SMALLMOUTH BASS IN DOOR COUNTY
2015 Sturgeon Bay/Little Sturgeon Bay Population
Assessment and Sport Fishery

Scott Hansen and Emily Kurszewski
Bureau of Fisheries Management
Wisconsin Department of Natural Resources
Sturgeon Bay Fisheries Office
Executive Summary

Smallmouth bass populations in the Sturgeon Bay/Little Sturgeon Bay areas of Door County waters of Green Bay were evaluated during the pre-spawn period during the spring of 2015. The populations were generally in good condition regarding abundance, fish size, and recruitment. However, size and numbers of fish (as measured by catch-per-unit effort) have declined somewhat since the last assessment of this area in 2009; though the age compositions were fairly well distributed with greater percentages of fish in the mid to younger age classes (ages 5-8) than in 2009. The percentage of age-4 fish was considerably lower than in 2009. This was likely a result of poor recruitment in 2011 but other factors may also contribute. In recent years anglers have reported a higher prevalence of lesions on smallmouth bass in areas around Door County. The cause for this malady is still being researched.

The sport catch rate (number caught per hour of fishing) for smallmouth bass has decreased in recent years from 0.82 in 2013 to 0.64 fish per hour in 2015. Angling effort has continued to climb however and in 2015 reached the third highest level in the time series beginning in 1986. Fishing tournaments have reached an all-time high in recent years. The impacts of relocating tournament caught fish away from smaller, localized populations remains a concern. The recovery of Lake Michigan water levels over the last two years, after a record low in 2013, has been very positive news that has greatly curtailed the number of requests for riparian zone dredging and has increased the overall level of habitat available for smallmouth bass spawning and rearing.
Introduction

The waters surrounding Door County have become very well known for their thriving smallmouth bass populations both in terms of fish size and abundance. The most productive areas for smallmouth bass are along the Green Bay side of Door County. Viable populations also exist along the Lake Michigan side. Smallmouth bass populations have been assessed in selected areas of Door County periodically since 1991 in order to evaluate the population structure and dynamics of this very popular sport fish. The areas around Sturgeon Bay and Little Sturgeon Bay are assessed most consistently. Herein we report results from the 2015 Sturgeon Bay area population assessment and the Door County waters of Green Bay/Lake Michigan sport creel surveys. We also draw references to historical data to illustrate changes in the population over time.

Methods

Population Assessment

Fyke nets (width = 6’, height = 3’, mesh size = 1.5” stretch; leads = 50’-75’) were set in Little Sturgeon Bay and Sturgeon Bay (Figure 1) beginning April 28, 2015 and were removed after the third week in May just prior to bass nesting. (Nets were removed from the water during weekends.) Nets were fished a total of 13 nights at each site (3 nets per site) and fish removed daily. Sampling effort in Sturgeon Bay was relegated to the more protected area of Sawyer Harbor, an embayment of Sturgeon Bay, which provided more consistent netting conditions. Smallmouth bass total length was measured to the nearest millimeter. Scales for ageing were sampled from the left side of the fish, near the tip of the relaxed pectoral fin just below the lateral line. Scales were sampled from 10 fish per 10 mm length increment and were applied to an age-length key to examine age composition. Fish health was evaluated by examining for any external lesions or other abnormalities. All other gamefish were identified, counted, and measured and non-gamefish were identified and counted. Though discrete spawning populations likely exist in the Sturgeon Bay and Little Sturgeon Bay, some of the data from these areas have been pooled for this report.

Creel Survey

The sport fishery for smallmouth bass has been assessed annually in the outlying Door County waters since the 1970s through the use of a randomized angler creel survey. The creel season begins with the May opener and typically runs thru mid-October. Survey sites include most popular access points along the Door County shoreline. Standard creel survey interview data include effort, catch, harvest, biological data (length, weight, marks/tags) and angler demographics (Masterson and Eggold 2013).
Survey Results

Catch

Nets were fished for a total of 78 net nights (no. nets x no. nights fished), 39 net nights in each location. A total of 1,059 smallmouth bass were caught during this survey; 613 in Sawyer Harbor (Sturgeon Bay) and 446 in Little Sturgeon Bay. There were 16 and 10 fish recaptured in Sawyer Harbor and Little Sturgeon Bay, respectively. Catch rates were 15.7 fish caught per net night in Sawyer Harbor and 11.4 fish caught per net night in Little Sturgeon Bay (a mean of 13.6 smallmouth bass caught per net night overall).

