



Vessel Program Newsletter

December 21, 2016

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Welcome Research Vessel *Tanner*.

After many years of planning and preparation the newest vessel in the DNR fleet has finally arrived. The *Tanner* was launched in early May and sea trials were conducted at Andersen Boat Works in Douglas, Michigan. The build was functionally finished prior to its dedication on May 20th which was preceded by a 20 hour trip from Douglas to Alpena on May 18-19th. The *Tanner* is 57 feet in length, and has a beam of 15 feet and drafts less than 5 feet. The aluminum plaining hull design with twin John Deere 500hp engines allows for speeds up to 20 knots and she has a fuel capacity of 1,000 gallons. The *Tanner* weighs 48,000 pounds empty and 60,000 pounds fully loaded. There are 5 water tight compartments which help keep the *Tanner* and crew safe. A 20 kilowatt Northern Lights generator provides for the power demands onboard. With the addition of side scan sonar, ROV, voice-activated data recording, and hydro-acoustics equipment. The *Tanner* is well positioned to continue fisheries and habitat work into the future. Below are a few pictures from the *Tanner* dedication ceremony.

Research Mission: The mission of the Research Section is to provide information, models, and advice to make possible science-based management of Michigan's fishery resources. This mission is pursued by synthesis of existing information and/or that gained through direct application of the scientific method into decision support tools. Research section includes biologists, analysts, technicians, and other support professionals and works closely with the other sections in Fisheries Division to assist in their missions by pursuing long-term or in-depth investigations that are normally outside the scope of other Fisheries Division units.



Dr. Howard Tanner in front of the vessel which was named in his honor.



Alpena Fisheries Research Station staff and vessel crew.



Click the button to learn more about the *Tanner*:



R/V Tanner-Alpena Fisheries Research Station

The Research Vessel *Tanner* operates out of the Alpena Fisheries Research Station and works primarily on Lake Huron. The crew aboard the *Tanner* consists of:

Captain-Jeff Diemond

Assistant Captain-Bill Wellenkamp

Fisheries Technician-Ed Barr

Fisheries Assistant-Ken Glomski

Research Biologist-Ji He

Research Biologist-Dave Fielder

Vessel Business: The season began aboard the 70 year old *Chinook* with the spring lake trout survey. The *Chinook* completed her last service duty without any issues. After the spring survey the station took delivery of the *Tanner*. The crew spent a lot of time

rigging and performing test runs to learn the boat and work any issues out. The *Tanner* performed well in initial trials and only minor tweaks were needed. At the end of the field season the *Tanner* was taken back to Andersen Boat Works in Saugatuck for some finish work.



Above: In the foreground the newly delivered *Tanner* with the retired *Chinook* in the background.

The following are a few progressive pictures from the *Tanner* build.



Bow bulkhead

Bow section



Bow-pilot house



Recent Surveys

The Annual Lake Trout Survey which covers 14 stations from Detour to Harbor Beach has continued to reveal improvement in natural reproduction and an increasing population. lake whitefish showed signs for the 2nd year in a row of higher abundance. The spring survey lifted 100,000 feet of variable-mesh gillnet.

The Saginaw Bay Fish Community Survey was the first full survey for the *Tanner*. In September the *Tanner* and crew conducted the gill netting portion of the Saginaw Bay survey along with the *Channel Cat* completing the bottom trawling portion. This year's survey covers 8 stations from Caseville to Tawas including the Charity Islands. This year's survey found that walleye in Saginaw Bay remain at a high abundance and are now exhibiting signs of slow growth. Yellow perch remain greatly depressed in the bay, but the few that survive to adulthood are growing very fast. Early onset of

maturity in both sexes is consistent with a very high mortality rate.



Tanner crew working up fish.

The Les Cheneaux Island Fish Community Survey took place in early October. The survey showed northern pike continuing to do well with yellow perch up to 14.6 inch but numbers were down from the recent past. The Outdoor Channel filmed the netting and fish data collection, to be aired in January or February 2017.



