

### **Invasive carp harvest permit background information**

The Ohio River Invasive Carp Partnership is a group of state and federal agencies (IN, IL, KY, OH, PA, WV, USFWS, USACE, USGS) along with university researchers that annually prioritize invasive carp work occurring in the Ohio River basin. Priorities are largely driven by the states, but actions rely heavily on a coordinated approach. At a July 2023 planning meeting, the group reaffirmed the need to substantially increase harvest.

Over the past several years, there has been significant interest from anglers and industry contacting the DNR looking for opportunities to either fish for invasive carp or set up processing facilities. However, potential investors for processing facilities can't commit without a significant, steady supply of fish. Creating that fishing opportunity will be the first step for Indiana to start having an impact on carp populations.

#### **Angler Input**

An action item that came out of the January 2023 Advisory Council meeting was to seek out additional angler input. Over the past 10+ years, biologists have had countless conversations with anglers asking what is being done about invasive carp. Conversations with anglers have been overwhelmingly positive, and constituents are happy to see that something is being done. The Division of Fish and Wildlife (DFW) reached out to known angler group contacts prior to the January 2023 Advisory Council meeting and received very little participation, but attitudes towards the pursuit of an invasive carp harvest permit were positive. DFW again reached out with additional information after the previous Advisory Council meeting. Without being able to see proposed rule language, some constituents had questions and reservations, but there was an overall positive consensus. Their major concern was any potential impact to native fishes. Based on their input, they wanted to make sure that 1) there was proper oversight to minimize impacts to native fish, 2) no other fishing gear was allowed in their possession while fishing under a carp harvest permit, 3) no harvest or possession of native fish allowed with the permit, and 4) ensure a highly visible program to lead to participant accountability. All of these items were built into the proposed permit language.

#### **Bycatch Data**

The Division of Fish and Wildlife has been very cautious to this point, particularly not wanting to allow entanglement gear because of concerns of impacts on native fishes (particularly shovelnose sturgeon and catfish). However, after multiple years of similar ongoing programs in Illinois and Kentucky, discussions with their biologists, and reviewing observer ride-along data, it is clear that impacts to native fish populations are very minimal during targeted invasive carp fishing operations. In order to ensure minimal impacts to native fishes, the invasive carp harvest permit language specifies that nets must be actively attended, all nets must be removed at the end of the day, and all native fish must be immediately returned to the water. The most successful invasive carp fishers locate a school of fish, deploy nets, agitate the carp into the nets, then retrieve their nets usually within one to two hours of setting. These short net sets minimize the time fish spend in a net, which significantly reduces bycatch mortality. In addition, participants would be required to report catch, including released bycatch. The DFW is committed to regularly staffing on-board observers to collect ride-along data to closely monitor fishing activities. Permit participants must receive approval prior to fishing, and DFW would reserve the right to reduce or stop invasive carp fishing in an area if bycatch mortality becomes an issue.

The following tables summarize catch data associated with the Kentucky Asian Carp Harvest Program and the Ohio River Contract Fishing Program.

2019 -2021 ACHP Data - Species composition, number of individuals captured, and survival rate of species observed in bycatch during KDFWR **ride-alongs** with commercial fishers under the Asian Carp Harvest Program (gill net data) in 2019-2021. Survival rate of fish is defined as fish that swim away after release.

