North Central Division American Fisheries Society

Esocid Technical Committee

July 23, 2015

Chair – Cory Kovacs: MDNR (kovacsc@michigan.gov)
Immediate Past Chair – Dave Kittaka: IDNR (dkittaka@dnr.IN.gov)
Chair Elect - TBD

The following meeting minutes are from the Esocid Technical Committee (ETC) meeting held on July 23, 2015 at the Dakota Nature Park, Brookings, South Dakota. The business meeting was held in conjunction with the Joint Centrarchid, Walleye, and Esocid Technical Committees Meeting.

Attendance
Jon Meerbeek (IA)
Brian Blackwell (Dakotas)
Justin Vandehey (Univ. of WI Stevens Point)
Dave Woods (MO)
Matthew Perrion
Keith Koupal (NE); minutes)

Approval of 2015 Winter Meeting Minutes
Dave Woods motioned to accept 2015 Winter Meeting minutes; Jon Meerbeek seconded. Minutes approved.

Approval 2015 Summer Budget
Budget was approved. Of note the plaque purchased for Dave Kittaka (Immediate Past Chair) was not accounted for at time of budget approval. Cory Kovacs is currently working with Andy Jansen in getting invoice paid.

Committee Status
Chair elect 2016 was briefly discussed. In recent years the ETC Chair position has been filled by an individual from the state where the Midwest Fish and Wildlife Conference was being held in that term year. Since the Conference is being held in Michigan in 2016, a Michigan representative was solicited for the ETC Chair position. Cory Kovacs (MI) assumed the Chair position at the 2015 Midwest Conference in Indianapolis. Part of the Chair's responsibility is to plan for the summer and winter meetings in the coming year. The 2017 Midwest Conference is to be held in Nebraska, however Cory is still willing to maintain his Chair position for an additional year if there is not any interest in the Chair Elect position. The Chair Elect position will be solicited during the coming year leading into the winter meeting.

Membership of ETC was discussed. Currently, the ETC is comprised of one voting member per AFS Chapter. Cory Kovacs want to get feedback on the possibility of opening up more than one voting seat for each state chapter. It was mentioned that by-laws would need to be reviewed to determine policy on membership for the ETC and if a proposal for changing membership would be presented it should follow any required procedures for changing the ETC by-laws. Justin Vandehey suggested to limit the voting to 2 individuals. Generally, the members attending seemed to be in favor of considering a change in membership. Cory will investigate the possibility in updating the number of voting individuals from each chapter.

Chapter Representatives – Updates
Dakotas: Brian Blackwell
Illinois: Dr. Rob Colombo
Indiana: Dave Kittaka
Iowa: Jonathan Meerbeek

Kansas: Jeff Koch
Michigan: Chair-Cory Kovacs, Jim Diana
Minnesota: Mike Habrat
Missouri: Dave Woods
Nebraska: Keith Koupal
Ohio: Curt Wagner
Ontario: John Paul Leblanc
Wisconsin: Jordan Weeks

2016 Winter and Summer Business Meetings
Discussed winter meeting (2016). It was noted that a meeting room should be reserved for the winter meeting. The location of the winter meeting was discussed and was of importance to many of the members due to possible attendance. Because of travel and budget restrictions, many members can only travel to one out-of-state conference. Most have chosen to travel to the Muskie Symposium in Minnetonka, MN and not the Midwest Conference in Grand Rapids, MI. It was discussed that holding the Winter Meeting at the Muskie Symposium may increase participation and attendance. Many of the members agreed that holding the ETC Winter meeting at the Muskie Symposium would be a good idea. Cory will work with Steve Pallo in setting up a meeting room for the ETC to hold the Winter meeting at the Symposium in Minnetonka.

