# **Walleye Technical Committee**

North Central Division of the American Fisheries Society





## **2005 Summer Meeting Minutes**

Chair Jeff Reed called the business meeting of the Walleye Technical Committee to order at approximately 10:05 A.M. Thursday, July 28, 2005. A total of 36 people representing 13 states and provinces were present.

Planning for Summer 2006 Meeting: Tim Haxton (ON) will be planning the summer 2006 meeting and would appreciate ideas for location. He would like to announce the location at the Midwest Fish and Wildlife Conference in December if possible. Historically this meeting was held in Dubuque, and another possible location would be Wausau, Wisconsin. Tim suggested that it be held in Ontario and asked how many members who wanted to attend the 2004 summer meeting at Delta Marsh were not granted travel approval. It was responded that Ohio and South Dakota did not receive approval. Tim will take this into consideration and would appreciate input from members. Jeff Reed (MN) suggested that the Great Lakes Walleye Symposium be held in either Wisconsin or Ohio given the popularity of walleye in the great lakes area.

<u>Financial Report:</u> Donna Hanen Muhm, secretary (IA). Donna reported the corrected last reported balance on November 31, 2004 was \$10,003.46. Since that time, the total interest disbursement as of June 30, 2005 was \$50.59. This leaves a balance as of June 30, 2005 of \$10,054.05. Many thanks to our new North Central Division Treasurer Randy Schultz (IA) for this information.

**2005** WTC Chair and Chair-elect: Jeff Reed (MN) asked for nominations or volunteers for chair-elect for the 2005-2006 year but none were forthcoming. Please send the names of any interested parties to Chair Reed as soon as possible.

Walleye Synopsis Update: Chair Reed announced that the current method of finding a possibly non-existent individual for updating the synopsis was not working. It was decided that putting the synopsis in book form so that multiple authors might contribute one or more chapters would be more easily accomplished. Also, the format for the update would be similar to the AFS book format. Of all people polled for interest in assisting, four or five have committed to the project. These include Robert Summerfelt writing the culture section, Neil Billington the genetics section, and other persons interested in doing the distribution and geography sections. Chair Reed asked for ideas and suggestions of what to do next. Steve Gilbert (WI) volunteered to head up the fundraising efforts, and estimated that 50 to 60 thousand dollars could be raised. Neil Billington reminded the group that the Fish Genetics Section was originally supposed to receive a kick-back from the sale of this volume. George Marshall was also willing to work on a chapter, and Dan Isermann (MN) thought he and Mike Quist (Iowa State University) may also be willing to spearhead some of the work. Chair Reed suggested that if enough people were not interested in helping with the project that we abandon it. He did not feel that the cost of \$30,000 would be a problem to achieve with fundraising. Pete Colby made up a list of potential chapters and this was distributed by Chair Reed and is attached to the end of this document. At one time there had been discussion of putting this project on the internet to be worked on but it was pointed out that this would be cost-prohibitive and some people do not have internet access. Chair Reed asked that everyone please suggest someone to write specific chapters and send that to him by the middle of November, he will update the list and present it at the winter meeting. Also, if anyone has any other current topics that they would like to add to the list that would be acceptable.

The meeting was adjourned at 10:35 a.m.

Respectfully submitted, Donna Hanen Muhm Walleye Technical Committee Secretary

## WALLEYE SYNOPSIS TABLE OF CONTENTS

#### 1. **IDENTITY**

# 1.1 <u>Nomenclature</u>

- 1.1.1 Valid names
- 1.1.2 Objective synonymy (primary synonymy)

# 1.2 <u>Taxonomy</u>

- 1.2.1 Affinities
- 1.2.2 Taxonomic status
- 1.2.3 Subspecies
- 1.2.4 Standard common names

## 1.3 Morphology and Physiology

- 1.3.1 External morphology
- 1.3.2 Cytomorphology
- 1.3.3 Protein specificity
- 1.3.4 Physiology

## 2. DISTRIBUTION

# 2.1 Total Area

## 2.2 <u>Determinants of distributional change</u>

- 2.2.1 Abiotic factors
- 2.2.2 Transplantation and Introductions (see 6.6.2)

## 2.3 <u>Hybridization</u>

- 2.3.1 Hybrids; frequency of hybridization; species with which hybridization occurs; method of hybridization
- 2.3.2 Influence of natural hybridization in ecology and morphology
- 2.3.3. Sauger summary

#### 3. BIONOMICS AND LIFE HISTORY

## 3.1 Embryonic Phase

- 3.1.1 Abiotic factors
- 3.1.2 Survival
- 3.1.3 Causes of mortality

# 3.2 <u>Larval Phase</u>

- 3.2.1 Abiotic factors
- 3.2.2 Causes of mortality
- 3.2.3 Behavior
- 3.2.4 Food
- 3.2.5 Growth

## 3.3 Adolescent Phase

- 3.3.1 Abiotic factors
- 3.3.2 Causes of mortality
- 3.3.3 Behavior
- 3.3.4 Food
- 3.3.5 Growth

## 3.4 Adult Phase

- 3.4.1 Longevity
- 3.4.2 Environmental tolerance
- 3.4.3 Competition
- 3.4.4 Predators
- 3.4.5 Parasites, diseases, injuries and abnormalities
- 3.4.6 Food
- 3.4.7 Growth
- 3.4.8 Condition
- 3.4.9 Behavior
  - 3.4.9.1 Migrations and local movements
  - 3.4.9.2 Schooling
  - 3.4.9.3 Feeding
  - 3.4.9.4 Spawning (see 3.5.6.2)

