

Ohio Muskie Summit VII
January 26, 2013 9:00 AM – 12:00
Makoy Center, 5462 North Center Street, Hilliard, Ohio

summary prepared by Scott Hale (scott.hale@dnr.state.oh.us)

Summit Overview

The 2013 Ohio Muskie Summit represented the 7th consecutive year that leadership from local muskie clubs have met with representatives of the ODNR-Division of Wildlife (DOW) to discuss the statewide muskie program, exchange ideas, and share concerns. As has been the tradition, the meeting was held in conjunction with the Ohio Muskie Show (<http://www.ohiomuskieshow.com/index.shtml>). Thanks are in order to the following:

- Ross Wagner, who organizes this annual trade show, for providing a great meeting room and refreshments;
- Kevin Page and Curt Wagner, Division of Wildlife Fisheries Biologists, for organizing and leading the meeting;
- Muskie club members and Division of Wildlife staff that participate each year.

Curt Wagner started the meeting and welcomed everyone to the summit, reviewed the agenda and ground rules, and called attention to the handouts on the table up front (enclosed: 2012 Muskie Angler Log Fishing Summary and 2012 Muskie Angler Log brochure). This year's topics included the following:

- Welcome – Rich Carter, DOW Fisheries Chief
- Production & Stocking Update – Tim Parrett (former DOW Fish Hatchery Program Administrator)
- Minnow Fund Update – Elmer Heyob (Central Ohio MI) and Paul Anderson (OHMC)
- Muskie Angler Log Update – Curt Wagner, DOW Fisheries Biologist
- Muskie Escapement and Tagging Study – Kevin Page, DOW Fisheries Biologist
- Open Forum – Kevin Page leading the group discussion
- Closing Remarks – Scott Hale, DOW Inland Fisheries Program Administrator

Curt then requested additional topics for the open forum and lead a round of introductions. Open forum topics included the following:

- Private stocking of Cowan Lake by SOMA
- Stream stocking of muskie (downstream of Cowan Lake, or other locations)
- Development of a "trophy" lake
- Length limits
- "no wake/idle speed" regulations on lakes that currently have a 10 horsepower limit

In attendance were the following:

Ohio Huskie Muskie Club (OHMC): Fred Lederer, Paul Anderson
Southern Ohio Muskie Alliance (SOMA), MI: Scott Shampton, George Weber, Gerald Kelble (Doc)
Central Ohio MI: Rob VanGorder, John Oldfield, Bob Sisson, Martin Hoover, Elmer Heyob
Akron-Canton MI: Jason Bond
Kentucky Chapter MI: Tom Welter, Don Gaffney
Webster Lake Muskie Club MI (IN): David Cates, Jarred Cates

ODNR-Division of Wildlife: Rich Carter (Fish Chief, Central Office), Scott Hale (Inland Fisheries Program Administrator, Central Office), Tim Parrett (District Manager, District 4 in Athens; formerly Fish Hatchery Program Administrator), Marty Lundquist (Fish Management Supervisor, District 1 in Columbus), Ed Lewis (Fisheries Biologist, District 2 in Findlay), Phil Hillman (Fish Management Supervisor, District 3 in Akron), Curt Wagner (Fisheries Biologist, District 3 in Akron), Mike Greenlee (Fish Management Supervisor, District 4 in Athens), Debra Walters (Fish Management Supervisor, District 5 in Xenia), Kevin Page (Fisheries Biologist, Inland Fisheries Research Unit, Hebron), Doug Sweet (Fish Hatchery Superintendent, London State Fish Hatchery)

Welcome – Rich Carter, DOW Fisheries Chief

Rich welcomed everyone to OMS-VII and indicated that DOW Chief Scott Zody had hoped to attend, but could not make it today, so Scott sends his best regards to all. He then thanked everyone for the annual commitment to make this happen and continued interest in the muskie program as we move ahead. Rich thanked club members for being part of a strong partnership that not all states necessarily have with their muskie anglers. He added that the DOW does not take this partnership for granted, and in particular, we appreciate the interactions and open discussions at these meetings.

