



MINUTES—MUSKIE PROGRAM SUMMIT
The Makoy Center, 5462 N. Center, Hilliard, Ohio 43026
24 January 2015

Prepared by: Curtis Wagner (curt.wagner@dnr.state.oh.us) & Kevin Page (kevin.page@dnr.state.oh.us)

ATTENDEES: DIVISION OF WILDLIFE— Tim Parker and Nick Radabaugh (District 1, Columbus), Ed Lewis and Mike Wilkerson (District 2, Findlay), Phil Hillman and Curt Wagner (District 3, Akron), Mike Greenlee (District 4, Athens), Deb Walters (District 5, Xenia), Kevin Page (Inland Fisheries Research Unit, Hebron), Rich Carter and Scott Hale (Central Office, Fish Administration).

ANGLING CLUBS— Fred Lederer, John Ringenbach, Rick Simpson, Tim Smith (OH Huskie Muskie Club), Jim Moore (Muskie Inc. #9 West Virginia), Jim Buss and Larry Hines (Muskie Inc. #16 Three Rivers), Guy Bechter, Kevin LaRoche, Robert McCloud (Muskie Inc. #19 Akron-Canton), Brian Culbertson, Elmer Heyob, Jack Neville, William Neville, Rob Vangorder, Bob Sisson (Muskie Inc. #41 Central Ohio), Doc Kelble and Mark Wright (Muskie Inc. #56 SOMA),

MEETING OBJECTIVES:

1. Meet-and-Greet with club officers and Division of Wildlife fisheries staff
2. Provide updates on the Ohio Muskie Program
3. Discuss other items as interest and time allow in an open forum
4. Generate potential questions for a survey of Ohio muskie anglers

Summit Overview, Introduction, & Open Forum Topics (Wagner)

Curt welcomed everyone to the meeting and thanked everyone for attending, followed by a time of introductions around the room. Next Curt passed on a welcome and well wishes from ODOW Chief Scott Zody. No additional Open Forum topics brought to the floor beyond what was already identified on the agenda (and summarized below in these notes).

East Fork Development Update (Hale)

Background: East Fork was first stocked in 2008. East Fork was selected due to having a similar habitat compared to Caesar Creek Reservoir, a sufficient prey base (gizzard shad), being geographically located in a region without many other muskie waters, and having ample facilities (boat ramps/State Park amenities). At the time of this summit, a 20" muskie was reported in June 2009 and a 39" muskie was reported in November 2012. Accordingly, anglers are interested in where we stand on the progress of developing a muskie fishery at East Fork.

- During September 2014, the OHMC hosted a 2-day outing at East Fork Reservoir in southwest Ohio with about 30 anglers attending. The goal was to document caught muskies; however, no muskies were caught during that outing.
- Development of East Fork as a muskie fishery is currently in question among anglers.
- Program goal is to create "trophy fisheries".
- Two new program lakes were added in 2007: Lake Milton and East Fork Lake. Stocking was discontinued at Cowan Lake in 2008 due to low catch reports.
- Milton is a different situation due to past stocking history and being downstream of Berlin. Today going to talk about the development of muskie fisheries in general and East Fork in detail.