Muskie Symposium, Minnetonka, MN, March 2016: The announcement for the Symposium was circulated. The group showed interest in supporting the process to develop a symposium publication. Dave Woods suggested maybe having a booth for the ETC at the Symposium, but would need enough membership to man this booth. It was proposed to try to find auction items that could be sold at the Symposium and be allocated to financially support the productions of the special publication that hopefully will come out of the Symposium. It is suggested that ETC members contact local Muskie Inc. groups for possible donations. Cory discussed this with Steve Pallo and he seemed to be onboard with the idea.

AFS Fisheries Monthly Article "Muskellunge and Northern Pike Ecology and Management: Important Issues and Research Needs"
A monthly article in AFS came out and prompted a question, "Does the ETC need to address research questions/needs identified in the article?" Attending members seemed to be in general agreement that the role of the ETC is to facilitate the communication on issues surrounding esocids in the region. Thus the ETC is not really set up to directly participate or drive specific research questions. The idea of having the ETC provide letters of support for esocid research may be possible if that is requested by someone for a specific project. Sharing of ideas and results may be facilitated by having an on-line outlet through the ETC.

Other Business
Justin Vandehey discussed the disproportional sex ratios he was finding in some of his research from stocked fish and wanted the committee to look at their data to see if temperature or other factors are playing a role in the sex ratios of stocked fishes.

Traditionally, during what meeting does the Immediate Past Chair (IPC) get presented with their appreciation plaque? The past few meetings the IPC was presented with a plaque at the summer meetings. Is this correct according to by-laws?

State/Provincial Updates
Provided: Michigan, Missouri, Iowa, South Dakota, Nebraska
No updates: Illinois, Indiana, Kansas, Minnesota, Ohio, Ontario, Wisconsin

Meeting Adjourned

State/Provincial Updates

Nebraska
Prepared by Keith Koupal

The following report of activities was submitted to the Esocid Technical Committee meeting in July 2014. Nebraska has limited use of esocids within our systems. We are managing to stock both muskie and northern pike in the requested systems at 2-3 year intervals. Space to culture esocids to a desirable size and the expense involved with raising them to this size are limiting factors for increased production and stocking. Many waters seem unable to successfully recruit these species. Thus, a statewide 40 inch minimum is in effect for muskie and many stocked waters have a 30" minimum on northern pike. Recently, an interest in enhanced use of northern pike in our systems has been developed and future management may try to incorporate this esocid into our lentic communities. Stocking of advanced fingerling northerns (approximately 300 mm long) in October was employed in 2014 at most waters to achieve a better return to creel and try to augment sportfishing opportunities. Two main items are being investigated concerning esocids in Nebraska.

Northern pike production has hit a snag. There has been a decline in hatch percentage of broodstock spawned from our National Refuge lakes near Valentine Nebraska. An experimental design to test the efficacy of using saline and a buffer/saline mixture to enhance northern pike egg fertilization and subsequent eye-up in our Production Sections northern pike was employed this past spring. Eye-up percentage generally increased with the use of buffer solutions but was still below optimum values that were desired for management production (<60%) and variability of eye-up is still too high for staff to feel comfortable with the protocol. Additional trials are planned that will attempt to isolate the impacts of buffer solutions by splitting eggs from larger females into control and experimental units as well as reducing the amount of milt used for fertilization so milt source for both experimental units are from similar parent stock. Adult collection may move to Dewey Lake because individuals from this water have shown greater relative condition the past few years.

A northern pike tagging project was started at Lake Wanahoo in March 2012 to determine angler exploitation by biologist Jordan Katt (questions can be referred to him). This study plans to determine northern pike growth and survival in Lake Wanahoo. Northern pike are being collected with trap nets in the spring and are floy tagged. The 2014 population estimate was 406 (1/acre), which was a 77% decrease from 2013. Several factors likely caused the estimate to decrease that drastically, such as low spring water levels (up to 4 foot lower than previous years) and wider than normal temperature fluctuations. Mean growth of male northern pike was 78 mm/year while mean growth for females was 114 mm/year . Tagging is scheduled to continue in 2015.

