ATTN: Ron
708 403-6381

Hi John,

There are some basic protections through Statewide Regulations for walleye (14" minimum length limit, 6 fish creel), muskie and their hybrids (36" minimum length limit, 1 fish creel) and northern pike (24" minimum length limit, 3 fish creel). Our least protected predators are largemouth bass which have a Statewide limit of 6 fish per day (no size restriction). Part of the reason for this is that largemouth bass are pretty good reproducers and if fish at least 12" long are in the system - they will reproduce. Other predators (walleye, northern pike and muskie's - all types) are not good reproducers and require some special situations to reproduce in nature so often have to be stocked to maintain their presence.

Relative to your proposal - keep the concept of catch and release an experiment with a way out sometime in the future. Strict catch and release policies on public lakes causes problems with the public and those who are not as enthusiastic about the concept as tournament minded fishermen. Also - who's going to enforce the regulation. It can be frustrating and dangerous for fishermen to regulate other fishermen! Often, regulations are used by honest fishermen who may not need posted regulations because they generally don't harvest sportfish anyway.

It is common for fishermen not to be able to identify the difference between fish species (a channel catfish from a bullhead, a largemouth from a smallmouth, a muskie from a northern, etc. so unless your enforcement people can tell the difference between fishes, the concept of regulating a fishery breaks down on a second level.

Crappie usually don't need regulation, they need harvest within the most common size group and the most common size group is generally around 8" to 9" (fish stunt out at about the size they first become sexually mature). Crappie are prolific spawners (their very good at reproducing), meaning they are often more abundant than fishermen think, fishermen aren't good at catching smaller crappie - but they're there.

A 1 bass, 18" length limit is okay but in northern Illinois you'll probably stockpile fish somewhere below that length and stunt the bass population sometime in the future (I can't tell you if it'll be 5 years or 10 years but it'll happen) and one day your fishermen will be talking about the good ole days when they use to catch 6 pounders. At that time you'll have to remove the length limit and harvest a bunch of bass to allow things to balance out again. Again, this stuff will happen sometime well down the road but it will happen so that's why I say - use the phrase "experimental".

Feel free to give me a call if you need clarification! FJ

Frank Jakubicek
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ILLINOIS
DEPARTMENT OF NATURAL RESOURCES

Illinois Department of
Natural Resources

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Bruce Rauner, Governor
Wayne A. Rosenthal, Acting Director

April 19, 2016

John Bartgen
Andrew's High School Fishing Coach
9001 W 171st Street
Tinley Park, Illinois 60487

Dear John,

Please forward this cover letter and report to anyone (including Village Staff) who might be interested in this information. Enclosed is a brief summary of the work we conducted on Lake Sedgewick last fall to evaluate the fishery. The report gives general observations about the lake and the fish we collected. These are likely not the only fish species living in Lake Sedgewick and may not be the biggest or smallest individuals either. From the Village's website I noticed northern pike and walleye were mentioned but tough sampling conditions reduced our chances of capturing those species. Our sampling is a snapshot of the fishery vulnerable to the sampling gear we used on the day we were there. Not all fish are vulnerable to our gear-types or inhabit the areas we're sampling at the time, day, or season we're there. Sampling variation exists and should be kept in mind when looking over the summary. Our goal is usually to find the most common species in the most common sizes and make generalizations about fishery based on our observations. Occasionally we get lucky and collect the largest fish in the lake, but not always. A 6 lb bass is a pretty good attempt at collecting the largest fish but it's usually a fisherman who finds the really big fish!

The included Fisheries Status Summary is the format we use to easily disseminated survey data to the "fishing public" so it's sort of a one-stop-shop for lake information. Because we were targeting largemouth bass that species was our focus but the other 12 species we collected show things like; is there sufficient predation and diversity of predator species in the system to balance the fishery and is the lake made up of tolerant species (tolerant of poor water quality indicating low oxygen conditions existed in the past that may have killed off in-tolerant species). These questions are answered by the type and size of fish we collect.

