

# Winnebago System Lake Sturgeon Spearing 2012

## *Post-Season Synopsis*

Ron Bruch, Winnebago Sturgeon Biologist, 5 March 2012

The 2012 lake sturgeon spearing season on the Winnebago Pool Lakes was one of mixed emotions and mixed results. A record number of people purchased licenses for this season (12680) with great anticipation of being able to get out on the lakes in February and try for their fish, possibly even be lucky enough to see a record size fish come through their hole. Unfortunately the warm winter threw a giant wrench into many spearers' plans. Ice conditions were not as good as spearers normally experience in February – on average only 8-14 inches thick, not quite good enough to drive on with a vehicle over most of Lake Winnebago; and water clarity was not as good as spearers needed to have a high success rate. Water clarity ran fairly consistent over most of Lake Winnebago at about 9 to 11 feet visibility, just a couple feet short of making for a much better season for seeing fish. The reduced clarity was likely attributable to an early winter algae bloom under the ice and run-off from incoming streams during the warm melting periods this winter. Given the conditions, many Lake Winnebago spearers opted not to go out on the lake this year, resulting in effort on opening day less than half of what we typically observe. The Upriver Lakes had much safer ice conditions and better water clarity, and those fortunate enough to draw one of the 500 lottery tags issued for the URL's had a good, but very short season – closing in two days after the adult female harvest cap was reached. Given the poorer conditions on Lake Winnebago, the season there ground on for the full 16 days. The second "sixteener" on Winnebago in a row, and the 5<sup>th</sup> since 1999 when the harvest cap system was first put in place. The list of sixteen day seasons now includes 2002, 2006, 2007, 2011, and 2012.



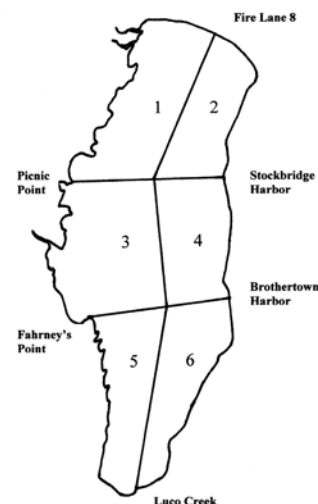
Chris Haedt of Oshkosh with the 179.8 lb, 79.6 inch female lake sturgeon she speared in Lake Butte des Morts and registered opening day 11 Feb 2012 at Critter's in Winneconne. Chris's fish was the 5<sup>th</sup> largest sturgeon on record for the Winnebago spear fishery (and the largest ever taken by a lady spearer) (DNR Photo).

The harvest of 324 fish from Lake Winnebago ranks the 2012 season 57<sup>th</sup> (by total harvest) of the 70 seasons since 1941 (minus 2 during WWII we do not have records for). Of the 24 seasons held on the Upriver Lakes since 1952, the 2012 season ranks 16<sup>th</sup> in terms of total harvest with

the 242 fish registered during the two-day season this year (see summary tables at the end of the report).

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

2012 Winnebago System Sturgeon Spear Harvest by Lake Area				
	Juv Fem	Adult Fem	Male	Totals
L. Winnebago Area 1	3	23	18	44
L. Winnebago Area 2	4	18	13	35
L. Winnebago Area 3	5	49	24	78
L. Winnebago Area 4	9	23	5	37
L. Winnebago Area 5	18	38	36	92
L. Winnebago Area 6	6	14	18	38
L. BD Morts	10	40	42	92
L. Poygan	16	44	85	145
L. Winneconne	0	1	4	5
L. Winnebago Totals	45	165	114	324
Upriver Lakes Totals	26	85	131	242
System-wide Totals	71	250	245	566



The large fish phenomena continued again this year and has been a consistent part of the harvest for almost the last decade. On Lake Winnebago 21 of the 324 fish registered (6.5%) were 100 pounds or more in weight (100.0 to 175.3 lbs). On the Upriver Lakes 15 of the 242 fish registered (6.2%) were 100 pounds or more in weight (100.0 to 179.8 lbs). The proportion of large fish in the harvest is a reflection of the increasing numbers of large fish in the population due to our management program and the way older age classes have been stacking up in our population the past 15-20 years. We often get asked whether we are harvesting a disproportionate number of these large fish. We did an analysis of our tagging data from spring spawning and the following harvest assessments since 1999 and found that the largest sturgeon were not being harvested at a high rate; in fact we found the harvest rate on the large trophy size fish was numerically less than the rates for other sizes. Overall with the harvest cap system, we have been able to keep the harvest rates across the board below the 5% maximum for all components of the harvest, both males and females, since the system was put in place in 1999.

The other question we've been getting post-season is "*Since we only harvested 566 fish this year, will you be raising the harvest caps next year?*". We won't be able to answer this question until we work through the tag return data collected during the spearing season. We don't automatically raise the caps in any year. We set the caps each year independently using the population estimates we develop from spring tagging data, and harvest tag return and catch data. We won't have all the pieces we need to do these calculations until after the tag return data are all worked up and proofed, which is typically not until after our spring work is done –so stay tuned. The harvestable population of Winnebago System sturgeon, despite an annual average harvest since 1999 of 1345 fish, has been growing over the last 15 years which has allowed us to increase caps almost systematically during the past decade. The population can not continue to grow indefinitely, and the day will come when we will max out the caps or even possibly have to reduce them from time to time. In any event though, our sturgeon management program works well and we can expect to see robust populations and a very viable spear fishery for many years to come.

