

Societal Satisfaction and System Management

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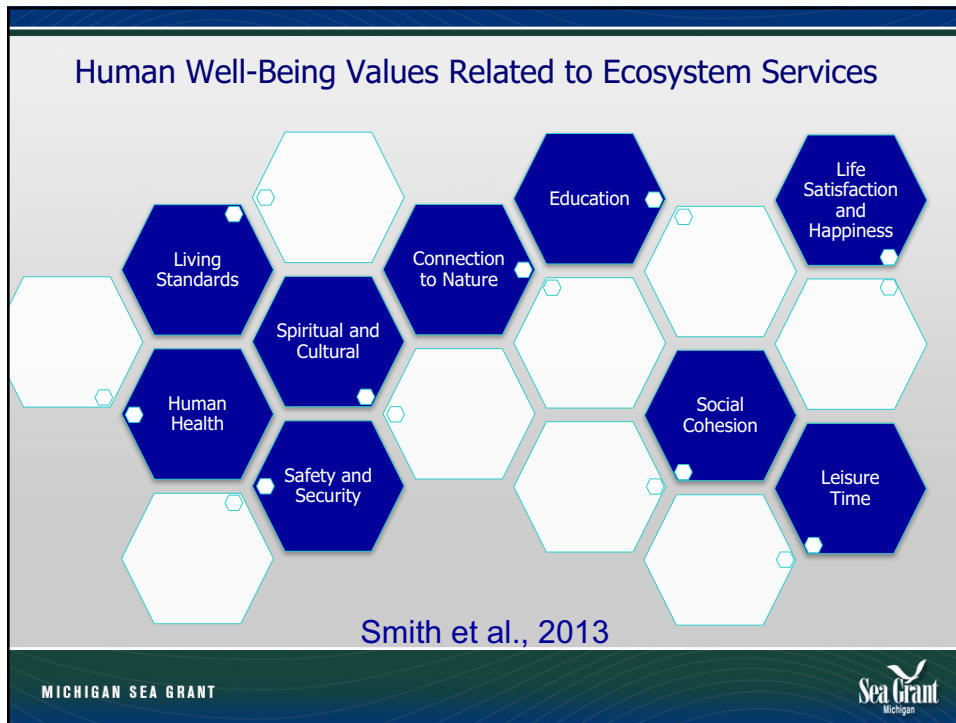


Societal Theme:

- ◆ Understanding and managing human behavior in the system to achieve and sustain satisfaction with improvements to environmental conditions in the system...

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Dimension	Planned indicator	Data available	Additional data needs
Human health	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Beach closure (US)
Spiritual & cultural fulfillment	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	First nation cultural fulfillment; boat based creel surveys (US); shoreline angler creel surveys (CA)
Living standards	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Connection to nature			Opportunity to collect data from people using access locations or participating in Sturgeon community events
Education			Opportunity to evaluate environmental education programs.

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Bi-National Detroit River Creel Survey 2015




The image shows an aerial view of the Detroit River. Overlaid on the left side are three logos: the Michigan Department of Natural Resources (DNR) logo, the USGS logo with the tagline "science for a changing world", and the Ontario logo. The background is a blue-tinted aerial photograph of the river and surrounding land.

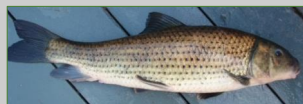
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Bi-National Detroit River Creel Survey 2015

- Fish Community
- Recreational fishing on the Detroit River
- 2015 Detroit River Aerial Creel
 - What is a creel
 - Methods
 - Results
 - How does it compare

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Fish Community



- ◆ Mixture of warm water and cool water species
- ◆ More than 110 fish species live in, or move through Lake St. Clair and its connecting waters
- ◆ Provides spawning and nursery habitat to more than 45 species of fish

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Common Sport Fish



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Bi-National Detroit River Creel Survey 2015



Anecdotal information indicates that an important recreational fishery starts in the early 1990's

Large resort catered to hunters

After World War II recreational fishing in the 1980's

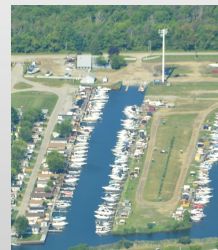
Table 26. Creel census estimates of average annual effort and catch for the recreational fishery in Michigan waters of the St. Clair-Detroit River system, 1942-77 (Haas and Bryant 1978).