The only other esocid mention in research activity was a compilation of muskellunge sampling, growth and condition for all Nebraska waters. This exercise used the existing sampling database from the Nebraska Game and Parks Commission Fisheries Division to determine growth curves, relative weights. The lack of individuals captured by standard sampling techniques indicates a need to specifically sample for this species or potentially cooperate with anglers who may be handling more individual fish than sampling gear.

Dakotas
Prepared by Brian Blackwell

Angler reports of muskellunge being caught from Lake Sinai (1,200 acres) in Brookings County began this spring. Muskellunge were first stocked into Lake Sinai in 2011. Many large northern pike were observed in southeast South Dakota waters during 2015 walleye spawning operations.

Muskellunge populations in northeast South Dakota were sampled during the 2015 spring at Amsden Dam (235 acres) and Lynn Lake (1,600 acres) using large trap nets. The Amsden Dam population was estimated at 18 individuals and 202 fish were estimated to be present in Lynn Lake. Muskellunge stocking in Amsden Dam will likely discontinue because of apparent low survival. Muskellunge will be

stocked into Middle Lynn Lake for the first time this fall. Middle Lynn Lake (740 acres) is adjacent to Lynn Lake and during a high water period some muskellunge moved into Middle Lynn Lake from Lynn Lake. A 46.5-inch muskellunge was harvested by an angler fishing Middle Lynn Lake in May 2015.

Research comparing muskellunge catches between two trap net designs in three South Dakota waters was recently published in *The Prairie Naturalist* (47:21-25).

Iowa
Prepared by Jonathan Meerbeek

Thirteen lakes and impoundments are currently being managed as Muskellunge fisheries. In 2015, 100 yearling Muskellunge were stocked into Deep Lakes, a 130-acre County Conservation managed gravel quarry in southeast Iowa, to provide another unique angling opportunity for Iowans. In addition, 31,194 4-5 inch Muskellunge were stocked in Saylorville Reservoir in June. This reservoir is not typically managed for Muskellunge, but has had reported catches of Muskellunge within and downstream of the reservoir. These fish are a result of Muskellunge escapement from the Big Creek Reservoir, which is a managed Muskellunge fishery. In lakes where Muskellunge are used as broodstock, populations are monitored via annual spring gillnetting and population metrics are estimated using the Jolly-Seber model. In 2015, 656 broodstock Muskellunge were captured (356 recaptures) ranging from 25.8-51.2 inches in these lakes. Adult (≥ 30 inches) Muskellunge population estimates for 2014 in the Spirit Lake/Okoboji Chain and Clear Lake were 0.06 and 0.11 fish/acre, respectively. Currently, spring-stocked, pellet-started minnow finished yearlings are used in Iowa's Muskellunge culture program. All yearling Muskellunge stocked into Iowa's natural lakes are tagged via PIT tags prior to stocking (since 2011). In 2011 and 2012, yearlings were tagged in the check and tag retention was poor (52%; 118 of 225 tagged) at 2-3 years post-tagging. Since 2013, all yearling Muskellunge were tagged in the dorsal musculature. Only two of these fish were sampled in broodstock collection efforts this spring. Short-term PIT tag retention studies conducted by IA DNR and IA State, as well as other published literature, have found high retention rates for PIT tags inserted in this location. Tag Information regarding growth, survival and recruitment will help guide stocking rates to maintain desired population levels.

The Iowa DNR is collaborating on a Muskellunge known-age project that is being led by Dr. Derek Crane a researcher out of Lake Superior State. During this spring's broodstock collection, we recaptured 132 Muskellunge of known-age and collected several aging structures on many of those fish. The objectives of the study are to: (1) evaluate the accuracy of fin rays as an aging structure, (2) determine if rays from different fins result in the same estimated age, (3) determine if rays from within a fin result in the same estimated age, (4) determine if the location viewed within a ray affects age estimation, and (5) validate cleithra as an aging structure. Known-age structures from Muskellunge managed from other systems are also being collected. Results will likely be available in 2016.