2019 - 2021						
	Species	Number Captured	Number Mortality	Survival Rate	% of total Catch	Carp harvested per mortality
Sport Fish	White Bass	3	0	100%	0.00%	
	Yellow Bass	5	1	80%	0.01%	61271
	Striped Bass	16	3	81%	0.03%	20424
	Hyb. Striped Bass	8	1	88%	0.01%	61271
	Sauger	9	2	78%	0.01%	30636
	Spotted Bass	0	0		0.00%	
	Largemouth Bass	38	6	84%	0.06%	10212
	Smallmouth Bass	4	0	100%	0.01%	
	Redear Sunfish	7	1	86%	0.01%	61271
	Black Crappie	2	0	100%	0.00%	
	White Crappie	3	1	67%	0.00%	61271
	TOTAL	95		86%	0.15%	
Catfish Spp.	Blue Catfish	166	8	95%	0.26%	7659
	Channel Catfish	34	1	97%	0.05%	61271
	Flathead Catfish	73	0	100%	0.12%	
	TOTAL	273		97%	0.43%	
Rough Fish *	Paddlefish	105	51	51%	0.17%	1201
	Shovelnose Sturgeon	3	0	100%	0.00%	
	Skipjack Herring	120	111	8%	0.19%	552
	Smallmouth Buffalo	462	5	99%	0.73%	12254
	Bigmouth Buffalo	60	4	93%	0.09%	15318
	Black Buffalo	5	0	100%	0.01%	
	Common Carp	532	78	85%	0.84%	786
	Gizzard Shad	4	3	25%	0.01%	20424
	Freshwater Drum	165	37	78%	0.26%	1656
	River Carpsucker	81	1	99%	0.13%	61271
	Quillback	1	0	100%	0.00%	
	Blue Sucker	2	0	100%	0.00%	
	Spotted Gar	6	0	100%	0.01%	
	Longnose Gar	15	3	80%	0.02%	20424
	Shortnose Gar	21	5	76%	0.03%	12254
	Silver Carp	60507	60507	0%	95.71%	
Bighead Carp	226	226	0%	0.36%		
Grass Carp	538	538	0%	0.85%		
Combined TOTAL	63221					

\* Above rough fish counts do not include fish harvested - ACHP allows 35% of monthly harvest (by weight) to be rough scaled fish. Table 8 (pg 103) indicated that 80.7%, 78.8%, and 87.7% of rough fish were harvested in 2019, 2020, and 2021, respectively.

Ohio River contract fishing data from onboard observers since the program began (July 1, 2019 to January 17, 2023). Observers are on every boat, every day of fishing. Observers document carp harvest and effort, collect individual data from a subsample of carp, document bycatch numbers, and note bycatch morbidity. In 2021 and 2022, no fishing occurred during warmest summer months to reduce bycatch mortality.

**July 2019 - January 2023**

	Species	Number Captured	Number Mortality	Survival Rate	% of total Catch	Carp harvested per mortality	
Sport Fish	White Bass	8	0	100%	0.01%		
	Striped Bass	330	5	98%	0.27%	16983	
	Hyb. Striped Bass	83	1	99%	0.07%	84914	
	Sauger	33	0	100%	0.03%		
	Spotted Bass	1	0	100%	0.00%		
	Largemouth Bass	48	1	98%	0.04%	84914	
	Smallmouth Bass	1	0	100%	0.00%		
	Sunfish	12	0	100%	0.01%		
	CrappieSpp	26	1	96%	0.02%	84914	
	Walleye	2	0	100%	0.00%		
	<b>TOTAL</b>	<b>544</b>		<b>99.1%</b>	<b>0.45%</b>		
Catfish Spp.	Blue Catfish	1205	9	99%	1.00%	9435	
	Channel Catfish	105	0	100%	0.09%		
	Flathead Catfish	290	0	100%	0.24%		
	<b>TOTAL</b>	<b>1600</b>		<b>99.8%</b>	<b>1.32%</b>		
Non-Game Fish	Paddlefish	375	22	94%	0.31%	3860	
	Bowfin	4	0	100%	0.00%		
	Skipjack Herring	20	1	95%	0.02%	84914	
	Smallmouth Buffalo	28681	322	99%	23.74%	264	
	Bigmouth Buffalo	1011	7	99%	0.84%	12131	
	Black Buffalo	17	0	100%	0.01%		
	Common Carp	1209	5	100%	1.00%	16983	
	Gizzard Shad	123	2	98%	0.10%	42457	
	Freshwater Drum	1553	10	99%	1.29%	8491	
	Goldeye	1	0	100%	0.00%		
	Highfin Carpsucker	4	0	100%	0.00%		
	River Carpsucker	61	0	100%	0.05%		
	Quillback	7	0	100%	0.01%		
	Redhorse	28	1	96%	0.02%	84914	
	Spotted Gar	213	0	100%	0.18%		
	Longnose Gar	308	2	99%	0.25%	42457	
	Shortnose Gar	126	2	98%	0.10%	42457	
		Silver Carp	82889	82889	0%	68.62%	
		Bighead Carp	1168	1168	0%	0.97%	
	Grass Carp	857	857	0%	0.71%		
	<b>Combined TOTAL</b>	<b>120799</b>					