**TO: BIG CEDAR LAKE PRD** 

**RE: FISHERIES COMMITTEE REPORT – SUMMARY FOR PRD** 

**DATED: MAY 17, 2022** 

**Purpose:** In Fall 2020, the Big Cedar Lake Protection and Rehabilitation District empowered a three person committee to interface with the DNR, and provide an update on the BCL fishery. On the committee are Property Owners Association Representative Scott Rolfs, Thursday Night Fishing Club Representative Matt Herther and PRD Commissioner Chris Genthe.

**Actions:** Over the past year the group has had numerous interactions with DNR representatives. Below is a summary of these interactions, and recommendations to the PRD

**Executive Summary:** The BCL fishery continues to experience strong angler demand, due the proximity to the Milwaukee Metro Region, and an ever-growing population in Washington County. Additionally, the lake is unique in that the South Basin has certain areas of extreme depth (75-100 feet) that provide for cool, clear waters not present in many of the inland lakes in Wisconsin. Finally, in the summer of 2000 the invasive species Zebra mussels, first made their appearance in large numbers in BCL, resulting in periods when there was even more extreme water clarity, and less zooplankton available in the food chain, as the Zebra mussels filter feed on such organisms.

These factors have resulted in a fishery that has had resultant boom/bust situations with certain fish populations. The lake also requires significant management by the DNR, in order to ensure a viable fishery for the public across many species of fish. One key area of concern is that Big Cedar Lake was without an assigned DNR fish biologist from November 2019 until March 2022. Additional fish surveys and overall future planning were somewhat compromised. BCL now has an assigned fisheries biologist, Ben Breaker, based in the Plymouth office. We have reached out to Ben, and suggest he be part of a future PRD meeting this year, to provide commissioners with insight to the DNR's approach to BCL.

#### **DNR Resources for this report:**

Despite the lack of an assigned biologist, we had great cooperation and information provided to us by DNR Regional Team Supervisor Laura Stremick-Thompson. Additional resources came from DNR fisheries biologist Travis Motl, who was previously the assigned biologist for BCL. Heidi Bunk, the assigned BCL representative for aquatic vegetation also provide key insights into the status of the BCL food chain for the fishery.

#### **Lake Fishery Report by Species:**

**Walleye:** A comprehensive fish study and netting was done in 1985 to establish a baseline for the DNR fisheries management. At that time BCL did not have a resident walleye population in detectable numbers. As a result of of this survey, the DNR began stocking Walleye in 1986. By 1988, a detectable population of the stocked fish was starting to show up in creel/catch reports. The Walleye fishery has since been supplemented by a variety of stockings done over the past 36 years, with some private stocking efforts to supplement DNR efforts. The stocking of Walleye has been of three sizes (fry, small fingerling of 1-2 inches, and large fingerling/extended growth 5-7"). The 2013 BCL fish study indicated that there were 2.1 adult walleye per acre. This is about the average population density for a lake relying primarily on stocking as BCL has in the past. For reference, neighboring Pike Lake has a walleye density of approximately 4 adult fish per acre. The reason for the double density of fish in Pike Lake is that fact

Pike Lake does support natural reproduction. Additionally, Pike Lake has more vegetation and plankton than Big Cedar, that aids in a more robust fishery.

It is the perception of the committee members and anglers that the Walleye population in BCL is in better shape than in past years, due to two recent changes made for the benefit of the fishery.

- 1. Bag Limit Change: The 2013 DNR report indicated that the Walleye population was not as good as we'd all like it to be. At that time the bag limit was 5 fish daily, with a minimum size limit of 15". Most of the fish produced in various netting studies were showing a preponderance of fish < 15". In 2018 the bag limit was changed to 3 fish daily, with a minimum size of 18". Due to the change in these regulations, and increased stocking, we have anecdotal reports that there are larger quantities of small walleye being caught. i.e. fish that in years past might have been kept by the angler.</p>
- 2. Private Stocking of larger size fish. The Thursday Night Fishing Club embarked on a private stocking effort to supplement DNR efforts. Since 2015 the Fishing Club has expended approximately \$50,000 to provide stockings when allowed by the DNR. The last such stocking was Fall 2020, when approximately 7,800 extended growth Walleye (5-7") were stocked. Approximately 5,800 were stocked at the Gonring launch and another 2,000 at the Cedar Lake Yacht Club launch. The average cost of such stocked fish will range from \$2.00 to \$2.50 per fish depending on market conditions.

