

LAKE MANAGEMENT STATUS REPORT

Date of Report: 6/20/2024 **Fisheries Manager:** Rob Hilsabeck
District No.: 4 **LAKE NAME:** Argyle Lake **County:** McDonough
Water No.: 0028 **Ownership:** State **Acreage:** 93

1. All Fish - 2 pole and line fishing only.

White, Black, or Hybrid Crappie:

- 25 Fish Daily Harvest Limit with no more than 10 fish greater than or equal to 10 inches.

Large or Smallmouth Bass:

- Protected Slot Length Limit from 14 to 18 inches with 3 fish daily harvest limit.

Muskie:

- 42 inch minimum and 1 fish per day harvest limit.

Bluegill or Redear Sunfish:

- 25 Fish Daily Harvest Limit

Channel Catfish:

- 6 Fish Daily Harvest Limit

Hybrid Walleye (Saugeye):

- 3 Fish Daily Harvest Limit and 14 inch minimum length limit

Recreational Use Restrictions:

- All live bait > 8 inch must be rigged with a quick set rig

Trout:

- Fall Closed Season until annual opening.

2.

IDNR fisheries completed annual spring trapnet survey on 4/19/2023.

IDNR fisheries completed annual fall electrofishing survey on 10/18/2023.

Jake Wolf Hatchery stocked 99 muskie at 12.25 inches on 9/27/2023.

LaSalle Hatchery stocked 11,132 saugeye at 1.6 inches on 6/1/2023.

Jake Wolf Hatchery stocked 4005 rainbow trout at 12 inches on 10/11/2023.

IDNR District biologist stocked 1000 hybrid crappie at 2 inches on 10/27/2023 from Banner Marsh Rearing Pond.

IDNR fisheries treated no aquatic vegetation at Argyle Lake State Park in 2023.

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		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Black Crappie										N/EL	N/EL	N/EL	LMP OBJ
Stock#		70	280	159	154	158	67	82	43	89/92	84/27	28/10	
PSD		87	93	89	90	94	94	89	79	94/61	95/82	79/80	30-50
RSD9		27	46	37	39	36	33	28	49	43/44	45/74	36/40	
RSD10		10	3	5	5	7	3	5	14	7/11	6/7	0/20	20-40
RSD11		0	1	1	0	5	0	4	2	2/4	4/0	0	5-10
Wr > 8"		93	92	89	83	87	80	85	89	93/101	83/84	82/84	90-100
CPUE NN		2.7	15.5	2.1	5.8	9.1	3	1.2	--	4.5	4.2	1.4	
CPUE Min		0.18	0.27	0.75	0.31	0.19	0.23	0.48	0.32	.83	.18	.07	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
White Crappie										N/EL	N/EL	N/EL	LMP OBJ
Stock #		85	668	361	239	117	99	99	49	210/190	51/61	34/56	
PSD		87	93	98	91	99	94	94	96	99/78	91/82	100/71	30-50
RSD9		45	37	36	38	35	32	32	51	55/41	61/34	74/30	
RSD10		29	21	21	21	24	26	26	33	31/26	53/20	59/5	20-40
RSD11		5	8	6	10	15	16	16	4	16/17	29/15	50/4	5-10
Wr		95	88	89	84	91	92	94	94	107/92	92/98	92/85	90-100
CPUE NN		3.2	40.8	12.7	12.7	5.7	5.1	1.8	--	10.5	2.6	1.7	
CPUE Min		0.23	0.13	1	0.19	0.27	0.12	0.89	0.37	1.6	.41	.38	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Channel Catfish										N/EL	N/EL	N/EL	LMP OBJ
Stock#		96	98	74	101	69	91	79	22	13/104	28/40	28/30	
PSD		42	48	26	34	36	64	79	82	92/52	96/40	57/23	40-60
RSD18		20	31	16	19	15	22	48	27	77/37	93/33	54/17	10-20
Wr		88	92	85	95	111	92	99	96	100/90	99/91	98/88	90-110
CPUE NN		4.1	3.1	0.8	0.2	0.8	0.1	0.4	--	.7	1.4	1.4	
CPUE Min		0.2	0.4	0.4	0.3	0.5	0.7	0.4	0.17	.9	.3	.2	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Saugeye										N/EL	N/EL	N/EL	LMP OBJ
Stock#		38	49	51	55	27	44	42	11	17/26	20/8	21/27	
PSD		50	35	35	55	74	52	36	82	100/96	100/63	95/19	50-60
RSD18		26	27	28	20	48	43	21	55	53/85	100/50	91/11	20-40

