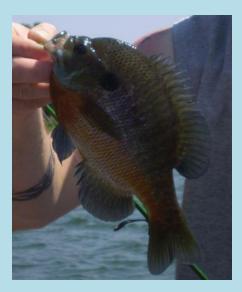
### Lake Arrowhead's Fishing Facts/2019 Outlook

This guide is to help you understand specific fish species, know the rules and regulations, and learn about fishing at beautiful Lake Arrowhead. Rules, regulations, species specific length, bag, and possession limits may change year to year due to new Nebraska Game and Parks statewide rules. Sometimes drastic changes in the Lake Arrowhead fish community may cause a new length limit or bag/possession limit change as needed. The Board of Directors and Lakeland Estates Shareholders can regulate and enforce rules that are different than some state regulations. These limits and regulations will be posted near access areas near the dam and boat ramp and will be updated if needed.

Please keep in mind a Lakeland Estates Permit MUST be displayed while parking/fishing from the dam or using the boat ramp access. Permits are available at the Lake Arrowhead Office. The boat ramp must be locked at all times, any shareholder launching a boat at Lake Arrowhead must get a boat sticker and a key for boat ramp, and all boats must be registered at the office. Keys and sticker colors will change every year. Violators will be asked to leave and are subject to trespassing!



Lake Arrowhead is approximately 23 acres and it has good structure, habitat, forage base, and depth. The average depth is 12 feet and the deepest portion is 28 feet deep. Lake Arrowhead has an inlet that brings fresh spring fed water into the lake and an outflow/emergency spillway sending water out of the dam. Lake Arrowhead has a diverse fishery with 8 species of fish available to anglers! Hopefully you will learn some things that will help your angling experience at Lake Arrowhead be more enjoyable!



### Bluegill

\*NE Daily Bag Limit: 15/Possession Limit: 30 No Length Limits Apply

\*Nebraska pan fish Limit is one species only or may be combined with others to fill full bag limit of 15 fish. **Example**: A full daily limit would be either 15 bluegill, or 15 crappie, **not both**. Or a daily bag limit could consist of 12 crappie and 3 bluegill (Or similar combo) to reach 15 pan fish limit.

NE State Record: 2lbs 13oz 12" NE Master Angler Size: Kept-1lb Released-10"

Stocking History-None recently/Not needed

Lake Arrowhead Average Size: 7"-9" \*See available chart for Age/Length/Weight/Growth Rates

Bluegills prefer water temps in the mid to upper 70 degrees. Bluegills feed mainly on small crustaceans, plankton, fish fry, and aquatic insects. They eat more larval insects than adults, although there are times when they will take large numbers of adult insects off of the surface.

Bluegills spawn in spring when the water temperature reaches the upper 60's to low 70's. The male selects a spawning site, usually at a depth of 3 foot or less, on a sandy or gravelly bottom protected from the wind. Many beds are next to each other forming colonies that are saucer shaped light depressions in the bottom. The bluegills reproductive potential is extremely high, with a single female sometimes depositing more than 200,000 eggs! Spawning usually takes place around a full moon period. Unless there is enough predation to thin the bluegill crop, stunting (slow growth rates/small fish) is likely. As a result lakes with low bluegill populations generally produce the largest fish. This is why Lake Arrowhead needs a high predator fish population like bass, walleye, and wipers to keep our bluegills and pan fish from stunting. Our bluegills are doing well and catches of 8+inches are common. Some catches have even been 10" as of winter 2018! Bluegills are the backbone of our food chain here at Lake Arrowhead please use selective harvest when keeping bluegills. Keep the medium size 7"-8 ½" and let the bigger 9"-10" go.



## Black Crappie

White Crappie

NE Daily Bag Limit: 15/Possession Limit 30 No Length Limits Apply

\*NE pan fish Limit is one species only or may be combined with others to fill full bag limit of 15 fish.

**Example:** A full daily bag limit would be 15 crappie or 15 bluegill, **not both**. Or a daily bag limit could consist of 12 crappie and 3 bluegill (Or similar combo) to reach 15 pan fish limit.

