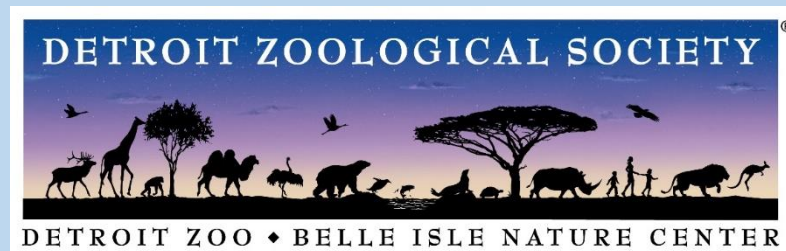




Status of Common Terns in Southeast Michigan

Jessica Jozwiak, Detroit Zoological Society



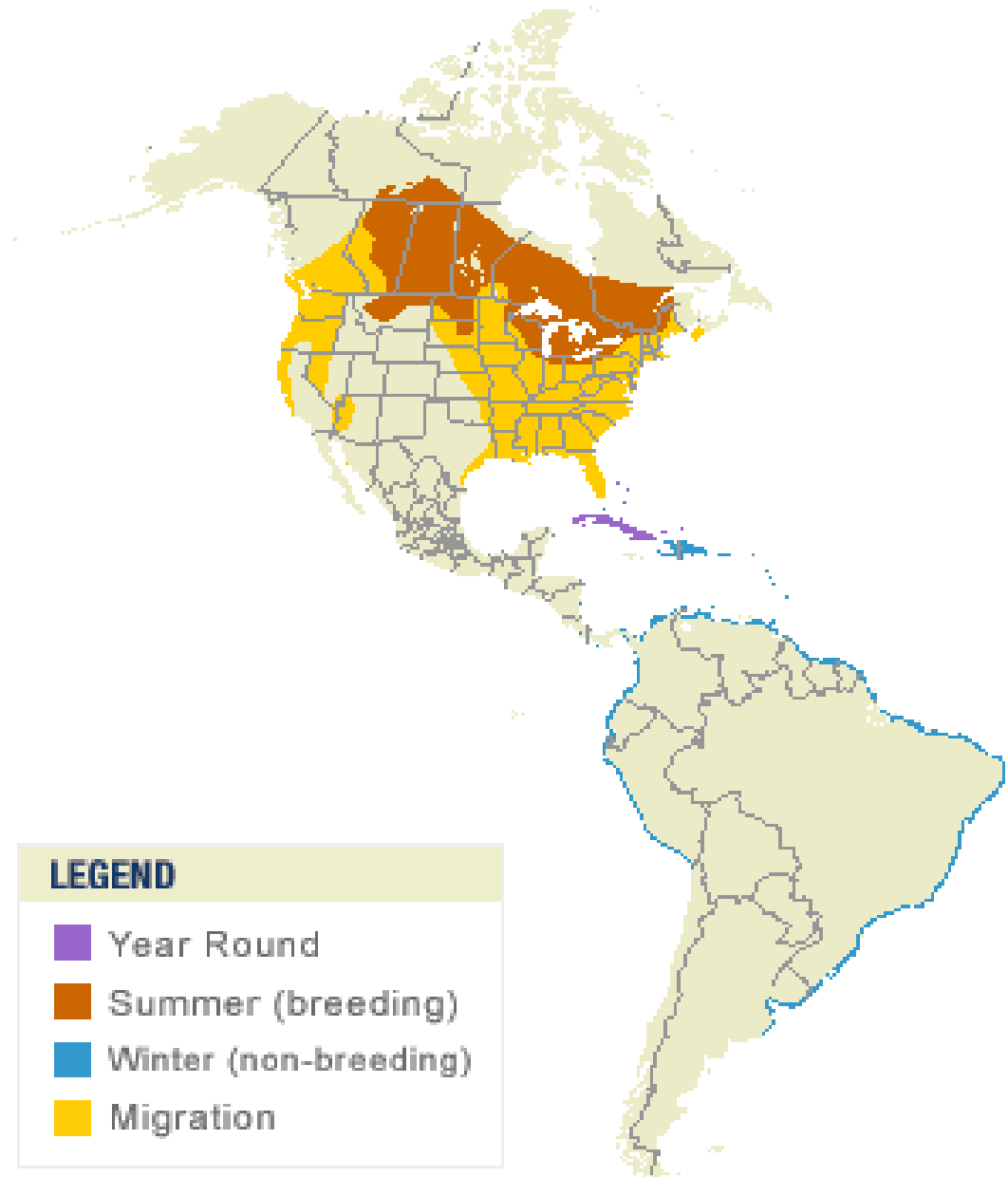
Overview

Provide a prospective of common terms in Southeast Michigan.