Period	Number of angler-days	Total number of fish caught (all species)
1942-1943 ^a	319,000	698,000
1966-1967 ^{a,b}	1,331,000	5,074,000
1971-1977 ^c	1,499,000	8,381,000

^a Does not include winter fishery.
^b Does not include fishing activity on St. Clair and Detroit Rivers in 1966.
^c Includes winter fishery and fishing activity on the St. Clair and Detroit Rivers.

Bi-National Detroit River Creel Survey 2015

- ◆ In 2015, a combination access point and aerial creel survey was conducted by MDNR and OMNRF with support from USGS
- Aerial survey
 - Fishing effort
- Access point interviews
 - capture and harvest rates for individual fish species.



Bi-National Detroit River Creel Survey 2015

- ◆ Estimates of fishing effort, catches and harvest of recreationally important species (Walleye, Yellow. Perch, Smallmouth Bass)
- ◆ Contribute a standard set of sport fishery statistics to a time-series dataset of the recreational fishery. (1975-1980, 2002, 2009, 2015)
- ◆ Evaluate preferred target species.



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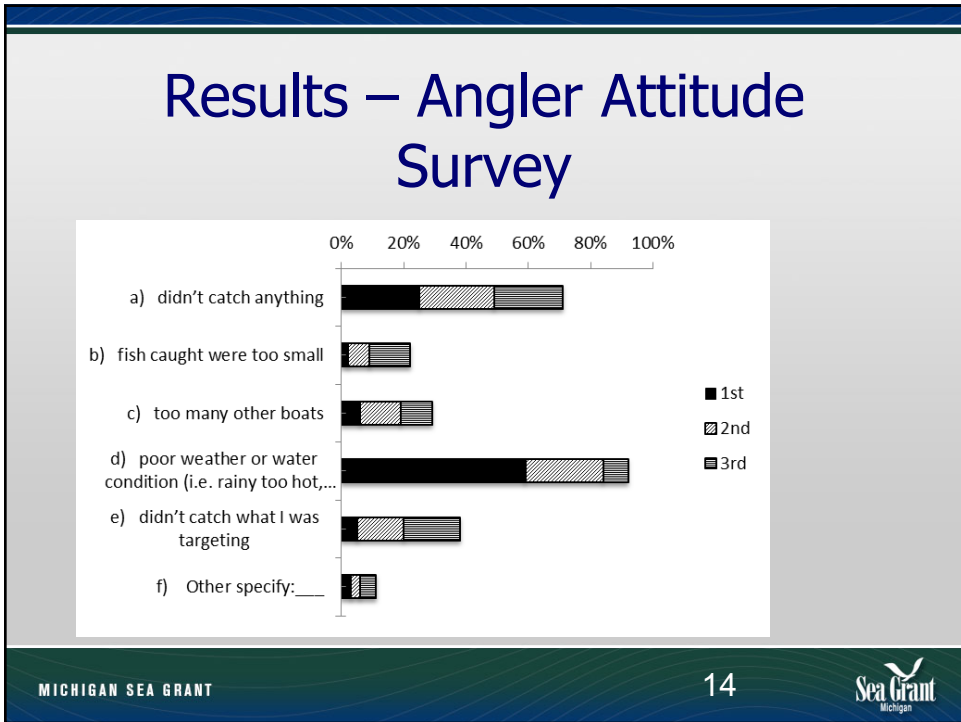
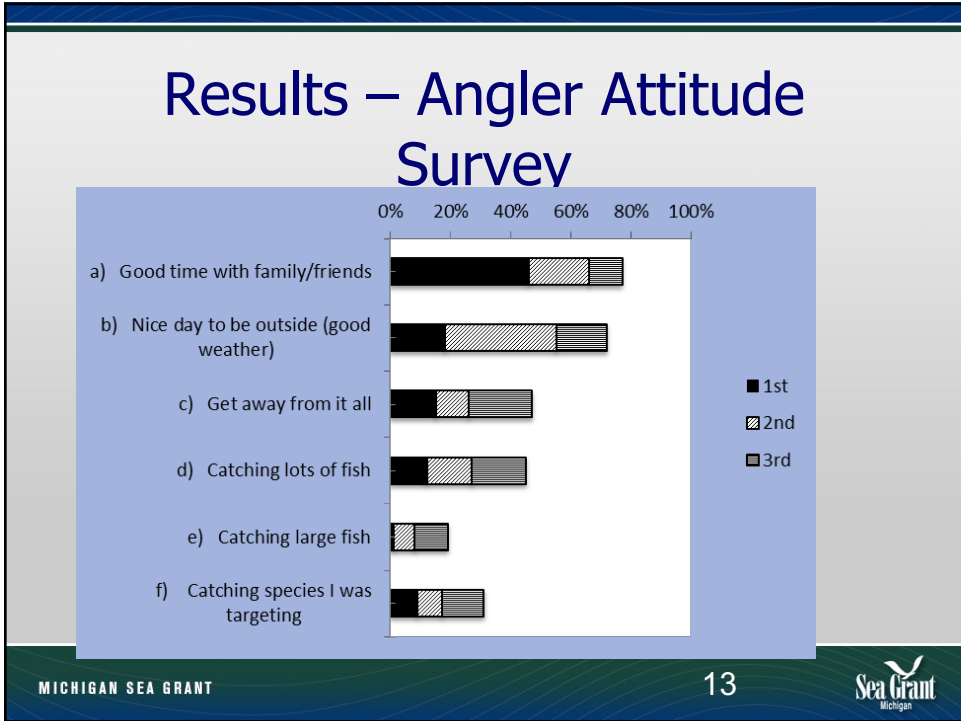