NE State Record: Black Crappie 4lbs 8oz 19"/ White Crappie 4lbs 1oz 20"

NE Master Angler Size Kept-2lbs Released-15"

Stocking History-(Fall 2013) 450/4"-6" (Summer 2014) 400/4"-6"

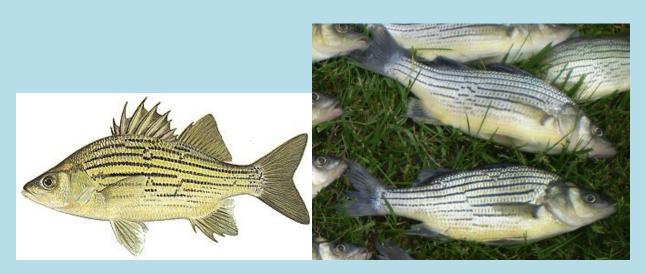
(Fall 2019) 200/4"-6"

Occasional stocking as needed due to competition with yellow bass population.

Lake Arrowhead Average Size: 9"-12" \*See available chart for Age/Length/Weight/Growth Rates

Black crappies prefer cleaner, deeper, cooler water than white crappies, favoring water temps in the low 70's. White crappies prefer slightly warmer water from the low to mid 70's. Whites tolerate dingier water better than black crappies do. Important foods include small fish, immature aquatic insects, and zooplankton. In summer black crappies spend a good deal of their time foraging for zooplankton suspended over open water areas of lakes. They also find manmade cover such as sunken brush piles ideal for foraging on small fish. Our brush piles at Lake Arrowhead are scattered around the lake at various depths from 6 to 15 feet deep. Crappies spawn in spring usually about mid-May. Males begin making nests at water temps in the low 60's around a full or new moon phase, often in brushy cover or near vegetation. Nests are in colonies similar to bluegill.

Our crappie numbers were down the last few years due to competition from yellow bass and having a large population of largemouth bass, so supplemental stocking will be needed to maintain a healthy population for the future. Catches of 10"-12" are common with an occasional fish over 13+ inches.



## Yellow Bass \*Invasive/Species\*

NE Daily Bag Limit: None/NE Possession Limit: None/ No Length Limits Apply

NE State Record: 1lb 7oz. 13.5" No stocking done/This is an <u>illegal or accidentally</u> introduced fish to L. Arrowhead

Lake Arrowhead Average Size: 7"-12" \*See available chart for Age/Length/Weight/Growth Rates

Yellow Bass are an undesirable harmful invasive species of fish not native to Lake Arrowhead. They were illegally or accidentally introduced to our lake about 13 years ago as of 2019. They are often confused with white bass or hybrids called wipers. Yellow bass have yellow sides with a white belly, solid lines down their body. Wipers have an all silver body with a white belly and lines are broken up above and below the lateral line. Wipers are much longer and broader than yellow bass and have bigger mouths. Yellows only top out around a 1lbs. or 12".

Yellow bass are prolific spawners and grow quickly (\* See available chart for size/growth rates.) reaching 10" in only 3-4 years. Yellow bass directly compete with crappies and even bluegills. As a result our crappie populations have declined because of them. <u>Harvest of all yellow bass is encouraged! Please do not throw them back into the lake alive!</u> Yellow bass are very good to eat and small ones make fine cut bait for catfish. Information signs about these fish are posted at the dam and the boat ramp area with picture identification.

Like white bass, yellow bass are pack feeders and get in large schools, but are much less inclined to feed on the surface. When you catch one there are probably more around, fish thoroughly thru the area. They feed most often in mid water or near bottom, adjust your presentation accordingly, small jigs 1/16oz to 1/32oz and a small worm or minnow with a slip bobber is all you need most days. The windblown side of the lake is where the fish will be most active. Besides small fish, their diet includes zooplankton and immature aquatic insects. Yellow bass feed most heavily around dawn and dusk, but sporadic feeding continues thru the day. They spawn when water temps are in the upper 50's to low 60's. They scatter eggs over gravelly or sandy shoals, and are very aggressive at this time and are an easy catch. **Remember catch and kill for this species. Fry 'em up!** 