R/V Channel Cat-Lake St. Clair Fisheries Research Station



The Research Vessel *Channel Cat* operates out of the Lake St. Clair Research Station and works primarily on lakes Erie, Huron, and St. Clair. The crew aboard the *Channel Cat* consists of:

Captain-Roy Beasley
 Assistant Captain-Jeremy Maranowski
 Fisheries Technician-Brad Utrup
 Fisheries Assistant-Jason Pauken
 Research Biologist-Mike Thomas
 Research Biologist-Jan-Michael Hesseauer

Vessel Business: The *Channel Cat* had a safe and successful season with no major vessel issues in 2016. Early in 2016 two new Cummins QSB6.7 engines were installed on the *Channel Cat*.



With the new engines, two new drive shafts were installed to meet ABYC (American Boat and Yacht Council) standards. That also meant new cutlass bearings, struts and the need for boring the existing props to 2 inches.



The only other issue that cropped up was a noisy torsion coupler at low speeds. This coupler is located between the transmission and engine. The original couplers were taken out and replaced with a Centa coupling which quieted everything down.

Recent Surveys

The field season for the *Channel Cat* typically begins with **The Spring Trap Net Survey**, but due to the vessel being repowered the spring trap net survey and Lake St. Clair fish community trawling was cancelled.

The **Sturgeon Setline Survey** on the North Channel of the St. Clair River was completed on June 23rd. A total of 112 setline lifts resulted in the capture of 174 lake sturgeon, including 58 recaptures of fish tagged in prior years. The biggest sturgeon captured was 71 inches and 85 pounds. During the survey the crew hosted Harvest Gathering auction winners, Michigan Governor Rick Snyder, Congresswoman Candace Miller and Fisheries Chief Jim Dexter.

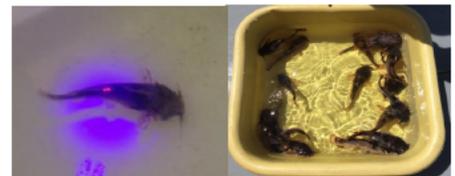
Right: *Channel Cat* crew show off a nice catch of sturgeon.



Governor Rick Snyder (center) holds a beautiful sturgeon along side Fisheries Chief Jim Dexter (left center), and Congresswoman Candice Miller (right center).



To maximize the information gained from our sturgeon setline survey, every setline had two minnow trap attached to each end. Minnow traps were baited with earthworms and targeted northern madtoms. Northern madtoms are a state endangered species, but are evidently abundant in the North Channel of the St. Clair River as 299 of them were captured. Given our success at sampling them we began collecting length and weight data, as well as marking them using visible implant elastomer tags in order to better understand their population dynamics.



Recent Surveys Continued



The *Channel Cat's* state worker Drew Martin holds a 66 inch 90 pound Sturgeon.

Sturgeon Trawling in Lake St. Clair was conducted at a reduced effort due to issues with the electromagnetic clutch that runs the hydraulic pump for the winch. With an abbreviated effort the crew caught 11 sturgeon.

The August Lake Erie Trawl Survey was completed the week of August 8. A total of 5,325 fish representing 20 different species captured during 8 tows, including three species that have never been observed before were captured (brook silverside, tubenose goby, and silver chub a state special concern species). The apparent high catch rate of 212 young-of-year yellow perch per 10-min tow in



2016 was driven by one large tow (1,142 fish) near the mouth of the Detroit River. The yearling-and-older yellow perch catch rate in 2016 (79 fish/10-min tow) was double that of 2015 and over 5x higher than 2014. Young-of-year walleye catch rates

were lower than 2015 but higher than 2014.

The *Channel Cat* crew completed **The Annual Fall Trawl Survey** on Lake St. Clair on August 31st. As usual, finding trawl-able grounds in the index site area was a challenge due to the submerged aquatic vegetation. Catches of round gobies, sand shiners, and trout-perch rebounded slightly after lower catch rates in recent years.

Spottail shiners also appeared to have increased as well. Once again, young-of-year yellow perch catch rates were high, indicating another year of good reproductive success for the most sought-after species in Lake St. Clair.