Rich reminded attendees of the DOW commitment to Ohio’s 1.4 million anglers and the agency goal to “provide a better bite.” A big part of making a “better bite” is participation by clubs in giving back to the resource through participation in Muskie Angler Log (MAL), contributions to the Minnow Fund, a strong conservation ethic, and commitments to youth fishing. Fishing license sales and excise taxes on tackle pay the bills for conservation in Ohio, so Rich ended his welcome by encouraging everyone to hit the trade floor show after our meeting and stock up!

Production & Stocking Update – Tim Parrett, DOW District Manager, District 4

Tim identified three topics that he was going to discuss: 1) 2012 muskie production; 2) the Minnow Fund; and, 3) capital improvements at the London State Fish Hatchery.

2012 Muskie Production. Tim started a review of 2012 production by describing each of the DOW state fish hatcheries, with an emphasis on the London State Fish Hatchery and the Kincaid State Fish Hatchery where muskie are raised each year. Muskie production during 2012 exceeded the annual program goal of about 20,000 advanced fingerlings. He remarked that he was very proud of the staff for this accomplishment and reminded everyone that when production is a bit down, nobody is more upset than our staff that raises the fish. A total of 21,926 advanced fingerlings were stocked during 2012. This resulted in the following (20,138 advanced fingerlings stocked in program lakes):

Lake	Number Stocked
Alum Creek	3,332
Caesar Creek	2,806
Clearfork	1,117
East Fork	2,107
Leesville	1,059
Piedmont	2,361
Milton	1,683
Salt Fork	3,060
West Branch	2,613

A total of 1,788 surplus advanced fingerlings were stocked in Pymatuning Lake and an additional 110,029 surplus fry/fingerlings were stocked in East Fork. In addition, some surplus advanced fingerlings were used to test tagging procedures for the new tagging study. Someone asked, "Do small muskie or fry stocked as surplus do any good?" Doug Sweet responded that these small fish become surplus early in the production season and are essentially two sizes, but we don't know if they contribute much to the fishery.

Eggs needed for muskie production were collected at Leesville Lake by the District 3 staff (Phil Hillman and crew). We collected plenty of eggs this year, but had to deal with the challenge of a very early spring. The early warming in 2012 created some challenges but hatchery staff worked through them. Additional eggs were provided by the Kentucky Department of Fish and Wildlife Resources, as well.

A key part of raising muskie is having very small prey fish available for newly hatched muskie. In Ohio, the DOW addresses this by collecting broodstock common carp, keeping them in the Kincaid Hatchery, and then injecting them with hormones at the right time so newly hatched carp fry are available when the newly hatched muskies need them for food. Early in production, young muskies must be fed carp fry up to four times per day. This process involves a great deal of work but is key to successful muskie production. Doug Sweet added that what really helped in 2012 was using a new type of hormone injection to induce carp spawning and feeding young carp an early diet of artificial plankton. He felt that success of the carp fry through these approaches resulted in larger advanced fingerling muskies in the fall.

Young muskies are kept indoors in the hatcheries until they are about 4 inches long and then they are stocked in production ponds. At this point, a great deal of fathead minnows must be available. The DOW tries to raise fathead minnows in production ponds to feed fingerling muskies, but sometimes run out and must buy minnows.

Ponds are drained in September and hatchery crews from around the state help to harvest the fish and stock them in the nine program lakes. Tim apologized for not getting the word out earlier this year about the timing of stocking. Some anglers like to see the fish stocked and we were not able to let everyone know of the exact dates of all stockings last year.

Minnow Fund. Tim remarked that the 2012 production season was a team effort, and that includes muskie anglers that contributed to the Minnow Fund. These resources provided by clubs really make a difference. The club donations through the fund take the pressure off of the hatchery budget and reduce red tape associated with state purchases. Thanks from Tim and everyone at DOW! (More on the Minnow Fund later in this summary.)