#### Largemouth Bass

NE Daily Bag Limit: 5/NE Possession Limit 10

15 inch Minimum Length Limit

NE State Record: 10lbs. 11oz NE Master Angler Size: Kept-5lbs Released-20"

Stocking History: Population reproduces well, stocking not needed

Lake Arrowhead Average Size: 12"-16" \*See available chart for Age/Length/Weight/Growth Rate

Largemouth bass preferred water temperature range is 68 to 78 degrees. Their diet varies greatly depending upon prey available. They will eat small fish, crayfish, larval aquatic insects, small mammals, frogs, worms, leeches, turtles, even snakes. Feeding slows when water temperature drop below 50 degrees. Largemouth bass start spawning in spring when the water temperature is near 60 to 65 degrees, especially near a full or new moon period. Normally nests are in bays or coves in areas sheltered from the wind, usually around weedy or woody cover. Bass can be very aggressive during this time and are an easy catch. Catch and release is crucial during this time period so bass are returned to guard their eggs/fry from predators like pan fish. Releasing the larger bass 15" and over is critical for keeping pan fish number down to prevent stunting from occurring.

Lake Arrowhead's bass population is high and there are some big bass over 5lbs and 20"+ caught each year. Early morning and late evening are prime times to catch these fish, especially with top water lures. During daytime bass relate more to docks and drop-offs with brush piles nearby. Throw a plastic worm or crawdad into the cover and you will likely get a bite. Shade is one of the most overlooked places to fish. There are usually more aggressive fish near or in the shade of the docks or trees.

Please see the bass catch data for Lake Arrowhead from a 2014/2018 study on our Lake Info link section. This will show detailed charts/graphs of overall size structure of bass caught from Lake Arrowhead from the last 5 years. All bass caught were measured, weighed, and recorded giving an accurate relative weight (WR) %. This is the most accurate way to see how the bass fishery is doing overall. Any bass at 90% WR is considered average condition. Bass over 100% WR is considered in excellent condition. The goal is to have a more balanced population of bass with 20+% of the bass in Lake Arrowhead over 15+ inches. Each year since a management plan has been implemented we have been making progress in the right direction towards more and larger bass in Lake Arrowhead.



### **Channel Catfish**

NE Daily Bag Limit: 5NE Possession Limit: 20No Size Limits ApplyNE State Record: 41lbs 8oz 39"NE Master Angler Size: Kept-12lbsReleased-30"Lake Arrowhead Average Size: 2-8lbs\*See available chart for Age/Length/Weight/Growth Rate ChartStocking History: (Fall 2012) 500/8"-10"(Spring 2016) 500/8"-10"

Stocking to be continued every 4 years to maintain population.

Channel catfish prefer water temps of 75-80 degrees. They like a clean sand, gravel or rubble bottom with and abundance of cover such as logs and brush piles. Of all the catfish species channels have the least selective food habits. They will eat live fish, dead fish, larval aquatic insects, terrestrial insects, crayfish, snails, clams, even some plant matter. Channel catfish tend to consume more fish as they get older, they reach their largest size in waters where fish make up the bulk of their diet. Catfish like feeding after sundown, or just before sunrise. Feeding slows after water temps reach about 50 degrees.

Channel catfish spawn at when water temps are about 70-75 degrees. However they spawn best with undercut banks or where hollowed logs or similar cover is available. Lake Arrowhead doesn't have the best habitat for spawning catfish so our population is maintained thru a stocking program with stocking taking place every 4 years. Lake Arrowhead has a history of producing large catfish. Catches of channel catfish at Lake Arrowhead of 12-15lbs or more are not uncommon! Remember the bigger catfish like fish, so live chubs, minnows or even small bluegills, often make the best bait for a trophy fish. Currently as of 2019 we have a good year class of 24"-26" catfish that are 5-6 lbs. that are perfect eating size fish. Harvest of <u>ALL</u> channel catfish is recommended as these fish are stocked because they don't reproduce. Larger catfish over 5 lbs. compete with bass and walleye suppressing their growth.