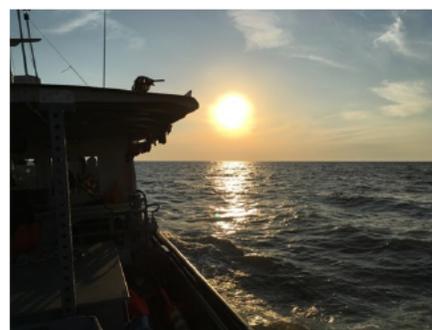
The Annual Saginaw Bay Fish Community Trawl Survey on Saginaw Bay was completed from September 7 to September 15. The young-of-year walleye catch rate, one of the lowest since the alewife collapse, was a indicator of a weak 2016 cohort. Our yearling-and-older walleye catch rate was up from 2015 and yearlings were a large contributor (2015 cohort). The yellow perch young-of-year catch rate was up, making this another good year for yellow perch spawning success in the Bay. Yearling-and-older yellow perch abundance seemed to be up slightly in 2016, with a large chunk of that made up of yearling-size fish (4 and 5 inchers). This may be a sign of improved survival of age 0 fish from 2015. Another positive was that overall forage abundance increased noticeably in 2016, driven mainly by a strong 2016 cohort of white perch and a rebound in troutperch numbers. Once again, zero alewives were caught during the survey.

The 39th annual **Lake Erie Fall Walleye Index Gill Net Survey**

was completed the week of October 10. A total of 946 fish from 13 different species were captured in four overnight gill net sets split between index stations near Stony Point and Luna Pier.



For the first time in a decade the average gill net CPUE of walleye was above the long-term average of the time series. Average walleye CPUE in 2016 (121 fish/net lift) was the highest observed since 2005 and is more than double the gill net CPUE from 2015. Using mean-length-at-age of walleye collected during previous surveys, it is estimated that more than 90% of the 2016 gill net catch was age 1 and 2 fish from the 2014 and 2015 year classes, which should contribute to a strong walleye fishery for years to come.



To see more of the great work conducted aboard the *Channel Cat* visit the Lake St. Clair Research Station YouTube channel by clicking the button below:

[Click Here](#)

S/V Steelhead-Charlevoix Fisheries Research Station

The Survey Vessel *Steelhead* operates out of the Charlevoix Research Station and works primarily on Lake Michigan. The crew aboard the *Steelhead* consists of:

Captain- Jerry Ranville

Assistant Captain-Nathan Skop

Fisheries Technician-Kris Snyder

Fisheries Technician - Pat O'Neill

Research Biologist-Jory Jonas

Research Biologist- Randy Claramunt

Vessel Business: 2016 was a busy year that started the end of April and went until early November. As soon as the spring survey ended the *Steelhead* went into dry-dock for its five year haul out and inspection. The dry-dock work was performed in St. Ignace by Schwatz Boiler Shop out of Che-

boygan, Mi. The *Steelhead* spent a little over 3 weeks out of the water for the work. The major items that were taken care of included: 4 new thru-hull sea chests, new sea strainers, install new propellers and shaft bearings, sand blast open deck area, apply non-skid to open deck area, sand blast hull from water line down, hull sounding, hull anti-fouling paint. During the hull sounding no major issues of immediate concern were discovered. The *Steelhead* crew took care of sanding and re-painting the hull from the water line up, and the house portions.



The *Steelhead* was relaunched and headed back to Charlevoix on July 11th.



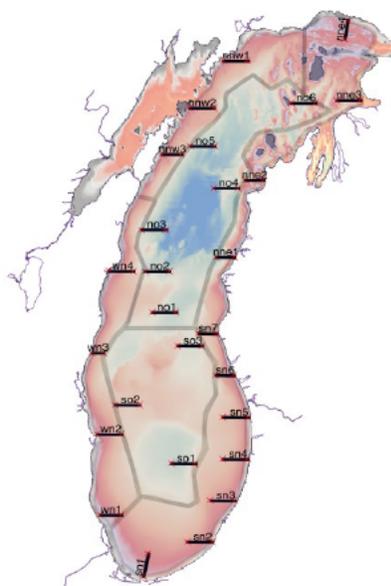
Did you know: 2016 marked the 48th year the *Steelhead* has been in service.

Recent Surveys

The survey season for the *Steelhead* began on April 12th with **The Lake Wide Assessment Plan Survey (LWAP)** which focuses on assessing lake trout, lake whitefish, and perch populations at 8 ports. 137,000 feet of gill nets were deployed, to catch a total of 1,227 lake trout, 592 lake whitefish, and 320 yellow perch. Samples collected, such as age structures and stomachs will be evaluated over the winter months.



The Lake Wide Acoustics Survey was conducted in August in conjunction with the U.S. Geological Survey and U.S. Fish & Wildlife Service. The focus of this survey is to estimate forage fish biomass in Lake Michigan.