Nearly 3,000 fish of other species were captured in the survey including bullhead spp. (n=1585), rock bass (n=865), bowfin (n=126), white sucker (n=84), longnose gar (n=66), walleye (n=60), yellow perch (n=49), northern pike (n=25), pumpkinseed (n=23), common carp (n=17), muskellunge (9), gizzard shad (n=5), channel catfish (n=3), redhorse spp. (n=2), freshwater drum (n=2), largemouth bass (n=1), and round goby (n=1).

Age Composition

The smallmouth bass sampled in Little Sturgeon and Sturgeon Bays in 2015 ranged from 3 to 15 years of age and at least 5 year classes were well represented (age-5 to age-9), each making up approximately 10% or more of the population (Figure 2). The age-5 and age-8 fish stood out and made up nearly 50% of the fish in the sample suggesting 2010 and 2007 were stronger year classes. Fewer age-4 fish (youngest fish sampled by the gear, though potentially not fully sampled) were captured during this survey than in the 2009 assessment indicating 2011 may not have been a strong year class.

Figure 2. Age composition of smallmouth bass from 2004, 2009, and 2015 spawning surveys in Little Sturgeon Bay and Sturgeon Bay. (Beyond age-9 ageing accuracy likely decreases considerably so ages are pooled for age 10 and older fish.)
Size

The length composition of smallmouth bass in the Little Sturgeon and Sturgeon Bay areas during 2015 was well distributed though there was somewhat of a shift from more fish in the larger categories in 2009 to more fish in the medium size categories in 2015 (Figure 3). Fish length ranged from 11 to 22 inches and the largest fish measured 22.6 inches. Incidentally, this fish had been tagged during the 2009 smallmouth bass survey in Little Sturgeon (same site as recapture in 2015) and measured 19.7 inches at that time. Over 70% of the fish were between 14 and 17 inches while 18% were 18 inches or greater (declining from 25% in 2009). Larger fish were still much more prominent in the population than they were in 2004. The average length of smallmouth bass sampled in the spawning surveys remained similar across years (2004 - 16.1 inches, 2009 - 16.5 inches, and 16.3 inches in 2015).

Mean length at age has increased considerably from the mid-1990s to the 2009 and 2015 surveys (Figure 4). The apparent decrease in mean length at age from 2009 to 2015 is small with considerable overlap in lengths of the age classes. Growth in 2015 is still considerably greater than historical. Whereas historically a fish did not reach the 14” legal size limit until around 7 years of age, now fish on average reach the legal limit by 5 years of age.

Evidence that the overall Sturgeon Bay/Little Sturgeon Bay size composition has decreased is indicated by the Relative Stock Density of fish ≥ 18” (RSD-18) using the formula: (No. fish ≥ 18”/ No. fish ≥ 7”) x 100. (Note: 7” is the stock size as determined using American Fisheries Society length standards for smallmouth bass) (Gabelhouse 1984) In 2009 the RSD-18 was 24 but by 2015 it had fallen to 18. The 2015 value for Sturgeon Bay is still considerably higher than the mean RSD-18 of 7.3 for 14 inland Wisconsin lakes assessed in 2014 and 2015 with a minimum sample size of 100 bass. However, it is below the upper 95th percentile (24.6) of those lakes.

Figure 3. Length compositions for Little Sturgeon Bay/Sturgeon Bay smallmouth bass in 2004, 2009 and 2015 survey years. Length bins are delineated by any fish that fell within a particular inch group (e.g. a fish in the 16” bin could have been between 16 and 16.99 inches long).
**Figure 4.** Mean length (in) at age of smallmouth bass sampled during the 1994/1995, 2004, 2009, and 2015 spring spawning periods in Little Sturgeon Bay and Sturgeon Bay. (Note that beyond age-9 ageing accuracy likely decreases considerably though the trends in increased growth rate are generally consistent.)

