

# Winnebago System Lake Sturgeon Spearing 2013

## *Post-Season Synopsis*

Ryan Koenigs, Winnebago Sturgeon Biologist, 5 March 2013

Spearers awaited the 2013 sturgeon spear fishery with great anticipation of the chance to harvest a potential record breaking fish. The number of sturgeon in the population has been increasing over the last 25+ years and recent harvests contained high percentages of “trophy” sized fish. In fact, 7 of the top 10 fish on record had been harvested in the past three seasons (2010-2012). The increase in adult population abundance and over-all size of the fish within the population has been accompanied by an increased interest in the sturgeon spearing season. A record number (4,894) of spearers applied for the 2013 Upriver Lakes (URL) lottery fishery. This is a 75% increase in the number of applicants since the lottery fishery began in 2007. In total, 12,092 spear licenses were sold for the 2013 sturgeon spear fishery, which ranks as the 3<sup>rd</sup> most ever after the 2012 (1<sup>st</sup>) and 2011 (2<sup>nd</sup>) spear fisheries.

When the 2013 sturgeon spearing season got underway on Saturday February 9, spearers

encountered variable water clarity conditions which led to two very different seasons.

Spearers on the Upriver Lakes experienced favorable water clarity conditions and had a short, yet successful season with a total harvest of 261 fish over the 4 day season.

Overall, water clarity on Lake Winnebago was poor, which led to a full 16 day season with a below average harvest of 306 fish. This was the third straight 16-day season in a row on Lake Winnebago. Both of these seasons were very similar to the 2012 spear fishery where a total of 566 fish were harvested (324 from Lake Winnebago and 242 from the Upriver Lakes).



Michael (left) and Stephen (right) Goebel showcasing their trophy fish that were harvested on back to back days. Stephen harvested his 73.7”, 1125 pound fish on 16 February 2013, while Michael harvested his 74.7”, 120.0 pound fish on 17 February 2013. This will be a season that this father-son duo will never forget!

The harvest of 306 fish from Lake Winnebago ranks the 2013 season 58<sup>th</sup> (by total harvest) of the 71 seasons since 1941 (minus 2 during WWII that we do not have records for). Of the 25 seasons held on the Upriver Lakes since 1952, the 2013 season ranks 16<sup>th</sup> in terms of total harvest (see summary tables at the end of the report).

As predicted, the large fish phenomenon continued in 2013, and actually increased on Lake Winnebago. Sturgeon biologists and researchers in the 1950s-1980s believed that sturgeon size structure was favorable if more than 1% of the total harvest was comprised of fish larger than 100 pounds. Starting in 2007, we started to see much higher percentages of these larger fish appearing in the harvest. For example, the percentages of fish greater than 100 pounds in the Lake Winnebago harvest were 1.93% in 2007, 5.04% in 2010 and 6.48% in 2012. This trend continued in 2013, where a record 9.5% of the Lake Winnebago harvest was comprised of fish larger than 100 pounds. As I mentioned earlier, the 2010-2012 spearing seasons had virtually rewritten the top 10 fish in the



Peter Vander Wielen's 80.0", 179.0 pound sturgeon harvested on 9 February 2013 and registered at Quinney. This is the 6<sup>th</sup> largest fish on record!

record books. The 2013 spear fishery also contributed a fish to the top 10 on record, as Peter Vander Wielen's 80.0", 179.0 pound sturgeon harvested on opening day currently ranks 6<sup>th</sup> largest since modern sturgeon spear fisheries began in 1932. These larger fish are now showing up in our population and fishery due to timely regulations, the elimination of excessive harvest from illegal fisheries in the 1930s-1960s, recruitment into the fishery of a series of strong year classes from the 1940s-1950s, and periodic very large hatches of gizzard shad.

