December 15, 2017

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Iowa Chapter of the American Fisheries Society

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Iowa AFS Meeting February 27-28, 2018 RSVP by January 12th!

President Elect ~ Scott Grummer



Secretary/Treasurer ~ Kyle Bales

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Visit Iowa AFS on the web: http://www.fisheriessociety.org/iowa/ index.html

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Our Mission:

To improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals.



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President's Corner Jonathan Meerbeek

To be completely honest, I have never read a President's Corner message from start to finish and usually skip to the "meat and potatoes" of the newsletter once I receive a copy. So naturally, my first step in writing this article was to look back at how past presidents addressed the chapter for their first official act of communication to the group. Although topics and delivery techniques varied quite substantially, one theme prevailed – gratitude towards past leadership. My hat goes off to Jeff Kopaska, Lewis Bruce, and Ryan Hupfeld as I believe they did a great job in their past IA AFS positions. We need more people with the passion and dedication for not only their job, but the mission statement of the IA Chapter AFS. Our Fisheries Chief recently did our chapter a great service by pursuing approval from the DNR's Division Administrator for DNR



staff to attend an overnight meeting. Support and recognition of the benefits of attending Chapter meetings is important to have from upper level management and our gratitude towards their service often becomes overlooked. In "tricky" times as these, it feels good to know that we have staff that continually try to do the right thing. With that said, I encourage you all to mark your calendars for February 27th – 28th, 2018 for the IA Chapter AFS meeting to be held at Honey Creek Resort, Moravia, IA. Please see the formal announcement located later on in this newsletter and consider sharing your work via an oral or poster presentation. Last year we were unable to host an overnight meeting and although the 1-

day meeting went exceptionally well, the opportunity to mingle with other fisheries professionals, students and university staff was severely dampened. This year, we plan to have a fun social and raffle and there should be plenty of time for folks to mingle and discuss the good work we do. Please take the time to thank Joe Larscheid, George Scholten, and Dale Garner for recognizing the importance of these meetings. Simply put, they would not happen without their support.

One topic that I feel obligated to discuss is the recent increase in Chapter dues from \$10 to \$15 per year. The last time our Chapter fees have been increased was in 2004, from \$5 to \$10. According to our Chapter bylaws, the Executive Committee may assess fees necessary to cover the costs of the meeting and Chapter activities. In October, a vote was held by the Executive Committee to increase Chapter dues by \$5 and passed. We felt this increase was necessary to offset rising consumer costs and to meet our mission statement and recent objectives set forth by prior and current leadership. The funds generated in this increase will help assist students attend meetings, provide additional income for grants, and encourage Parent Society membership by providing lapsed or new members a one-time 1/2 reimbursement of membership fees.

There are many issues that one could address as incoming president of the Chapter; however, I feel that more could be accomplished by asking each Chapter member to make a "New Year's Resolution" that just might change someone's life. You see, I came from a small, Northwest Iowa town that didn't have much in terms of aquatic resources. My parents did not hunt, and only occasionally fished. Unlike most of you reading this, I did not grow up going on family hunting/fishing trips and knew relatively little about the living world around me. My enthusiasm for the outdoors was born by a simple act of a high school biology teacher inviting me on an afternoon bass fishing trip to the local gravel pit. It only took a few casts and I was hooked forever! I firmly believe that one-on-one contact is the most effective way to "hook" potential advocates for the resource. I know that I could do a better job at sharing my love for the outdoors with those less fortunate and I bet that there are others that feel the same way. Therefore, I challenge myself and each of you in the Chapter to make a New Year's resolution to introduce a student, neighbor, or other acquaintance to your passion for the outdoors. Just think, as a group, we could change the lives of nearly one hundred people. Now that's something I think each and every one of us would be proud of. Happy Holidays and I look forward to seeing everyone in February!