Northern Pike propagation is still an important component to manage these fish in lakes, rivers and impoundments across Iowa. In 2015, 1.69 million Northern Pike fry and 132,832 Northern Pike 2-3-inch fingerlings were stocked in 24 systems. An additional 18,123 4-inch fingerlings were obtained from Jake Wolf Fish Hatchery in Illinois to fulfill stocking requests.

Missouri
Prepared by Dave Woods, Muskellunge Program Coordinator

Currently, five lakes in Missouri are managed for muskies: Pomme de Terre Lake (7,820 ac.), Fellows Lake (820 ac.), Hazel Creek Lake (530 ac.), Henry Sever Lake (158 ac.) and Lake 35, Busch Conservation Area (62 ac.). Henry Sever Lake is included in the program as a surplus stocking location only.

2015 Show-Me Muskie Project Results

The Show-Me Muskie Project is a volunteer reporting program in which the Missouri Department of Conservation invites conservation-minded muskie anglers to help evaluate Missouri's muskellunge management program. Volunteers include a wide cross-section of muskie anglers at all levels of skill and experience. Missouri's Muskellunge Plan sets muskie angler catch-rate objectives, which can be

documented most efficiently by anglers themselves. Our cooperators continue to provide a wealth of data, as 84 anglers submitted their trip reports from 2014. This is the second highest number of trip reports received since the program began in 1996. Collectively, anglers made 452 trips and fished a total of 2,543 hours on four of the five program lakes. No trip reports were received for Busch Lake 35. There were 546 muskie encounters (4.7 hrs/encounter) and 209 caught (12.2 hrs/catch). Of the 209 muskies caught, 91 were 36 inches or longer (27.9 hrs/catch >36"), which is within the catch rate goal of 20 to 40 hours per catch of a 36" or greater muskie, as identified in the current muskie plan. The following are individual lake results for 2014:

- **Hazel Creek Lake** – A total of 102 trips were reported by 10 anglers fishing a total of 655 hours. There were 94 muskie encounters (7.0 hrs/encounter) and 41 caught (16.0 hrs/catch); of which 21 were 36 inches or longer (31.2 hrs/catch >36"). Hazel Creek showed a significant decrease from 2013 in the hours fished to catch a 36 inch muskie.
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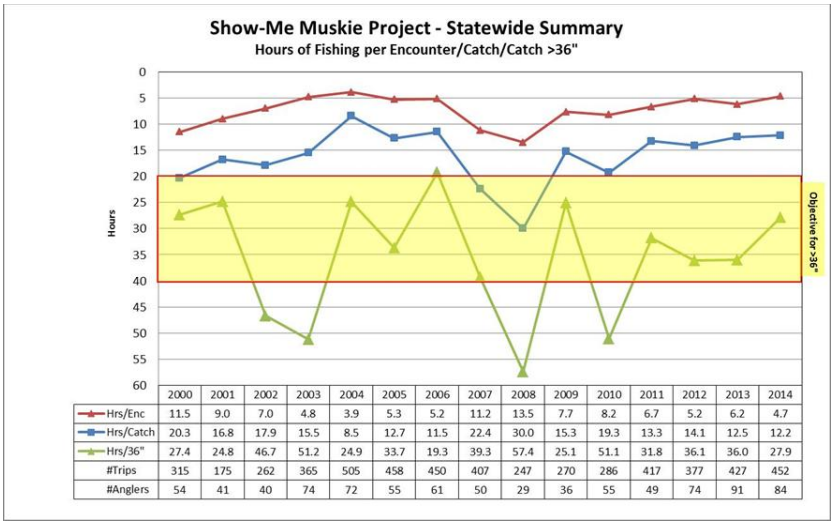
- **Fellows Lake** – A total of 76 trips were reported by nine anglers fishing a total of 411 hours. There were 92 muskie encounters (4.5 hrs/encounter) and 35 caught (11.7 hrs/catch); of which 19 were 36 inches or longer (21.6 hrs/catch >36").
- **Henry Sever Lake** – A total of 41 trips were reported by seven anglers fishing a total of 192 hours. There were 27 muskie encounters (7.1 hrs/encounter) and 12 caught (16.0 hrs/catch); of which three were 36 inches or longer (64.0 hrs/catch >36").
- **Busch CA Lake 35** – No trips were reported for 2014.