Examine historical and current population trends.

Describe future objectives.

Common Tern
Sterna hirundo



Map by Cornell Lab of Ornithology
Range data by NatureServe

Natural History

Neo-tropical migrants.

Winter in South America.

Arrive in Michigan in mid-April.

Breeding season May through July.

Leave for wintering grounds late August.

Great Lakes Region Status Assessment



T = Threatened
E = Endangered
X = Extirpated

Listed as a threatened species in Michigan since 1979

Historic Sites

Over 4,500 breeding pairs
1960-1980

100-500
(1980's)

Fighting Island

Mud Island

Belle Isle

600-1,200
(1960-62)

"Several thousand"
(1966-1972)

Bob-lo Island

1,500
(1957-1962)

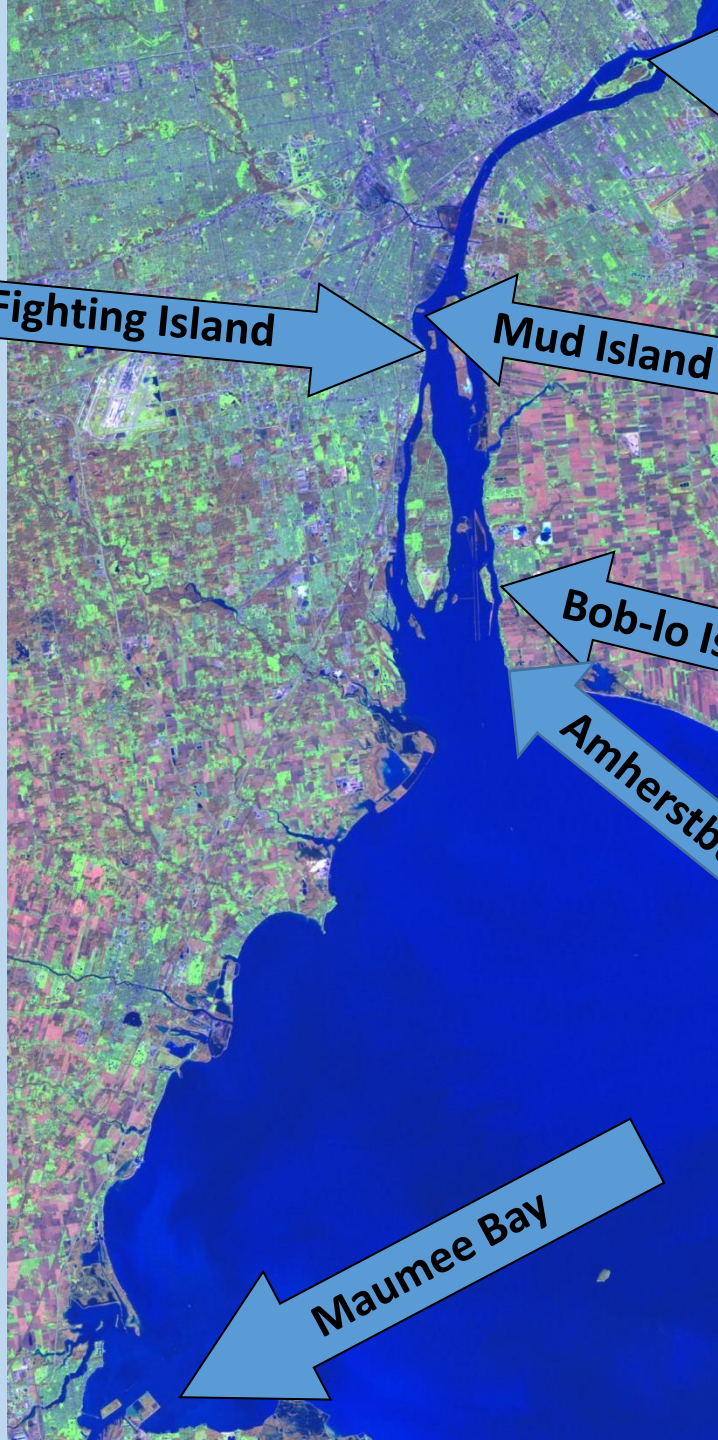
Amherstburg

700-1,000
(1940-1960)