Iowa AFS Secretary Note ~Ryan Hupfeld

Iowa AFS Members,

On September 22, 2017, I fell victim to fraud and ended up losing \$5,000 of Iowa AFS funds. An unknown individual posed as "Jeff Kopaska" in their email asking to transfer this money to a vendor for "professional development". We had previously discussed working with the Parent Society to encourage professional development and encouraging members to get involved, so this made sense to me at the time. I did not realize I was interacting with a fraudulent individual until after the money was transferred. I checked these emails on my phone, thus did not see the actual email address, only the display mask "Jeff Kopaska". I realized it was fraudulent within 10 minutes of making the transaction and immediately called Wells Fargo Fraud Department to try and resolve this issue and get the money back. They proceeded to contact the bank the money was transferred to, however that bank did not get the account frozen before the funds were disbursed. Due to the funds being withdrawn, there is likely no way to get this money back. I have filed a police report and the county attorney is following up on this case by filing subpoenas to get as much information as they can and trace it back as far as they can. Unfortunately they informed me that in most of these cases it leads to an overseas account and nothing can be done.

You may wonder how this even came about. It is likely that the fraudulent individual perused the Iowa AFS web site, where officer names and contact information are displayed. We do this to benefit individuals in our profession who want or need to contact our chapter. However, this probably provided the opportunity for this nefarious activity to occur.

I am truly sorry for my lapse in judgment and feel terrible about this mistake. Multiple red flags popped up in my head and I should have heeded those. I will assist Iowa AFS in any way possible to help recuperate the lost funds. Additionally, while these are some fairly common sense actions to take, I think it is important to note some of the mistakes I made in this situation to avoid this in the future:

- Always double check the email address to ensure you are interacting with the person listed on the email.
- Know the by-laws and follow them. This is one of the red flags that came up while emailing with the fraudulent individual - "Jeff Kopaska". I knew the EXCOM could not exceed \$1,000, but trusted who I thought was "Jeff Kopaska". I thought maybe it was just an account with the Parent Society.
- Do not make a transaction such as this without talking to the EXCOM on the phone or in person.

Again, I sincerely apologize for this mistake and I hope you can forgive me for this. I have a huge desire to continue to contribute to the society in the future and I hope this incident doesn't hinder the chapter to continue to promote and enhance our fisheries and natural resources.

Ryan Hupfeld

2017 IOWA AFS ELECTION RESULTS

PRESIDENT ELECT ~Scott Grummer



I am a graduate of Iowa State University. I am currently a fisheries management biologist with the Iowa DNR based in Clear Lake. I have been a member of the Iowa Chapter of the American Fisheries Society for 20+ years and parent society for the last 2.5 years.

As an employee with the Iowa DNR I have worked with natural lakes, small impoundments, and a Federal flood control reservoir. These varied job experiences have given a broad perspective on issues influencing fisheries within Iowa.

I look forward to the opportunity to potentially serve as President of the Iowa Chapter of the American Fisheries Society.

SECRETARY/TREASURER ~ Kyle Bales



I began my academic profile gaining my B.S. in Biology at Central College in Pella, IA, where I quickly realized my love for the environment. While at Central I worked closely with my professors in the field gaining experience in both wildlife and aquatic ecosystems. As an undergraduate I worked with a local Conservation Board where I gained experience as a conservation supervisor performing both wildlife and aquatic system management. From that point, I started my M.S. at Southeast Missouri State University through a cooperative agreement with the Missouri Department of Conservation where I was the crew leader/ supervisor on a Lake Sturgeon assessment in the Upper Mississippi River. I was also heavily involved in many other projects that were being carried out by the Big Rivers and Wetlands field station including five other graduate student pro-

