The Current

Issue 20, Fall 2019

We Be Jammin'

By Ted Gostomski, Network Science Writer

Every organization comes to a point when it feels like they have accomplished what they initially set out to do. It's a strange feeling, and it is usually tempered by a nagging sense of having lost something—direction, a sense of purpose, or a clear idea of what should come next. It seems that this point often arrives somewhere around an organization's twentieth year.

Such is not the fate of all organizations, though. The Inventory and Monitoring Division is now in its twentieth year, and Division Chief Kirsten Gallo is leading the 32 I&M networks through a strategic planning process intended to

> *ensure that we continue to collect and provide the best scientific information for our parks; that we build a thriving work environment; and that we have the funding, people, skills, and infrastructure to deliver park-based science for future generations.*

To this end, the I&M division held four "Jam Sessions" beginning in August of 2019. At each session, groups of I&M employees came together with a facilitator to "talk about our work and how we can have the greatest impact, and to envision big, audacious goals."

"*Strategic planning?*" you might groan, remembering the time you were subjected to a mind-numbing process that seemed to have no direct bearing on your work. True, such planning is not easy. But it is indeed an important process for ensuring that we can keep doing our best work. It is healthy and necessary for an organization to evaluate where it has been, and to decide if the path forward requires something different than what we have been doing.

More than 100 I&M employees from 30 of the 32 networks participated in the four Jam Sessions. Each session ended with the creation of a "vivid description" of I&M in 2040 and a goal statement for how we would achieve that description. All that information is now being reviewed by a team who will identify the commonalities and whittle the four descriptions and goals into one coherent vision for the future of the Inventory and Monitoring Division. The vision and goal will be revealed at a "all-hands meeting" in March, after which strategies will be developed for reaching the goal.

So, as the Inventory and Monitoring Division evaluates its past and future, how would you answer some of these questions for the Great Lakes Network?

- How can the Great Lakes Network increase the value and relevance of information and expertise we provide parks?

- How can we be more efficient and effective?

- How can we support parks that are losing resource management staff?

Send us your thoughts and suggestions. There's always room for improvement.

Photo: The tracks are ending, but there's a road ahead. The I&M program is looking to adapt to changes while staying true to our purpose of serving the data-driven needs of parks. © T. GOSTOMSKI.

Network Welcomes New Program Manager

Thomas Parr, an aquatic ecosystem ecologist, arrived from Oklahoma in November to assume the role of Great Lakes Network Program Manager. He replaces Bill Route, who retired in 2017.

You may be thinking, "he's from Oklahoma. Does he know what he is in for up here?" In fact, Thomas grew up in Superior, Wisconsin, and he and his family look forward to their return here so they can enjoy the opportunities provided by four distinct seasons.

Prior to coming to the National Park Service, Thomas was a post-doctoral researcher at the University of Oklahoma. He held previous positions with the University of Delaware, Indiana University School of Public and Environmental Affairs, Indiana Clean Lakes Program, and the Peace Corps. Thomas received his undergraduate degree from Grinnell College, two Master's degrees (in Sustainable Development and Water Resources) from Indiana University's School of Public and Environmental Affairs, and his Ph.D. in biology from the University of Maine.

"While my professional experiences have shaped my perspectives on the importance of integrating science into management for sustainable decision-making, my underlying drive comes from a desire to ensure the long-term sustainability of both natural and working landscapes", Thomas says.

"Public lands in the US and abroad have been a central part of my life. As a child, experiences in national parks helped develop my understanding of the natural world. Economies dependent on national parks featured prominently in my work in Bulgaria and Namibia. My wife and I were engaged on Acadia Mountain in Acadia National Park. I want to ensure that public lands will continue to provide such experiences and opportunities for future generations."

Thomas Parr and John Muir survey the path ahead.

New Reports and Publications

All of these reports can be found on the Great Lakes Network website: www.nps.gov/im/glkn/reports-publications.htm. Those published in peer-reviewed journals can also be found using their DOI (digital object identifier). Great Lakes Network staff are indicated in **bold blue** text.

Casper, G.S., and S.M. Nadeau. 2019. Great Lakes Network amphibian monitoring: Initial synthesis report, 2013–2016. Natural Resource Report NPS/GLKN/NRR—2019/1955.

