

Centrarchid Technical Committee

North Central Division of the American Fisheries Society

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Chair Keith Hurley opened the Centrarchid Technical Committee summer meeting at Wyalusing State Park, Prairie du Chien, WI, on July 19, 2005. with a Centrarchid Bioenergetics workshop taught by Dr. Rob Hayward and his PhD student, Przymeslav Bajer. They covered their bioenergetic models for crappie, bluegill, largemouth and smallmouth bass, yellow perch, and Eurasian perch. They discussed the positives and pitfalls of using bioenergetic models. They also presented work on important sources of bias in the model and how to address bias.

Presentations by six members were made on July 20, 2005 following the completion of the bioenergetics workshop. Keith Koupal, NE, studied crappie recruitment and entrainment in Sherman reservoir, an aging reservoir with no aquatic shoreline vegetation, algal blooms, a changing fish community, and angler use problems. Crappie were marked with elastomer tags, which caused 0% mortality and had 100% retention. Keith found no relationship between larval and adult crappie densities, that adult crappie were most abundant in coves, and that crappies were being lost from the reservoir to irrigation canals.

Chris Chizinski, PhD at TX Tech, is trying to understand variation in bluegill growth potential, what factors contribute to increased early growth and reproductive investment and decreased age-at-maturity and ultimate length. Under severe food limitation, survival of stunted bluegill increases until stunted fish dominate the population size structure. He is using zebrafish as laboratory test animals, evaluating bioenergetic changes as he varies size at maturity and prey energy density. He'll then compare lab results to those from fish populations sampled in the field and develop a model based on his findings.

Ed Braun, IN, evaluated the quality largemouth bass population in one of the few of 800 natural lakes in the state with no shoreline development. Shad are present in the lake but it had no fishing pressure until opened to the public fishing in 1993, with an 18 in. size limit on bass. Fishing pressure increased 125% by 1999 and 40% of anglers were targeting bass in 2002. Bass CPUE and PSD increased, while RSD-18 and numbers, based on two population estimates, decreased. The size distribution shifted to large individuals due to a large year class recruiting to the fishery. Young bass grew well from 1993-05 but adult growth was depressed. Adults may be food-limited: few shad were sampled in 2005. In 1996, a 12 in. limit and a bag of 6 was instituted, which decreased exploitation in 1996 from 38% to 23% in 2002. Bluegill anglers were unhappy with changes in their fishery.

Jeff Jolley, NE is modeling bluegill recruitment, other biological variables, and climate in the shallow Sandhill lakes with considerable macrophyte coverage. Bluegill larval abundance peaks in early Aug and mid to late August whereas yellow perch peaked in

mid May. In 2005, yellow perch again peaked in mid May but at much lower bluegill abundances. The results will be used to identify and supplement management actions for optimal bluegill recruitment.

Cindy Tomcko, MN, wants to find out if shoreline development is having negative effects on fish populations. She will examine the relationship between bluegill population dynamics and submerged aquatic vegetation. She has estimated bluegill mortality, both total and natural, age at maturity, and production. To characterize the aquatic plant community, she used estimates of plant species richness and floristic quality indices (FQI). The largest correlations she found were between natural mortality and FQI, -0.41, tR, a maturity estimate developed by He and Stewart and FQI, 0.31, and between MEI, and FQI, -0.59. She has one more plant community index to calculate, which will estimate value to fish of the sampled plant community.

Keith Hurley, NE, summarized a published paper by Mark Porath and himself on whether bluegill growth rates were affected by waterbody type, presence of gizzard shad, and management actions, such as supplemental feeding and fishing regulations. They found that young bluegill grew faster in Sandhill lakes and older bluegill grew faster in mine pit lakes, compared to growth in reservoirs and small ponds. In mine pits, supplemental feeding increased the growth of age 2 bluegill, while shad decreased growth of age 2 and 3 bluegill. In reservoirs, shad decreased growth of age 3 and 4 bluegill.

During evening fishing on the river, Ed Braun showed himself to be a most effective angler: he caught and released the most fish, the biggest fish, and the greatest variety - northern pike, freshwater drum, and sauger.

The business meeting was conducted on July 21, 2005 and attended by 9 members. The secretary's report from the December 2004 meeting was posted on the CTC website, ctc@khurley.net. It was moved and seconded to accept the report as written. The treasurer was unable to attend the meeting. Cindy presented the financial report prepared by Randy.

OLD BUSINESS:

Black bass database: Mike McInerny has finished revising it and has submitted it to Fisheries.

Poster reprints: Mike found that In-Fisherman no longer had the originals. Printing new posters would require scanning an old poster, both more expensive and with a loss in image quality. Cindy contacted the SD, IN, and MI fisheries education coordinators who were no longer interested in the higher cost, lower quality poster. The MN fisheries education coordinator was interested and may pursue the project.

Grey literature list: Cindy Tomcko revised the previous list, produced in the early 1990s. The new list will be available on the CTC website.