jects (e.g., Asian carp population ecology, Grotto Sculpin assessment, Paddlefish demographics, and biological opinion sturgeon assessment). Academically, I have been active at numerous meetings (Missouri River Natural Resources Committee, Upper Mississippi River Conservation Committee, Mississippi River Research Consortium, American Fisheries Society Parent Society, Iowa/Nebraska American Fisheries Society, and Midwest Fish and Wildlife Conference) where I have presented 20 paper/poster presentations. I was awarded the best student poster at both the 2013 Missouri River Natural Resources Committee meeting and the 2013 Iowa American Fisheries Society subsection meeting. I was also an honorable mention for the Skinner Award at the 2014 American Fisheries Society Meeting and the recipient of the travel award at the Mississippi River Research Consortium in 2014. I have three papers in preparation with outlets including Transactions of the American Fisheries Society, Journal of Applied Ichthyology, and North American Journal of Fisheries Management. In addition to my fisheries interest, I am also very interested in staying active within the Iowa Chapter of the American Fisheries Society. I am currently a member of the American Fisheries Society and involved in many subsections including, Missouri Chapter, Iowa Chapter, Fish Management Section, Fish Habitat Section, Fisheries Information and Technology, and the Student Subsection of the Education Section. I was the North Central Division Student Representative where I worked to interact with the student subunits throughout this division. I was also a student judge for best student presentations at the 2013 and 2016 Society meeting and evaluated best student abstracts for the 2014 Society meeting. I am currently the webmaster for both the Student Subsection and the Fish Management Section. I also serve on the Early Career Professional Committee of the Fish Management Section. At a more local level I co-created the student subunit at Southeast Missouri State University with my advisor Dr. Quinton Phelps. The student subunit was awarded the most active student subunit last year. Additionally, I have helped mold and mentor an AFS Hutton recipient while working with Missouri Department of Conservation. I am hopeful that my fisheries experiences and my active participation in AFS will allow me to become more active as the secretary/treasurer of the Iowa Chapter of the American Fisheries Society.

Volume 35, Issue: 3







jonathan.meerbeek@dnr.iowa.gov (IA DNR Staff - please register via Fisheries Statewide Announcement protocols)

Iowa Chapter AFS Meeting

2018 Annual Meeting at Honey Creek Resort

Moravia, IA February 27th and 28th

Register by January 26th

Abstract Submissions for Presentations (limit 250 words)

Submission deadline January 12th

scott.grummer@dnr.iowa.gov

Tentative Schedule

Tuesday 27th

- 12:00 1:00 Lunch and Registration
- 1:00 1:15 Welcome and Introductions
- 1:15 2:00 Plenary Speaker (Jennifer Terry, Iowa Environmental Council Executive Director)
- 2:00 4:30 Technical Presentations
- 4:30 5:30 Business Meeting
- 5:30 6:30 **Social**
- 6:30 7:30 **Dinner**
- 7:30 Auction and Raffle

Wednesday 28th

- 6:30 8:00 Breakfast and Registration
- 8:00 12:00 Technical Presentations

Natural resource professionals and students in Iowa will meet to share new research, management experiences, and valuable insight on fisheries issues. Come connect with other experts, meet students, and expand your knowledge of fisheries management and research.

More Benefits than Ever for AFS Members! Information from the American Fisheries Society Leadership

 Free Online Journals for

STARTING 2018

You have probably heard by now that our new publisher, Wiley, will start offering members free online access to all our journals, plus Reviews in Aquaculture – plus, the magazine. This is a big deal, and we are already getting very positive feedback from you on this. We are increasing our dues this year, too – just slightly – to keep up with inflation. Several of you have told me this was not a surprise, given that we haven't raised the dues in ten years. <u>Please</u> read my column in Fisheries to learn more.

Thank you again for your support of AFS. I know you have heard it before, but we really couldn't do it without you. Just take a look at everything we accomplished in last year's Annual Report (<u>click here</u>). Just look at the prolific research coming out of the Annual Meeting. Not only do you support us through dues, but you are the best volunteers in the world. It is an honor for me to serve you as president of AFS.

Steve Mc. Mullin

Members

AFS President 2017-2018

President's Commentary



I think I can safely assume that just about everyone hates to pay more for something today than they did yesterday. Paying more for something is even more frustrating when you get the same amount, or even less, of a product than you did before. I think that the marketing slogan "new and improved" is code for less and more expensive. Nevertheless, we acknowledge that inflation occurs and prices inevitably rise. Wouldn't it be nice if just once, when the price of something increased, you actually got more for your money? AFS members will get more for their money when the increase in dues approved by the AFS Management Committee in August in Tampa goes into effect in 2018.

See next page for details



NOW INCLUDED

- Transactions of the American Fisheries Society
- North American Journal of Aquaculture
- North American Journal of Fisheries Management
- Journal of Aquatic Animal Health
- Marine and Coastal Fisheries
- Fisheries Magazine (print & online)
- Reviews in Aquaculture (Wiley journal)

2018 DUES

Regular - \$95 Student - \$25 Young Professional - \$50 Retired - \$50 Developing Country - \$10

.

HOW MUCH WILL YOU SAVE?

