

**Great Lakes  
Sea Duck Meeting:  
Project Summary and  
Focus Group Exercise Results**



**9-11 July 2017**

**Winous Point Marsh Conservancy**

**Port Clinton, Ohio**



## **Population monitoring and information needs for management and conservation of sea ducks on the Great Lakes.**

**Project Summary:** Among sea duck environments world-wide, the Great Lakes are the largest freshwater system where sea ducks stage and winter in abundance. Unfortunately, there is a dearth of information regarding sea duck ecology on the Great Lakes and a lack of coordination and dissemination of information among management agencies that monitor these ecologically important birds. Because of the limited published literature and inconsistent information about abundances and spatial distributions of these birds during the non-breeding period there is a lack of knowledge about factors that influence their use and movements within and among the Great Lakes. Effective conservation of sea ducks of the Great Lakes requires an effort to compile a comprehensive document outlining our current state of knowledge.

As such, our project goal is:

*to develop and maintain a community of scientists, managers, administrators, and other stakeholders that share information and develop action items aimed at increasing the efficiency and effectiveness science-based conservation and monitoring of sea ducks using the Great Lakes.*

We will meet our goal through the following objectives:

1. Identify all US and Canadian stakeholders interested or responsible for sea duck monitoring and conservation on the Great Lakes\*
2. Develop a standardized questionnaire for distribution to stakeholders that elucidates information on current threats or challenges faced by sea ducks, major information gaps, research needs, monitoring (population, habitat, harvest related) needs, challenges / impediments for progressing sea duck management / conservation\*
3. Organize and sponsor a 3-day symposium for all stakeholders where data from objectives 2 will be presented, discussed and collected\*
4. Create a database of past and current bird surveys, with relevant metadata, on the Great Lakes region that includes sea ducks.
5. Report all findings on monitoring and science needs from symposium in a concise technical document and manuscript for publication.
6. Develop a framework (e.g., list-serve, focus groups at re-occurring meetings, website) to facilitate long-term partnerships and information sharing needs about sea ducks of the Great Lakes.

**\* - objectives completed**

**Focus Group Exercise:** The meeting ended with a Focus Group exercise to develop a list of information needs/action items. The pre-meeting standardized questionnaire and meeting proceedings were used to develop an agreed upon a list of information needs under 3 themes. Attendees were given 5 stickers for each theme (color coded as USFWS, CWS, academicians, NGO, or student) and asked to place them on the 3 information needs that they considered most important. They were also given a single color-coded sticker to select their preference about how the group may continue to remain in communication into the future. The results for all groups combined are presented below.

## FOCUS GROUP EXERCISE RESULTS

### Theme I: Sea Duck Distribution and Abundance on Great Lakes (Monitoring)

Category	Percent Votes
Need for population delineation, are great lakes sea ducks a distinct population? Should we be managing GL SD separate from the cont. population?	27.10
Need for population indices to detect trends for GL SD (standardized)	26.17
Compile available data and determine GL sea duck population trends	14.95
Funding + staffing to conduct sea duck surveys	9.35
Need for robust (reliable/precise) population estimates for GL SD	7.48
Need to understand factors influencing annual variation in abundances (ice wind, etc.)	6.54
Determine if ground-based indices can be used in-lieu or instead of aerial surveys	4.67
Need to understand observation conditions that influence sea duck detection (su, waves, etc.)	1.87
Need for survey coverage of additional area (e.g.) Lake Superior	1.87
Acquire "historic" ; pre-1990s data	0.00

### Theme II: Threats and Knowledge Gaps

Category	Percent Votes
Need to develop clear objectives for managing & conserving GL SD, following NAWMP outline (social, habitat, population)	35.19
Identify habitat conservation actions that influences sea duck populations	21.30
Need to determine key habitats used, distributions, continue to improve key sites	17.59
Need for information on general ecology/life history strategies of GL SD (e.g., diet, behavior, etc.)	13.89
Need to understand role of disturbance	5.56
Need to understand potential influence of off-shore industrial turbine/wind dev.	3.70
Influence of invasive species	1.85
Need to understand food densities to develop duck-energy- day estimates	0.93
Influence of avian botulism	0.00
Integrating sea duck knowledge & research with other pelagic birds	0.00
Need to understand role of water pollution	0.00