2016 acoustics transect design.

With the proposal to reduce chinook salmon stocking, this year's survey was of utmost importance. The *Steelhead* crew conducted 11 transects in the Michigan waters of Lake Michigan.

Initial observation from the survey showed uneven distribution throughout the lake. Young-of-the-year alewives became more wide spread the further south that was sampled, and adult alewives were observed in good numbers but scattered randomly. Overall, the alewife year class seemed to be strong and growing fast due to the warm water temps. Although these fish have a long way to go to make it to adults, our fingers are crossed. One other observation was a strong year class of bloater chubs that were present in the southern portions of the lake.



Adult alewives captured in a mid-water trawl.

Recent Surveys Continued

The Yellow Perch Bottom Trawl Survey started September 12th in South Haven. Three key Lake Michigan yellow perch ports were bottom trawled, looking at recruitment and year class strength. Petoskey was eliminated in 2016 due to time constraints. This year's survey produced low catches of perch, both young-of-the-year and adults. Young-of-the-year bloater chubs were the most abundant species observed in the bottom trawl. In 2-10 minute trawls in Grand Haven over 61,000 bloaters were collected.



This was the largest catch of bloaters experienced aboard the *Steelhead*.

EPA-Great Lake Fish Monitoring and Surveillance Program gill net sampling for 50 lake trout was completed in mid September out of Saugatuck, MI. To capture the required amount of lake trout, two net nights were completed. The 50 lake trout were collected and sent for analysis to determine legacy and emerging contaminants.



The Fall Lake Trout Spawning Survey was conducted in late October to document lake trout spawning, and native recruitment. Four reef complexes in northern lake Michigan were sampled. During 3 nights of netting 532 lake trout were collected with 90% of those fish being coded wire tagged.



Steelhead crew with a nice catch of 31 inch Lake Michigan walleyes.



Pat O'Neill holds one of the six sturgeon that were captured, tagged, and released in 2016.

Please visit Charlevoix Fisheries Research Station's YouTube page by clicking on the button below:

[Click Here](#)

Crew Member Highlight

In every edition of the vessel program newsletter, one crew member will be selected to give a biography. Meet Assistant Captain Jeremy Maranowski aboard the *Channel Cat*. Jeremy grew up in Warren, Michigan. He is a 2001 graduate of Michigan State University with a Bachelor's Degree in Fisheries and Wildlife. Jeremy has been with the DNR for 13 years and his first job was as a creel clerk on Lake St. Clair. From there he transferred to fisheries assistant on *Channel Cat* for 8 seasons, transferred to Alpena as Assistant Captain, served for 3 years aboard the *Chinook*, then took a transfer in 2014 back to the *Channel Cat* as Assistant Captain. Jeremy's duties include running the vessel, general vessel maintenance, fabrication, deploying

gear, run winch, maintaining a safe work environment, and delegating duties while on survey. Jeremy also processes the catch from survey gear and helps with data collection. Jeremy's duties at the office include supervise fisheries assistant, repair and maintain survey gear, station equipment, and facility.

When Jeremy was asked what he enjoys about working on the *Channel Cat* he said "I like being outdoors and being on the water and working on a boat allows me to do that. I enjoy being part of a crew, as well as the variety of work we do. Plus you can't beat the view from my office."

In his spare time Jeremy is an avid hunter and fisherman. Jeremy enjoys pursuing deer, ducks and upland birds. He also has a passion for training bird dogs and pursuing game with them whenever possible.



R/V Lake Char-Marquette Fisheries Research Station

The Research Vessel *Lake Char* operates out of the Marquette Fisheries Research Station and works primarily on Lake Superior. The crew consists of:

Boat Captain—Kevin Rathbun

Assistant Boat Captain—Chris Little

Fisheries Technician—Dan Traynor

Fisheries Assistant—Greg Kleaver

Research Biologist—Shawn Sitar

Vessel business: The *Lake Char* was launched on April 1, 2016 and prep work for the upcoming field season began. During a visit from Andersen Boat Works it was learned that the potable water tank installed on the *Lake Char* was a tank meant for agricultural use. Work to install a new potable water tank was immediately started. There was also an issue with the generator starting. A local diesel

