



Straits of Mackinac: Map 11A

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	-
37	Common tern		T	70 Nests	Nesting			A	M	J	J	A	S					May-Sep	-	-	-
48	Black-crowned night-heron		C	6-7 Nests	Nesting			A	M	J	J	A	S	O				May-Aug	-	-	-
	Caspian tern		T	0-375 Nests	Nesting			A	M	J	J	A	S					May-Sep	-	-	-
	Common tern		T	118-596 Nests	Nesting			A	M	J	J	A	S					May-Sep	-	-	-
	Double-crested cormorant			918-7942 Nests	Nesting			A	M	J	J	A	S					May-Aug	-	-	-
	Great blue heron			0-9 Nests	Nesting			M	A	M	J	J	A	S	O			Apr-Jul	-	-	-
	Herring gull			230-407 Nests	Nesting	J	F	M	A	M	J	J	A	S	O	N	D	Apr-Jul	-	-	-
	Ring-billed gull			0-1156 Nests	Nesting			A	M	J	J	A	S	O				Apr-Aug	-	-	-
62	Caspian tern		T	0-77 Nests	Nesting			A	M	J	J	A	S					May-Sep	-	-	-
	Herring gull			71-100 Nests	Nesting	J	F	M	A	M	J	J	A	S	O	N	D	Apr-Jul	-	-	-
	Ring-billed gull			36 Nests	Nesting			A	M	J	J	A	S	O				Apr-Aug	-	-	-
73	Bald eagle		C	-	Vulnerable Occurrence	J	F	M	A	M	J	J	A	S	O	N	D	Feb-Jul	-	-	-
94	Common tern		T	-	Vulnerable Occurrence			A	M	J	J	A	S					May-Sep	-	-	-
226	American white pelican			-	General Distribution			A	M	J	J	A						-	-	-	-
	Black-bellied plover			-	General Distribution	F	M	A	M	J	J	A	S	O	N			-	Mar-Nov	-	-
	Black-crowned night-heron		C	-	General Distribution			A	M	J	J	A	S	O				-	-	-	-
	Canada goose			-	General Distribution			M	A	M	J	J	A	S				-	-	-	-
	Caspian tern		T	-	General Distribution			A	M	J	J	A	S					-	-	-	-
	Common merganser			-	General Distribution	F	M	A	M	J	J	A	S					-	-	-	-
	Common tern		T	-	General Distribution			A	M	J	J	A	S	O				-	-	-	-
	Double-crested cormorant			-	General Distribution			A	M	J	J	A	S					-	-	-	-
	Great blue heron			-	General Distribution			M	A	M	J	J	A	S	O			-	-	-	-
	Gulls			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	Jan-Dec	-	-
	Killdeer			-	General Distribution			F	M	A	M	J	J	A	S	O		-	-	-	-
	Mallard			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Red-breasted merganser			-	General Distribution			M	A	M	J	J	A	S	O	N		-	Mar Nov	-	-
	Ruddy turnstone			-	General Distribution				M	J	J	A	S	O				-	May-Oct	-	-
	Sandpipers			-	General Distribution			M	A	M	J	J	A	S	O			-	-	-	-
	Semipalmated plover			-	General Distribution			M	A	M	J	J	A	S	O			-	Mar-Oct	-	-
227	Caspian tern		T	-	General Distribution			A	M	J	J	A	S					-	-	-	-
	Common loon		T	-	General Distribution			A	M	J	J	A	S	O				-	Apr-May	Sep-Oct	-
	Common tern		T	-	General Distribution			A	M	J	J	A	S	O				-	-	-	-
	Herring gull			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Ring-billed gull			-	General Distribution	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		-	-	-	-
328	American white pelican			-	General Distribution			A	M	J	J	A						-	-	-	-
	Bald eagle		C	-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Black-bellied plover			-	General Distribution			F	M	A	M	J	J	A	S	O	N	-	Mar-Nov	-	-
	Canada goose			-	General Distribution			M	A	M	J	J	A	S				-	-	-	-
	Caspian tern		T	-	General Distribution			A	M	J	J	A	S					-	-	-	-
	Common merganser			-	General Distribution			F	M	A	M	J	J	A	S			-	-	-	-
	Common tern		T	-	General Distribution			A	M	J	J	A	S	O				-	-	-	-
	Great blue heron			-	General Distribution			M	A	M	J	J	A	S	O			-	-	-	-
	Gulls			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	Jan-Dec	-	-
	Killdeer			-	General Distribution			F	M	A	M	J	J	A	S	O		-	-	-	-
	Mallard			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Osprey		C	-	General Distribution			A	M	J	J	A						-	-	-	-
	Red-breasted merganser			-	General Distribution			M	A	M	J	J	A	S	O	N		-	Mar Nov	-	-
	Ruddy turnstone			-	General Distribution				M	J	J	A	S	O				-	May-Oct	-	-
	Sandpipers			-	General Distribution			M	A	M	J	J	A	S	O			-	-	-	-
329	American coot			-	General Distribution			M	A	M	J	J	A	S	O	N		-	-	-	-
	Common loon		T	-	General Distribution			A	M	J	J	A	S	O				-	Apr-May	Sep-Oct	-
	Herring gull			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	Ring-billed gull			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	-	-	-
	White-winged scoter			-	General Distribution	J	F	M	A	M				O	N	D		-	Oct-May	-	-
343	Black-bellied plover			-	General Distribution			F	M	A	M	J	J	A	S	O	N	-	Mar-Nov	-	-
	Double-crested cormorant			-	General Distribution			A	M	J	J	A	S					-	-	-	-
	Gulls			-	General Distribution	J	F	M	A	M	J	J	A	S	O	N	D	-	Jan-Dec	-	-
	Ruddy turnstone			-	General Distribution				M	J	J	A	S	O				-	May-Oct	-	-
	Sandpipers			-	General Distribution			M	A	M	J	J	A	S	O			-	-	-	-

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
184	Lake trout			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Oct-Nov	-	-	-	-	Jan-Dec
	Lake whitefish			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	-	-	-	Jan-Dec
186	Lake trout			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Oct-Nov	-	-	-	-	Jan-Dec
194	Lake trout			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Oct-Nov	-	-	-	-	Jan-Dec

Straits of Mackinac: Map 11A (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH (cont.):																							
RAR#	Species	S	F	Concentration	Mapping Qualifier	Monthly Presence (Jan-Dec)												Spawning		Eggs	Larvae	Juveniles	Adults
	Lake whitefish			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Nov-Dec	-	-	-	-	Jan-Dec
	Smallmouth bass			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	-	-	Jan-Dec
	Yellow perch			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Mar-Jun	-	-	May-Aug	-	Jan-Dec
242	Lake trout			-	Spawning Area	J	F	M	A	M	J	J	A	S	O	N	D	Oct-Nov	-	Oct-Mar	Feb-Mar	Jan-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
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

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	-	-	-	-	-