



Map 4D
Straits of Mackinac



SEE BACK OF MAP
for details about mapped species and
other species that occur in mapped area.
Data Published: October 2019

0 Not for Navigation 1 Miles
0 1 Kilometers

1:50,000



Straits of Mackinac: Map 4D

BIOLOGICAL RESOURCES:

BENTHIC:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)											
249	Submerged aquatic vegetation			-	General Distribution			M	A	M	J	J	A	S			

BIRD:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Nesting	Migrating		Molting
13	Common loon	T		-	Concentration Area			A	M			S	O	N	D	-	Apr-May	Sep-Dec	-		
60	Black-crowned night-heron	C		27 Nests	Nesting			A	M	J	J	A	S	O		May-Aug	-	-	-		
	Great blue heron			79 Nests	Nesting			M	A	M	J	J	A	S	O	Apr-Jul	-	-	-		
73	Bald eagle	C		-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D	Feb-Jul	-	-	-
78	Black-crowned night-heron	C		-	Vulnerable Occurrence			A	M	J	J	A	S	O		May-Aug	-	-	-		
241	Bald eagle	C		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Bufflehead			-	Migration	J	F	M	A	M				O	N	D	-	Oct-May	-	-	
	Canvasback			High	Concentration Area								S	O	N	-	Sep-Nov	-	-		
	Caspian tern	T		-	General Distribution			A	M	J	J	A	S			-	-	-	-		
	Common merganser			-	Migration			M	A	M			S	O	N	-	Mar-May	Sep-Nov	-		
	Common tern	T		-	General Distribution			A	M	J	J	A	S	O		-	-	-	-		
	Double-crested cormorant			-	Migration			M	A	M	J	J	A	S	O	N	-	Mar-May	Jul-Nov	-	
	Gulls			-	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	Jan-Dec	-	-
	Long-tailed duck			-	Migration	J	F	M	A	M				O	N	D	-	Oct-Apr	-	-	
	Red-breasted merganser			-	Migration			M	A	M	J	J	A	S	O	N	-	Mar Nov	-	-	
	Redhead			High	Concentration Area								S	O	N	-	Sep-Nov	-	-		
	Sandhill crane			-	Concentration Area			M	A	M	J	J	A	S	O	N	-	-	-	-	
	Scaup			High	Concentration Area								S	O	N	-	-	-	-		
	Sea ducks			High	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
261	American coot			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-	-	
	Black scoter			-	General Distribution			A	M					O	N		-	Apr-May	Oct-Nov	-	
	Bufflehead			-	General Distribution	J	F	M	A	M				O	N	D	-	Oct-May	-	-	
	Canvasback			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Common goldeneye			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Greater scaup			-	General Distribution	J	F	M	A					O	N	D	-	-	-	-	
	Gulls			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	Jan-Dec	-	-
	Lesser scaup			-	General Distribution	J	F	M	A					O	N	D	-	-	-	-	
	Long-tailed duck			-	General Distribution	J	F	M	A	M				O	N	D	-	Oct-Apr	-	-	
	Loons			-	General Distribution			M	A	M	J	J	A	S	O		-	-	-	-	
	Raptors			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Redhead			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Ring-necked duck			-	General Distribution			M	A	M	J	J	A	S	O		-	-	-	-	
	White-winged scoter			-	General Distribution	J	F	M	A	M				O	N	D	-	Oct-May	-	-	
262	American black duck			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Bufflehead			-	General Distribution	J	F	M	A	M				O	N	D	-	Oct-May	-	-	
	Canada goose			-	General Distribution			M	A	M	J	J	A	S			-	-	-	-	
	Canvasback			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Common goldeneye			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Double-crested cormorant			-	General Distribution			M	A	M	J	J	A	S	O	N	-	Mar-May	Jul-Nov	-	
	Greater scaup			-	General Distribution	J	F	M	A					O	N	D	-	-	-	-	
	Green-winged teal			-	General Distribution			M	A	M	J	J	A	S	O	N	-	Mar-May	Sep-Nov	-	
	Gulls			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	Jan-Dec	-	-
	Hérons			-	General Distribution			M	A	M	J	J	A	S	O		-	-	-	-	
	Lesser scaup			-	General Distribution	J	F	M	A					O	N	D	-	-	-	-	
	Long-tailed duck			-	General Distribution	J	F	M	A	M				O	N	D	-	Oct-Apr	-	-	
	Loons			-	General Distribution			M	A	M	J	J	A	S	O		-	-	-	-	
	Mallard			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Mergansers			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Redhead			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Ring-necked duck			-	General Distribution			M	A	M	J	J	A	S	O		-	-	-	-	
	Swans			-	General Distribution			M	A					O	N	D	-	-	-	-	
	Terns			-	General Distribution			A	M	J	J	A	S	O			-	-	-	-	
	Wood duck			-	General Distribution			M	A	M	J	J	A	S	O	N	-	-	-	-	
332	Piping plover	E	E	-	Nesting			A	M	J	J	A	S			Apr-Sep	-	-	-		
	Red knot	T		-	Migration			M	J		A	S				-	May-Jun	Aug-Sep	-		