Season Rank (Harvest)	Year	Lake Winnebago Sturgeon Harvest	Season Length Days	Water Clarity (ft)	Bag Limit	Min Size Limit (in)	Opening Day Shanty Count	License Sales (Regular)	Cons Patron Tags Issued
1	1995	3173	19	18	1	45	3760	7206	10052
2	1990	2908	20	18	1	45	3100	8277	~300
3	1982	2238	17	18	1	45	2808	6945	
4	1998	2051	12	18	1	36	2140	7091	17627
5	1953	2044	29		5	30		5100	
6	2004	1854	2	15	1	36	4751	8924	NA
7	1948	1735	30	10	5	30		2471	
8	1993	1643	17	18	1	45	3615	8189	~5000
9	2001	1590	2	18	1	36	4997	4705	31454
10	2010	1508	6	16	1	36	4033	10366	NA
11	1955	1505	29	15	3	40	1291	10614	
12	1999	1484	3	17	1	36	3749	7150	26212
13	1954	1479	29		3	30		6900	
14	1967	1424	26	15	1	40	1916	6014	
15	1946	1370	29		5	30		1409	
16	1997	1290	16	15	1	36	3779	6790	19261
17	1972	1251	26	15	1	40	2500	5632	
18	1978	1246	19	14	1	45	2385	6891	
19	2009	1235	8	14	1	36	5958	9596	NA
20	2008	1213	4	18	1	36	3171	8890	NA
21	2011	1091	16	13	1	36	4321	11933	NA
22	2007	1034	16	10	1	36	4411	7895	NA
23	1963	1001	21	15	1	40	1830	4522	
24	1976	936	17	15	1	45		5464	
25	2003	902	10	7.5	1	36	4150	4821	29215
26	2005	893	12	16	1	36	2604	6465	NA
27	1957	851	19	14	2	40	1538	6257	
28	2002	847	16	7.5	1	36	4368	4828	~30000
29	1987	842	16	11	1	45	2520	6792	~300
30	1950	793	29	12	5	30		2019	
31	1941	788	29		5	30			
32	1985	783	21	13	1	45	3140	8439	~200
33	1996	766	9	11	1	45	3708	7892	16943
34	1980	763	22	13	1	45	2600	5040	
35	1965	718	17	14	1	40	1816	6663	
36	1994	700	18	9	1	45	3400	7143	9675
37	1970	692	23	13	1	40		4849	
38	1964	685	23	12	1	40	1967	5400	
39	1956	661	20	15	2	40	1238	9066	
40	1991	651	21	11	1	45	3131	9377	~300
41	1952	617	30		5	30		2900	
42	1951	608	29		5	30		1427	
43	1975	530	22	10	1	45		4319	
44	1992	525	23	6	1	45	2238	6265	~700
45	1960	520	20	12	1	40	1417	2688	
46	1947	503	29		5	30		1275	
47	1986	491	22	9	1	45	2754	8719	~250
48	1988	468	18	9	1	45	3425	7571	~300
49	1942	467	29		5	30			
50	1958	464	22	13	1	40	2152	1830	
51	1979	421	20	6.5	1	45	700	2993	
52	1981	407	16	7	1	45	2900	8612	
53	1949	384	29	15	5	30		1661	
54	1989	362	19	9	1	45	1400	3641	~300
55	2000	347	2	11	1	36	2736	6107	34169
56	1961	340	19	12	1	40	1917	3352	
57	2012	324	16	10	1	36	2197	11978	NA
58	1984	302	20	13	1	45	2500	9089	~200
59	1966	300	25	13	1	40		4285	
60	1977	287	18	12	1	45	2628	5454	
61	1943	283	29		5	30			
62	1962	262	20	12	1	40	1180	3258	
63	2006	225	16	6	1	36	3434	8289	NA
64	1959	221	19	10	1	40	1481	4287	
65	1971	159	24	11	1	40		3332	
66	1974	117	21	11	1	45		3250	
67	1983	39	18	8	1	45	1700	6042	
68	1968	21	28	6	1	40		5768	
69	1969	8	22	6	1	40		2154	
70	1973	8	27	8	1	40		1739	

Creel Census conducted 1941-1954. Mandatory registration 1955-present.

Table 2. Lake Winnebago lake sturgeon spearing season rank by harvest total, 1941-2012; year, harvest, season length, water clarity, bag limit, minimum size limit, shanty count, license sales, and Conservation Patron tags issued from 1984-2003.

Season Rank (Harvest)	Year	Upriver Lakes Sturgeon Harvest	Season Length Days	Bag Limit	Min Size Limit (in)	Opening Day Shanty Count	License Sales	Lottery Applicants
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	2012	242	2	1	36	418	498	4597
17	1971	227	2	1	40		NA	NA
18	1962	217	2	1	40	950	NA	NA
19	1952	200	16	3	30	200	NA	NA
20	1991	186	2	1	45	629	NA	NA
21	1976	85	2	1	45	550	NA	NA
22	1968	80	2	1	40		NA	NA
23	1981	57	2	1	45	947	NA	NA
24	1986	36	2	1	45	1789	NA	NA

Creel Census conducted 1952-1954. Mandatory registration 1955-present.

Table 3. Upriver Lakes lake sturgeon spearing season rank by harvest total, 1941-2012; year, harvest, season length, bag limit, minimum size limit, shanty count, license sales, and lottery applicants from 2007-2012.