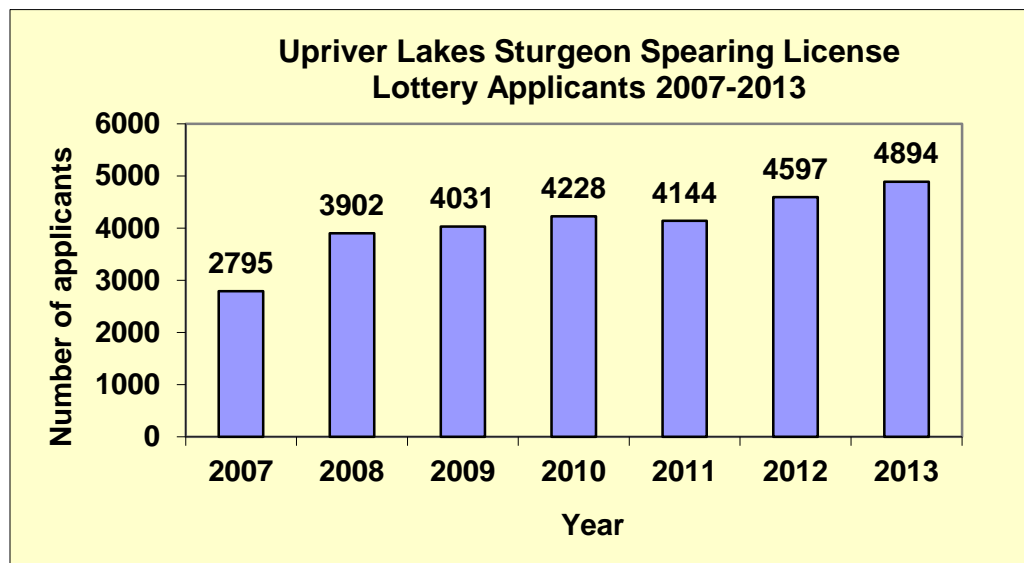


## History of the Upriver Lakes Sturgeon Spear Fishery and Trends in the Modern Era

Winnebago System sturgeon spearers and sturgeon enthusiasts may be aware of the current lottery fishery held annually on the Upriver Lakes (Lakes Butte des Morts, Winneconne, and Poygan), but may not know the history behind the fishery and what events transpired to create the fishery that we currently enjoy today. The first modern sturgeon spearing season on Lake Winnebago may have taken place in the winter of 1931-1932, but the first sturgeon spearing season on the Upriver Lakes was held in 1952 with a total harvest of 200 fish. Preceding the spear fishery, there was a set line fishery on the Upriver Lakes from 1932-1951. The setline fishery was abandoned due to concerns of illegal harvest that was contributing to overharvest of the stock, particularly on younger, immature lake sturgeon.

Annual spear fisheries on the Upriver Lakes took place from 1952-1957 with harvests ranging from 200-879 fish per year (average of 578). Spearing seasons were then held every 2-5 years between the years of 1958-2005 with multiple regulation changes being implemented during this time period. The current harvest cap system was implemented in 1999 to help maintain harvest rates at or below sustainable levels. System-wide harvest caps combining the harvest of the Upriver Lakes and Lake Winnebago were set for the 2000 sturgeon spear season, and this season only lasted two days with a total harvest of 2,516 sturgeon (347 from Lake Winnebago and 2,169 from the Upriver Lakes). Due to the excessive harvest in 2000, there was only a 1 day season set for the Upriver Lakes in 2005, a season in which spearers harvested 345 fish. 2005 was the last spearing season on the Upriver Lakes before the lottery fishery was implemented in 2007.

The lottery fishery on the Upriver Lakes was designed to offer an annual spearing season, while still maintaining harvest rates at or below sustainable levels. Interested spearers apply for a license on the Upriver Lakes and 500 applicants are awarded a permit to purchase an Upriver Lakes spearing license each year. All applicants that did not receive tags gain a preference point which better their chance to draw a tag the following year. Since the inception of the lottery fishery in 2007, the fishery has grown leaps and bounds in popularity from 2,795 applicants in 2007 to 4,894 applicants in 2013 (75% increase in 7 years)!



The main reason for the growing popularity in the Upriver Lakes lottery fishery is the much higher spearing success rates. Since the lottery fishery went into place, 59.4% of spearers on the Upriver Lakes have harvested a fish compared to 10.9% on Lake Winnebago. The average season length on the Upriver Lakes has been much shorter during this time period (2007-2013) as well (5.2 days on Upriver Lakes and 11.7 days on Lake Winnebago). The major reason for these higher success rates is the shallower water on the Upriver Lakes. Lakes Butte des Morts, Poygan, and Winneconne are composed mostly of shallow water habitat 4-7 feet deep with some parts up the lake being deeper. Harvest in these shallow water lakes is not as affected by poor water clarity as the fishery on Lake Winnebago, which is comprised mostly of deeper water habitat (12+ feet of water). The nature of sturgeon spearing is you can't spear a fish that you can't see and spearing in shallower water lakes is simply more favorable. The Upriver Lakes also contain a higher percentage of smaller, immature fish than Lake Winnebago and is an overwinter staging area for migrant adult sturgeon that will make spawning migrations up the Upper Fox and Wolf Rivers the following spring. These factors affect the success rates, but water depth and water clarity are definitely the driving factors behind the difference.

<b>Year</b>	<b>Season Length</b>	<b>Lottery Applicants</b>	<b>Registered Sturgeon Harvest</b>	<b>Spearer Success Rate</b>
2007	6	2795	313	64.5%
2008	4	3902	300	62.0%
2009	5	4031	275	56.1%
2010	6	4228	312	63.2%
2011	10	4114	335	68.0%
2012	2	4597	242	48.6%
2013	4	4,893	261	53.2%

Hopefully this information sheds some light on the history that has brought us to the current spear fishery format that we have on the Upriver Lakes. This fishery continues to grow in popularity due to the unique harvest opportunity that it offers!