**Fish Health**

There have been episodes of apparently high levels of external lesions affecting smallmouth bass over the past decade (Figures 5/5a). The first angler reports and field survey observations of lesion-affected fish occurred in late 2008 and 2009. The incidence of lesions apparently subsided until reemerging in 2015 from angler reports and field survey observations. These specific lesions have typically been observed on the upper portion of the fish, are often circular in shape, and can severely erode the skin and muscle tissue. Wounds often resemble scars left by lamprey attacks. Fourteen of the 1,033 smallmouth bass handled during the 2015 survey showed some form of lesion or wound site on the skin surface (just over 1%). (Note: not all lesions/wounds were consistent with Figure 5/5a) It’s likely that 1% was the minimum percentage of fish affected since there was no formal protocol for recording wounds in the surveys. Samples from affected fish in 2015 revealed *Columnaris* infections. *Columnaris* is a bacterial infection that is common to a number of fish species during certain times of year ([http://dnr.wi.gov/topic/Fishing/fishhealth/index.html](http://dnr.wi.gov/topic/Fishing/fishhealth/index.html)). Aside from the extreme severity of some of the lesions, affected fish appeared to be in good condition. No large scale fish kills were reported during this time period. Sturgeon Bay fisheries staff have observed low level mortality from apparent *Columnaris* outbreaks periodically in the Door County area.
Figures 5 and 5a. Lesions observed in smallmouth bass in 2009 (left image) and 2015 (right image).

**Creel Survey**

Angler catch and fishing effort for smallmouth bass in Door County waters increased rapidly during the late 1980s to the 1990s, dropped somewhat through the mid-2000s, and increased again since 2010-2011. (Figures 6a-c). Catch rates (number of smallmouth bass caught by anglers specifically targeting smallmouth bass) were 0.8-1.0 fish per hour in the late 1990s-2003. Catch rates declined to 0.5-0.6 fish caught per hour of fishing from 2004-2010, then increased, peaking at over 0.8 fish per hour in Green Bay in 2013 and at 1.1 fish per hour in Lake Michigan. Catch rates over the past two years have declined from that peak in Green Bay, but have remained about 1.0 fish per hour in Lake Michigan. Since 2011, the hours of fishing effort for smallmouth has climbed back to the high levels experienced in the late 1990s (140,000-160,000 hours in Green Bay and 40,000-60,000 in Lake Michigan). The 2015 angler effort for smallmouth on Green Bay was the third highest on record while that on Lake Michigan was the highest angler effort on record.
Figure 6a-c. Creel survey results for Door County waters of Green Bay and Lake Michigan, 1986-2015. Catch, effort, and catch rates are specific to anglers targeting smallmouth bass.

During the middle to late 1980s harvest of smallmouth bass in Door County outlying waters was relatively low, likely due to lower population abundance. However, smallmouth harvest increased dramatically in the early 1990s. This occurred despite the implementation of a 12” size limit in 1989 (there was no size limit prior), more than doubling between 1990 and 1991 in Green Bay waters of Door County (Figure 7). The mean annual harvest from 1991 to 1997 in Green Bay waters was 34,649 ±6,314 (1 SD), more than 5 times the average annual harvest (5,793) between 1986 and 1990. Implementation of the 14” size limit in 1998 likely reduced harvest dramatically and from 1998-2004 averaged 14,566 ±3,690 (1 SD) fish annually. By 2005, a trend of lower harvest began and has remained relatively low ever since. Between 2005 and 2015 the harvest in Green Bay waters averaged 6,274 ±1,286 (1 SD) fish annually. Harvest in Lake Michigan waters of Door County generally follows the same patterns as Green Bay although the reduction in harvest after the 1998 size limit change has perpetuated through to recent years. However, harvest on Lake Michigan generally is substantially lower than the harvest in Green Bay. Limited boat access and lower, more concentrated smallmouth populations characterize the fishery on the Lake Michigan side of Door County.
Figure 7. Smallmouth bass harvest history in Door County waters of Green Bay and Lake Michigan, 1986-2015. Arrows indicate size limit changes in 1989 and 1998.