Dykstra, C.R., **W.T. Route**, K.A. Williams, M.W. Meyer, and **R.L. Key**. 2019. Trends and patterns of PCB, DDE, and mercury contamination in bald eagle nestlings in the upper Midwest. Journal of Great Lakes Research. https://doi.org/10.1016/j.jglr.2019.01.010

Egan, A.T., and L.C. Ferrington, Jr. 2019. Chironomidae of the upper Saint Croix River, Wisconsin. Transactions of the American Entomological Society 145(3):353–384. https://doi.org/10.3157/061.145.0307

Know the Code!

APIS
Apostle Islands National Lakeshore (Wisconsin)

GLKN
Great Lakes Inventory and Monitoring Network

GRPO
Grand Portage National Monument (Minnesota)

INDU
Indiana Dunes National Park (Indiana)

ISRO
Isle Royale National Park (Michigan)

MISS
Mississippi National River and Recreation Area (Minnesota)

MPCA
Minnesota Pollution Control Agency

PIRO
Pictured Rocks National Lakeshore (Michigan)

SACN
St. Croix National Scenic Riverway (Wisconsin / Minnesota), includes the Namekagon and St. Croix Rivers

SCWRS
St. Croix Watershed Research Station

SLBE
Sleeping Bear Dunes National Lakeshore (Michigan)

USFWS
U.S. Fish and Wildlife Service

USGS
U.S. Geological Survey

VOYA
Voyageurs National Park (Minnesota)

New Reports and Publications (continued)

Egan, A.T., and P.H. Langton. 2018. Descriptions of four Nearctic Procladius Skuse pupal exuviae. Chironomus: Journal of Chironomidae Research 31:30–36. https://doi.org/10.5324/cjcr.v0i31.2865

Ramstack-Hobbs, J.M., M.B. Edlund, D.R. Engstrom, B.M. Lafrancois, and **D.D. VanderMeulen**. 2019. Diatom monitoring protocol for the Great Lakes Network: Version 1.1. Natural Resource Report NPS/GLKN/NRR—2019/1910.

Route, B., **R. Key**, W. Bowerman, K. Kozie, and **D. VanderMeulen**. 2019. Protocol for monitoring environmental contaminants in bald eagles (version 2.0): Great Lakes Inventory and Monitoring Network. Natural Resource Report NPS/GLKN/NRR—2019/1983.

Sanders, S., and **J. Kirschbaum**. 2019. Forest health monitoring at Pictured Rocks National Lakeshore: 2017 field season. Natural Resource Data Series NPS/GLKN/NRDS—2019/1242.

Sanders, S., and **J. Kirschbaum**. 2019. Forest health monitoring at Sleeping Bear Dunes National Lakeshore: 2018 field season. Natural Resource Data Series NPS/GLKN/NRDS—2019/1241.

2019 Field Season Summary

Amphibians

This was the first year we used the new model of song meters (SM4) at all of our parks. Preliminary data shows that these meters were able to record data throughout the season (1 April to 31 July) on one set of batteries.

We also experimented with leaving recorders out over the winter at APIS and ISRO, programming them to start data collection on 1 April. The goal of this experiment was to better capture the earliest calling frogs and reduce deployment effort by park staff. And...Success! Those units survived the winter and worked fine for the entire field season. If parks are comfortable leaving the units out over the winter, we encourage you to consider this method.

The 2018 data were analyzed by the contractor, and we are in the process of developing park-specific data summary reports. The reports will include cumulative results from all years to help put the data in context.

One highlight we can share about the 2018 analysis is that Gray Treefrog was confirmed in the acoustic data from the Windigo area at ISRO. This is the first confirmed record of the species on the island.

Thanks to the park staff for continued support in doing the field work and sending us the data for archival and future analysis.

Bats

Bat recorders were deployed at seven of the nine network parks this year: APIS, GRPO, INDU, ISRO, MISS, SLBE, and VOYA. Thanks to superb efforts by our field technicians, we completed sampling on time at almost every site despite floodwaters, vandalism, and malfunctioning equipment.