Enjoy free online access to all five AFS journals, now included with your membership! If you subscribe to one journal, you will save \$10 per year. Your savings can add up to more than \$100 if you currently subscribe to multiple journals. Or, for the price of just a few à la carte article downloads, now you can have unlimited access to almost 150 years of scientific knowledge.

EXAMPLES OF SAVINGS

Regular member with 1 journal = \$105, now \$95 Regular member with 4 journals = \$186, now \$95

EASIER TO USE

New interface does not require yearly token redemption. Print subscriptions are still available at the same cost as previously.

TOTAL SAVINGS

With up to \$200 off Annual Meeting registration and 30% off books, your annual membership can save you hundreds of dollars per year.

.......

And, don't miss out on all of the other continuing benefits for AFS members!

- "Fisheries" monthly magazine for members only
- Online and face-to-face training, workshops, webinars, and other courses
- 30% off all books, symposium proceedings, and other publications through the AFS Bookstore
- Networking and collaboration opportunities through technical committees, sections, regional meetings, and the national meeting
- Eligibility for travel awards, with increasing emphasis on assistance for fisheries professionals (versus students)
- Reduced meeting registration for the Annual Meeting
- Opportunity to comment on major policy issues anonymously
- Waiver of publication fees for journal articles
- Waiver of job posting fees for the AFS Job Board
- Opportunity for professional certification

Remember, Society membership is separate from Chapter membership. You can only get these benefits by being an AFS member. Join or renew today!

Evaluation of the status, distribution, and habitats of Northern Pike in the Upper Mississippi River

Kirk Hansen, Fish Research ~ Iowa DNR

The Mississippi River Investigations Team recently completed Project 7038: Evaluation of the status, distribution and habitats of Northern Pike in the Upper Mississippi River. Northern Pike provide an important recreational fishery for Upper Mississippi River (UMR) anglers. Despite their popularity with anglers, little recent (<30 years) information existed on Northern Pike populations in the UMR prior to this study. This study was initiated to provide information needed to inform Northern Pike management on the UMR in Iowa by: 1) evaluating methods used to sample Northern Pike, 2) assess Northern Pike populations across several UMR pools, 3) evaluate seasonal movements and habitat selection of Northern Pike on the UMR, and 4) evaluate the UMR Northern Pike fishery and angler opinions. Major findings from this research were as follows:

- Spring standard fyke netting yielded the highest catch rates of gears evaluated and was the most efficient method for sampling northern pike populations in this study but under sampled Northern Pike < 400 mm. Electrofishing yielded the least size biased samples but sampling efficiency and catches were too low to allow population demographic assessments.
- Mean catch rates were much lower in the lower impounded navigation pools compared to upper impounded navigation pools sampled during this study. Mean catch rates of Northern Pike in fyke nets were significantly correlated to total acres of backwater habitat within the pool sampled (Figure 1). The Upper Mississippi River Restoration Program's Long Term Resource Monitoring element Northern Pike day EF CPUE and percent frequency of submersed aquatic vegetation showed significant parallel increasing trends over time in Pool 13.



Figure 1. Relationship of mean spring Northern Pike fyke net catch rate to acres of backwater habitat in navigation pools 10, 11, 13, 16, and 17 of the upper Mississippi River ($r^2 = 0.90$, p = 0.0135).

 Maximum observed age for female Northern Pike was 10 years compared to 8 years for males. Female Northern Pike grew faster and achieved a greater size than males (Figure 2).



Figure 2. Male and female mean length at age (black diamonds) and Von Bertallanfy growth model (grey line) from Pools 10 and 13, Upper Mississippi River 2012-2013.

Males constituted 77% of fish captured from 325-575 mm TL, while females comprised 97% of fish captured >700 mm TL (Figure 3). UMR Northern Pike were robust with mean female Wr in Pools 10, 11, and 13 of 112, 116, and 122 and male Wr of 104, 108, and 105, respectively. Annual mortality estimates ranged from 47-59%.