While we do not have a recent fish study to gauge stocking progress, there is a belief that stocking the larger sized fish has been a more productive endeavor. A recent study by the University of Iowa from September of 2020, confirms that for certain lakes, the stocking of fry and small fingerling is not productive. In clear water environments such as Big Cedar, there is not enough plankton for the fry and smaller fish to survive. Additionally, clear water and lack of weed cover in BCL make these smaller fish more susceptible to be eaten by larger fish. The DNR representatives we interfaced with seemed to agree with these conclusions as it relates to Big Cedar Lake. As a result, we anticipate that DNR will continue to emphasize the stocking of larger fish, taking place on an every other year basis, to be supplemented by private stockings, in years the DNR does not stock.

BCL was on the DNR's list to have 9,320 large fingerling walleye stocked in the fall of 2021. We had assurances that stocking would happen. The DNR did **NOT** stock walleyes in Big Cedar (nor Silver Lake) as their plan contemplated. The DNR noted that the hatcheries were operating at lower capacity, and thus the cost of fingerlings was higher than what was in the DNR's budget. The term they used was "none were available for purchase within the contract guidelines". This was a very disappointing outcome, especially since we had such great ongoing communication with the DNR over the past year in compiling this report.

The optimum stocking ratio the DNR would like to see is 10 fish per acre annually. The Fishing Club stocking will gear up for a 2022 private stocking, as the DNR will not stock until 2023.

Since the Walleye stocking began in 1986, there has been little evidence of natural (or at least successful) reproduction. However, two electroshockings done by the DNR in September of 2019 did indicate a small but significant number of "first year fish" that they believe are a result of natural reproduction. It is plausible that the more successful stocking of larger fish, is allowing a greater number

of reproducing fish in the lake. However it is still indeterminate whether natural reproduction will play a material role in the success of the fishery.

One final note on the Walleye stocking efforts. There have been efforts made by different private groups to collect walleye eggs in the Spring, then artificially fertilize and hatch such eggs, and return the fry to the lake. In those cases, the fry are treated with oxytetracycline (OTC) to create a chemical marker for tracking efforts. In the 2013 BCL fish study, only 3 of every 50 walleye collected had this OTC marker. This seems to confirm the anecdotal evidence above, that the stocking of fry and small fingerlings is not nearly as productive as stocking the large fingerlings.

**Northern Pike**: Northern Pike have been a staple in BCL since the beginning. The combination of the Gilberts Lake spawning habitat along with the deep South basin have provided for the production of trophy fish over the decades. However, the Northern Pike population has seen its share of boom and bust. From the 1980 to 2000 period, the number of Pike significantly declined in BCL. In an effort to change that, a bag limit of 1, with a size limit of 40" was imposed. Essentially, the only Northern Pike an angler could keep would be a huge trophy fish. As a result of this change, the population of Northern Pike significantly rebounded.

Over the past decade, anglers began to complain that there were less panfish caught in BCL, with the obvious implication that the newly increased Northern Pike population was eating material amounts of the panfish. As a result of discussions with local anglers, in 2020 the DNR changed the Northern Pike regulations to a bag limit of 2 fish, with fish in the 25-35" range being protected. Fish below and over those sizes may be kept. The goal is to reduce the number of Pike in BCL, and see if that has an impact on panfish populations.