"Hundreds"
(1975-1980)

Maumee Bay

Kleen 1977; Courtney and
Blokpoel 1983; Simpson 1972;
Blokpoel and McKeating 1978;
Ludwig 1962



Belle Isle Historic Records

1959 – 1,500 adult pairs; 2,914 chicks banded.

1960 – 1,200 adult pairs; 2,401 chick banded.

Abandoned in mid-1960's due to human disturbance

1959
6/9, 10, 27
7/8, 17
8/9

GREAT LAKES SURVEY OF GULLS AND TERNS IN COLONIES - Date _____ No. _____

Colony Belle Isle Location Wayne Co., Mich. Latitude 4230 Longitude 8300

Specific Island Topography Built up crushed limestone breakwater along Detroit River. 5' above water level.

Water Level _____ Weather Affecting Colony Success _____

Gulls and Terns Species	Present-Number Adult Pairs	Clutch Size	Number Hatched Young	Percent Chick Mortality	Number Banded
1. <u>Common Tern</u>	1,500	---	---	---	2,914 L
2. _____					
3. _____					
4. _____					
5. _____					
Other Birds Present	Adult Pairs	Number Young	Number Banded	Remarks	
6. <u>Spotted Sandpiper</u>					
7. <u>Black Ducks</u>					
8. <u>Mallards</u>					
9. _____					
10. _____					
11. _____					
12. _____					
13. _____					
14. _____					

Other Important Animals - Cottontails

Island Plant Life - Thistles, climbing nightshade, butter and eggs, common cinquefoil, wild lettuce

Trees - None

Shrubs - None

Grasses and Weeds (Herbaceous Plants) - _____

Dunes - _____

Use of Plant Life by Gulls and Terns - _____

Remarks - _____

1960
6/5 - 7/30

GREAT LAKES SURVEY OF GULLS AND TERNS IN COLONIES - Date _____ No. _____

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Trees - None

Shrubs - "

Grasses and Weeds (Herbaceous Plants) - _____

Dunes - _____

Use of Plant Life by Gulls and Terns - _____

Remarks - _____

Reasons for Decline

Habitat Loss: Ring-billed gulls; fluctuating water levels; overgrowth of vegetation.

Low productivity: Predation of eggs, chicks and adults.

Human disturbance.

Environmental contaminants.



Mud Island 1920's



Fishing cottage present.

Mud Island 1949



Water levels rose created a shoal; cottage was destroyed.

Mud Island 1967



Dredge spoils were added to existing shoal.
1966-1972 “several thousand chicks were banded”.