### Walleye

NE Daily Bag Limit: 4	NE Possession Lim	nit 8 15" Minimum Size Limit	
NE State Record: 16lbs 2oz 3	33"	NE Master Angler Size: Kept-8lbs	Released-28"
Stocking History: (Fall 2013)	700/5" <b>-7</b> "	(Fall 2015) 200/6"-8"	(Fall 2018) 350/6"-8"

Stocking to be continued every 2-3 years to maintain population.

Lakeland Average Size: 14"-20" \*

\*See available chart for Age/Length/Weight/Growth Rate

Walleye prefer a clean firm bottom and water temperature in the 65-75 degree range. The bulk of an adult walleye's diet is fish, but they also eat aquatic insects, various worms, leeches, crayfish, and frogs. In low clarity waters walleyes feed most heavily in midday. In clear waters they feed most heavily early or late in the day and at night.

Walleyes in Lake Arrowhead don't have suitable spawning habitat so stocking is necessary to maintain a fishable population. Catches over 20" can occur when stocking is successful. Please allow these fish to reach the 15" minimum size limit before harvesting any fish. As of 2019, we currently have three year classes of walleyes, one 10"-14", one 16"-19" and another year class of 20"-23". Walleyes are a vital game fish for Lake Arrowhead as they help keep pan fish numbers such as the yellow bass from stunting. We will try to stock the larger sized walleye 8"+ so bass and wipers will not eat them immediately after stocking. This is the plan going forward.

Walleyes like windblown shorelines of a lake and go there to feed on baitfish that are eating algae and plankton. If the wind is blowing and it is early or late in the day, you have a good chance to catch a walleye from Lake Arrowhead! Fishing is good right off the dam with a west wind blowing in towards the dam. Slip bobbers with a 1/16oz or 1/8oz jig head and minnows, leeches or worms are all good choices. Keep your bobber about a foot or two off the bottom. Crank baits are also a good choice especially if there is a chop from the wind on the water. Ice fishing can also be good for walleye good areas to try are out from the dam and in the north cove of the lake where the creek channel is irregular with drop-offs.



#### Wiper (Hybrid-Female Striped Bass x Male White Bass)

NE Daily Bag Limit: 3 immediately back to lake.	NE Possession Lim	nit: 6	18" Maximum Size Limit/All	Wipers over 18" must be released
NE State Record: 20lbs 1oz 3	2.75"	NE Maste	er Angler Size: Kept-8lbs	Released-24"
Stocking History: (Fall 2014)	400/8"-10"	(Spring 2	2016) 300/6"-8"	(Fall 2019) 300/6"-8"

Stocking to be continued every 2-3 years to maintain population.

Lakeland Average Size: 15"-19"

\*See available chart for Age/Length/Weight/Growth Rate

Wipers were introduced into Lake Arrowhead in the fall of 2014. They are a hybrid cross between two different species of fish. This means they share traits of both species but cannot reproduce naturally. The population will be maintained via stocking program. These hard fighting fish are voracious feeders and are being put into our lake to help control the unwanted yellow bass population. Wipers have fast growth rates, they get to 18 inches by year four, 20 inches (4-5lbs) by year 5. As of 2019 we have two year classes of wipers, one 15-18" (1.5-2.5 lbs.) and another at 20-22" (4-5 lbs.)

Wipers feed mostly on fish but will consume crayfish if they are available too. Wipers will help control pan fish and yellow bass from overcrowding our lake and prevent stunting from occurring. Wipers are an open water fish that schools in packs and occasionally surface feeds similar to white bass. When wipers are feeding on baitfish near the surface it is quite a site to see! Throw your top water minnow imitating lure into the mayhem and if you hook up you'll get a great fight from one of these great sport fish! They can also be taken on diving crank baits that imitate baitfish. Windblown shorelines are normally where the action is. When water temps get up to 50 degrees in the spring and drop back into the 50's in the fall, wipers show up in shallow water to feed and will hit jerk baits and crank baits. These fish can reach 15+lbs (30+inches) in Nebraska waters! Catch and release is strongly encouraged.