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Hrs/Enc	11.5	9.0	7.0	4.8	3.9	5.3	5.2	11.2	13.5	7.7	8.2	6.7	5.2	6.2	4.7
Hrs/Catch	20.3	16.8	17.9	15.5	8.5	12.7	11.5	22.4	30.0	15.3	19.3	13.3	14.1	12.5	12.2
Hrs/36"	27.4	24.8	46.7	51.2	24.9	33.7	19.3	39.3	57.4	25.1	51.1	31.8	36.1	36.0	27.9
#Trips	315	175	262	365	505	458	450	407	247	270	286	417	377	427	452
#Anglers	54	41	40	74	72	55	61	50	29	36	55	49	74	91	84

2015 Spring Sampling Results

Standardized fyke net surveys were conducted this spring at Pomme de Terre Lake, Fellows Lake, and August A. Busch Conservation Area, Lake 35. Hazel Creek and Henry Sever lakes were not sampled for muskies in 2015.

- **Pomme de Terre Lake** – Water temperature was 53°F and lake elevation was 841.4 msl (normal pool = 839.0), making for optimal sampling conditions. A total of 203 muskies (128 males and 75 females) were captured in 20 net-days, resulting in a catch rate of 10.2 fish per net-day. Of the muskie captured, 36% were 36 inches or longer and 14% were 40 inches or longer. The largest fish captured was a female that measured 43.5 inches long and weighed 25 lbs, 2 oz. The 2015 muskie sampling results indicate that muskie fishing should be excellent on Pomme de Terre Lake in 2015.

- **Fellows Lake** – Water temperature was 50°F and the lake was 4' below normal pool. Nets were set for three nights instead of the usual four due to severe weather forecasts. A total of 63 muskies (33 males and 30 females) were captured in 21 net-days, resulting in a catch rate of 3.0 fish per net-day. Of the muskie captured, 40% were 36 inches or longer and 19% were 40 inches or longer. The largest fish captured was 44.8 inches long and weighed 33 lbs, 13 oz. Catch data shows a recovering population since the negative impacts of the drought and historically low water levels in 2012.

- **Busch CA Lake 35 –** Initially, water temperature was 52°F while the lake was roughly 2' below normal. A strong cold front brought sleet/rain, rising water level, and rapidly dropping water temperatures, creating poor sampling conditions. A total of 9 muskies (2 males and 7 females) were captured in 10 net-days, resulting in a catch rate of 0.9 fish per net-day. Of the muskie captured, no fish were larger than 36 inches. The largest fish captured was 34.5 inches long.

2014 Stocking Summary

In 2014, all five muskie program lakes were stocked with advanced fingerlings averaging approximately 12.4" in length. On a typical year, lakes less than 1,000 acres are stocked at a rate of one muskie (12 – 14") per acre: Fellows Lake (820 acres), Hazel Creek Lake (530 acres), Busch CA Lake 35 (62 acres) and Henry Sever Lake (158 acres). To compensate for the reduced stocking numbers in 2013 due to a shortage of muskie fingerlings from Iowa, most Missouri lakes were stocked at higher than normal stocking rates in 2014. In 2014 Fellows Lake, Hazel Creek Lake and Henry Sever Lake received an 80%, 66% and 101% increase in stocking rate from the previous year, respectively.

As per the current muskie Management Plan, Pomme de Terre Lake (7,820 acres) gets stocked at a rate of one-half muskie per acre, with a pulse stocking of one muskie per acre every six years. In 2014, Pomme received a pulse stocking of 8,000 muskies. Beginning in 2015, muskie stocking rates on Pomme de Terre Lake will be adjusted to 5,000 fish annually (0.625 fish per acre). This is a modification to eliminate the pulse stocking scheduled to occur every sixth year. Eliminating the pulse stocking and allocating those fish equally on an annual basis should produce more consistent muskie fishing opportunities for anglers each year on Pomme de Terre Lake.