- Ohio DOW began routinely stocking muskies in 1953. Since then, the ODWO has stocked 56 reservoirs with muskies, which represents some experimentation during early years of the program. Currently, 9 reservoirs stocked as part of today's muskie program.
- Historically, fry (5.6 million total) and fingerling (~800,000) were stocked. Presently, about 20,000 advanced fingerlings (8-10") are stocked each year in the nine program reservoirs at one fish per acre (~650,000 stocked to date).
- Consistent annual stocking of advanced fingerlings began in 1982 and a substantial increase in muskie catch reports followed.
- Generally, a 9-10 year time lag was noticed between stocking advanced fingerlings and a significant increase in catches of large (>40") muskie reported to the ODOW.
- Reported catches of large muskies (≥ 40 "), by lake, can be one measure of fishery performance and is the indicator used in today's presentation.
- With the exception of Leesville and West Branch (both with extremely high catch reports during the past five years), the average number of ≥ 40 " muskies reported per year across program reservoirs over the past five years is 34. This suggests that a reasonable expectation for a muskie program reservoirs might be between 30-40 catch reports of fish ≥ 40 " each year.
- Alum Creek Reservoir was first stocked in 1990 with first ≥ 30 " muskie reported in 1993 and first ≥ 40 " muskie reported in 1994. Caesar Creek Reservoir was first stocked in 1998 and first ≥ 40 " muskie was reported in 2003. These reservoirs took 4-5 years post-first-stocking to have a muskie ≥ 40 " reported.
- Alum Creek took 9 years before approaching the average of ~30-40 muskies ≥ 40 " per year.
- Caesar Creek took 10 years before approaching the average of ~30-40 muskies ≥ 40 " per year.
- Muskies were first stocked in East Fork in 2008. In 2008, 2009, 2010, and 2011 East Fork was stocked at a rate less than 1/acre due to production constraints. In 2012 and 2013 fish were stocked at the target rate and during 2014 they were stocked at double the standard rate. Comparatively, Caesar Creek was stocked above standard rates in its early years of development.
- At the time of this summit only two muskies have been reported caught from East Fork, a 20" muskie in June 2009 and a 39" muskie in November 2012.
- East Fork was selected due to having a similar habitat compared to Caesar Creek Reservoir, a sufficient prey base (gizzard shad), being geographically located in a region without many other muskie waters, and having ample facilities (boat ramps/State Park amenities).
- One concern regarding the stocking of East Fork is its flushing rate (the number of times that the volume of water in a reservoir exchanges fully during a year), which may promote fish escapement from the reservoir via the dam/spillway complex. East Fork has a flushing rate of 2.4 x/year. However, Caesar Creek has a flushing rate of 1.6 x/year and Salt Fork 2.9 x/year. Both of these produce good muskie fisheries. Conversely, Alum Creek only has a flushing rate of 1.0 x/year yet we know it has substantial muskie escapement. Understanding fish loss through dams is the main reason for the muskie tagging study, because reservoir escapement is more complicated than just flushing rate, and might include aspects of how dams are operated, timing of dam operations, weather patterns, and structure of the muskie population.
- So, reservoir escapement may be at work at East Fork, but is likely not the whole story in terms of fishery development.
- East Fork fishery moving forward. The ODOW plans to continue stocking at least 3 more years and perhaps as many as 5 more years before re-assessing.
- If we get to the point where we need to stop stocking with East Fork, we will meet with muskie anglers at a Muskie Summit to discuss how to move forward.

Discussion

- *Question:* Do you (Hale) think that the success of Leesville and West Branch indicated in catch reports has more to do with catch reporting than actual strength of the fishery?
 - *Response:* What we see is likely a combination of factors. It is important to remember that for us to understand how well a muskie fishery is doing, several things have to happen. First, we need good survival from stocking to build a fishable population. Then we need anglers fishing the lake. And, finally, we need anglers to report their catches accurately. We have been stocking each of these lakes for many years. Both have a strong contingent of reporting anglers. What we see, as indicated in the information that I provided today, is that reports of catches at these two lakes have been significantly greater than at the other seven program lakes during the last five years. However, keep in mind that muskie retention within the reservoirs may be at play, too. This is why the tagging study is so important. **[Editor's Note:** The Muskie Angler Log (MAL) handout provided at the Summit has – page 3 – a figure of the number of muskies caught per 100 hours of fishing effort. This is directly derived from those anglers within the MAL identifying themselves as “reporting all trips.” Consequently, this value is a true apples-to-apples of reservoir catch rates, independent of the raw number of fish being reported. This lends support to the conclusion that these two lakes in question really are that good of a fishery, not just an artifact of high reporting. (Wagner)].
- *Question:* Did information presented in this talk today come mostly from the MAL?
 - *Response:* Yes, and prior to that the OHMC reporting. We hope it is understood how important of a tool reporting is to understanding the success of our muskie fisheries. You don't want us out there extensively sampling muskie with nets or electrofishing because handling a large number of these fish could result in accidentally killing fish. Similar to fishing, handling can lead to stress on the fish and possible mortality. This is why the ODOW relies heavily on angler reporting for the management of these fisheries. These are not like bass that naturally reproduce in great numbers or saugeye that we stock by the millions.
- *Question:* Is there a difference in the forage base at Caesar Creek and other muskie reservoirs?
 - *Response:* We assess forage base (gizzard shad) using hydroacoustics – basically science-grade sonar much like on your boat – which can estimate the numbers, sizes, and total weight (biomass) of age-0 gizzard shad in late summer, which provide the primary food for most fish-eating sportfish. Caesar Creek is a little light on prey compared to other Ohio reservoirs, but still has predatory fish that show good growth and body condition. It is less productive than some reservoirs because it has lower phosphorous levels (nutrients) than many other Ohio reservoirs and this translates directly to comparatively less biomass of gizzard shad.
- *Question:* Do you see any correlation between how dams are constructed and what years they were built?
 - *Response:* Yes. Water in older dams like Tappan, Atwood, Clendening, and Piedmont tends to be drawn from the bottom of the lake, whereas newer ones often have multiple stage (depth) discharge options, and some use a combination of tainter gates and sluice gates.
- *Question:* Which types of dams lose more fish?
 - *Response:* We're working on that right now with how the muskie tagging study, which is designed to observe fish emigration from a suite of reservoirs representing bottom draw (sluice gates) reservoirs like Salt Fork and Leesville, a top draw (tainter gates) reservoir