Wr		82	83	81	77	94	90	93	93	94/97	99/89	103/88	90-110
CPUE NN		0.83	1.1	1.4	3	1.1	0.89	0.45	--	.85	1.1	1.05	1/NN
CPUE Min		0.19	0.37	0.18	0.06	0.1	0.33	0.43	0.08	.25	.07	.18	
Net Night								20	0	20	20	20	
		2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	
Mue										N/EL	N/EL	N/EL	LMP OBJ
Stock#		4	8	13	11	4	28	29	3	19/1	8/8	9/8	
PSD		100	100	100	100	50	75	97	100	100/100	100/88	100/63	
RSD42		0	13	15	9	25	4	14	0	11/0	13/13	0/13	
Wr		92	100	102	78	106	102	110	112	101/84	103/95	120/89	90+
CPUE NN		0.2	0.4	0.7	0.7	0.3	1.4	1.5	--	.95	.4	.45	.3/NN
CPUE Min										0.02	0.07	0.03	

4. In 2023, a spring trap net survey and a fall D.C. boat electrofishing was used to survey the fish population. The largemouth bass population was evaluated by 105 bass, stock size or larger, from daytime electrofishing and 67 bass, stock size or larger from nighttime electrofishing.

The largemouth bass population appears to be defined by a high percentage of fish from 4.0 to 21 inches in length with good average Relative weights. In 2017, the bass regulation for Argyle Lake was changed from a 1 fish greater than or equal to 15 inches and/or 5 fish less than 12 inches daily, to a protected slot length limit from 14 to 18 inches with 3 fish daily harvest limit. The goal of the new bass regulation is to increase the density of the bass population from 14 to 18 inches.

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The 6-year averages from 2012 thru 2017 were RSD15 of 36, RSD16 of 20, RSD18 of 6, and a RSD19 of 3. And a 6-year average CPUE of .9 fish per minute over 8 inches with pulse D.C. boat electrofishing.

The 5-year averages from 2018 thru 2022 were RSD15 of 45, RSD16 of 36, RSD18 of 18, and a RSD19 of 11. And a 5-year average CPUE of 1.4 fish per minute over 8 inches with pulse D.C. boat electrofishing.

The 2023 electrofishing survey was very close to this 5-year average with the RSD15 of 52, RSD16 of 45, RSD18 of 20, and RSD19 of 11. The average body condition was at a Wr of 94. These values are extremely good! The new regulation will continue to be evaluated to these indices.

The goal of the protected slot length limit is to create a high density bass population that is composed of fish large enough to be efficient predators upon the panfish and gizzard shad population. The benefit to bass anglers will be more fish surviving past 15 inches to catch, and for the anglers wanting to harvest bass will be the opportunity to still harvest fish under 14 inches.

The online IFISH tournament registration and result system was started in 2015. The tournament results showed these anglers spent 336 hours in 2015, 576 hours in 2016, and 312 hours in 2017 on Argyle Lake. They reported 14 legal fish in 2015 for .04 fish per angler hour. They reported 45 legal fish in 2016 for .08 fish per angler hour. They reported 53 legal fish in 2017 for .17 fish per angler hour. They reported 19 legal fish in 2018 for .11 fish per angler hour. They reported 32 legal fish in 2019 for .25 fish per angler hour. No tournaments were registered in 2020 or 2021. They reported 19 legal fish in 2022 for .34 fish per angler hour.

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The bluegill population was sampled by an extrapolated 444 fish in the fall electrofishing survey. The current bluegill population is rated as below average with the larger fish up to 7.0 inches in length. This population is of moderate density and in average body condition with a Wr average of 89. The competition with the gizzard shad has reduced the bluegill condition and growth rate.

The redear sunfish population was sampled by 4 fish in the spring trap net survey and 2 fish in fall electrofishing survey. The current redear population is rated as below average with the larger fish under 9.0 inches in length. This population is of very low density and in poor body condition with a Wr average of 89.