Capital Improvements at the London State Fish Hatchery. The new capital improvement project is on schedule at the London Hatchery. Tim indicated that the ODNR Engineering Division is working through preliminary planning details and that the intention is to begin on-the-ground work in spring 2014. The \$2.1 million project will provide: 1) electrical service upgrades; 2) electric service to ponds; 3) backup generators; and, 4) new alarms and controls, including dissolved oxygen monitors. The London Hatchery is Ohio's oldest state fish hatchery, having been acquired by the state in 1896 and is definitely in need of this work. Someone asked, "What is a dissolved oxygen meter?" Tim answered that it is a meter that monitors oxygen levels in the hatchery that is tied into an alarm system. If the alarm is triggered, a backup aeration system kicks in to protect fish.

Tim concluded by remarking that he has taken a new job (promotion) with the DOW as the District 4 Manager. He told us that although he is excited about his new job, he will certainly miss the fisheries

work. He thanked everyone for their support during his term as the Fish Hatchery Program Administrator, particularly OHMC for sponsoring Division Day and Elmer Heyob (former Fish Hatchery Program Administrator) for helping with advice, guidance, and support.

Minnow Fund Update – Elmer Heyob (Central Ohio MI) and Paul Anderson (OHMC)

Current Minnow Fund. Elmer and Paul recapped recent minnow fund contributions, Becker Grant potential, and progress on a tournament this spring to support the fund. Elmer provided a handout (enclosed) that identified 2011 and 2012 needs that have been met through the Minnow Fund. This fund works by clubs making purchases from a DOW “wish list” of items needed for muskie production, ranging from agitators to pumps and fathead minnows. The process begins with a club contacting the Minnow Fund Coordinator (Elmer) to review current DOW needs, the club contributing makes a purchase directly from a vendor, and then donates this item(s) to the DOW. This support has been extremely beneficial to the DOW. Since 2008, club support has provided \$37,021 worth of much needed donations. Contact information for Elmer Heyob is (phone: 937-309-5359; e-mail: eheyob150@yahoo.com). The 2013 “wish list” is on page two of the enclosed handout.

Becker Grant. Elmer also discussed the grant proposal that he submitted to the Hugh Becker Foundation through Central Ohio MI. The proposal seeks \$10,000, the maximum per year for a single recipient, and funds would be directed to the tagging study. Elmer thanked Kevin Page for assistance with the grant proposal, which required a good bit of work on the part of both of them.

Minnow Fund Outing (Tournament). Paul presented an overview of progress on the 2013 Minnow Fund Muskie Outing (handout enclosed). The goal of the outing is to provide donations to the Minnow Fund, and in particular, to support the new muskie tagging project. It will be run through OHMC to take advantage of the club’s tax exempt status. Unfortunately, the event will run back to back (weekends) with the OHMC spring outing, but the slight schedule conflict could not be avoided this year and it is too late to make date changes for either event.

The tournament will be held at Salt Fork Lake, Cambridge, OH on May 4-5, 2013. Entry fees will be \$25 per adult and \$10 per youth. Some of the operational details are still in flux, but registration will begin on Friday, May 3, a pancake breakfast and possibly a shore lunch are planned for Saturday, May 4, and awards, prizes, and a raffle are planned on Sunday, May 5. Paul will need help with all of these parts of the event because he will be very busy coordinating the event as a whole. If you can pitch in and help, please don’t be shy about volunteering! Can you flip pancakes? Also, if anyone can help with prize donations, Paul would appreciate additional contributions for the raffle. Corporate sponsors are being identified and are anticipated to contribute to the effort, but the more the better. As an added treat, celebrities such as Mario Lemieux and John Cooper may participate.

This is not a cash payout tournament. Prizes will include plaques for 1st, 2nd, 3rd, big fish, and youth big fish. A big fish pool is planned with a 2/3 payout, where it costs \$15 to get in and \$5 goes directly to the Minnow Fund. However, the idea of a “50-inch fish jackpot” was discussed, where an angler could win \$50,000 for catching a fish that is exactly 50 inches. A corporate sponsor is willing to cover the cost of the insurance to host this bonus, but the idea is a bit controversial. First, the fish must be brought in (killed), and second, as pointed out by Elmer, there is a bit of variation in measuring fish length and there could be controversies regarding the process. Paul acknowledged these issues and a decision regarding this idea was not finalized, but he may lay off this idea this year.