#### Cisco:

Cisco, also known as Lake Herring, are a baitfish that can run up to ten inches in length. Up until 2003, BCL held large schools of these fish in the Southern Basin. Fisherman with sonars or graphs could mark the large schools as "clouds", usually running in depths of 40-80 feet of water. For many upper Midwest lakes, Cisco have been an important part of the eco-system. In the case of BCL, the Cisco population provided needed forage for the Northern Pike. The presence of a healthy Cisco population also prompted the DNR to stock Lake Trout in BCL from the period running 1985-2004 (more on Lake Trout below). There have been discussions with the DNR about possibly restocking Cisco in Big Cedar, Elkhart and Big Green Lake. This has not been advanced though due to Covid staffing issues.

In 2003, BCL experienced a massive die off of Cisco. DNR netting studies in 2006 and in 2013 did not turn up the presence of a single fish. There are no easy answers as to why the die-off occurred. It is believed that water temperature and oxygenation levels experienced significant shifts that summer that prompted the die-off. It also is possible that the change in BCL's water quality due to the new population of Zebra mussels may have contributed as well. The DNR would like to explore a re-stocking effort of Cisco in BCL. However two items are holding that up. 1) We still need an assigned biologist to champion and manage the effort 2) There is still a great deal of study taking place related to Cisco genetics, and where the most appropriate gene pool these stocked Cisco would come from.

#### **Lake Trout:**

The comprehensive Spring 1985 DNR fish study indicated that BCL would likely support the introduction of Lake Trout. Similar to Big Green Lake, BCL has both deep clear waters and a population of desired forage fish (Cisco). Over the next 20-years Lake Trout of various sizes from 2" to 5" fingerling were

stocked at various intervals. Fisherman targeted these fish in the summer with downriggers and deep jigging, and in the winter via ice fishing in the South Basin. For whatever reason, the population did not take. Occasionally an angler would catch a lake trout and report it, but for most fisherman it was a very frustrating species. DNR netting or electro-shocking operations in 2005 and 2013 did not turn up any Lake Trout. Note that Lake Trout were not native to BCL but were stocked. Hold this point for reference regarding Lake Sturgeon below.

**Largemouth Bass:** The lake has always had a healthy population of Largemouth Bass, with most under the size limit of 14". Anecdotally the Largemouth population has been down in recent years. Some speculate the presence of more Northern Pike predation. Other speculation is the loss of certain weed habitat. Nonetheless, this species does naturally reproduce in good numbers in BCL.

#### **Smallmouth Bass:**

While Smallmouth are present in many Wisconsin Lakes, for whatever reason they have not shown up in any numbers in BCL. Every few years an angler will make a verified catch of a Smallmouth. Given the presence of the other gamefish in the Lake, there has not been any focus or effort on the Smallmouth.

White Bass: There are White Bass present in BCL, but in very small numbers. They are a boom/bust fish, with there being an observable crop certain years.

**Yellow Perch:** The Perch situation is one of debate. Many years ago, there was a decent population of perch, and perch of size in BCL. In recent decades that number has dropped dramatically, along with the size of the Perch. There is no clear answer, but some possible culprits are: Zebra mussels filtering out needed nutrients, loss of habitat, competition with stocked walleye, greater prevalence of Northern Pike as predators or any combination of these factors.

Crappie and Other Panfish: These fish are also on somewhat of a boom/bust cycle year-to-year. The DNR conducted a listening session last summer for BCL pan fisherman to discuss their observations. There was no significant consensus, other than the numbers seemed to be down a bit. Much of the discussion centered on the new Northern Pike size limits (see above) and whether there were simply too many Pike in the lake, preying on said panfish. We do not have a sense of whether or not Walleye might also be contributing to smaller numbers of panfish, however, in most lakes, an overpopulation of Northern Pike has been the issue.

Lake Sturgeon: BCL is one of the very few waterbodies in the State with a population of Lake Sturgeon. The initial (and current population) is a result of a stocking truck breaking down a trip from Lake Winnebago in approximately 1930. The operator of the truck elected to dump their cargo in BCL. There is no known natural reproduction, so the fish you see are likely now 90-years old. Most are in the five to six foot long range. There are usually a few sightings of these magnificent fish each year, and every few years an angler will catch one of these fish. They must be immediately released.