### Theme III: Population Dynamics, Harvest and User groups

<b>Category</b>	<b>Percent Votes</b>
Need for robust harvest information, harvest estimates	22.73
Improve sampling frame for SD hunters	19.09
Population delineation & information of sea ducks that breed on GL	19.09
Develop priorities for research to fill information gaps used on sensitivities list from JV harvest potential process	15.45
Link population dynamics with chronic changes (e.g., climate, development, invasive species, etc.)	8.18
Link vital rates with GL region (meaning non-breeding season survival)	7.27
Need to ensure harvest is sustainable	4.55
Prioritize a ranked list of species of SD conservation need	3.64

### Future Meetings

<b>Category</b>	<b>Percent Votes</b>
Develop sub-committee from UMRGLR JV to communicate information to and get feedback	36.84
Irregular meetings at conference	26.32
Annual meeting	21.05
Annual teleconference	21.05
Compile information from this meeting but no need to continue to communicate	0.00
Develop web/page/internet tool for information sharing	0.00

## AGENDA

### **Population monitoring and information needs for management and conservation of sea ducks on the Great Lakes.**

Winous Point Marsh Conservancy 9-11 July 2017

Sunday July 9<sup>th</sup> (travel & arrival day)

- 5:00 PM Welcome BBQ (provided) and social
- 7:00 PM History of Winous Point Marsh Conservancy, J. Simpson

Monday July 10<sup>th</sup>

- 7:00 – 8:00 Breakfast (provided and on-site)
- 8:00 – 8:15 Opening remarks / announcements
- Theme I: Sea Duck Distribution and Abundance on Great Lakes**
- 8:15 – 8:35 Distribution and relative abundance of migrating and wintering sea ducks on Lake Michigan, K. Kenow
- 8:35 – 8:55 Distribution and abundance of migrating sea ducks and diving ducks on Lake St. Clair, Detroit River, and western Lake Erie, D. Luukkonen
- 8:55 – 9:15 Western Lake Michigan offshore and nearshore diving duck distribution, migration timing and covariates, B. Mueller
- 9:15 – 9:35 Monitoring and mapping of avian resources over the Great Lakes to support management, M. Leduc-Lapierre
- 9:35 – 10:00 Break

#### **Cont. Theme I: Sea Duck Distribution and Abundance on Great Lakes**

- 10:00 – 10:20 Wintering and migratory use of the Great Lakes by multiple sea duck species tagged in the Atlantic Flyway, D. Meatty
- 10:20 – 10:40 Spatial and temporal distribution of sea ducks on the Upper Great Lakes based on harvest and eBird data, G. Soulliere
- 10:40 – 11:00 Abundance and distribution of sea ducks at Lake Ontario, M. Schummer
- 11:00 – 11:20 An update on long-tailed duck research on Lake Michigan, L. Fara
- 11:20 – 1:00 Lunch (provided and on-site)

#### **Theme II: Threats and Knowledge Gaps**

- 1:00 – 1:30 Results from Great Lakes sea duck questionnaire, M. Schummer and J. Straub

1:30 – 2:30 Group discussion on threats to GL’s sea ducks and their management.

2:30 – 3:00 Break

**Theme III: Population Dynamics, Harvest and User groups**

3:00 – 3:30 Population dynamics and harvest of sea ducks, J. Kelley

3:30 – 3:50 Challenges and unique opportunities of managing sea duck hunting and harvest in Wisconsin, T. Finger

3:50 – 4:10 Hurdles to identifying sea duck hunters and improving harvest estimates at the state scale, J. Stiller

4:10 – 4:30 Group discussion

6:00 Dinner (provided and on-site)

Tuesday July 11<sup>th</sup>

7:00 – 8:00 Breakfast (provided and on-site)

8:00 – 9:00 **Focus Group Exercise** (M. Schummer) Format: Stakeholders discuss, submit and rank various “priorities” for future Sea Duck Conservation in the Great Lakes.

9:00 – 9:30 **Future Meetings:** a discussion on forming and maintaining a “Great Lakes Sea Duck network”. How, where and who can lead? Discussion on future meetings and any other relevant information.

~ 9:30 Closing remarks and adjourn (J. Straub and M. Schummer)