2005 Black Bass Regulations/Conflict Resolution/Human Dimensions symposium:

Approval was given for this symposium just prior to the CTC summer meeting. Keith expected that 10 presentations would fill the Wednesday morning time slot but did not

have 10 confirmed speakers at present. Members decided that if speakers could not be found quickly, the symposium should be delayed until the 2006 Midwest in Omaha, Nebraska, to allow adequate time to organize speakers/abstracts.

NEW BUSINESS:

Centrarchid Bioenergetics workshop review: The workshop was attended by 20 people. Attendees were very satisfied with the excellent presentations, the workshop quality and content. Members discussed a possible topic for a future workshop - the effect of habitat/shore alterations on centrarchids.

CTC website/email list serve: Keith has been instrumental in setting up the CTC website. All members are on the list serve. As the NCD website will be changing its address, Keith will look into moving CTC to the NCD website. The new NCD webmaster is Joe Hennessy.

2005 annual meeting: We will hold our annual meeting at the 66th AFS Midwest Fish and Wildlife Conference in Grand Rapids, MI.

2006 summer meeting: Members agreed the summer meeting is a useful forum for the informal exchange of ideas. Keith suggested maximizing the opportunities for casual conversation about centrarchids next summer by hosting a float trip down the river. The fun never stops! We are attempting to schedule next year's summer meeting in July at Wyalusing State Park.

Nomination/election of 2006 CTC chairperson: Cindy Tomcko agreed to serve as chairman and was elected unanimously. Cindy is a research biologist for Minnesota Department of Natural Resources' Fisheries Division.

Representatives' updates:

IN – The new governor has changed the organization by moving the Lakes and Rivers Enhancement group to Fisheries and Wildlife, and creating a Dept. of Agriculture to deal with sediment and other water quality issues. Increased funding of boat registrations is going to exotic aquatics and dredging, enforcement, and county lake patrols. Lake associations hired applicators to write lake aquatic vegetation management plans, with the resulting quality being less than desirable. Eurasian milfoil continues to be a big problem. Ed will be starting research on the effect of whole-lake sonar treatments on fish, mainly bass and bluegill, for 3 control and 3 treatment lakes. Ed knew of only one lake, 120 acre, where sonar was applied. Milfoil was replaced by sago pondweed and bluegill RSD-10 increased but the effects disappeared when the treatment was stopped. SD – bluegill adults and larvae will be studied in 4 lakes, 2 with some and 2 with no bluegill over 8 in. to evaluate reasons for different size structures. Grad students are being asked to look out for cormorant activity, to determine if a cormorant-fish interaction study is necessary.

WI – bluegill and carp were found dead in a river near Steven's Point, with O₂ supersaturation blamed, due to overly dense aquatic vegetation.

IA – Bass regulations are being considered. Kay Hill is working on an aquatic vegetation project. IA is considering having all their scale aging done by a few qualified people. Yellow bass have been found in two barrow pits, most probably due to the 1993 Mississippi River flood, and will be eradicated with Rotenone.

MN – Bass, bluegill, and crappie regulation toolboxes are being used but regulations have not been in place long enough for evaluations to occur. Mike summarized his statewide crappie growth study. Mike is comparing aging crappies with scales and otoliths, finding scales good to ages 5-6, and scales from stunted crappie good to ages 2-3. Scale readers are variable, also Mike has found poor agreement at times. Mike has found that white and black hybridization is rare in lakes with cool springs potentially increasing hybridization due to increased spawning time overlap. Largemouth bass are not effective crappie predators in MN, possibly due to slow bass growth rate, 5-6 yrs. to reach 12 in. Dan Isermann is studying gear selectivity and exploitation of black crappie and yellow perch.

WI – Nancy Nate and John Nelson are co-chair of a Panfish Committee, which is composed of 1 representative for each of 5 regions. Panfish include bluegill, crappie, green sunfish, and yellow perch. The committee will discuss panfish issues, including regulations and standardizing baseline monitoring. Other state's panfish regulations are currently being compared, ultimately to come up with a panfish regulation toolbox. Typical bluegill harvest is 3/trip, much lower than 25 or 50/trip allowed previously. The committee recommends removing crappie from an aggregate panfish bag. Non-standard sampling was found to be a problem in the statewide database. Current electroshocking is designed to sample walleye with panfish assessed at only a few locations.

NE – Keith mentioned a video database of known-age fish put together by TX, which is available through AFS' Computer Users' Section website. Keith also talked about a 'perched' lake (no watershed) with abundant aquatic vegetation was supplementally stocked with 10-12 in. marked largemouth bass to knock down the bullhead population. A population estimate showed the bass survived, expanding the population by 28%. Cool, dry winters decimated the gizzard shad populations on 6-8 lakes with a 21 in. length limit on bass. Largemouth bass recruitment increased and bluegill growth improved.

Meeting was adjourned.