Discussion

Populations in the Sturgeon Bay/Little Sturgeon Bay areas are in good condition. However, certain indices such as survey catch per unit effort and size structure have decreased since the last assessment of this area in 2009. Recruitment of the 2011 year class to the survey gear in 2015 was low relative to age 4 fish in other survey years. This could be as result of fewer fish in that year class or a result of the year class not being effectively captured by the gear due to slower growth. It is not possible to say how strong the year classes since 2011 have been because they have not reached reproductive maturation. It does appear that the 2010 year class was relatively strong. The impact of round goby as a nest predator on smallmouth bass has been a concern since the first round goby record in Sturgeon Bay in 1999 (Steinhart et al., 2004). Because it took several years for gobies to reach high levels of abundance throughout this area, their impact on smallmouth likely would have not been noted in the adult population until around 2009 or later. To date no major negative impact of round goby on smallmouth bass are apparent in the catch rates in the fishery. Future surveys will show if recent year classes (since 2011) are impacted by round gobies or other stressors currently occurring in Green Bay and Lake Michigan. Although fish size at age has decreased slightly from 2009, it remains well above that of the mid-nineties and the size composition is still good. Despite the continued concern over the adverse impacts of round gobies on smallmouth bass populations, the increased size at age in smallmouth bass may be the result of predation on round goby (Crane et. al., 2016). Although the recent creel catch per unit of effort decreased, the last two year’s levels are still around the average
Our data indicate that the average length of an age-5 fish in 2009 was 14.9 inches and in 2015 was 14.3 inches; captured per net night dropped from 4.8 to 2.5 between 2009 and 2015. On average smallmouth are reaching the larger lengths at age, this size limit may be less effective at protecting fish until they are reproductively mature. Effectiveness of the 14" size limit, implemented in 1998. The goal of the 14" size limit was to protect fish through 14" size limit within 5 years vs 6 years in earlier surveys. Interestingly, increasing growth rates could reduce the age-5, the age when many female smallmouth are likely reproductively mature (Becker 1983). At the observed age-5, the age when many female smallmouth are likely reproductively mature (Becker 1983). At the observed changes in growth, populations can endure some density-dependent fluctuations in abundance due to a high level of competition between year classes. Furthermore, population abundance cycling is common for fishery populations and recent levels could be reflective of smallmouth bass populations naturally declining from very high levels. We will continue to monitor both the population abundance and the angler catch statistics.

Fyke net catch per unit effort (CPE) can be a general indication of relative abundance when the sampling locations and times are consistent. The overall CPE for Little Sturgeon/Sawyer Harbor combined in 2015 was 13.6 smallmouths per net night, down from 19.4 smallmouths per net night in 2009. Although the specific net locations changed somewhat, the general sampling locations were consistent between survey years. For Little Sturgeon, where two of the three nets were fished in the same location between the surveys, the CPE decreased from 25.1 to 11.4 smallmouths per net night. The CPE for Sawyer Harbor increased from 10.7 to 15.7 smallmouths per net night between surveys. However, the Sawyer Harbor nets, although in the same general area, were not fished in consistent locations between surveys. While nets were initially set in original locations, some were moved due to low capture rates. Catch per effort can be somewhat misleading if environmental conditions (e.g. water temperature), sampling dates, and ecological conditions are not somewhat similar between surveys. Sampling dates and water temperatures were relatively consistent between these surveys though fish behavior (as a reflection of other ecological conditions) could be a factor (see further discussion below).

The age composition from the 2015 survey demonstrates well distributed age classes for adult smallmouth bass in their first years of spawning. Even what appears to be a weaker 2011 age class could be a matter of these younger fish are not showing up in typical spawning areas because they may not yet be reproductively mature. Caution should be used when interpreting age composition (and other metrics) in smallmouth bass populations. These levels can be affected by ageing error (potential under-aging using scales), sampling dates, and survey water temperatures. Ageing error when using scales increases beyond around age-6 when compared to otolith ageing techniques in some smallmouth bass populations (Maceina and Sammons, 2006). We assume there is some ageing error associated with using scales to age smallmouth bass; though higher growth rates characteristic of Sturgeon Bay smallmouth populations help alleviate some uncertainties in younger to middle age classes. The netting efforts were similar between the 2009 and 2015 assessments of the Sturgeon Bay area (both began at end of April; 71 net nights of effort in 2009 and 78 net nights of effort in 2015). Mean surface water temperatures were nearly identical between the last two survey years although the variation in 2009 was much greater. Average water temperature during the survey in 2009 was 55.3 F (min/max: 49-67 F; SD: 4.30) while in 2015 the average was 55.4 (min/max: 50-63 F; SD: 2.05). Larger smallmouth bass tend to come into the spawning areas early in the season while the younger/smaller fish are more prominent later in the season. The large decrease in age-4 fish between 2009 and 2015 (three-fold decrease) suggests poor recruitment for the 2011 year class though other factors, as discussed above, may be partially responsible.