mechanic determined it was the fuel pump and once this was replaced the generator ran great the rest of the season. During the last couple of days of the spring survey it became evident that something was not right with the shifting of the transmissions when in troll mode. Palmer Johnson technicians determined it was the E-troll module. Not an easy fix seeing as the E-troll module on the *Lake Char* was discontinued and the replacement required a separate wiring harness. The techs from Palmer Johnson thought they could make their own. This proved to cost us another week of downtime. After getting the proper wiring harness and replacing a blown fuse in the electronic control box for the Glendinning throttle controls we were back up and running. Work continued with Applied Industrial Technologies on the hydraulics. Counter balance valves were installed

on both winches and the net reel. The winches and the net reel were fired up at the dock to check for leaks and make sure they were operating properly. All systems seem to be working. The *Lake Char* was hauled out of the water this year on October 25.

To view a video of the *Lake Char* being hauled out of the water for the season click on the button below:

[Click Here](#)

Did you know: During the 2016 field season the crew boated over 4,300 fish of various species in 188,500 feet of gill net; that's over 35 statute miles. The *Lake Char* consumed 3,809 gallons of fuel.

Recent Surveys

The Spring Lake Trout Assessment Survey was performed in the Michigan waters of Lake Superior from April 18 to June 1. 4½ inch stretch multi-filament gill net is used for this assessment.



Chris Little with a beautiful Lake Superior lake trout.

The Summer Lake Trout Recruitment Survey was performed on Lake Superior from August 9 to September 1. Graded mesh from 2 to 3 inch, in ¼ inch increments with a panel of 3½ inch multi-filament gill net is used for this assessment.



Dan Traynor holds a lake trout with a sea lamprey still attached.



Kevin Rathbun nets lake trout as they fall out of a gill net.

The *Lake Char* was also deployed for duty on the **Juvenile Sturgeon Survey** off the north entrance of the Portage Canal. Sixteen thousand feet of 4, 8,

and 10 inch monofilament gill net was set and retrieved over the course of 3 days. Only one sturgeon was caught. However various other species were caught including suckers, walleye, and smallmouth bass. One bass weighed in at 6 pounds and measured 21 inches long.

The last mission of the season was to explore a bottom anomaly spotted on sonar close to the Bete Grise area of the Keweenaw Peninsula. After deploying side scan sonar it was determined that it was not a shipwreck but some unusual reef type structure. In the future a ROV (remote operated vehicle) will be used to further explore the structure.



Vessel Program Hot Topic

The vessel program has seen a lot of activity over the past year with the commissioning of the *Tanner*, repowering the *Channel Cat*, and the decommissioning of the *Chinook*. This shows that the vessel program is strong and these vessels are a vital part in furthering the mission of Fisheries Division.

On August 23rd the *Chinook* was decommissioned from service. When exploring options for what to do with the vessel a local group felt that the ship's preservation was necessary. Because of the vessel's long history of state service the group felt it was necessary to save. So shortly after its decommission the *Chinook* was put on a trailer and hauled down the road to the Jesse Besser Museum located in Alpena, MI where it will serve as an educational and interpretive display.



Vessel Program Retiree.



Fisheries biologist Mike Thomas retired on October 21, 2016 after 32 years of state service. Mike was the primary investigator for the Status of the Lake St. Clair fish community and sport fishery and the evaluation of lake sturgeon populations in the St. Clair River and Lake St. Clair. He was also co-primary investigator for the dynamics of the Lake Erie walleye and yellow perch populations and fisheries and fish community status in Saginaw Bay, Lake Huron.

The staff and boat crew at the Lake St. Clair Fisheries Research Station would like to thank Mike for his outstanding work. He will be missed!

Want to know more about research vessels?

Please click on the button below to find out more information related to each of the Michigan DNR Fisheries Division's Great Lakes Research Vessels:

[Click Here](#)

Please contact one of the research stations listed below for any further information.

R/V Tanner
Alpena Fisheries Research Station
160 E. Fletcher
Alpena, MI 49707

Phone: (989)356-3232

S/V Steelhead
Charlevoix Fisheries Research Station
96 Grant St.
Charlevoix, MI 49720

Phone: (231)547-2914

R/V Channel Cat
Lake St. Clair Research Station
33135 South River Rd
Harrison Twp., MI 48045

Phone: (586)465-4771

R/V Lake Char
Marquette Fisheries Research Station
484 Cherry Creek Rd
Marquette, MI 49855

Phone: (906)249-1611