like Alum Creek, and a fixed concrete spillway with no control at Clear Fork. It is a complicated puzzle – we'll be tagging fish for 10 years and tracking escapement as well as environmental variables across time to learn more about this problem.

- *Question:* When choosing a lake for the muskie program, do you have any idea how many dedicated muskie fisherman are in that area? East Fork is more off the beaten path compared to Caesar Creek for many of the southwest Ohio muskie anglers.
 - *Response:* We really don't know. We could use addresses in MAL to get an idea of where anglers are coming from when they report trips or fish in MAL. But generally, no, we don't know how much exact geographic location influences effort exerted on a given muskie reservoir. One consideration for choosing East Fork was our decision to stop stocking Cowan Lake. We felt that providing opportunities in that portion of the state was important and East Fork was a good candidate from that perspective.

Minnow Fund Update (Heyob)

As the Minnow Fund coordinator, Elmer expressed his appreciation for the contributions made this year. Donation amounts are kept confidential among clubs. Elmer said he would welcome any opportunity to come and attend individual club's meetings to let them know about the minnow fund, how it works, and what the money goes towards. Please contact Elmer directly to set up a speaking engagement. Elmer noted that the Minnow Fund Tournament held annually and coordinated by Paul Anderson has proven to be a big boon for the Minnow Fund, roughly doubling the contributions to the Minnow Fund annually.

Elmer requested that club members please update and provide current contacts for new officers. Elmer wrapped up his talk by encouraging anglers to contribute and remember that there is no bank account that these monies are held in. He works with the ODOW and clubs to coordinate the purchase of needed equipment with pledged contributions. For additional information and details, contact Elmer directly.

Wagner expressed thanks from the ODOW for the generosity offered by the muskie clubs through the Minnow Fund.

MAL Update (Wagner)

In the interest of time, Curt provided a handout summarizing the 2014 data from the Ohio Muskie Angler Log. This handout is appended to these meeting notes.

Escapement/Tagging Study (Page)

In the interest of time, Kevin provided a handout outlining updates from the muskie tagging study. This handout is appended to these meeting notes.

Open Forum

Multiple topics were requested prior to the meeting by various muskie anglers. In addition, there were some topics that ODOW wanted to address in an open forum environment. Consequently, this open forum session was limited to these topics given that no additional ones were introduced from the floor.