Figure 3. Proportion of male, female, and unknown sex Northern Pike per 25-mm length class captured in spring standard fyke nets in Pools 10, 11, and 13, Upper Mississippi River 2011-

- Transmittered Northern Pike occupied backwater habitat extensively throughout the year and utilized overwintering backwater habitat in the same manner as Centrarchids (Figure 4; water temperature 2-5°F greater than main channel, little or no water velocity [≤0.03 ft/sec] with adequate dissolved oxygen). However, unlike Centrarchids, Northern Pike appear much more tolerant of flow and can utilize side channels or other areas of flow where backwaters are degraded.
- Cold water inputs (springs, cold water tributary mouths, etc.) do not appear to be vital to Northern Pike survival during periods of warm water. Results from this study indicate these areas are most likely sinks due to high observed harvest rate (67%) of transmittered northern pike that moved to cold water areas in the summer.
- A total of 523 angler interviews were conducted across the three fisheries management districts along the UMR. Anglers reported catching Northern Pike from every UMR pool in Iowa. The percentage of anglers that catch Northern Pike by district decreased moving downstream with 77.4%, 75.9%, and 15.3% of anglers reporting having caught Northern Pike in the Guttenberg, Bellevue and Fairport districts, respectively. Proportions of anglers that harvest pike (42.3%, 25.5%, and 2.5%) and specifically



Figure 4. Radio tagged Northern Pike locations from Sny Magill area Pool 10, Upper Mississippi River. Yellow dots (left) are open water locations. Red dots (right) are winter under ice locations. Black dots are main channel river miles.

targeted pike (27.4%, 17.9%, and 2.5%) followed a similar downstream decrease (Table 1). This mirrors changes in river habitat and decrease in Northern Pike populations that are observed along the Mississippi River in Iowa. Of anglers that reported specifically targeting Northern Pike, 27% stated they don't harvest them, indicating the presence of a trophy catch-and-release fishery.

Table 1. Number of interviews and proportion of anglersthat reported catching, harvesting, and targeting NorthernPike (NP) on the Mississippi River within the Iowa Depart-
ment of Natural Resources Guttenberg, Bellevue, and FairportManagement districts during an angler use survey 2012 and
2013.

	Guttenberg	Bellevue	Fairport
Interviews	84	125	314
Percent Catch NP	77.4	75.9	15.3
Percent Harvest NP	42.3	25.5	2.7
Percent Target NP	27.4	17.9	2.5

Fish exposed to treated wastewater have altered behavior

Date: December 5, 2017 Source: McMaster University



New research points to the ongoing problem of prescription medications, personal care products and other drugs that end up in the watershed and the impact they have on the natural environment

A team of researchers from Environment Canada and Climate Change Canada and McMaster University have found that fish living downstream from a wastewater treatment plant showed changes to their normal behaviour -- ones that made them vulnerable to predators -- when exposed to elevated levels of antidepressant drugs in the water.

The findings, published as a series of three papers in the journal *Scientific Reports*, point to the ongoing problem of prescription medications, personal care products and other drugs that end up in the watershed and the impact they have on the natural environment.

"Fish can be seen as the canaries in the coal mine," says Sigal Balshine, a professor in the Department of Psychology, Neuroscience & Behaviour at McMaster and one of the authors on the papers. "The fish that make their homes in the receiving waters downstream from wastewater treatment plants absorb these chemicals and therefore can be our water sentinels."

For their research, the team caged gold fish at various sites in Cootes Paradise watershed -- designated as a Great

ScienceDaily

Lakes Area of Concern by an international environmental commission -- and at a control site in Jordan Harbour, which is located between Beamsville and St. Catharine's on the shores of Lake Ontario.

Their analysis found several commonly prescribed antidepressants, known as serotonin uptake/reuptake inhibitors, in the blood plasma of the fish that were caged in the Cootes Paradise Marsh, downstream from the Dundas Waste Water Treatment Plant.

The drugs, say researchers, increased the levels of serotonin in the fish, which in turn affected their swimming behaviour. In short, the fish caged closest to the source of the drugs were bolder, less anxious, were more willing to explore, and more active overall than the fish caged at Jordan Harbour.

Because the affected fish were less anxious, their altered swimming patterns could make them more susceptible to predators. They began moving again faster following a simulated predator attack.

"Taken together, our results suggest the fish downstream of waste water treatment plants are accumulating pharmaceuticals and personal care products at levels sufficient to alter neurotransmitter concentrations and to also impair ecologicallyrelevant behaviours," says Jim Sherry, a research scientist with Environment Canada and lead author of the study.