Committee member Rolfs indicated to the DNR that he would lead and help raise funds to add new Sturgeon stock to the Lake. In discussions with DNR officials, they indicated that while BCL's water quality has obviously proven to hold sturgeon, they are reluctant to allow a stocking (even a private one) for a fish that is not native to a lake. They indicated they'd continue to assess the situation. If the PRD and enough residents petitioned the DNR, it is possible they might take a future sturgeon stocking under consideration. We would like the PRD to consider passing a resolution asking for the DNR to support a private stocking effort of Sturgeon.

#### Summary of Fishing Results from 2021 Per Fishing Club:

Fishing Report Overall- Thursday nights proved to be fair last year. Like normal, the bass and walleye fishing was strong in May and into June. Weed growth was significantly late. Both big bass and big walleye for the year were both caught before July 4th. Most weeks there were double the amount of undersized walleye compared to legal 18"+ fish caught. Bass fishing was subpar at best, most of the bigger fish were all caught using live bait. Big bass was only 19.5". Note: This was the first year in over 6 years that big bass was not 20" or over. Bluegill fishing was very good for most of the year. Perch numbers seem to be getting better, however, the number of bigger perch is still lacking. Overall the year has been average, but with all the weed growth changes and high public fishing pressure, the lake is doing well. We would like to see more DNR warden presence. I did not get out as much as I normally do on the weekends, but never saw a warden 1 time this entire year fishing on Big Cedar. I have seen undersized fish and over bag limits come off Big Cedar too many times and having the DNR presence on the lake is a big part to help enforce the regulations.

# **Aquatic Vegetation:**

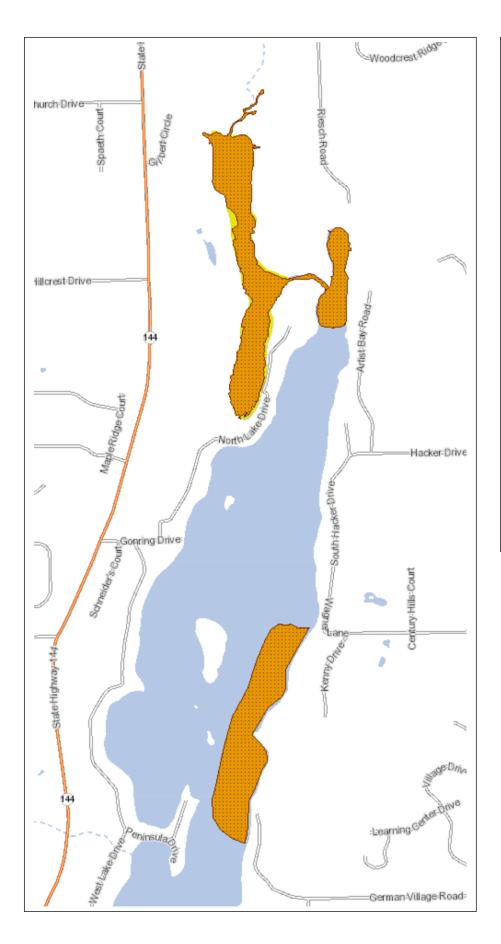
Aquatic Vegetation or as some refer to as "weeds" are a huge part of any eco-system. Committee member Scott Rolfs had an in-depth discussion with DNR Lakes Biologist Heidi Bunk. Ms. Bunk is responsible for Big Cedar Lake, as part of her portfolio of lakes encompassing eight counties. She has been the primary point person for BCL since 2000, and as such has a strong knowledge of the lake.

Aquatic vegetation is the key to any fishery. Vegetation provides critical cover and nutrients for the food chain, starting with the production of basic Zooplankton (ex: protozoa) and Phytoplankton (algae). They also provide a nursery for a variety of underwater insect life, crustaceans and then small forage fish (minnows, shiners, etc.). Additionally vegetation acts as a nursery for all fish (including gamefish) in providing needed cover.