(1) DATA-SHARING CHALLENGES BETWEEN THE OHIO MAL & M.I. LUNGE LOG

Kevin started by saying that MI was very receptive to the idea of data sharing and worked hard to find a way to develop a data sharing strategy. He reviewed the discussions that he has had with Muskies,

Inc. (MI) regarding linking catches from the MAL to the Lunge Log. The reason there is interest in data sharing is so MI anglers would only need to report catches once, in the MAL, and they would be shared with MI in order to receive credit for those catches. These discussions started in 2009 when the idea of linking the databases was proposed. It was later determined that the MAL and Lunge Log could not be directly linked due to security/firewall constraints within the DOW. Later, the option of pushing MAL data to the Lunge Log was proposed. In 2013, MI was updating its webpage and the DOW was developing the MAL update. This was an opportune time to discuss a method for pushing MI member MAL catch data to the Lunge Log and the DOW and MI began sharing technical details and developing ideas on the approach for sharing data. After much discussion, MI came to the conclusion that data sharing was not feasible. Unfortunately, the long-term in-house technical expertise needed to make the data sharing work seamlessly was not present at MI and given that the webpage was their top priority, they could not dedicate more effort to the concept.

The idea was presented from the floor at the summit that MI could simply supply Ohio catch records to the ODOW. Kevin indicated that has been discussed; however, it was apparent that tying catch records from individuals from the Lunge Log would be difficult and that MI would need a filter on their end to make sure that the ODOW only received data from anglers that wished to share their data. This presents problems given the limited time and computer expertise at MI. We would also have to make absolutely sure we were not duplicating records within the MAL.

The question was raised on whether raw MI data would be helpful. Kevin said that there may be some value to that, but it would be limited. For example, we would not know which data is new and which is already in the MAL. It would be logical to assume that absolute numbers of reported fish at a location may be useful; if the number of MI reports exceeded those of the MAL. However, the lunge log only accepts fish 30 inches and greater, so the raw total numbers are not necessarily comparable. Lengths would also be an issue. For example, if the same number of trophy fish were reported in the Lunge Log as the MAL, what does that number actually mean? – “are Lunge Log reports in addition the MAL fish, or represent the same fish, or a little of both?” You can see the type of logistical hurdles of simply incorporating MI raw catch data into the MAL catch data comparisons.

In the end, it is important for Ohio muskie anglers to understand that the MAL is our only method of evaluating the success of our stocking program and that accurately reporting catches in the MAL is critical to continuing this program.

(2) FUTURE DIRECTION OF MUSKIE PROGRAM SUMMITS

Curt Wagner introduced the concept of alternating the traditional summit every-other-year with a seminar presentation that the ODOW would present as part of the seminar series at the Muskie Show, in place of the summit. The benefits of this design would be that it would keep the traditional summits “fresh” and provide an opportunity for a broader audience to hear about Ohio’s muskie program.

The response to this concept was mixed with some anglers expressing a desire to maintain the annual summits and some anglers suggesting that the increased exposure of the muskie program to a wider audience could be beneficial. The ODOW would like to try the seminar approach for 2016 and reevaluate at that time.

(3) POTENTIAL CHANGES TO OHMC DIVISION DAY

Curt Wagner announced that OHMC and the ODOW would like to alternate the location of Division Day between Clear Fork and Alum Creek to create some more interest and participation. Curt also noted that Division Day would now end at 1:00 PM, with lunch starting 12:00 PM. This allows ODOW and media participants that travel a long distance to participate without the need to leave early and may result in more ODOW members attending. Anglers seemed receptive to these changes.

(4) DEVELOPMENT OF A MUSKIE ANGLER SURVEY

Kevin explained how angler surveys provide much needed background on the opinions and characteristics of anglers in Ohio. The ODOW is interested in conducting an online survey of muskellunge anglers during the spring of 2015 and at this summit was requesting angler input for survey topics and ideas for questions. The ODOW is interested in collecting information on four important topics: 1) who are Muskellunge anglers in Ohio; 2) Muskellunge fishing in Ohio; 3) Muskellunge management in Ohio; and, 4) participation in the Muskie Angler Log. Kevin explained that the survey will be posted online and that anglers would be directed to the survey through an email. An attempt will also be made to mail the survey to additional anglers that do not use computers.

The principle source of survey contacts will be from the MAL given that within the profile section of the MAL, anglers indicated whether they are interested in participating in future surveys. This provides a good opportunity to contact anglers through email to invite them to participate in the survey. Anglers suggested that club membership lists, advertising the survey on message boards, press releases, and on the DOW homepage may be helpful for getting the word out and increasing participation in the survey. Everyone agreed that increasing the awareness of the survey was a good idea.