Zebra Mussel Scare

In December, 2014, during routine dock permit inspections, US Army Corps of Engineers (USACE) staff noticed a new dock located on the Lindley Arm of Pomme de Terre Lake. The dock owner had purchased a used dock from Lake of the Ozarks and placed it into Pomme de Terre Lake the day prior. The USACE ordered the dock removed from the lake immediately. Upon inspection, the dock was found to have hundreds of live zebra mussels attached. An eradication plan was immediately developed by USACE and MDC staff to treat the potential infestation site and treatments were completed in March, 2015. The treatment zone was one surface acre (3 acre/feet) in size that targeted the Bisbee Acres boat ramp and dock mooring site. The treatment site, and several sites immediately downstream, will be monitored over the next couple of years in an effort to detect any adult zebra mussels.

Muskies, Inc. Partnership

Generous donations from the Pomme de Terre Chapter and Hugh C. Becker Committee of the Twin Cities Chapter of Muskies, Inc. and special assistance from the Missouri Conservation Heritage Foundation (MCHF) have provided eight disabled-accessible tables to the August A. Busch Memorial Conservation Area's Conservation Fishing Center (CFC). Combined, Muskies, Inc. donated over $4,000! Special donor plaques and financial coordination were provided by MCHF. With more than 10,000 children and adults with varying degrees of ability using the Busch CFC annually, these durable tables are just what new anglers needed.

From left to right: Jim Ashton (Muskies, Inc.), Kevin Meneau (MDC), and Wayne Humphrey (Muskies, Inc.)

Habitat Improvement Projects

- **Pomme de Terre Lake** – Over the winter, cedar tree brush piles were placed at 15 locations on the Pomme Arm between Martin Flats and Wheatland Flats and 17 locations on the Lindley Arm in the Nemo area.

- **Fellows Lake –** In February 2015, MDC staff placed 30 new cedar tree brush piles and replenished aging brush piles throughout Fellows Lake. MDC also updated the Fellows Lake Brochure, which can be found at: http://mdc.mo.gov/regions/southwest

All GPS locations for fish attractors on Pomme de Terre and Fellows lakes can also be found online at: http://mdc.mo.gov/fishing/places-fish/fish-attractors-map. Also, the free ***FIND MO FISH*** application for smartphones shows you a map of Missouri with the locations of public boat ramps to major lakes and streams of Missouri. The map also shows the exact location of underwater fish structures. With the geo-location feature, you can guide your boat right up to your favorite fish attractor and start fishing. The app also includes annual fishing prospects and weekly reports for select bodies of water.

Michigan
Prepared by Cory K. Kovacs

Great Lakes Muskellunge Production:
2014- 36,228 fall fingerling Great Lake strain muskellunge were stocked in 23 waters; 1,510 Northern strain muskellunge were stocked in 2 waters (Mississippi drainage).
2015- 782,460 eggs taken; hatchery experienced 69.9% eye-up; hatchery has already stocked out 50,000 spring fingerling muskellunge to Lake Macatawa and 30,000 spring fingerlings to Mona Lake; additional surplus spring fingerlings are expected; MI production section targets 40,000 fall fingerlings (8-10”); minnow production at hatchery hopes to offset rearing costs for fall fingerling muskellunge