The following items are challenges to the BCL aquatic vegetation system:

#### Preservation of Critical Environmental Habitat Areas.

BCL has three areas that have been designated by the DNR as critical environmental habitat, primarily because of the diverse aquatic vegetation present in these areas. BCL has three of these areas as outlined on the map on the next page.



Big Cedar Lake Areas of Critical Environmental Habitat per Wisconsin DNR

- 1. Gilbert Lake
- 2. North End
- 3. Area of Cedar Communities Shoreline

Below is the definition of Critical Habitat Areas from the DNR website (ITALICIZED):

#### CRITICAL HABITAT AREAS



Every waterbody has critical habitat - those areas that are most important to the overall health of the aquatic plants and animals. Remarkably, 80 percent of the plants and animals on the state's endangered and threatened species list spend all or part of their life cycle within the near shore zone. As many as 90 percent of the living things in lakes and rivers are found along the shallow margins and shores.

Wisconsin law mandates special protections for these critical habitats. Critical Habitat Designation is a program that recognizes those areas and maps them so that everyone knows which areas are most vulnerable to impacts from human activity. A critical habitat designation assists waterfront owners by identifying these areas up front, so they can design their waterfront projects to protect habitat and ensure the long-term health of the lake they where they live.

Areas are designated as Critical Habitat if they have Public Rights Features, Sensitive Areas or both. Public rights features (defined in NR 1.06, Wis. Adm. Code) include the following:

- 1. fish and wildlife habitat;
- 2. physical features of lakes and streams that ensure protection of water quality;
- 3. reaches of bank, shore or bed that are predominantly natural in appearance; and
- 4. navigation thoroughfares;

#### CRITICAL HABITAT DESIGNATION PROCESS

Selection of waters for Critical Habitat Designation is generally done as part of the DNR's biennial work planning process. This selection contemplates three basic factors:

1. quality of the resource;

- 2. amount of knowledge and information the Department holds regarding the water body; and
- 3. current and future risks of the resource to riparian development and in-lake activities.

After a lake is selected, DNR field staff compile and review the most current scientific data about the water body. Data is also solicited from local units of government, conservation organizations, federal agencies, local businesses and anyone who may have resource knowledge and information. This information is used to assemble maps to identify targets of focus related to fish, wildlife, endangered resources and their habitats.

Next, DNR staff conduct field work and surveys to identify public rights features on the lake and delineate their extent. The resulting maps and supporting data are compiled into a draft Critical Habitat Designation report, which is posted on the DNR's website for public review. The DNR must also give notice of the draft report to the local media, the county clerk and legislators. If requested or if concerns are anticipated, DNR typically holds informational meetings to answer questions and receive comments. Once public comment is received and the report is complete, Critical Habitat Designations are posted on the DNR website.

# HOW THIS PROGRAM AFFECTS WATERFRONT OWNERS

Critical Habitat Designations provide advance information to waterfront owners, to clarify the regulations that will apply when they want to do a construction project or activity along their shoreline. If a project is proposed in a designated Critical Habitat area, the permit jurisdiction or the permit process may change. This allows DNR to ensure that proposed projects will not harm these sensitive resources.

# **Commentary on BCL's three Critical Habitat Areas**

In talking with Ms. Bunk, she noted that these three areas are considered key lifebloods for the BCL fishery. We first discussed the area on the **East Central Shore** (directly off the Cedar Communities shoreline). That area had once contained diverse vegetation and fish and wildlife habitat, but much of it has been destroyed by frequent boating, swimming and wading activities that take place there on weekends over the past decade. She noted that the area, if protected, could regenerate itself. However, she also noted that it is challenging under current State law to prohibit boating and swimming by the public in specific areas of a lake.