Although water clarity was poor on Lake Winnebago in 2013, thus causing the full length season, I still feel that season was very successful overall. The size of the fish that have been harvested in recent years is staggering, and I am looking forward to a clear water year where we can really showcase the population in the Winnebago System. The future of our sturgeon population is very bright and I am very excited to monitor the population trends moving forward. Specifically, I am excited to observe firsthand how large these fish can actually get! As I'm writing this and recalling the 2013 spear season, it makes

me already start to look forward to the 2014 sturgeon spear fishery, only 11 more months until we start things over again!

Table 1. Harvest totals by Winnebago lake area, and by Upriver Lake.

<b>2013 Winebago System Sturgeon Spear Harvest by Lake Area</b>				
	<b>Juv Fem</b>	<b>Adult Fem</b>	<b>Males</b>	<b>Totals</b>
L. Winnebago Area 1	0	2	2	4
L. Winnebago Area 2	6	8	14	28
L. Winnebago Area 3	6	53	47	106
L. Winnebago Area 4	6	25	12	43
L. Winnebago Area 5	9	28	47	84
L. Winnebago Area 6	3	15	23	41
L. BD Morts	0	8	5	13
L. Poygan	23	71	136	230
L. Winneconne	3	6	9	18
<b>L. Winnebago Totals</b>	<b>30</b>	<b>131</b>	<b>145</b>	<b>306</b>
<b>Upriver Lakes</b>	<b>26</b>	<b>85</b>	<b>150</b>	<b>261</b>
<b>System-wide totals</b>	<b>56</b>	<b>216</b>	<b>295</b>	<b>567</b>

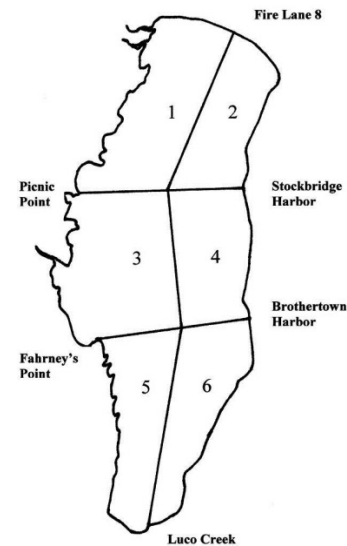


Table 2. Upriver Lakes sturgeon season rank by harvest total, 1952-2013; year, harvest, season length, bag limit, minimum size limit, shanty count, lottery applicants from 2007-2013.

<b>Season Rank (Harvest)</b>	<b>Year</b>	<b>Upriver Lakes Sturgeon Harvest</b>	<b>Season Length Days</b>	<b>Bag Limit</b>	<b>Min Size Limit (in)</b>	<b>Opening Day Shanty Count</b>	<b>License Sales</b>	<b>Lottery Applicants</b>
1	2000	2169	2	1	36	2079	NA	NA
2	1954	879	14	3	30	606	NA	NA
3	1953	784	14	3	30	315	NA	NA
4	1955	715	14	3	40	1190	NA	NA
5	1956	587	9	2	40	851	NA	NA
6	1996	455	2	1	45	1656	NA	NA
7	1957	422	5	2	40	859	NA	NA
8	2005	345	1	1	36	2055	4169	NA
9	2011	335	10	1	36	372	490	4114
10	1965	325	2	1	40	1378	NA	NA
11	2007	313	6	1	36	431	485	2795
12	2010	312	6	1	36	490	494	4228
13	2008	300	4	1	36	512	484	3902
14	1959	297	3	1	40	954	NA	NA
15	2009	275	5	1	36	537	490	4031
16	2013	261	4	1	36	397	491	4,893
17	2012	242	2	1	36	418	498	4597
18	1971	227	2	1	40		NA	NA
19	1962	217	2	1	40	950	NA	NA
20	1952	200	16	3	30	200	NA	NA
21	1991	186	2	1	45	629	NA	NA
22	1976	85	2	1	45	550	NA	NA
23	1968	80	2	1	40		NA	NA
24	1981	57	2	1	45	947	NA	NA
25	1986	36	2	1	45	1789	NA	NA

Table 3. Lake Winnebago sturgeon spearing season rank by harvest total (1941-2013).

