	0.00
				cultural services	cultural services	74	8.68
				landscapes	landscapes	38	4.45
				seascapes	seascapes	6	0.70
				cultural NEAR/5 heritage	cultural heritage	44	5.16
				tradition*	traditions	6	0.70
				historical near/5 knowledg* or cultur* near/5 knowledg* or traditio* near/5 knowledg* or stakeholder near/5 knowledge	Historical and stakeholder knowledge	5	0.59
				"nature based solution*"	nature based solutions	332	38.92
				scien* near/5 knowledg* or research	scientific knowledge or research	17	1.99
				scien* near/5 knowledg*	scientific knowledge	25	2.93
				eco*touris*	ecotourism		
Total terms						108	