If there was a desire to help restore this area in some respects, she said that the Town of West Bend might have an option to limit the area to the use of electric motors only. She also indicated that providing educational signage might be the preferred route to go. She said other lakes in Wisconsin struggle with this issue, noting that if the BCL PRD or Town of West Bend want to explore this further, they may want to consult with representatives at Lulu Lake in Walworth County. Here is a link to a news article on the Lulu Lake situation from 2014 -

> http://archive.jsonline.com/news/wisconsin/conservationists-vs-partiers--which-wild-will-it-be-on-lulu-lake-b99214126z1-248099291.html/

**Gilbert Lake** is the second area of critical habitat, and subject to numerous restrictions. Additionally, CLCF has done work to acquire surrounding properties to keep this area as natural as possible, including the area around the natural springs in Gilbert Lake.

The final area of critical habitat is the **North End**, directly adjacent to Gilbert Lake. Ms. Bunk noted that this area too, was extremely important to the BCL Fishery. This area is subject to significant restrictions on weed cutting, to help support the lake fishery and eco-system. She noted that the BCL PRD has an aquatic vegetation study done every five years, in conjunction with the BCL weed cutting permit from the DNR. She provided us with copies of the 2018 study and 2019 permit (which runs through 2023).

She indicated that the DNR does sometimes face pressure from residents on the north end, who desire more cutting, but reiterated that the area is Critical Habitat, thus only a 50-foot wide, three-foot deep swath along the piers is allowed. Additionally, residents in the critical habitat areas are required to obtain a permit to remove weeds by hand or hand blade. In years past there was some question whether Blanding's Turtles utilized not only Gilbert's Lake, but the North End of BCL. She said radio tracking showed the turtles did reside in the North End. The DNR views this area as critical to the BCL's eco-system.

### Impact of Shoreline Development on Aquatic Vegetation

Shoreline development also impacts the fishery. Runoff from new construction or lawns can put sediment into the lake. Piers, Docks and Boat lifts also shade out light for vegetation and crowd out fish nesting habitat. Ms. Bunk noted that Lake Geneva was currently experiencing issues with water quality and a diminished forage fish base (shiners). This was attributed to the increased shoreline development and boating activity there. She complimented the PRD and the Cedar Lakes Conservation Foundation (CLFC) for all the work done in the 1990's to acquire adjacent land and create run-off ponds and noted that was a major factor in BCL's good water quality. But she also cautioned that BCL is not immune from decline due to continued development and activity. She said BCL has lost some clarity over the past 20-years. She strongly encouraged the PRD and residents to look into the DNR's Healthy Lakes initiative,

which provides guidelines on how to increase shoreline vegetation and curb runoff. She noted that individual landowners can submit plans, and may be eligible to have up to 75% of the cost reimbursed via the DNR. The other 25% could possibly be reimbursed by a local PRD. Her recommendation was for BCL to keep pier footprints smaller, get more shoreline habitat going to filter out water and boat respectfully (more on that below)

The PRD may want to consider an education campaign to reinforce the benefits of residents creating more shoreline habitat.

## Impact of boating on Aquatic Vegetation

Recreational boating can have a significant impact on a lake's eco-system according to Ms. Bunk. Obviously competing interests must be balanced, but it is important to note that recreational boating can stir up the bottom sediment, create turbulent and cloudy water, damage fish nest habitat and uproot aquatic vegetation. She pointed to a 2001 study done on two Wisconsin lakes by Penn State professor David Hill. A news article summary of the study is here -

> <a href="https://news.psu.edu/story/140736/2003/01/01/research/wakes-lakes">https://news.psu.edu/story/140736/2003/01/01/research/wakes-lakes</a>. The full study is available for free online.

A few takeaways from our conversation with Ms. Bunk and the work of Professor Hill.

- a. Boat waves can impact the roots of aquatic vegetation as deep as 17 feet in depth (although most damage occurs in 7 foot water depths or less)
- b. Boats on a plane or boats at a standstill each have minimal impact on vegetation and water quality
- c. Boats getting on a plane or cruising at slower speeds (8-10 mph) will cause the most damage.