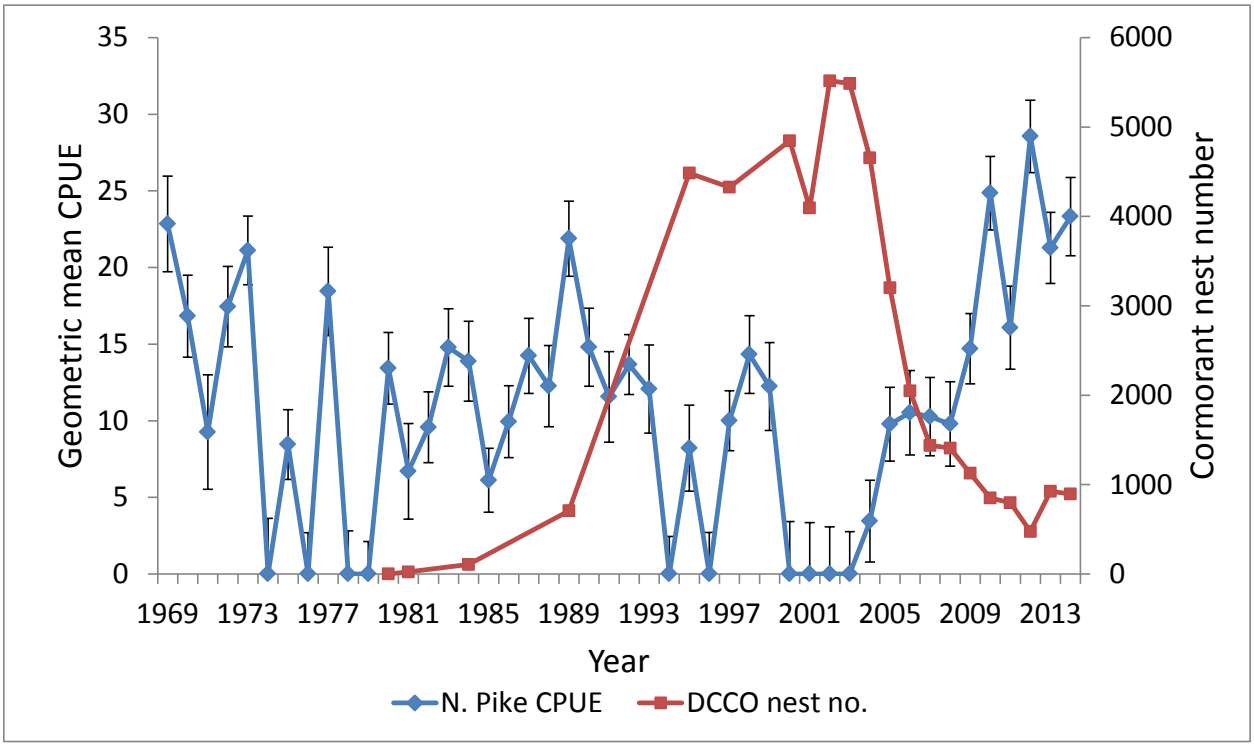
Stocking evaluations:
2015 spring samples found zero fish in Big Bear Lake (potential broodstock lake), Budd Lake, and Gun Lake. Sanford Lake 1 fish from stocking was collected. The division is working to improve sampling practices and collection efforts.

Regulations:
Still evaluating muskellunge harvest tag and its utilization and necessity. To date a total of 159,977 tags have been issues by vendors.

Muskellunge Angler Survey:
Survey will address MDNR desire to better understand angler values, catch rates, muskellunge population parameters, fishing behavior, and angler demographics; each year a total of 15 random new waters (N=116) will be sampled with postcards during fishing season; online survey is available all year; this project is a cooperative effort between Michigan Muskie Alliance and MDNR. In 2014, a total of 128 responses were collected. Most lakes had poor responses, while one lake in the Upper Peninsula had a high response rate of 82 angler trips (Kingston Lake, Alger County). This project is being conducted until all 116 muskellunge waters have been surveyed.

Esocid Committee:
Developing revised muskellunge stocking guidelines from 2004 to fit the current Great Lakes muskellunge program; committee is continuing to work with constituent groups to educate and inform them of ongoing projects and successes; working through growing pains of the Great Lakes muskellunge production program.

