

Straits of Mackinac: Map 4B

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	-
73	Bald eagle		C	-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D	Feb-Jul	-	-	-
88	Caspian tern		T	-	Vulnerable Occurrence				A	M	J	J	A	S				May-Sep	-	-	-
93	Common loon		T	-	Nesting				A	M	J	J	A	S				Apr-Sep	-	-	-
94	Common tern		T	-	Vulnerable Occurrence				A	M	J	J	A	S				May-Sep	-	-	-
118	Northern goshawk		C	-	Vulnerable Occurrence		F	M	A	M	J	J	A	S	O	N	D	Mar-Jul	Feb-Mar	Aug-Dec	-
119	Northern harrier		C	-	Vulnerable Occurrence			M	A	M	J	J	A	S	O	N		Apr-Jul	Mar-Apr	Aug-Nov	-
125	Black-backed woodpecker		C	-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jul	-	-	-
128	Red-shouldered hawk		T	-	Vulnerable Occurrence		F	M	A	M	J	J	A	S	O	N		Mar-Jun	-	-	-
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	-
333	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
8	Chinook salmon			-	Spawning Area	J	F	M	A	M	J			S	O	N	D	Sep-Oct	-	Sep-Jun	Sep-Jun	Sep-Jun	Sep-Oct
	Coho salmon			-	Spawning Area	J	F	M	A	M	J			S	O	N	D	Sep-Oct	-	Sep-Jun	Sep-Jun	Sep-Jun	Sep-Oct
	Longnose sucker			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
	Pink salmon			-	Spawning Area	J	F	M	A	M	J			S	O	N	D	Sep-Oct	-	Sep-Jun	Sep-Jun	Sep-Jun	Sep-Oct
	Rainbow smelt			-	Spawning Area				A	M	J	J	A	S				Apr-May	-	Apr-May	Apr-Sep	Apr-Sep	Apr-May
	Steelhead			-	Spawning Area	J	F	M	A	M	J			S	O	N	D	Sep-Oct	-	Sep-Jun	Sep-Jun	Sep-Jun	Sep-Oct
	Walleye			-	Spawning Area			M	A	M								Mar-May	-	-	-	-	Mar-May
	White sucker			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	Apr-Aug	Apr-Aug	Jan-Dec	Jan-Dec
143	Lake whitefish			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	-	-	-	Jan-Dec
203	Lake whitefish			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	-	-	-	Jan-Dec
	Rainbow smelt			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Apr-May	-	-	Apr-Sep	-	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
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

Straits of Mackinac: Map 4B (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH (cont.):

RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Spawning		Eggs	Larvae	Juveniles	Adults
	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

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	
110	Threatened insect	T		-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	-
232	Hines's emerald dragonfly	E	E	-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-	-	-