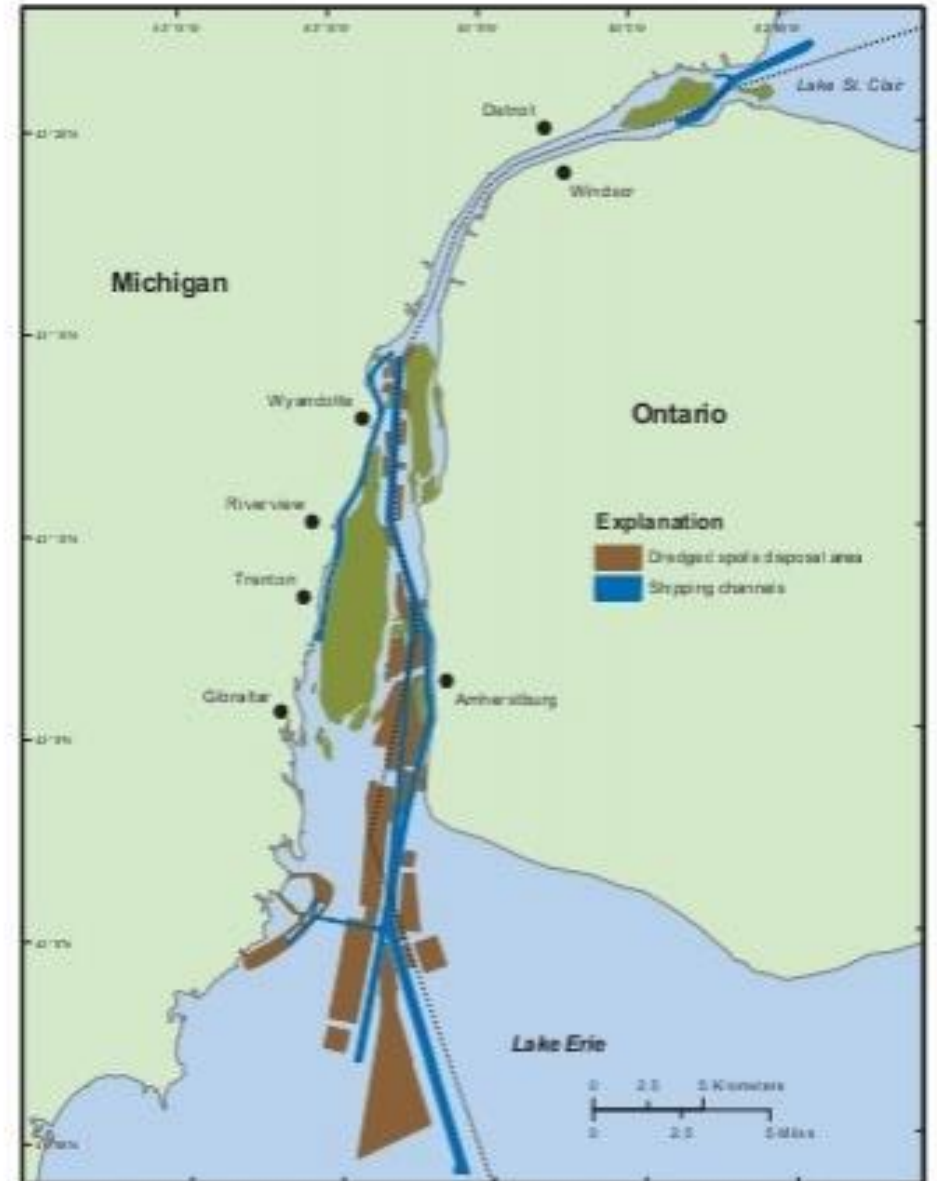