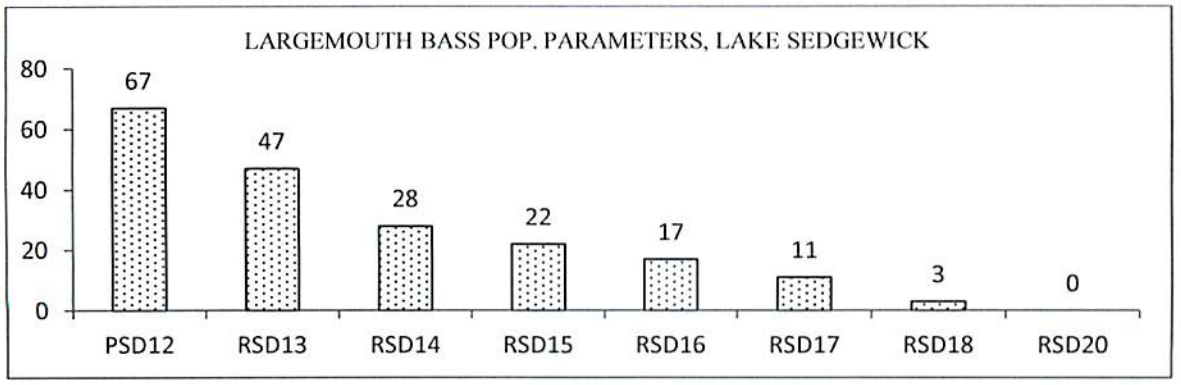
I'll elaborate more on some observations from our fish data since you're focus involvement with this survey was to educate young fishermen.

Sufficient predation: Predator species generally require better water quality than most forage species. If water quality drops (low oxygen), larger fish die before smaller fish; walleye and muskie require better water quality than largemouth bass and I've seen northern pike survive

where almost every other fish in the system died (so they're pretty tolerant of low DO especially in the winter!). To grow large bass like we saw in Lake Sedgewick suggests that water quality hasn't been a problem. The lake seemed to have enough sandy/gravelly spawning habitat and we collected small largemouth bass (2.8") indicating successful reproduction. Our catch per minute was below what I'd expect in a lake practicing "catch and release" but I think the sampling conditions hurt our ability to see and dip fish. We generally like to catch 1/fish per minute for a "typical" lake, we collected 0.91fish/minute this survey. In high quality bass lakes we often catch 2 or more bass/minute and when we collect 2 or more bass per minute we also see large size bluegill (8" and greater) and crappie (10" and greater). Sufficient predation crops off excess, small fish so once fish become too large to be eaten they can grow to their maximum size (get harvested or die of old age). Predator diversity (adding northern pike, muskie, flathead catfish to a system) brings fish into a system that are able to open their mouths larger and eat even larger prey compared to largemouth bass so a portion of the larger prey are cropped off. The next question people always ask is won't the muskie eat all our bass? The answer is fish eat what's most abundant in the lake so even though you may think bass are abundant because that's the fish you target and enjoy fishing for, in proportion to everything else out there they're only a small percentage of the over-all fishery and diet studies show they're occasionally eaten but not that often. The important thinks to remember about bass are they are "good" predators, they grow pretty quickly, they reproduce in most lakes, ponds and streams, and they're easy to catch. Most other predators have much stricter habitat and reproductive requirements to succeed over time so, in our area, have to be stocked to stay "present" in a system.

Tolerant vs. intolerant species: Predators are usually intolerant of poor water quality (they need good water), we generally use the standard of 5 part per million of oxygen for these fish to thrive. Predators can live for short periods of time below 5 ppm but 5ppm is the standard we use. Water is very complex and the amount of oxygen it holds changes depending on temperature so that might be a good lesson to investigate with your Club. Many non-predator fish tolerate of poor water quality so if the amount of oxygen drops below 5ppm for a period of time, predators die off and the non-predators survive. When non-predators survive in the absence of predators (predation) their populations explode and trying to rebalance the fishery is very, very difficult and takes a long, long time. That 6 lb bass you collected was probably 10 or more years old. I often tell muskie fishermen that the muskie we stock when your kids are in kindergarten will be 50 inches long when they graduate high school! It takes years and years to get the predator abundance up high enough to grow 8" bluegill and 10" crappie but when the lake is there it's pretty easy to maintain.

So tolerant fish are everywhere, they're ubiquitous, intolerant fish have standards they have to have to survive and when conditions arise that the intolerant fish die, tolerant fish populations can explode. It takes years and years (or piles of money) to get things back in balance following a catastrophic event.



The above figure shows the percent of bass greater than 8" long which are longer than the value shown. Proportional Stock Density (PSD12) indicates 67% of the bass we collected were greater than 12" long compared to the everything over 8". We use 8" as the comparative number because fish that are 8" long have survived their first winter of life. If a fish survives it's first winter of life, its likely it would survive to 12" (when they reach sexual maturity) so the PSD compares the number of mature fish to immature fish, if that number is between 40 and 60 we consider the population balanced. Sixty seven is close but says proportionally there were a few more fish over 12" than below 12" (a PSD of 50 would mean we collected equal numbers of mature and immature fish). Relative Stock Density (RSD) values are picked to compare possible fishing regulations, maximum size, or any other factor a biologist would like to compare (maybe a slot limit, etc). Since we see a gradual decrease in the RSD values this suggests that harvest is not a problem in the decline of abundance as fish get older and longer. A steep drop between two RSD values would indicate that harvest was a problem and larger fish were being cropped off by fishermen, our data doesn't show that.