It was also brought up that there may be others willing to take the survey that are not in the MAL, and it may be of interest to get data on non-muskie anglers. Scott Hale noted that statewide angler surveys have been recently conducted by the ODOW in cooperation with The Ohio State University. The muskie survey is not intended to reach all anglers, but to collect information from a representative sample of Muskie anglers to the extent that this is possible. The MAL has around 2,000 accounts and if we can generate a couple hundred responses, we should have a good feel for who are our muskie anglers and what their opinions are regarding muskie fishing.

Anglers suggested that a survey about the Fish Ohio program was needed to determine if changes need to be made to the current qualifying lengths. Kevin and Phil Hillman explained that a new survey was in the works to evaluate those Fish Ohio lengths for all species.

There was also mention that the survey could include a question on the adoption of a Muskie tag, similar to a deer tag, or a Muskie stamp to generate funds directly to the program.

Suggested survey questions proposed by the group

Who are Muskie anglers?:

- Club membership? Why not in club? Why left?
- When and why you fish?
- What motivates you to fish a place?

- Fish other states? OH vs other states?
- How do you compare yourself to other anglers?
- Education/perception of club benefits?
- Fishing info, where do you get it?
- Zip code of residence?
- Age group?

Muskie Fishing:

- Designated trophy lake?
- What other species do you fish for?
- Caught Muskie with tag?
- Type of Muskie (clear, spotted, barred)?

Muskie management:

- Fish OH size?
- Size/harvest limit?
- Species-specific tag or license?
- Add program lakes/rivers?
- Perception of OH vs elsewhere?

MAL participation:

- Do you use the MAL?
- Aware of the MAL?
- How did you find out about the MAL?
- Ease of use/complaints?
- All trips or not?

Closing Remarks (Hale)

CONTACT INFORMATION:

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Curt Wagner, Fisheries Biologist, District 3; 912 Portage Lakes Drive, Akron, Ohio 44319; Tel: (330) 245-3018; curt.wagner@dnr.state.oh.us

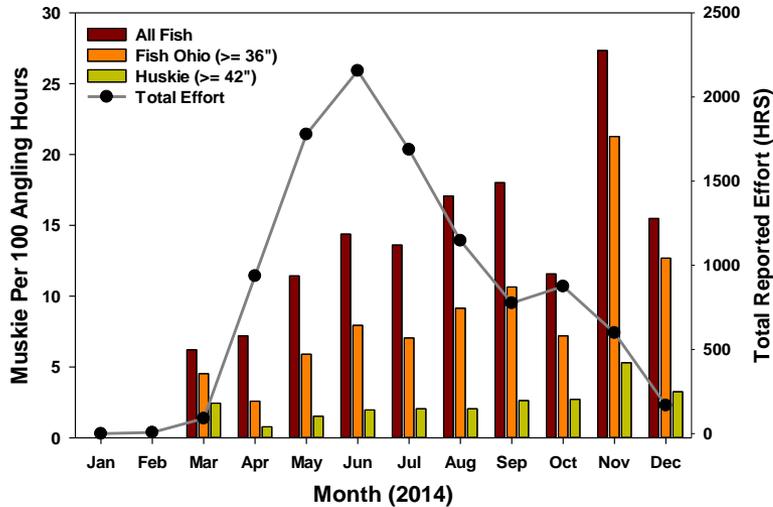
Mike Greenlee, Fish Management Supervisor, District 4; 360 East State Street, Athens, Ohio 45701; Tel: (740) 589-9944;