# 3.5 Reproduction

- 3.5.1 Sexuality
- 3.5.2 Maturity
- 3.5.3 Mating
- 3.5.4 Fertilization
- 3.5.5 Gonads
- 3.5.6 Spawning
  - 3.5.6.1 Season and temperature
  - 3.5.6.2 Behavior
  - 3.5.6.3 Spawning grounds

#### 4. POPULATION DYNAMICS

## 4.1 <u>Structure</u>

- 4.1.1 Sex ratio
- 4.1.2 Age composition
- 4.1.3 Size composition

# 4.2 <u>Abundance and density</u>

- 4.2.1 Average abundance
- 4.2.2 Changes in abundance
- 4.2.3 Average density
- 4.2.4 Changes in density

## 4.3 <u>Natality and recruitment</u>

- 4.3.1 Reproduction areas
- 4.3.2 Recruitment and year class strength

## 4.4 <u>Mortality and morbidity</u>

- 4.4.1 Mortality rates
- 4.4.2 Factors causing or affecting mortality
- 4.4.3 Factors affecting morbidity
- 4.4.4 Relation of morbidity to mortality rates

#### 4.5 Production

#### 4.6 The Population in the Community and Ecosystem

## 5. EXPLOITATION

## 5.1 <u>Fishing equipment</u>

- 5.1.1. Gears
- 5.1.2 Selectivity
- 5.1.3 Boats

## 5.2 <u>Fishing areas</u>

- 5.2.1 Geographic ranges
- 5.2.2 Depth range
- 5.2.3 Condition of the grounds

## 5.3 <u>Fishing seasons</u>

- 5.3.1 General patterns of season
- 5.3.2 Dates of beginning, peak, and end of season
- 5.3.3 Variations in date or duration of season

## 5.4 <u>Fishing Operations and Results</u>

- 5.4.1 Effort and intensity
- 5.4.2 Catches
  - 5.4.2.1 Catch per unit effort
  - 5.4.2.2 Exploitation rates
  - 5.4.2.3 Yields
  - 5.4.2.4 Socioeconomics

#### 5.5 Effects of Exploitation on Walleye Populations

# 6. PROTECTION AND MANAGEMENT

## 6.1 <u>Regulatory measures</u>

# 6.1.1 Sports fishery regulations

- 6.1.1.1 Access control
- 6.1.1.2 Catch limits
- 6.1.1.3 Catch and release
- 6.1.1.4 Night fishing ban
- 6.1.1.5 Pulse fishing
- 6.1.1.6 Sanctuaries
- 6.1.1.7 Seasons
- 6.1.1.8 Size limits

7.

7.1.3

7.1.4

6.1.1.8.1

Minimum size limits

|      |  |                                 | 6.1.1.8.2<br>6.1.1.8.3   | Protected slot-sized limits<br>Maximum size limits |
|------|--|---------------------------------|--|--|
|      | 6.1.2  | Commercial fishery regulations  |  |  |
|      |  | 6.1.2.2.<br>6.1.2.3<br>6.1.2.4  | Sanctuaries<br>Seasons   | ons  |
|      |  |                                 | Size limits  |  |
| 6.2  | Control or alterations of physical features of the environment   |                                 |  |  |
|      | <ul> <li>6.2.1 Regulations of flow</li> <li>6.2.2 Control of water levels</li> <li>6.2.3 Control of erosion and silting</li> <li>6.2.4 Fishways at artificial and natural obstacles</li> <li>6.2.5 Fish screens</li> <li>6.2.6 Improvement of spawning grounds</li> <li>6.2.7 Habitat improvement</li> </ul> |                                 |  |  |
| 6.3  | Control or alteration of chemical features of the environment  |                                 |  |  |
|      | 6.3.1<br>6.3.2<br>6.3.3  | Salinity                        | ollution contro<br>control<br>al fertilization o                                 |  |
| 6.4  | Control or alteration of the biological features of the environment  |                                 |  |  |
|      | 6.4.1<br>6.4.2<br>6.4.3<br>6.4.4<br>6.4.5  | Introduc<br>Control<br>Control  | of aquatic vegetion of fish for of parasites an of predation at ion manipulation | ods<br>d disease<br>nd competition                 |
| 6.5  | Control or alteration of community components  |                                 |  |  |
|      | 6.5.1<br>6.5.2   |                                 | nity interaction<br>on manipulation  |  |
| 6.6  | Stocking   |                                 |  |  |
|      | 6.6.1<br>6.6.2<br>6.6.3  | 2 Transplantation, introduction |  |  |
| FISH | CULTUI   | RE                              |  |  |
| 7.1  | Brood stock and spawn  |                                 |  |  |
|      | 7.1.1.<br>7.1.2  |                                 | ment of brood selection of sto   |  |

Spawning (artificial, natural, induced)

Holding of brood stock

- 7.2 Fry stocking
  - 7.2.1
  - 7.2.2
  - Pond management Foods, feeding Disease and parasite control 7.2.3
  - 7.2.4 Harvest
  - 7.2.5 Transport
- 8. **GLOSSARY**
- 9. **INDEX**
- **BIBLIOGRAPHY** 10.