An advertisement for this tournament will be in Muskie magazine in about three weeks so details need to be nailed down soon. It is possible that this event may generate up to \$20,000 for the Minnow Fund

and commitments have already been received for up to \$9,500 in support. Anyone who is interested in volunteering should contact Paul (phone: 740-381-8181; e-mail: andersonjr.joseph@yahoo.com).

Muskie Angler Log Update – Curt Wagner, DOW Fisheries Biologist

Curt provided highlights of the newly updated Muskie Angler Log (MAL). The DOW relies heavily on the angler-reported catches in the MAL to monitor success of muskie stocking in the nine program lakes and reveal information about catches in other waters throughout Ohio.

The Welcome Page has a similar look, but many new features. Angler sign in to the MAL as before with a username and password on this page, but can also find a number of useful links. The first time that an angler signs into the MAL they must create a username and password. Anglers are encouraged to use their e-mail address as a username because this makes it easier to remember. Upon signing up for the MAL the first time, a user profile must be created that provides information such as club affiliation and preferences. For example, anglers will be asked within the profile page if they would like to share catch information with other anglers. If not, this information remains confidential. In addition, anglers will be asked if they report all of their trips as opposed to only those where a muskie is caught. Anglers reporting all trips can help contribute to data that provides insights regarding catch rates (hours per muskie), which can be useful to the DOW. Anglers already signed up with the MAL will be prompted when they login on whether they would like to share catch information and if they would be willing to report all trips (even those where no muskies were caught). The sharing of catch information option is used for the new “What’s Working” feature (see below) and only provides basic catch details – no angler information!

In the “Where to Fish” section, anglers can click to find information about Ohio muskie lakes such as: 1) basic map information and navigation to the DOW lake map page; 2) a summary of catches from the previous year that includes numbers of fish caught and average length; and, 3) a new “what’s working” page that provides details volunteered by other anglers about what lures have been recently catching fish, dates of catches, times of catches, and casting vs. trolling. This information comes from the 10 most recently voluntarily reported catches.

Someone asked, “Is the “what’s working” information based on the date a fish was caught or the date it was reported in the MAL?” Curt indicated that the information is based on the “catch” date, not the date it is actually entered into the MAL system. This means that participating anglers should keep their catches current in the MAL to help provide useful information to other anglers. Phil Hillman asked, “Did you just provide this for program lakes, for example, was Pymatuning included?” Curt replied that this was for the 9 program lakes, and Pymatuning.

The new Welcome Page also includes informational links such as:

- Catch and Release - a link to Muskies, Inc. information about safe catch and release practices and related tips;
- Muskie Biology – life history information about muskie;
- Ohio Muskie Management – this section needs updates, and we expect to do this soon;
- Stocking History – a summary of the stocking of advanced fingerlings in program lakes during the past 10 years;
- Photo Gallery – muskie photos that have been contributed by anglers to the DOW website photo gallery;

- FAQ – responses to frequently asked questions (this would be a good place to provide responses to questions often asked at the muskie summit);
- Muskie Club Contact Information – links to club websites;
- Solunar Calendar – sunset/sunrise and moon phase information based on Columbus, Ohio.

A new feature of the MAL is the “Quick Add”. This allows speedy catch reporting for anglers that don’t want to take the extra time to report more extensive trip details, yet would like to have their fish reported. It is also possible in this section to report “no fish” trips and tag information for caught fish. We think that many anglers will benefit from this feature. The “Regular Add” portion of the MAL exists as it has in the past, but with some new twists. New fields are available to report tags. ***In addition, the MAL has been adjusted so that every trip on the water is now a new trip.*** That is, one trip per day. This will help improve record keeping and reduce confusion that existed when a trip could include multiple days, or even an entire year.

Someone asked, “How is the MAL data going to be integrated with the MI Lunge Log?” “Can you do an analysis to see how far off we are from being able to share data between the MAL and Lunge Log?” “Have you looked at the Lunge Log and compared results to the MAL?” (Phil Hillman identified problems in underreporting of catches at Pymatuning Lake and said that he has been after anglers to report their fish in the MAL.) Curt/Kevin/Scott responded that the DOW has been working with MI to make this happen, but MI is a bit behind. When MI is ready, the ODNR Information Technology Division is ready to facilitate data sharing using web-based programming solutions.