In 2023, the white and black crappie populations were sampled by spring trap nets and fall D.C. electrofishing. A total of 38 stock size black crappie and 90 stock size white crappie were collected in these surveys. The black crappie populations can be described as average with most of the fish under 9.5 inches and in average body condition Wr of 83. The white crappie population is described as good with approximately 59 percent of the fish over 10 inches in length and a good average body condition Wr of 92.

In 2017, the crappie regulation was changed from a 9-inch minimum length limit and 10 fish daily harvest limit, to a 25 fish daily harvest limit with no more than 10 fish greater than or equal to 10 inches. The goal of the new regulation is to allow the harvest of more of the slower growing black crappie, while maintaining and promoting the population structure of crappie over 10 inches in length.

The white and black crappie populations have had an average rating in recent history. The black crappie population has been slow growing and predominately under 9.5 inches in length, while the white crappie population has been predominately under 10 inches in length. The 6-year averages from 2012 to 2017 were an RSD9 of 33, and RSD10 of 6 and RSD11 of 1 for black crappie. The 6-year averages from 2012 to 2017 were and an RSD9 of 38, an RSD10 of 22 and an RSD11 of 8. And the Wr averages were 89 for black crappie and 90 for white crappie.

The 5-year averages from 2018 to 2022 were an RSD9 of 45, and RSD10 of 8 and RSD11 of 2 for black crappie. The 5-year averages from 2018 to 2022 were and an RSD9 of 44, an RSD10 of 31 and an RSD11 of 16 for white crappie. And the Wr averages were 88 for black crappie and 96 for white crappie over these 5-year spans.

Very large hybrid crappie have been sampled each year during the spring trap net surveys. In an effort to evaluate the ability to enhance this part of the crappie population, a hybrid crappie stocking project was started in 2023. On 10/27/2023, approximately 1000, 2 inch (Blacknose Male x White Female) F1 hybrid crappie were stocked into Argyle Lake. A majority of these fish will display the "blacknose" trait for future identification. Additional stockings of larger sized hybrid crappie will be attempted in 2024.

The black crappie population size and growth indices do not appear to have improved since the regulation change, while the white crappie population indices have improved. The new regulation will continue to be evaluated to these indices.

In 2023, the channel catfish population was sampled by 28 fish in the spring trap net survey and 30 fish in the fall electrofishing survey. The current channel catfish population is rated as excellent with the larger fish up to 24 inches in length and approximately 54% of the fish over 18 inches in length. This population is of high density and in good body condition with a Wr average of 98.

Little Grassy hatchery stocked 3,300 fish at 7.4 inches in 2022. An annual stocking of non-vulnerable channel catfish had occurred in the past. These stockings had established a high density population, and the stocking has now been adjusted to an every other year stocking starting in 2016. No channel catfish were stocked in 2023.

In 2023, the saugeye population was sampled by 21 fish in the spring trap net survey and 49 fish in the fall electrofishing survey. The current saugeye population is rated as good with the larger fish up to 29 inches in length and approximately 50% of the fish were over 18 inches in length. The CPUE for

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electrofishing was .07 per minute in the daytime and .29 fish per minute after dark in 2023. The CPUE for the spring trap nets was 1.05 fish per net night in 2023, 1.1 fish per net night in 2022, and .85 fish per net night in 2021. This population is of moderate density and in good body condition with a Wr average of 95. LaSalle Hatchery stocked 11,132 saugeye at 1.6 inches on 6/1/2023. An annual stocking of 10,000 saugeye at 2 inches is requested each year.

In 2023, the muskie population was surveyed by 9 stock sized fish in the spring trap net survey and 8 stock sized fish in the fall electrofishing survey. These fish ranged from 12.9 to 42.5 inches long. The body condition of these fish was very good at an average Wr of 99. The CPUE for the spring trap nets was .45 fish per net night in 2023, .95 fish per net night in 2022, and .4 fish per net night in 2021. The Argyle Lake Management Plan objective is a CPUE of at least .3 fish per net night.

A low density of quality size muskie are present. Jake Wolf Hatchery stocked 99 muskie at 12.5 inches on 9/27/2023. An annual stocking is now scheduled to maintain a low density of healthy muskie. In 2017, the muskie harvest regulation was changed from the statewide 1 fish daily harvest at a 36 inch minimum size, to a 42 inch minimum and 1 fish per day harvest limit. The goal of the new regulation is to protect the fish for at least 1 more year from angler harvest.