If you have questions, need interpretation, or would like to discuss any part of the report please feel free to call.

Sincerely,

Frank Jakubicek – IDNR
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ILLINOIS
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LAKE SEDGEWICK

FISHERIES STATUS SUMMARY

LOCATION – Located in Centennial Park within the Village of Orland Park, north of US 6, west of Ravinia Avenue, in Cook County.

DESCRIPTION – Lake Sedgewick 75 acres; maximum depth 10 feet; average depth 4 feet. There is a concrete boat ramp on the north east end of the lake. Boats – Launch Fee Required, electric trolling motors allowed, gas motors should be propped up - max length 16'; kayak and paddle boat rentals are available during the summer months. No dedicated concession is available; no fish cleaning station is available.

MANAGEMENT ACTIVITIES: The IDNR occasionally samples non-Cooperatively Managed lakes to update the status of their fisheries so information can be passed along to the fishing public and used to best manage the resource.

STATUS OF THE SPORT FISHERY –Lake Sedgewick receives occasional stockings of largemouth bass, walleye, northern pike, black crappie and bluegill. The Village coordinates fish stockings for Lake Sedgewick. Below is a brief description of catchable game species in this water body

LARGEMOUTH BASS – In 2014, 55 bass were collected in 60 minutes of D/C electrofishing. Fish measured 2.8" to 19" long and weighed up to 6.2 lbs.; 67% of the bass were over 12" long, 28% over 14", 17% over 16" and 3% exceeded 18" long. The populations' size structure was balanced and geared toward a quality fishing experience. We like to see 50% of the bass collected exceed 12" long so adequate reproduction occurs. Largemouth bass begin reproducing (reach maturity) when they're 12" long.

BLUEGILL – In 2014, 54 bluegill were captured in one hour of electrofishing. Bluegill ranged from 2" to 7.5" long; 13% of the fish were over 6" long and 2% were over 7.5". As the bass become more abundant, the added predation will help bluegill grow larger by cropping off excess fish so there's less competition for food and less of a chance of stunting. Predation helps bluegills grow large.

BLACK and WHITE CRAPPIE – 15 black and 2 white crappie were collected in 2014. They ranged from 5.5" to 8.5"; Crappie are difficult to collect with electrofishing gear so sample numbers are almost always low. Crappie are efficient at reproducing and often "stunt" at the length they first mature (about 8") and that was about the maximum size we collected. Increased predation can help contain intra-specific competition for food and allow fish to grow larger.

CHANNEL CATFISH – No channel catfish were collected during this survey but since sampling conditions were so difficult (high winds and rain) we could have missed them and probably other species as well. In general, channel catfish need to be stocked every other year or two to develop and maintain their presence because they usually don't reproduce in smaller lakes well enough to maintain their presence – over time.

ADDITIONAL FISH SPECIES: Including the above, 13 species were collected during this survey. Miscellaneous species and their abundance includes: yellow bass (n=29), common carp (n=13), golden shiner (n=9), white sucker (n= 8), gizzard shad (n=6), yellow bullhead (n=6), black bullhead (n=5), pumpkinseed sunfish (n=1), and grass pickerel (n=1). Many of these species are considered tolerant of poor water quality

and typical of urban systems. Reducing carp abundance would help reduce sediment re-suspension from when they root-around along the bottom feeding on invertebrates. This would allow more light penetration and ultimately more plant growth. Plant growth helps improve water quality, increased water quality improves the predator vs prey balance, and a better predator prey balance improves fishing.

FISHING REGULATIONS – Statewide fishing regulations apply at this lake (see current Illinois Fishing Information booklet and IFISHILLINOIS website http://www.ifishillinois.org/ for specific details).

Additional Site Specific fishing regulations:

Boaters - Boats with electric trolling motors allowed, gas motors should be propped up - max length 16'
All fish species - Two pole and line fishing only.
Catch and Release is encouraged

CONTACT INFORMATION – Village of Orland Park: 708/403-6100.
IDNR Fisheries Biologist: 815/675-2319.

Lake Sedgewick Map