Returning to a discussion about the new features of the MAL, Kevin added that it will provide a running tally of an angler’s current year’s catches and their “boat catch” which includes guest fish. Someone asked, “Could you add a “running hours” tally as well?” Kevin replied that it is certainly possible.

After stepping through the MAL, Curt concluded by indicating the he and Kevin would be doing a “road show” to visit clubs around the state to provide an overview of the updated MAL and to respond to questions. The first one of these may be when Kevin speaks at the OHMC Annual Banquet on March 23.

Muskie Escapement and Tagging Study – Kevin Page, DOW Fisheries Biologist

Kevin reviewed progress on the muskie emigration and tagging study that began in 2012. He first stepped through how a great deal happens in a lake from the time a fish is stocked until it might be caught, and that fates of stocked fish are very important to understand. In particular, he identified the need of biologists to better understand the dynamics of natural mortality (fish that die from natural causes), escapement (fish that are lost through dams), or catch and release mortality and harvest (which essentially act as one and the same). Tagging fish, as it turns out, is a great way to learn about these dynamics.

Preliminary work began in 2012 with test tagging of advanced fingerlings in fish hatcheries and full-scale tagging will begin in 2013. Two types of tags will be used, passive integrated transponder (PIT) and T-bar tags. The PIT tags are only readable using a scanning wand or detection antennas whereas the T-bar tags are immediately visible. All fish stocked in Alum Creek, Salt Fork, and Leesville will be tagged with PIT and T-bar tags. In these reservoirs, the top 5 or 6 anglers as identified by MAL reports will be equipped with a PIT tag reading wand to record catches. Fish in other reservoirs (excluding East Fork and Pymatuning) will be tagged with T-bar tags only. Results can be recorded in the MAL. Someone asked, “Do we need to record both if we are fishing in one of the three lakes with PIT-tagged fish?” Kevin replied yes, because this can provide information about T-bar tag loss. Someone else asked, “Can

you 'feel' the PIT tags that have been implanted in a fish?" Kevin said no, because the tags are small and fish tissue grows quickly around them.

Someone asked, "What can we do about the algae that grow on T-bar tags?" Kevin said that this was a problem in the first type of T-bar tags tried. In fact, after only 30 days in hatchery ponds the T-bar tags became unreadable. He said that a different type of T-bar tag will be tried that has a clear plastic cover over the numbers. From what he understands, this can be readily wiped off so the tag number can be identified.

Someone asked, "Is there any issue with an angler purchasing their own PIT tag reader?" Kevin said that this would certainly be ok.

Someone else asked, "What if another fish eats a fish with a PIT tag in it, could the tag be read?" Kevin indicated that an event such as this would be unlikely, but that the tag could be readable as long as it was retained with both fish.

Someone asked, "If the average age of an Ohio muskie is 10 years old, by the 10th year of your study will all fish in the PIT-tagging reservoirs have tags?" Kevin said that yes, by then nearly all of them will have tags. However, estimates used to determine fish loss through dams or catch and release mortality can even be based on tagging of smaller proportions of the stocked year classes. We have simply decided to tag all stocked fish to help build stronger data sets. From this perspective, it really doesn't matter if all fish are tagged. We will still get the information that we need. All estimates are based on each stocked year class individually and then averaged to generalize about age-1 fish, age-2 fish, and so on.

Someone asked, "Do you plan to do a shocking study of muskie along with the tagging?" Kevin said no, because it would not be particularly effective. However, Curt added that some information could be obtained when broodstock collection takes place in Leesville Lake.

Someone asked, "Are you going to stop recording data after 10 years?" Kevin said no. Even though the tagging would end, data would continue to be collected for several years.

Someone asked, "Is there any fish loss (mortality) from the tagging process?" Kevin said yes, and added that anytime that you do a tagging study, some loss is possible. However, our goal is to keep this loss very low, ideally 0%, which is possible.

Someone asked, "Are you going to stock additional fish to account for tagging mortality?" Kevin said no, but reiterated that we do not expect much fish loss from tagging.

