

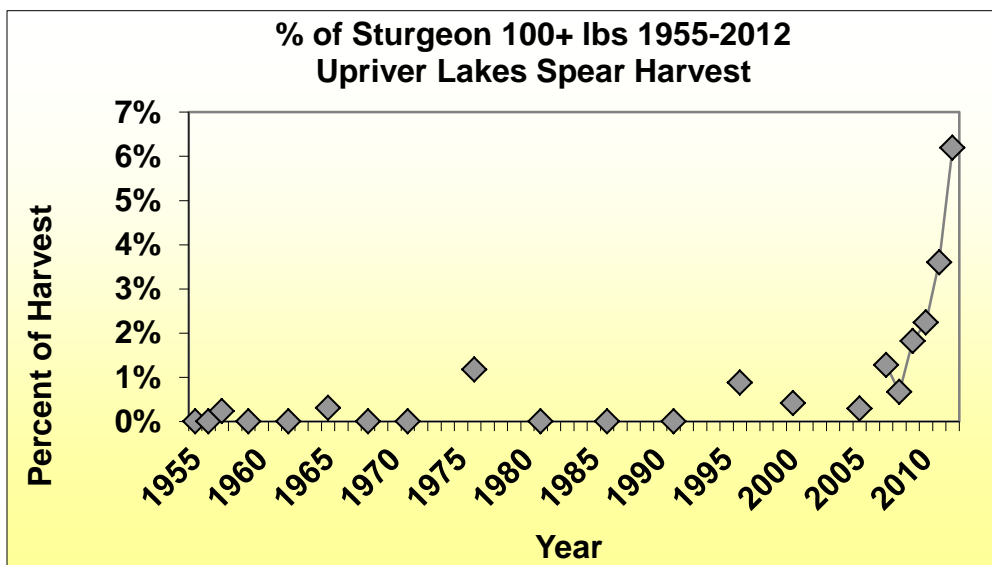
“What’s the deal with all these 100+ pound fish over the last decade?”

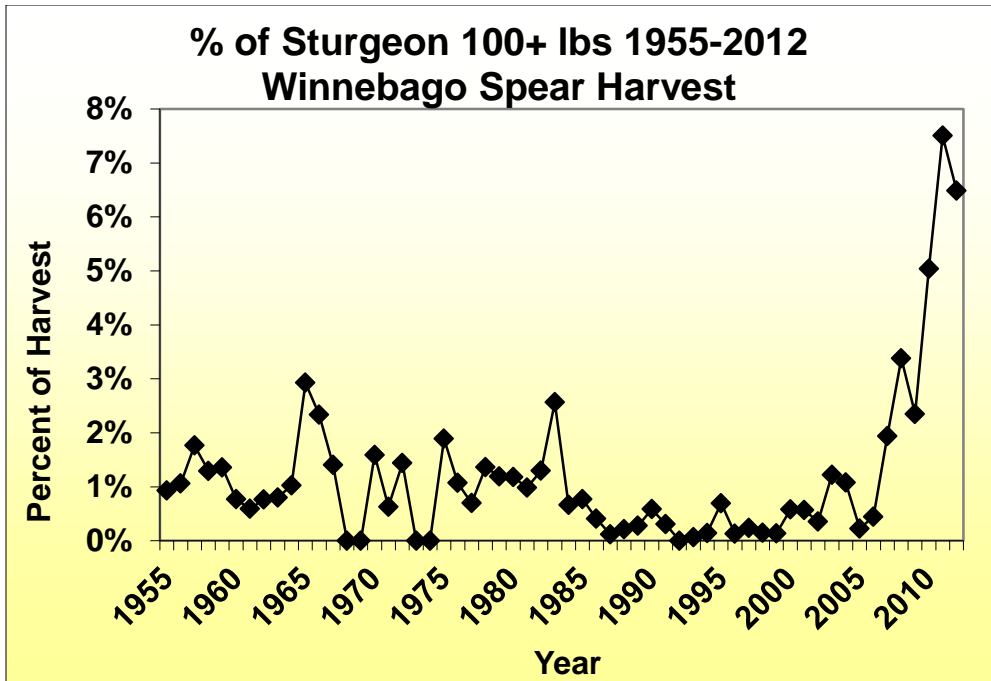
Joining the 100 pound club has long been the goal of many spearers and until recently very few people have been skilled or lucky enough to join the ranks. That is no longer the case, as our current population is loaded with 100+ pound sturgeon. These “trophy” fish are also beginning to dominate the talk around our annual spear harvest, offering the chance for many spearers to join the elite club!

While the first modern sturgeon spearing season occurred in 1932, the old Wisconsin Conservation Department did not begin keeping any records about the number or size of sturgeon harvested from Lake Winnebago until 1941. The early records also were somewhat incomplete, and it wasn’t until mandatory registration of all speared fish began in 1955 that complete records of the harvest were kept.

When looking back over the last 55+ years of harvest data, it becomes very clear that we are currently living in the “good old” days of our sturgeon population. Harvest of 100+ pound fish was rare from 1955-2005. Most spear harvests during these years were made up of less than 2% of the total harvest being fish larger than 100 pounds. In fact, less than 1% of the total harvests during the seasons held from 1984-2001 were fish larger than 100 pounds. I spoke with Dan Folz (Father Sturgeon) today and he remembers past sturgeon biologists saying that the population was in good shape if more than 1% of the population was larger than 100 pounds.