Tiger musky from April 2016 (13 ½ Inches)

Tiger musky from May 2017 (23 ¼ Inches)



Tiger musky from October 2018

# Tiger musky (Hybrid-Male Northern Pike x Female Muskellunge)

#### \*Catch and release only

NE State Record: 33lbs. 5 oz. 48.5" NE Master Angler-40 inches released

Stocking History-First introductory stocking (Fall 2015) 40/12"-15" (Fall 2017) 40/12"-16"

Stocking will be adjusted according to overall fishery status. Stocking rates are usually only 1-2 per acre, they are stocked every 3-4 years to maintain the population.

Lakeland Avg. Size: 23"-28"

\*See available chart for Length to Weight conversion

Tiger musky were introduced into Lake Arrowhead in the fall of 2015. By the fall of 2017, our tiger muskies already were 24"-25"! (3.5 lbs.). By the end of 2018 they were close to 28"-30"! In 2019 anglers should expect to catch tiger muskies from 30"-32" weighing 7-8 lbs.! Tiger musky help thin our abundant small bass population, helping bass growth rates and control our yellow bass numbers. They will also provide a trophy fishery. Tiger musky are a hybrid sterile fish, they are offspring from a male northern pike and a female muskellunge. Tigers get their name from the unique color markings on their sides with vertical bars running up and down. Tiger musky grow quickly they can grow up to 1.5 times faster than muskellunge, they can reach 30 inches by their fourth year. Trophy specimens weigh 30 plus lbs. Their main diet consist of mostly fish but will include some birds, snakes, frogs, and even small ducks. Optimal growth for tigers are achieved at 68-75 degree water temps. Tigers can endure higher water temps than pike so they grow faster. Some tigers are "homebodies", they will inhabit the same areas of the lake from year to year. Tigers like shallow water 6-9 feet deep, they will travel half as much in the summer and fall than in the winter to spring when it prefers 15-30 feet of water.

Tiger musky like to hide in brush or weed beds so they can ambush prey fish. They also like quick access to deep water. Unlike pure strain muskellunge and pike, tigers can be caught during high pressure days with bright blue skies and not much wind. Contrary to popular belief tiger musky will hit any size lure, it doesn't have to be big. They will hit top waters, spinners, crank baits and swim baits, baits that are made for bass fishing. Larger lures may work better for bigger fish. One tip from guides is if you spot a musky and cast toward them, it is best to bring the lure in from behind the fish and retrieve from their tail to their head. Seeing a bait depart away quickly usually elicits an aggressive strike! Don't cast right in front of their face and bring the lure across their face, this may spook them.

Good search baits to find fish fast are single or double bladed buck tails like Mepps Giant Killers, Blue Fox Vibrax, and Musky Meyhem Double Showgirls and others. Swim baits with paddle style tails 4-6 inches long can be great in clear water, use a ¼ to ½ oz. jig head and or rig it weed less with a 5/0-6/0 swim bait hook. Some people favor braided line for musky fishing like 30-80 lbs. braid, but you can use 20 lbs. monofilament line like Berkley Big Game and be just fine. Use a 7-7 ½ foot MH to H action rod rated for ½oz-2 oz. lures and line rated 14-30lbs test. Titanium leaders 9-12 inches long and 30-50 lbs. test are a good choice to prevent breakoffs and lost lures. Local stores like Cabela's and Bass Pro Shops have a good assortment of musky lures, tackle, rods, and other gear, you can also order online at MuskyShop.com or ThorneBros.com. Use long nose pliers and fish gloves to aid in unhooking these toothy fish, plus it's less likely you'll hurt you or the fish. Remember to catch and release for this species, catch them take a picture, get them in the water quickly and let them go!

Please see our tiger musky release tips section on our Lake Info link for helpful tips on how to successfully release tiger muskies so they can be caught again and avoid mortality after being released.

#### \*Updated March 2019