Kevin then reviewed this year's pilot work to tag test batches of advanced fingerling muskies in our hatcheries. The goal of this work was to ensure that tagging was rapid and efficient, tag retention was high, and survival was excellent. Test tagging was done on a small number of advanced fingerlings last fall at the London, Kincaid, and St. Marys state fish hatcheries. Two groups of fish were used, one batch that served as a control (not tagged) and another that was tagged with PIT and T-bar tags. Results were as follows:

Batch	Tag retention (30 days)		Survival	
	PIT tags	T-bar tags	Control	Tagged
London 1	100%	100%	58%	62%
London 2	100%	94%	98%	100%
Kincaid	100%	98%	98%	78%
St. Marys	NA	NA	100%	100%

Kevin identified some lessons learned from these trial runs and adjustments were made in the process. For example, size of fish is very important. Small fish do not tag particularly well, and much of the mortality was the result of tagging smaller advanced fingerlings. In addition, anesthesia, handling techniques, fish holding, and fish transfer were adjusted. The DOW expects excellent retention of PIT tags once in place, and some “shedding” of T-bar tags through time.

Some additional information was provided about moving ahead in 2013. First, there is some consideration of holding fish a bit longer (2-3 weeks) to ensure that they are large enough to tag safely. Fish that are less than 8.25 inches will not be tagged. These fish will be stocked untagged in East Fork Lake. In addition, all tagged fish will be collected and held for a day before tagging, anesthesia will be increased, and the handling of fish will be streamlined. Post-stocking mortality will be tested using enclosures at some lakes that will allow holding a small sample of fish for the first 48 hours.

Someone asked, “Will there be flexibility in the late stocking dates? The longer that you hold these fish in the hatchery, the greater the risk. Even an extra 2-3 weeks could be an issue.”

Doug Sweet responded that holding fish an extra week or two could be expensive and add to minnow costs, and we may experience additional mortality.

Kevin replied that we are not interested in killing any of these fish and that we will certainly do our due diligence. He added that handling these fish in cooler water may be an added advantage from the standpoint of both tagging and transporting them.

Someone asked, “How large was the sample that you used, and what did you do with the test fish that you tagged?” Kevin responded that we tagged about 70 fish per tagging effort from each hatchery and that those fish are still in ponds. They will be checked in the spring for tags and then stocked.

Someone asked, “Are the fish being monitored for fungal growth?” Kevin said that they were not, but that we do use gloves when we tag them and we have reduced handling significantly as we learned more about the process. We agree that the less handling the better and we try to be very careful.

Someone asked, “We know that survival is directly related to the size of fish stocked, so can we rotate the reservoir where small fish that are not tagged are stocked?” Scott Hale responded that East Fork fish will not be that much smaller when stocked, and that it will receive surplus. He indicated that our protocols call for surplus fry or fingerlings to go to East Fork, and all advanced fingerlings (when we raise less than 500 extra) go there as well.

Open Forum – Kevin Page leading the group discussion

Kevin began by asking if there were additional topics for the open forum.

Someone asked, “I have heard that in Pennsylvania, anglers help out by taking fish out to stocking sites in their personal boats (sprinkle stocking). Could this be done to help?”

This question revolved around the idea of “point” vs. “scatter” stocking. Kevin and others responded that while well intended, scatter stocking of these fish can actually increase stress on fish by increasing fish handling. In addition, point stocking (placing all in one location) can often help avoid predation issues. For example, stocking small muskies along the shoreline near cover as done with scatter stocking may place them directly in contact with predatory bass. In Ohio, we do not favor the idea of scatter stocking these fish. We have learned that newly stocked fish usually distribute quickly throughout a lake once stocked.

Someone asked, “Our members asked if there was any way that our club could get approval for a private stocking of Cowan Lake using parameters that the state would set up? We realize that Cowan Lake is no longer stocked, but a number of fish were found dead downstream of the reservoir after the lake was drawn down for tailwater area repairs. Some of our club members don’t have boats and these stream fish are the only ones that they have a chance to catch.”