mike.greenlee@dnr.state.oh.us

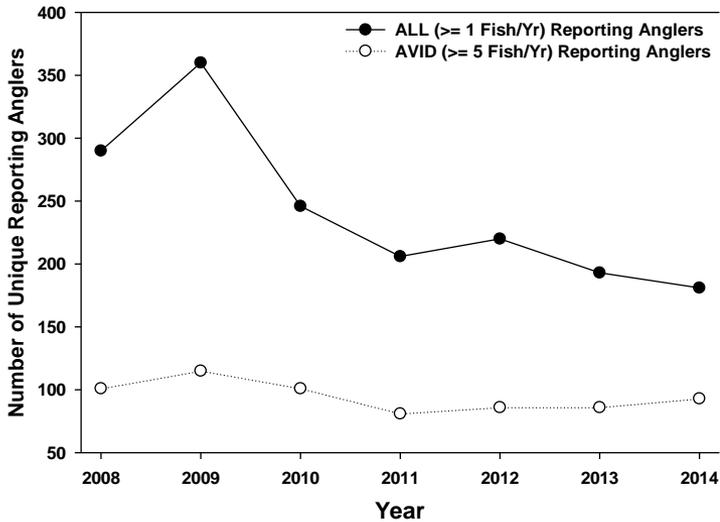
Deb Walters, Fish Management Supervisor, District 5; 1076 Old Springfield Pike, Xenia, Ohio 45385; Tel: (937) 372-9261;

deb.walters@dnr.state.oh.us

Monthly Catch Rates 2014



MAL Participation Over Time



Curtis Wagner, Fisheries Biologist

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Muskie Angler Log



January 24, 2015



www.ohiodnr.com/muskielog

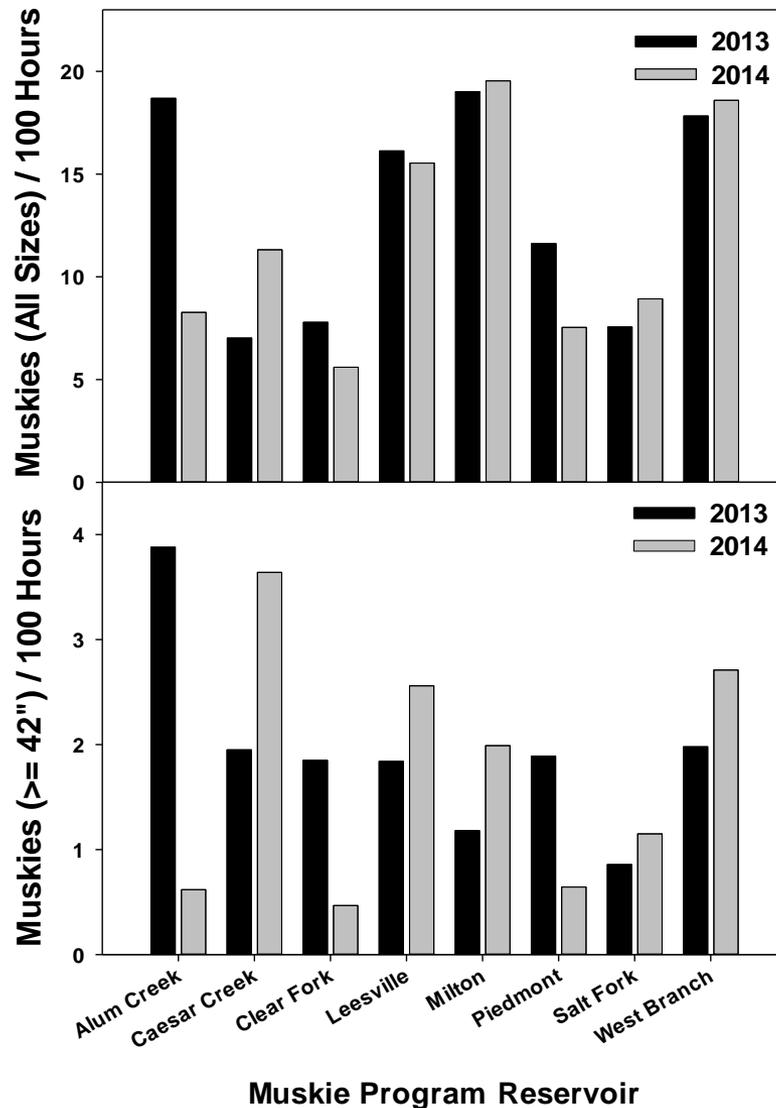
MAL Highlights

- 16,499 Ohio muskies reported into the MAL since 2008 launch
- 1,904 Ohio muskie anglers have registered in the MAL since 2008 launch
- In 2014, 181 anglers reported 2,333 muskies
- 1,192 trips were reported by 83 anglers who committed to report all of their trips during 2014
- Statewide average catch rate in 2014 was one muskie for every 8.4 hours of angling
- The release rate of reported muskies since 2008 is 98.8%