Bi-National Detroit River Creel Survey 2015

Species	% Catch by Month								Total Catch	Percent Harvested
	April	May	June	July	August	September	October			
Bluegill	0%	1%	1%	0%	65%	32%	0%	8,223	27%	
Channel Catfish	0%	1%	13%	4%	38%	32%	12%	7,347	57%	
Largemouth Bass	1%	27%	12%	10%	14%	29%	8%	23,472	0.5%	
Muskellunge	26%	18%	8%	25%	7%	5%	11%	4,623	0%	
Northern Pike	24%	32%	22%	4%	3%	10%	5%	3,983	7%	
Rock Bass	0%	2%	73%	15%	5%	4%	1%	18,055	11%	
Smallmouth Bass	5%	22%	14%	10%	15%	30%	3%	101,326	3%	
Walleye	47%	30%	9%	4%	2%	8%	0%	155,949	87%	
White Bass	2%	68%	29%	1%	0%	0%	0%	511,530	44%	
Yellow Perch	14%	3%	4%	2%	3%	68%	6%	191,731	38%	
Effort	34%	20%	12%	9%	8%	13%	3%	623,792	Angler hours	

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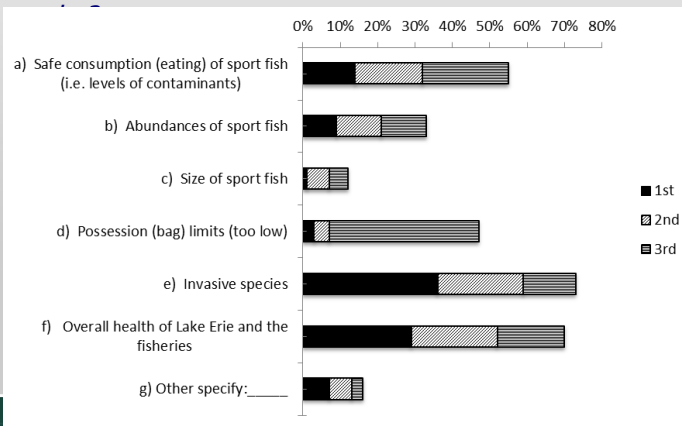


Results – Angler Attitude Survey

- *How satisfied are you with the recreational fishing opportunities in Lake Erie?*
 - Not satisfied = 2%
 - Most in C.Basin
 - Neutral = 16%
 - Most in Inner L. Point bay
 - Satisfied = 81%
 - Highest in W.Basin


Results – Angler Attitude Survey

- *What are you most concerned about as a Lake Erie recreational*



Results – Angler Attitude Survey

- *Are you satisfied with the current fishing regulations on Lake Erie?*
- 86% yes
- 14% No
 - Comments
 - 52% possession limits,
 - 4% spatial/temporal restriction
 - 13% commercial fishery,
 - 13% new regulation requiring people age 65+ fishing license
 - 10% rod limits


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St. Clair Detroit River System Initiative Annual Meeting
Societal Satisfaction Worksheet

Please think about social information that could be useful to management.

What other information that might be important to learn (e.g., attitudes?) from anglers via creel surveys?	What other management decisions could be enhanced by incorporating social information?	Who is the audience where perspectives are most needed?

Name: _____ Email: _____

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Thank You.
QUESTIONS, COMMENTS OR REMARKS?

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