Lake Huron Northern Pike populations:
No specific project, but northern pike numbers have seemed to have rebounded in recent years of being depressed. Recent high water levels, cormorant control efforts, and improved yellow perch numbers are believed to be reasons for the improved northern pike numbers. See figure below:

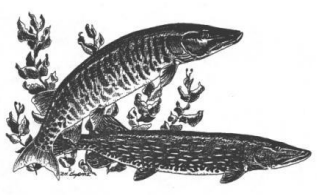


Error bars are two SEs of the geometric mean

Study "Effects of White Sucker manipulations of fish populations":

- 4 lakes (Iron County)
  - 1 sucker removal lake
  - 4 sucker addition lakes
  - 1 control lake
- Population estimates conducted for 3 years (2007, 2008, 2013)
- Population dynamics collected for northern pike
- Results:
  - 3 of 4 lakes had no significant change in northern pike population size
  - 1 lake had a significantly lower northern pike population size than initial estimate
  - Northern pike growth improved in 2 of 4 lakes

- Northern pike mean TL at Age-3 improved in 3 or 4 lakes
- Overall, the fish communities had no significant responses to sucker removals or additions



North Central Division American Fisheries Society

Esocid Technical Committee

Chair – Cory Kovacs: MDNR (kovacsc@michigan.gov)
Immediate Past Chair – Dave Kittaka: IDNR (dkittaka@dnr.IN.gov)
Chair Elect - TBD

2015 Summer Business Meeting Agenda

ETC/CTC/WTC Joint meeting at Dakota Nature Park, Brookings, South Dakota

July 23, 2015
Meeting Time 8:30am-12:00pm

- Approval of Winter Business Meeting minutes (see ETC Webpage)

- Budget (see attached)

- Committee Status
  - Solicitation for Chair Elect 2016
  - Membership

- 2016 Winter and Summer Business Meetings
  - Midwest Fish and Wildlife Conference Grand Rapids, MI January 24-27, 2016
  - Chicago area Shedd Aquarium-Summer 2016?

- 2016 Muskellunge Symposium Update- ETC Responsibilities/Role
  - Minnetonka, MN March 13-15, 2016 (see attached announcement)

- AFS Fisheries Monthly Article "Muskellunge and Northern Pike Ecology and Management: Important Issues and Research Needs"
  - ETC's role in addressing some of the issues and research needs identified

- Other Business
  - State Updates

Budget Summary

2015 Esocid	Description	Expenses	Deposits	Balance
01-Jan				$3,015.73
07-Jul	MM interest		$4.55	
		$0.00	$4.55	$3,020.28*

*Invoice for Past Chair's plaque not received at time of report. When account for, account balance will be less $25.

FIRST NOTICE & CALL FOR PAPERS

3rd International Muskellunge Symposium

March 13-15, 2016 - - Minnetonka, MN

Sponsored by MUSKIES, INC. and the

Esocid Technical Committee, North Central Division - AFS

Plan now to attend and present at the 3rd International Muskellunge Symposium, to be held March 13 – March 15, 2016, in Minnetonka, Minnesota. Muskellunge researchers, resource managers, and anglers from across North America will gather for three days of technical presentations, poster sessions, panel discussions, and great socials! **This symposium will also commemorate the 50th Anniversary of Muskies, Inc.**

Venue: The presentations and socials will be held at the Sheridan Minneapolis West, Minnetonka, MN. A block of rooms will be reserved at the Sheridan for a special symposium rate. Early registration for the meeting and lodging is encouraged and will run approximately **October 1 – November 15, 2015.** Registration will include all breaks and socials; there will be a reduced fee for presenters and students.

Arrangements: Please check Muskiesinc.org for questions regarding meeting arrangements.

Submit Abstracts for Presentations and Posters to the program Technical Committee, c/o:

Dr. Derek Crane, Lake Superior State University: dcrane1@lssu.edu

Final deadline for abstract submission will be approximately December 2015.

See you in the Twin Cities!

Sheraton HOTELS & RESORTS

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