The length at age and overall size structure in 2015 are still well above those of a decade ago. Some measures have decreased slightly since the 2009 survey. The decrease in average size at age since 2009 is very small and may be explained by natural variations and cycling within the populations. Furthermore, there is considerable overlap in deviations around the average size at age between years. However, there does appear to be a change in the overall size structure since 2009. The difference in RSD-18 values between the surveys supports this though those levels may be influenced by shifts in the number of small fish in the population. However, the number of fish ≥ 18” captured per net night dropped from 4.8 to 2.5 between 2009 and 2015. On average smallmouth are reaching the 14” size limit within 5 years vs 6 years in earlier surveys. Interestingly, increasing growth rates could reduce the effectiveness of the 14” size limit, implemented in 1998. The goal of the 14” size limit was to protect fish through age-5, the age when many female smallmouth are likely reproductively mature (Becker 1983). At the observed age-5, the age when many female smallmouth are likely reproductively mature (Becker 1983). At the observed larger lengths at age, this size limit may be less effective at protecting fish until they are reproductively mature. Our data indicate that the average length of an age-5 fish in 2009 was 14.9 inches and in 2015 was 14.3 inches; while in 1994/1995 and 2004 a fish of this age measured 12.1 and 13.4 inches, respectively. Therefore, as of 2009 the 14” minimum size limit may have no longer been as effective in allowing at least one spawning event before being susceptible to harvest. However, that is based upon the assumption that age at maturity is static. If bass are growing fast enough to mature at an earlier age, then the size limit may still afford these fish some protection prior to spawning. In fact, there is some historical reference to fast growing females maturing at age-4 in parts of Lake
Michigan (Becker 1983). The abundance of larger fish, recently strong recruitment, and relatively low harvest in these populations suggests, however, that this overharvest at a young age is not occurring.

Observations of higher percentages of lesions on smallmouth bass have occurred in two episodes 2008-2009 and 2015. During these periods, fish with healed or partially-healed wounds have been observed; suggesting fish can recover from these lesions. The main hypothesis in 2009 was that the lesions were the result of secondary infections due to VHS-compromised immune systems that allowed other bacteria to proliferate in the fishes’ systems. (In 2009 a limited number of disease tests were run so the actual disease agent could have been overlooked.) However, in 2015 none of the fish tested were VHS positive. Of the diseases tested for, Columnaris seemed the most likely culprit given isolation of the bacteria and lesions that were consistent with this disease. Columnaris outbreaks are common in the spring when water temperatures increase above 60° F and other stressors are present (e.g., spawning, poor water quality, co-viral infection). Though Columnaris lesions can be upsetting to the general public, this disease is naturally-occurring and not known to cause significant long-term consequences for fish populations even when a die-off occurs. Observations of fish with lesions in Green Bay waters have been recorded with water temperatures well below the 60° F threshold, adding some uncertainty to identifying the disease agent responsible. To our knowledge, no large scale epizootic event occurred since these lesions appeared in the fishery. There were no observations of a high level of affected fish in the 2012 Rowley Bay survey on the Lake Michigan side of Door County nor were there a substantial number of reports from anglers or creel technicians during the years between outbreaks.

Sport catch and harvest for smallmouth bass in Door County waters of Green Bay have shown some interesting trends over time. After reaching record levels during the mid-late 1990s catch rates dropped between 2003 and 2004 and remained at moderate levels for seven years. Catch rates after 2010 began to rise and although they were not among the highest, given the increase in size at age and composition, the “quality” of the fish caught in recent years was likely greater than during the record catch years. Over the last two years catch rates have dropped though still are around the long term average. The 2015 catch rate of 0.64 fish caught per hour fished approximates the recent 10 year average of 0.63 fish caught per hour fished. Possible explanations for these trends include high recruitment and changes to the Green Bay ecology including changes due to invasive species (Hansen and Kroeff, 2014). Harvest numbers for smallmouth bass are often tied to changes in minimum size limits. The large reduction in harvest between 2004 and 2005 does not mirror the trend for catch rates which decreased a year earlier. However, an artifact of our creel survey design is that if only a small number of anglers are actually interviewed, then one or two interviews can have a strong effect on the results. This may explain why the drop in harvest was not apparent immediately. Increased catch rates in recent years have not resulted in an increase in harvest numbers. This may be a reflection of increased “catch-and-release” fishing by bass anglers. Fishing effort for smallmouth bass has risen over the last four years. Between 2011 and 2015 effort had more than doubled on Green Bay and was nearly five times as high on Lake Michigan waters of Door County. This large jump in effort may be explained by the current high quality of the smallmouth bass fishery. The increase has also been facilitated by national promotion of the Green Bay smallmouth bass fishery, ranking it among the best places to fish in the U.S. The installation of a public boat launch on Rowley Bay (Lake Michigan side) recently improved access to that area considerably.