Kevin responded that when it comes to stocking fish in lakes managed by the state, the state has the authority to do that and it would become a problem if individual clubs decided to start doing that, whether they stocked bass, catfish, crappie, or muskie. It causes problems with being able to manage fisheries in these systems, some that relate to genetics, disease, and other issues. This is a very sticky issue to consider because there is a lot of negativity that goes into opening this door. Basically, the policy is that the state does the stocking. Tim Parrett added that he recently looked into the cost of stocking muskies and a private hatchery in Ohio that has muskies charges about \$45/advanced fingerling, so this could be very expensive for anyone to attempt.

Someone asked, “Is there any discussion about stocking rivers and streams? I know that Kentucky does it?” Kevin didn’t recall Ohio ever doing this, nor did Tim. Phil Hillman remarked that the Grand River was stocked once in 1978, and that was a mistake because there is natural reproduction in Lake Erie and such a stocking could compromise genetic integrity of the population. Scott Hale added that this gets back to what anglers want out of the fishery. The program is very expensive and right now the DOW stocks about 20,000 advanced fingerlings per year and can’t afford to stock more. If we started to stock rivers and streams, they would have to come from one of the program lakes that we already stock. That said, years ago, muskie anglers told us that they wanted fewer, but higher quality lakes resulting from our stocking, and that is the direction that the program has taken (stocking larger fish at about 1/acre in a small number of lakes). Kentucky does stock streams, but what they have are native streams that you could boost a bit with stocking periodically, and these are ones that may support natural reproduction. In Ohio, we don’t have a lot of high quality native muskie streams.

Someone responded, “In our corner of the state a number of our members are shore bound and Cowan Lake stocking was creating a fishery downstream, but I don’t imagine that will happen much longer since the lake is no longer stocked.” Scott responded that we never stocked fish in Cowan to create stream fisheries, and this is really why we need to learn more about escapement from reservoirs. Those

downstream fish were essentially unintentional bonuses to some anglers but they were never really the intent of the program.

Someone asked, "Is there any interest in increasing the 20,000 per year number stocked to provide additional opportunities?" Scott responded that it is important to remember that we are at our limit for producing these fish and it is important to be thankful for what we have with this program.

Kevin then addressed the idea of "trophy lake potential" as submitted by a club representative prior to the Summit. Kevin recommended reviewing notes from the 2010 meeting where we discussed this idea and identified implications for what might hold back trophy fisheries, including issues like water level management, harvest issues, etc. It will be helpful to look at the results of our tagging work to learn more about what might be holding lakes back and perhaps find out where we may have the greatest potential for trophy fisheries. He added that we really don't want to be putting the name "trophy" on a lake just to do it.

Someone added, "I don't know if we need to call it a trophy lake, but I am just wondering if the mean size of fish would increase if we had a size limit." Kevin responded that when we look at the data they show a normal distribution of the catch that makes it appear to demonstrate that there is already very little harvest. In fact, our release rates are extremely high so these size distributions make sense.

Someone added, "It seems that only Ohio doesn't want these length limits. I might as well be talking to the wall. I've come to five of the last six summits and no one from the state wants length limits on muskies." Scott responded that there are some misunderstandings here. If you don't hear anything new from the DOW, it's because the situation hasn't changed. We don't feel that a length limit will increase the average size of fish caught because so few fish are actually kept by muskie anglers or anyone else.

Curt Wagner provided some information recently summarized from creel surveys that demonstrated how rare muskie catches are by non-muskie anglers and how few fish are actually harvested. Most Ohio muskies are caught by avid Ohio muskie anglers and most of them are released. In fact, seven years of creel data from muskie lakes indicated that non-muskie anglers harvested a similar percentage of muskies as dedicated muskie anglers, which is to say very few (about 3%).

Scott then added that the reason we use length limits on fish like bass and crappie is that those populations can respond to length limits because there is significant harvest, or at least enough to affect the numbers and sizes of fish in the population. For example, this year we are rolling out new bass regulations and the reason that we think they will work is because bass harvest is actually greater than most people believe. With muskie length limits, the important thing to get back to is "what do we want from the fishery." If we are really interested in increasing the size of the muskies in the population then we need to look carefully at fish loss through dams and recycling of the catch during summer, for example. This is why we feel the tagging work is so important.