In 2023, Jake Wolf Hatchery stocked 4,005 rainbow trout at an average size of 12 inches on 10/11/2023. These fish are annually stocked for the catch able trout program.

In 2023, the following fish species and hybrids were also collected in Argyle Lake: Common Carp, Gizzard Shad, Golden Shiner, Yellow Bass, Yellow Bullhead, and Hybrid Black x White Crappie. All but the hybrid crappie are considered non desirable to the management of the primary sportfish in Argyle Lake. Most of these species are considered invasive and can become problematic for aquatic habitat management and sport fish management if their populations densities expand rapidly. One of the keys to controlling their population densities is thru the maintenance of water quality, clarity, and high density, predator fish populations.

Recommended Lake Management Activities with Rationale for Implementation:

Supplemental stocking is required for the following species due to no natural recruitment currently occurring in Argyle Lake.

Saugeye: 10,000/year at 2 inches which is 100/acre.

Muskie: 93/year at 10 inches which is 1.0/acre.

Channel Catfish: 3300 every other year at 8 inches which is 35/acre.

Rainbow Trout: 4000 pounds every fall at about 12 inches which is 70/acre.

Hybrid Crappie: 1000 fish at 4 inches in 2024 and 2025.

Biological Surveys - Conduct annual surveys to measure trends in fishery population dynamics, angling regulations and progress toward management goals. In the fall, utilize D.C. electrofishing to sample a target number of at least 100 stock-size largemouth bass and the other sportfish. In the spring, assess the saugeye, muskie, black and white crappie, bluegill, redear and channel catfish populations by a trap net survey.

Aquatic Vegetation Control - IDNR Fisheries will apply aquatic herbicides as needed to manage exotic or nuisance aquatic plants for fishing access or sportfish management.

Lake Access - Coordinate with the site staff on the development of shoreline fishing areas, the boat dock and the improvements completed on the boat ramp in 2021.

Water Level - coordinate with the site staff on the documentation of the water level utilizing the installed staff gauge.

Site Map - update the site map of the water bodies as needed.

Argyle Lake Fish Stocking Record 2012-2022

Waterbody	Species	Size (in)	Count	Delivery Date	Source
Argyle Lake (00028)	Muskellunge	12.5	95	9/27/2022	#2 Jake Wolf Hatchery (09000)
Argyle Lake (00028)	Channel Catfish	7.4	3300	8/16/2022	#1 Little Grassy Hatchery (09050)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	1.7	12126	5/31/2022	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Muskellunge	13	93	9/9/2021	#2 Jake Wolf Hatchery (09000)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	1.7	16219	5/25/2021	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Channel Catfish	7.7	3300	7/29/2020	#1 Little Grassy Hatchery (09050)
Argyle Lake (00028)	Muskellunge	13.5	96	9/17/2019	#2 Jake Wolf Hatchery (09000)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	1.4	18181	5/31/2019	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	3.1	2067	10/3/2018	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Muskellunge	12.5	93	9/13/2018	#2 Jake Wolf Hatchery (09000)
Argyle Lake (00028)	Channel Catfish	7	3325	8/13/2018	#1 Little Grassy Hatchery (09050)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	1.7	16140	6/1/2018	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Muskellunge	12.5	93	8/31/2017	#2 Jake Wolf Hatchery (09000)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	2.5	5720	6/8/2017	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Muskellunge	10.75	93	8/26/2016	#2 Jake Wolf Hatchery (09000)
Argyle Lake (00028)	Channel Catfish	7	1500	7/21/2016	#2 Jake Wolf Hatchery (09000)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	2	11935	6/6/2016	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Muskellunge	11.9	95	9/2/2015	#2 Jake Wolf Hatchery (09000)
Argyle Lake (00028)	Channel Catfish	8	850	8/26/2015	#1 Little Grassy Hatchery (09050)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	1.7	11451	5/29/2015	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Channel Catfish	8	3300	9/2/2014	#1 Little Grassy Hatchery (09050)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	2.3	11525	6/18/2014	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	2	10345	6/4/2014	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	2	9154	6/6/2013	#3 LaSalle Fish Hatchery (09010)
Argyle Lake (00028)	Muskellunge	11	93	8/23/2012	#2 Jake Wolf Hatchery (09000)
Argyle Lake (00028)	Walleye x Sauger (Saugeye)	2	5133	6/5/2012	#3 LaSalle Fish Hatchery (09010)