FISH:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Spawning		Eggs	Larvae	Juveniles	Adults
143	Lake whitefish			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	-	-	-	Jan-Dec
265	Atlantic salmon			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Sep-Jul	Jan-Dec
	Bloater			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Burbot			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Feb	-	-	-	-	Jan-Dec
	Chinook salmon			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Sep-Jul	Jan-Dec
	Cisco			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Coho salmon			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Sep-Jul	Jan-Dec
	Lake chub			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	-	-	Jan-Dec
	Lake sturgeon		T	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
	Lake trout			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Oct-Nov	-	Oct-Mar	Feb-Mar	Jan-Dec	Jan-Dec
	Lake whitefish			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Longnose sucker			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
	Northern pike			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	-	Jan-Dec	Jan-Dec
	Rainbow smelt			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Apr-Sep	Jan-Dec
	Round whitefish (menomonee)			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Smallmouth bass			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Jul	-	May-Aug	Jul-Aug	-	Jan-Dec
	Steelhead			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Sep-Jul	Jan-Dec
	Walleye			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	-	-	Jan-Dec
	White sucker			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
	Yellow perch			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	May-Jul	-	May-Aug	May-Aug	-	Jan-Dec
266	Bloater			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Burbot			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Chinook salmon			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Cisco			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Coho salmon			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Lake chub			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	-	-	Jan-Dec
	Lake sturgeon		T	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Lake trout			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Oct-Nov	-	Oct-Mar	Feb-Mar	Jan-Dec	Jan-Dec
	Lake whitefish			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Longnose sucker			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Northern pike			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Rainbow smelt			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	May-Sep	-	Jan-Dec
	Round whitefish (menomonee)			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Smallmouth bass			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Steelhead			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Walleye			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	White sucker			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Yellow perch			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	May-Sep	-	Jan-Dec
267	Atlantic salmon			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Bloater			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Dec-Feb	-	Dec-Apr	Mar-Jul	Jan-Dec	Jan-Dec
	Burbot			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Chinook salmon			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Cisco			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Coho salmon			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec

Straits of Mackinac: Map 4D (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH (cont.):

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Spawning		Eggs	Larvae	Juveniles	Adults
	Lake trout			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Oct-Nov	-	Oct-Mar	Apr-May	Jan-Dec	Jan-Dec
	Lake whitefish			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Longnose sucker			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Rainbow smelt			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Round whitefish (menomonee)			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Steelhead			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	Jan-Dec
	Walleye			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	-
	White sucker			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	Jan-Dec
	Yellow perch			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	Jan-Dec	-
325	Cisco			High	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Lake sturgeon	T		-	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
	Lake whitefish			High	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Longnose sucker			High	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
	Round whitefish (menomonee)			High	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Smallmouth bass			-	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	-	-	Jan-Dec
	Walleye			-	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	-	-	Jan-Dec
	White sucker			High	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
	Yellow perch			-	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	May-Aug	-	Jan-Dec
353	Lake whitefish			High	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Longnose sucker			High	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
	Round whitefish (menomonee)			High	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	Nov-Apr	Mar-Apr	Jan-Dec	Jan-Dec
	Smallmouth bass			High	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	-	-	Jan-Dec
	White sucker			High	Concentration Area	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
	Yellow perch			High	Nursery Area	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	May-Aug	-	Jan-Dec

HABITAT:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)											
96	Federally threatened plant	T	T	-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D
111	Threatened plant	T		-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D

HERPETOFAUNA:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Nesting	Hatching	Internest	Juveniles	Adults
234	Mudpuppy	C		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	Apr-Jul	-	Jan-Dec	Jan-Dec
236	Mudpuppy	C		-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	Jan-Dec	Jan-Dec
268	Sensitive herpetofauna			-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-

INVERTEBRATE:

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Spawning	Eggs	Larvae	Juveniles	Adults	
90	Endangered snail	E		-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	-
110	Threatened insect	T		-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	-