The change in water levels between the 2009 and 2015 surveys may also be a potential factor affecting abundance and catch composition. The mean Lake Michigan water level was 9” higher in May, 2015 than it was in May, 2009. This difference in water levels for nearshore species such as smallmouth bass has the potential to concentrate both adult and juvenile smallmouth in areas of limited quality habitat during low water years and better distribute fish across more quality habitat during higher water years. This phenomenon may have made it appear that there were more fish in 2009 when they were just more concentrated. Higher water levels will provide better spawning conditions with additional spawning substrate and nursery habitat available for young of year bass in flooded emergent vegetation (e.g., bulrush). Although there was an overall rise in water level between these survey years, there was a substantial drop between 2009 and 2013. So, in contrast to the additional habitat available in 2015, the loss of habitat (from lower water around 2013) may have affected recruitment success during low water years and could also explain the decrease in catch rates over the 6 year period between surveys.
Summary and future outlook

The smallmouth bass population in 2015 in the Sturgeon Bay/Little Sturgeon Bay area is in good condition. Although age-4 fish do not seem to be in great abundance, ages 5-8 are well represented in the fishery. Sport catch remains relatively high and fish size at age is considerably higher than a decade ago.

Recent increases in Lake Michigan water levels have alleviated some of the fishery concerns associated with low water levels discussed recently (Hansen and Kroeff, 2014) such as impacts from loss of nearshore habitat and increased dredging activity. We have increased our smallmouth bass sampling to include a survey of Washington Island in 2014 and North Bay in 2016 (reports pending). However, the areas in Northern Door County between Egg Harbor and Sister Bay have not been sampled, as these sites are difficult to effectively sample. Some funding has recently been obtained to examine potential differences in genetic composition between the populations of smallmouth bass in various areas of Green Bay and Lake Michigan. Tissues for genetic testing have been collected opportunistically over the last several years during population assessments and further samples will be collected in 2017.

There are some management needs and concerns that should be addressed to ensure future robust smallmouth bass populations in Door County waters of Green Bay and Lake Michigan. Invasive species remain a threat to smallmouth bass and other fish species. Although we are cautiously optimistic that the impact of round gobies on smallmouth bass recruitment may not be as extensive as once feared, given the short time period that gobies have been a part of the Green Bay and Lake Michigan ecology it would be prudent to continue consistent monitoring of the populations. A more effective means of examining round goby impacts would be to annually assess recruitment of young-of-year smallmouth bass including nest success evaluations. We have conducted a limited amount of recruitment and nesting success assessments historically. Limited resources have precluded further development of these index surveys. The potential population-level impacts of the movement of large numbers of smallmouth relocated from their “home range” via catch-hold-release fishing tournaments in this area remains a concern. A related research priority is to evaluate the movement patterns for smallmouth bass populations in Door County waters of Green Bay including homing tendencies. Past surveys have indicated smallmouth generally do not move extensively and tend to have a “home range” (Wiegert 1966; Kroeff 1993, Hansen and Kroeff 2014). The latest technological advances in acoustic telemetry may help to answer whether fish remain in their newly relocated areas, and to what extent; as well as whether fish that are in their assumed home range remain in this area. Acoustic telemetry has the potential to answer a variety of life history questions. External funding would need to be obtained as movement studies can be costly and difficult to support within current operational budgets.

References


Kroeff, T. 1993. A Summary of Recapture Data from Fish Tagged at the 1993 Sturgeon Bay Open Bass
Tournament with Additional Age Information. Wisconsin Department of Natural Resources Fisheries Management Report. Sturgeon Bay, Wisconsin. 8pp.


For further information or questions, please contact:

Scott Hansen
920-746-2864
Scott. Hansen@wisconsin.gov