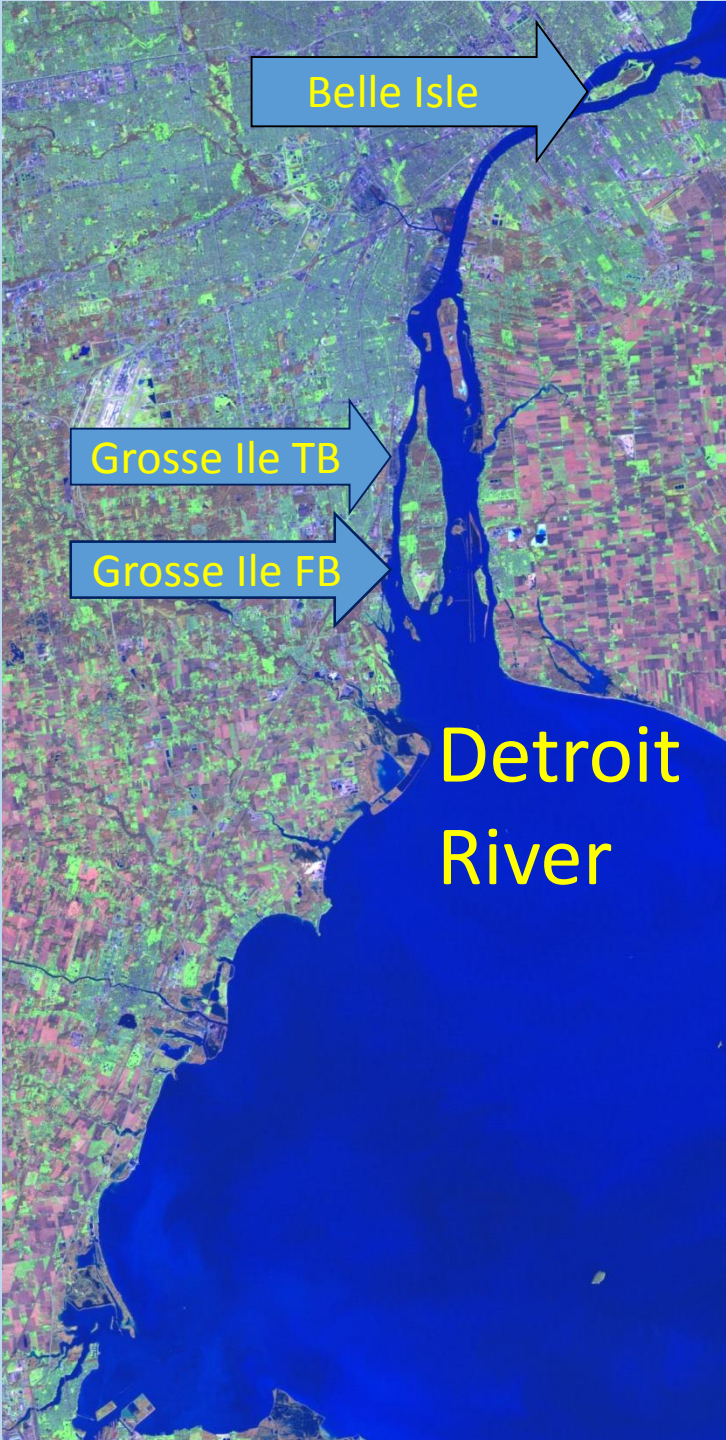