Season Rank (Harvest)	Year	Lake Winnebago Sturgeon Harvest	Season Length Days	Bag Limit	Min Size Limit (in)	Opening Day Shanty Count	License Sales (Regular)	Cons P Tags Issued
1	1995	3173	19	1	45	3760	7206	10052
2	1990	2908	20	1	45	3100	8277	~300
3	1982	2238	17	1	45	2808	6945	
4	1998	2051	12	1	36	2140	7091	17627
5	1953	2044	29	5	30		5100	
6	2004	1854	2	1	36	4751	8924	NA
7	1948	1735	30	5	30		2471	
8	1993	1643	17	1	45	3615	8189	~5000
9	2001	1590	2	1	36	4997	4705	31454
10	2010	1508	6	1	36	4033	10366	NA
11	1955	1505	29	3	40	1291	10614	
12	1999	1484	3	1	36	3749	7150	26212
13	1954	1479	29	3	30		6900	
14	1967	1424	26	1	40	1916	6014	
15	1946	1370	29	5	30		1409	
16	1997	1290	16	1	36	3779	6790	19261
17	1972	1251	26	1	40	2500	5632	
18	1978	1246	19	1	45	2385	6891	
19	2009	1235	8	1	36	5958	9596	NA
20	2008	1213	4	1	36	3171	8890	NA
21	2011	1091	16	1	36	4321	11933	NA
22	2007	1034	16	1	36	4411	7895	NA
23	1963	1001	21	1	40	1830	4522	
24	1976	936	17	1	45		5464	
25	2003	902	10	1	36	4150	4821	29215
26	2005	893	12	1	36	2604	6465	NA
27	1957	851	19	2	40	1538	6257	
28	2002	847	16	1	36	4368	4828	~30000
29	1987	842	16	1	45	2520	6792	~300
30	1950	793	29	5	30		2019	
31	1941	788	29	5	30			
32	1985	783	21	1	45	3140	8439	~200
33	1996	766	9	1	45	3708	7892	16943
34	1980	763	22	1	45	2600	5040	
35	1965	718	17	1	40	1816	6663	
36	1994	700	18	1	45	3400	7143	9675
37	1970	692	23	1	40		4849	
38	1964	685	23	1	40	1967	5400	
39	1956	661	20	2	40	1238	9066	
40	1991	651	21	1	45	3131	9377	~300
41	1952	617	30	5	30		2900	
42	1951	608	29	5	30		1427	
43	1975	530	22	1	45		4319	
44	1992	525	23	1	45	2238	6265	~700
45	1960	520	20	1	40	1417	2688	
46	1947	503	29	5	30		1275	
47	1986	491	22	1	45	2754	8719	~250
48	1988	468	18	1	45	3425	7571	~300
49	1942	467	29	5	30			
50	1958	464	22	1	40	2152	1830	
51	1979	421	20	1	45	700	2993	
52	1981	407	16	1	45	2900	8612	
53	1949	384	29	5	30		1661	
54	1989	362	19	1	45	1400	3641	~300
55	2000	347	2	1	36	2736	6107	34169
56	1961	340	19	1	40	1917	3352	
57	2012	324	16	1	36	2197	12182	NA
58	2013	306	16	1	36	2724	11601	NA
59	1984	302	20	1	45	2500	9089	~200
60	1966	300	25	1	40		4285	
61	1977	287	18	1	45	2628	5454	
62	1943	283	29	5	30			
63	1962	262	20	1	40	1180	3258	
64	2006	225	16	1	36	3434	8289	NA
65	1959	221	19	1	40	1481	4287	
66	1971	159	24	1	40		3332	
67	1974	117	21	1	45		3250	
68	1983	39	18	1	45	1700	6042	
69	1968	21	28	1	40		5768	
70	1969	8	22	1	40		2154	
71	1973	8	27	1	40		1739	