MAL 2014 Catch Update

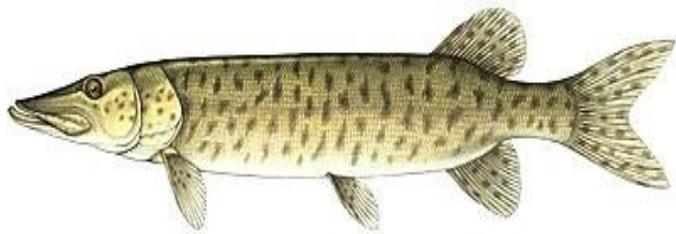
Program Reservoir	Number Caught	Avg. Length	% Caught $\geq 42"$
Alum Creek	132	34.9	15.9
Caesar Creek	131	38.3	27.5
Clear Fork	80	34.9	17.5
East Fork	0	.	.
Leesville	684	37.2	15.5
Milton	146	34.5	8.2
Piedmont	264	35.8	13.6
Salt Fork	105	35.5	8.6
West Branch	713	36.3	14.3

2013 & 2014 Catch Rates: Lake-by-Lake Comparisons



Muskie Tagging Study Update

Thank you muskie anglers for your support!



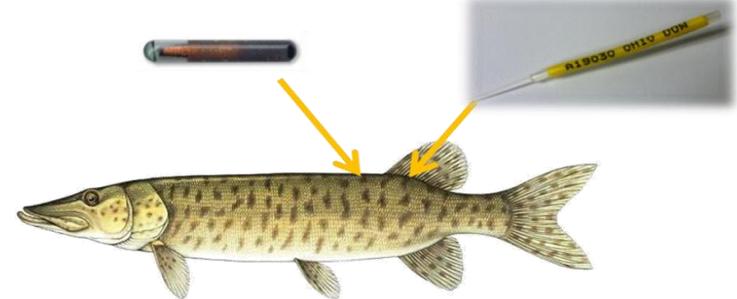
Questions/Comments?

Contact:

Kevin Page at

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Muskie Tagging

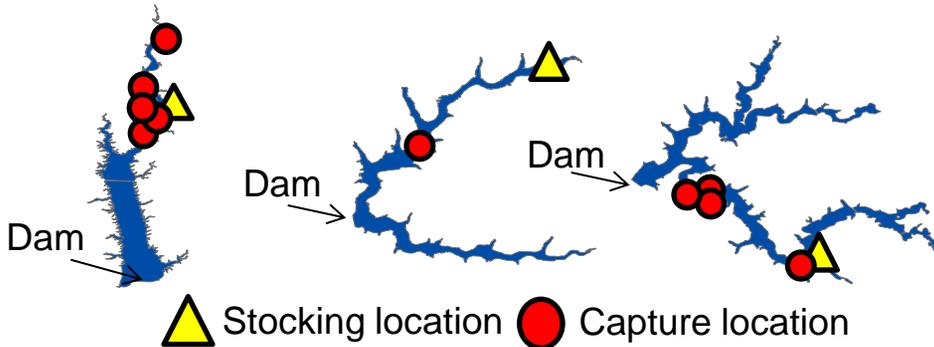


- 8,487 muskie tagged in 2014.
- Tagging rate 548 fish/hour.
- Post stocking survival: 84%.



Angler Reports to Date

Alum Creek (AC) Leesville (LE) Salt Fork (SF)



- 12 reported (AC=7; LE=1; SF=4).
- All by non-muskie anglers.
- All released.
- Largest (22 in) from Salt Fork.

Spillway Readers

- No tagged muskie detected to date.
- Previous evidence suggests larger muskie emigrate (~ age-3 and older).
- Sampling in July, 2014 confirmed no tagged muskie below Leesville Dam at that time; 1 large muskie (~30 in) was observed.



Study Enhancements

- Enhancing tag detection:
 - Second reader installed below Clear Fork Dam.
 - Dual reader design at Alum Creek Dam.
 - Next generation tags with increased detectability.