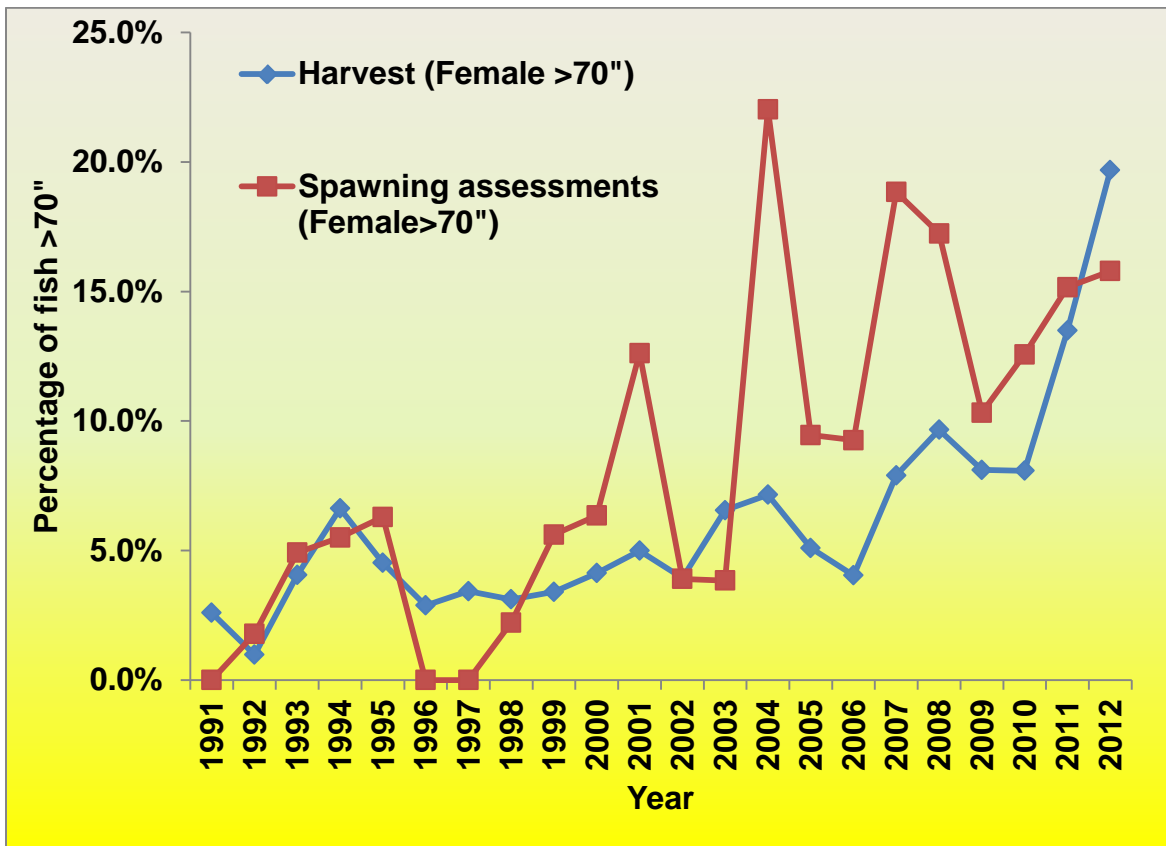
Things changed though, and a higher percentage of larger fish showed up in the harvest in 2007 and that percentage has been increasing ever since. The 2012 spear season included some of the highest percentages of 100+ pound fish to date (6.5% on Lake Winnebago and 6.2% on the Upriver Lakes). So far the 2013 spear season doesn’t seem to be any different with (3.8% of the URL harvest being greater than 100 pounds and 8.8% of the harvest to date on Lake Winnebago being greater than 100 pounds)!





So you might be wondering, why are so many more fish tipping our scales at 100+ pounds than historically did? The answer is fairly complicated because there are many contributing reasons. However, timely regulations, elimination of excessive harvest from illegal fisheries in the 1930s-1960s, and the recruitment into the fishery of a series of strong year classes from the 1940s-1950s are all believed to be contributing reasons for the increase in numbers of large fish. We also now have very large hatches of gizzard shad periodically, which we did not have in the 1950s-1980s. Gizzard shad are not native to the Winnebago System and experience large die-offs during the winter months because they can't survive the long, cold winters. So as shad die off during the winter months, sturgeon take advantage of the additional, fatty, food source. Since large shad hatches have appeared on the Winnebago System, we have seen the relative condition (plumpness) of sturgeon increase. The great condition of fish in the system allows fish to reach 100 pounds at shorter lengths than historically possible, and thus a higher percentage of these "trophy" fish.

Over the course of the last few seasons, we have heard spearkers voice concerns that we may be over-harvesting these larger fish. So Zach Snobl (one our technicians) and I did an analysis to determine whether or not this was actually taking place. We compared the size distribution of adult female sturgeon in the harvest to the size distribution of adult female in the population (observed during spring spawning assessments). Because we don't weigh fish in the spring, we compared the length distribution of fish in the harvest and population. We looked at the percentage of the population in both assessment periods that were greater than 70" (a 70" sturgeon is typically around 100 pounds). The results are shown in the plot below, but I will point out that in most years we observed a higher percentage of fish >70" in the population than in the harvest. These data indicate that spearkers are not overharvesting these larger fish. Rather there are simply more larger fish in the population, and in turn the harvest.



The size of the fish in our population right now is astonishing and should not be taken for granted. The management system that our DNR staff and sturgeon interest groups and individuals has cooperatively built over the last 30+ years is designed to sustain the population, and that is what we will continue to strive to accomplish. We don't know right now how big fish in our population can get, but that is material for a future vignette, stay tuned!