The Penn State study was done before the advent of wake boats. One of the ecological challenges wake boats present, is that they are engaged in a perpetual "pre-plane", displacing a large amount of water, and thus creating waves of far greater percussive impact by design. A recent study of wake boats from North Lake, indicated that with full ballasts, impact of wake boat waves can be up to seven times (7x) that of a normal boat wake. Ms. Bunk was asked whether the debate on wake boats was just beginning or if the debate is over and the wake boats have won. She noted that it would require State legislative action to provide any meaningful remedy on wake boats. She noted Lake Ellen had years ago banned the use of jet-ski's, but such ordinance was overturned by the courts. She also noted that Lauderdale Lakes had done a significant shoreline restoration project, that she said has now reportedly been lost to erosion from wake boating.

Recommend that the PRD conduct further research and discussion on wake boats with full ballast. Again anecdotally there appear to be less fully developed weed beds than in years past, especially on the South End. Are these weeds getting disrupted at the roots by virtue of the wake boats? We do not know this answer, but the weeds are critical to a healthy fishery.

## **Invasive Species**

The primary invasive species in BCL is the Zebra Mussel. The Zebras fully colonized the lake in the summer of 2000 and have been here ever since. Ms. Bunk made an observation, that most invasive species tend to enter a new area, have an initial period of massive growth, and then in subsequent years begin to subside, as the plant or organism naturally learns how much of a lake they can colonize. This appears to be the case with BCL. Our worst Zebra Mussel days were back in the early 2000's. The

species will continue to have some boom or bust years, but the populations likely are now at stable levels. One of the benefits of Zebra mussels is that they do filter the water extensively. This can result in periods of incredibly clear water. However, they also tend to filter out the most beneficial types of algae, leaving the less beneficial types to flourish. Additionally the loss of the beneficial algae has an impact on the food chain, thus impacting the fishery. There still are no proven treatments for Zebra mussels.

While Zebra mussels have settled into the lake, BCL must continue to be vigilant for other invasive species. In Lake Michigan, the current culprit is now Quagga Mussels. Quagga Mussels are much more aggressive feeders than Zebra Mussels and have no problem living at depths. They'd arguably find a nice home and colonize the entire South Basin of BCL if given the chance. From the period of 2000 to 2005, Lake Michigan went from 98% Zebra Mussels to 98% Quagga Mussels.

Another invasive species that could enjoy BCL's deep water would be Spiny Water Fleas. These invaders are present in Lake Mendota and a few other select lakes with cooler water temperatures. Spiny Water Fleas exist in giant underwater clouds, that hurt visibility and can get caught on fishing gear and anchor lines. A case could be made that these would be the worst invasive species that could potentially reach BCL.

Here is a link to a good story on invasive species via a video flimed at the PRD launch in 2018 - > <u>https://www.jsonline.com/story/sports/outdoors/2018/06/20/boatbuster-video-targets-spread-invasive-aquatic-species/716396002/</u>

Ms. Bunk complimented the BCL PRD on the installation of the new CD3 equipment and boat cleaning station at the Gonring launch. But that does beg the question of whether invasive species are being controlled at the other main launches on BCL (CLYC, CLH, Hacker, Boettcher). The PRD may want to take up the topic of what type of boat cleaning options or requirements should be considered for the other launches on BCL.

Ms. Bunk was asked her thoughts on Starry Stonewort. She noted that Little Cedar was having some issues with it, as was Pike Lake. However, she noted that Pike Lake does not engage in any type of aquatic management program, and that it is their belief that the Stonewort is starting to naturally decline a bit. She said that at the moment, there are no effective techniques to deal with it, other than hand pulling of the weeds (as is done in Little Cedar). She'd recommend hand pulling around the Gonring launch if it was found there. We did inquire as to Starry Stonewort's impact on the fishery. She said its presence could actually be a positive, with dragonfly larvae loving it.

# **Summary:**

Big Cedar is a beautiful and rare deep water lake in Southeastern Wisconsin. However, due its depth, water clarity and fishing and boating pressure, it will need constant management to ensure a strong ecosystem and fishery. We hope the items contained in this report will provide background and impetus for further discussion by the PRD, to help maintain and improve the BCL fishery for generations to come.