Researchers also point to other molecular changes in the fish which point to drug induced injury to the liver and compromised lipid metabolism.

With an abundance of rivers, lakes and oceans, researchers suggest that most Canadians don't appreciate the seriousness and need for safe water reuse.

"Over one billion people on our planet lack access to clean drinking water and a number of serious water borne diseases are caused by improper water treatment," says Balshine. "Water treatment and reuse must be a top priority for municipalities, regions and countries and so understanding the impacts of water treatment on ecosystem function is necessary first step to ensure that we have a sufficient water supply, maintain our biodiversity and protect the health of our ecosystems."

The study was funded by the Great Lakes Action Plan (Phase V) and the Build in Canada Innovation Program.

BGR

Scientists discover that eating fish makes you smarter, helps you sleep better

Mike Wehner

December 27, 2017

http://bgr.com/2017/12/27/benefits-of-eating-fish-omega-3-higher-iq-better-sleep/



An apple a day might keep the doctor away, but one seafood meal per week could provide lifelong benefits including a higher IQ and better sleep. A new study conducted by scientists at the University of Pennsylvania demonstrated a clear link between the consumption of omega-3 fatty acids — most commonly found in fish — and heightened intelligence, as well as higher quality sleep.

The research was largely based on a huge sample study of over 500 children between the ages of 9 and 11. The children, of whom 54% were boys and 46% girls, provided information on their eating habits, including how often they consumed fish. Then they were asked to take an IQ test, and when the resulting data was matched up with their questionnaire responses, it became clear that a link exists between higher IQ and consumption of fish. Similarly, the parents of the children in the study were asked to submit answers regarding each child's sleep quality. The length of sleep, frequency of daytime napping, and other factors were included in the questionnaire. The data supported the notion that omega-3s, even when only consumed occasionally, do promote better sleep.

The study builds upon past research into omega-3s that linked the fatty acids to better quality sleep and higher intelligence, though no previous studies managed to link them all together at once.

"It adds to the growing body of evidence showing that fish consumption has really positive health benefits and should be something more heavily advertised and promoted," Penn's Jennifer Pinto-Martin, a professor of epidemiology, said. "Children should be introduced to it early on."

In the future, the researchers hope to expand on their findings by diving deeper into the types of fish that seem to be most beneficial, while also performing "randomized controlled trials" to see what other benefits high consumption of omega-3s can provide.

What's particularly important about this study is that the information is actionable, and increasing your consumption of fish (and omega-3s in general) is a relatively painless process. Even just one meal of fish per week seems to be enough to prompt big gains, so it's a bit of a no-brainer.

Application form Fisheries Project Grant

Iowa Chapter – American Fisheries Society

Project Name:	
	<u>.</u>
Attach map or supple	nentary information
Project Location:	
	County:
Start Date:	End Date:
Project Personnel:	
Fisheries Benefits:	
lowa Chapter Represe	ntative:
Amount needed: \$	Total project cost: \$
Money will be used fo	r:
Up to \$1,000.00 per p	roject.
Approved by Excom C	ommittee Date:

The Iowa Chapter of the American Fisheries Society is offering to help finance worthwhile fisheries related projects. The completed application form needs to be transferred to the Iowa Chapter President by an Iowa Chapter Member.

Project Name – Give the project name.

Project Description – Give a brief review of the intended project. Include the work to be done, the methods and material that will be used in the project.

Attach a map and any supplementary information that you think will help the Excom Committee evaluate the project.

Project Location – Where will the work be done.

Start and End dates for the project. Month and calendar year will do.

Project Personnel – Include organizations and or individuals who will be directly involved in the work.

Fisheries Benefits – A very important part of the project should be direct benefits to Iowa's fishery. How does the project help and who is the beneficiary?

Iowa Chapter Representative – All projects need to have and Iowa Chapter member as a sponsor.

Amount needed – Tell us how much you need and the total project cost.

Money will be used for – Be as specific as you can. Will the money be used to hire people, buy, equipment, be seed money for a grant, etc.

There is a \$1,000.00 limit for each project.

The Excom Committee of the Iowa Chapter will review the application and approve or reject the request.