Figure 5. Extent of Detroit River diams/construction and dredged spoil disposal works in 2003.

Mud Island Present Day

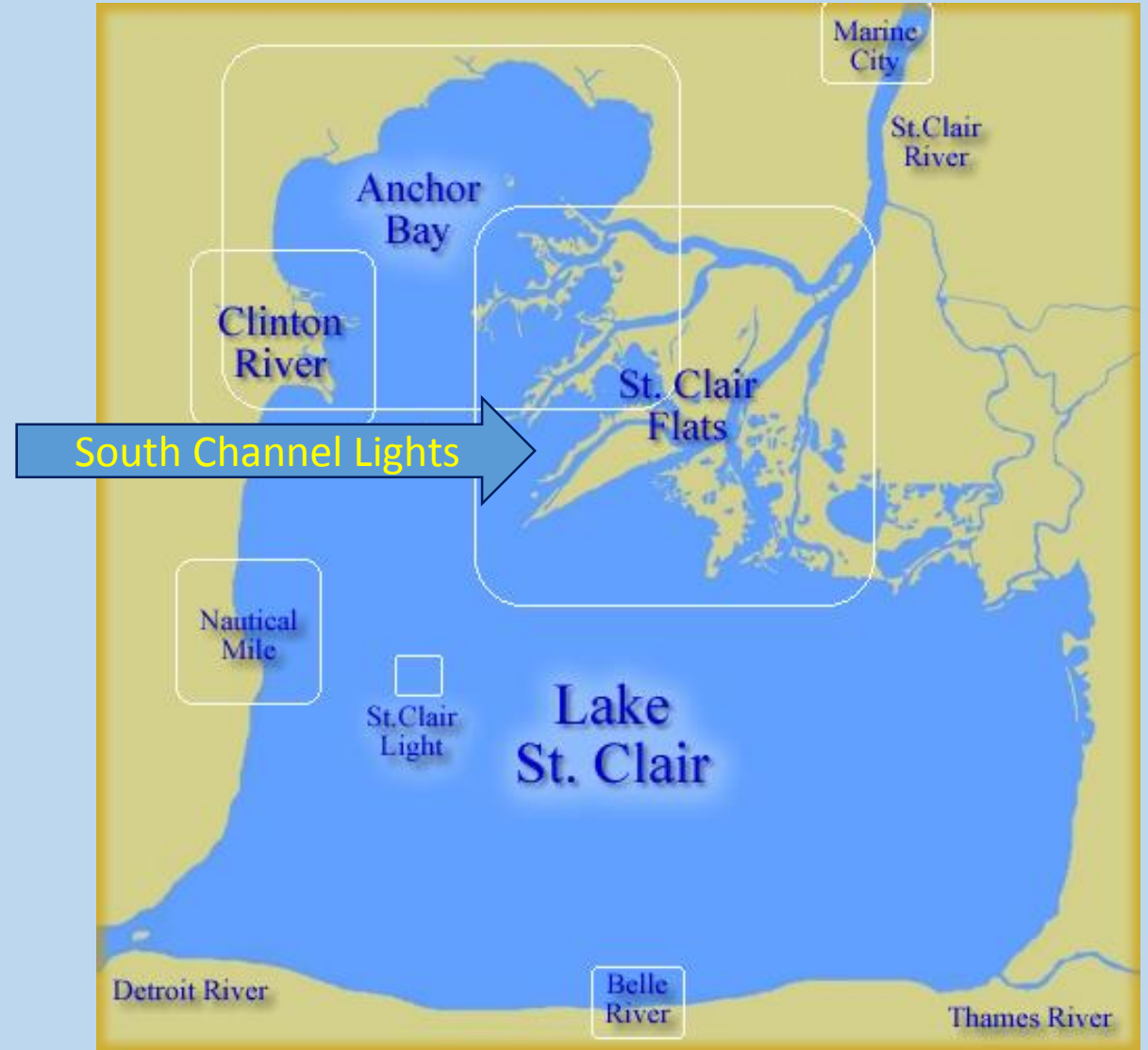


Shoal now covered in dense vegetation – no longer suitable for common tern nesting.



Four Present Day Sites

All located on artificial sites



Grosse Ile Free Bridge

Terns nesting since early 2000's on bridge piers.

Habitat modification in 2003.

Approx. 107 breeding pairs in 2011.

Approx. 30 individuals in 2017.

Unmanaged last 3 years.



Grosse Ile Toll Bridge



Approx. 100 breeding pairs in 2011.
Approx. 120 individuals in 2017.

Owned and managed by *The Bridge Co.*

Two isolated piers – south and north sides of toll-bridge.

Annual vegetation management.

Habitat modifications in early 2000s.

Terns nesting since late 1990s.



Belle Isle



24 breeding pairs in 2011.

28 breeding pairs in 2017 and 12 chicks fledged.

Managed by Detroit Zoo.

Historic site abandoned in the 1960s.

Habitat modification in 2008 and 2013.

Using social attraction methods – decoys and tern calls annually.

Owned by Great Lakes Water Authority.

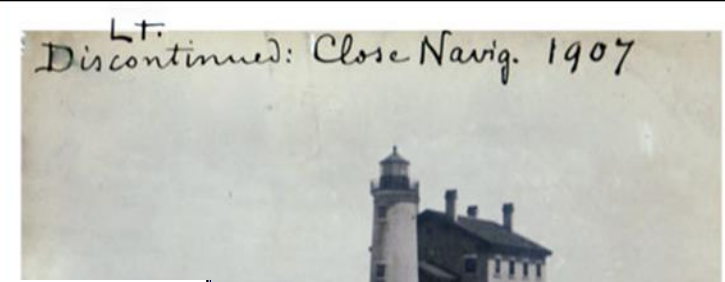


Lake St. Clair

Near the southeastern tip of Harsens's Island in Lake St. Clair.

On one of two old south channel range lights.

Structures supported by non-profit group *Save Our South Channel Lights*.



Habitat modification in late 2012.
Approx. 98 nesting pairs in 2013.
Approx. 130 nesting pairs in 2017.
Semi-annual vegetation management.
Managed by Detroit Zoo.

Limiting Factors

Annual investment in:

- Predator control
- Habitat management
- Monitoring

The amount of productivity is correlated to the amount of time invested in all of these.



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Summary and Objectives

Location	Nesting Pairs in 2017	Limiting Factors	Objectives Going Forward
Grosse Ile Free Bridge	15	Predation Flooding	No Management
Grosse Ile Toll Bridge	50	Predation Management Logistics	Managed by the Bridge Co.
Belle Isle	28	Predation	Continue Management
Lake St. Clair	130	None	Continue Management
TOTAL	223		

Stoney Island Shoal

Great Lakes Restoration Initiative



Thank You!