Phil Hillman added that the DOW did a study of a 40-inch length limit on muskies at Berlin Lake back in the 1990s. Berlin has natural reproduction. However, so few fish were ever harvested that the length limit simply didn't increase the sizes of fish available in the population so the experimental length limit was removed.

Scott then reminded everyone that in Ohio muskies grow very fast, we have very high summer temperatures in our reservoirs, and most fish simply don't live more than 10-12 years.

Someone then asked, "In Lake Erie and its tributaries, muskies are being caught by walleye anglers. These are naturally reproduced fish and they need some protection. There are natural fish there and they can bring good fisheries and money to the area if better populations develop."

Someone remarked, "A lot of fishery regulations are not biologically based; rather, they are socially based. You may want to consider this. I haven't seen anything discussed today to help the Lake Erie fishery."

Someone else responded, "Remember that in Lake Erie, we have a large Canadian gillnet fishery that that may always keep muskie fisheries in check." Scott added that in Lake Erie, we still have significant habitat issues that will influence the success of muskie reproduction and population size. We would love to see the Lake Erie fishery develop.

Scott then reminded everyone that all fisheries regulations have both biological and social elements. As soon as you have a "fishery", you have a social entity. What varies is the mix of biological and social components of regulations depending upon the fishery objective or interest.

Someone asked, "From a layman's perspective, could we develop a trophy lake where we stock a low number of fish, perhaps one per 100 acres, and based on lower densities create a trophy lake, perhaps, doing this by using surplus." Scott responded that we can certainly have that conversation, but the important thing to remember is that we really are at the cap of the number of muskies we can raise and that cap is about 20,000 advanced fingerlings per year. We are simply doing our best to keep doing this every year. As you all are aware, our budgets are not getting larger.

Someone added, "Every year I come here expecting to hear about downgrades (that is, a reduced program) in the face of budget cuts, but you guys keep providing the fish and keeping the program on track. I really think we need to be careful when we ask for a lot of things. If we can keep things the way they are, I think that is damn good. To rock the boat, to change the formula, is risky. That's my take on this. We need to be happy with what is happening."

Someone added, "Every year I come to these summits and I see progress. We have fish that are going over the dam, and they come back with ideas to learn more about the problem to do something about it. I think that we need to be thankful for this."

Someone else added, "I agree, thanks guys."

Kevin then introduced the topic of horsepower limits. He explained that the DOW does not have a lot of control over these regulations. Essentially, we have a voice at the table, but someone else (controlling authorities who own the reservoirs) have the say. He indicated that the recent direction has been to provide more opportunities for people with larger motors with the "no wake/idle speed" regulations in waters with 10 hp limits. The DOW has done surveys to gather public input on this topic and passed results along to people that are responsible for these regulations. Scott added that the DOW actually owns very, very little water. We have experimented with this approach on four lakes that we own and they have gone well. That is, compliance has been good. When we followed up with surveys at other

lakes, anglers were somewhat luke-warm. So there will need to be more public process to determine what to do by DOW, Division of Watercraft, Division of Parks, and others.

Kevin then stated that the last issue on the open forum has to do with the MAL accounts. He recommended that anglers switch to using their e-mail address as a user name to help them remember their username. He added that the new updated MAL will be available on March 1, 2013.

Closing Remarks – Scott Hale, DOW

Scott kept it brief since we were running about 45 minutes over our allotted time. First, he thanked Ross Wagner for providing the facility. The room couldn't have been better this year. Next, he thanked Kevin and Curt for doing a great job in planning and conducting the meeting. Then he thanked club representatives and DOW staff for participating.

Scott added that it is really important that we have this opportunity to talk and are glad that anglers and DOW staff have taken advantage of it. This is the 7th summit that we have done and we hope to keep it up. Please remember that we are always available and willing to meet or talk to you. Most importantly, is that on days like today we can have candid conversation, and that means that we can do productive work. This is certainly a reminder that we share the same goals.

Finally, thanks again to Kahn Pham and Kevin Page for the update of the MAL. It couldn't look better. Reporting your catch is important for management of these fisheries, so keep up the good work. Thanks!