Data from 2019 are still being analyzed, but when looking at sample sites that had successful data collection in each of the last three years (2016–2018), there was a decline in overall bat activity, as inferred by the number of call files recorded. In

Gray Tree Frog. Despite its name, the tree frog is often a mix of green and gray. © T. Gostomski

2016, we recorded an average of 200 bat call files per deployment night, but only 150 bat call files per deployment night in 2018, a decline of 25%.

However, the story gets more interesting when we examine the data at the species level. While big brown bats and silver-haired bats comprised increasing proportions of the total number of call files in each successive year, the *Myotis* group comprised decreasing proportions (*Graph 1*).

The *Myotis* group includes three closely related species: little brown bat, northern long-eared bat, and Indiana bat. All are hibernators and highly susceptible to the fungal disease white-nose syndrome (WNS). Even though tri-colored bats are also highly susceptible to WNS, we did not observe any change in the proportion of their call files from year to year. This suggests that while the *Myotis*
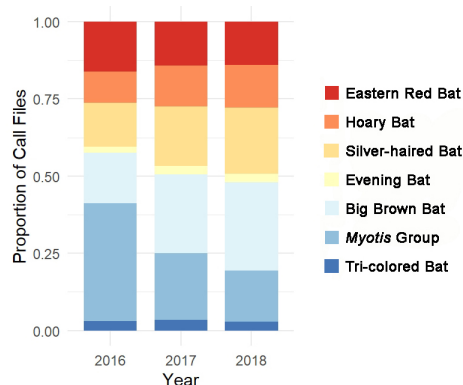
Graph 1. Proportion of bat call files identified to species or species group, 2016–2018. *Myotis* species (little brown, northern long-eared, and Indiana bats) were combined due to difficulty of species-level identification within the group. Data shown for 186 sample sites at all nine parks. Data from 2015 were excluded because different sample sites were used.

species are likely declining due to WNS impacts, tri-colored bats in our region may be doing better than expected.

We are finalizing a protocol for our bat monitoring program, and we will develop park-specific reports on findings to date once analysis of the 2019 data is complete.

Contaminants—Dragonfly Larvae and Fish

Our monitoring of bald eagles, fish, and dragonfly larvae, along with the work of others in the Great Lakes region, shows mercury to be the most pervasive contaminant in the upper Midwest. Accordingly, our monitoring program has narrowed its focus to that one contaminant in both dragonfly larvae and fish. Through our involvement with the Dragonfly Monitoring Project (DMP), a nation-wide NPS effort to monitor mercury in larval dragonflies, we now fully fund the annual collection and analysis of larval dragonflies from sites in all nine network parks. Park staff, volunteers, and partners all make this work possible, and the samples they collected this year will be analyzed by a U.S. Geological Survey laboratory in Corvallis, Oregon, this winter.

Fish, which are sampled from parks every five years, were also collected in 2019 from four sites at SACN through angling and electrofishing. Unexpectedly, we caught a number of large muskies on the

St. Croix River in the vicinity of Norway Point Landing. However, we released them, as they were not a target species. The fieldwork at SACN was made possible through the assistance of park staff and the U.S. Fish and Wildlife Service.

We plan to work with park staff and partners in 2020 to sample fish from APIS and GRPO, and larval dragonflies from all nine parks.

Contaminants—Bald Eagles

After spending nearly a year overcoming administrative hurdles, we sent approximately 2,000 archived eagle nestling plasma samples to the Cornell Veterinary Biobank in March. They represent both unused portions of samples that were analyzed and never-before-analyzed samples collected from siblings out of the same nest. Integration of these samples into the Biobank will make them available to research teams at Cornell and elsewhere to help increase our understanding of contaminants in bald eagle nestlings.

Version 2.0 of the eagle contaminants protocol was published in August. It includes new standard operating procedures and calls for re-initiating eagle nestling monitoring for three consecutive years on a 5–10 year interval.

In late 2018 we and our partners published a paper and two related resource briefs that provide updated trends in mercury, PCBs, and DDE (a breakdown product of DDT) in eagle plasma. Specific to mercury, when we combine our data with that collected by the Wisconsin Department of Natural Resources for nests located along the south shore of Lake Superior, we see a 1.6% decline per year in mercury between 1991 and 2015 (*Graph 2*).

An update of our prior work assessing trends in PBDEs and PFCs (includes PFOS) in eagle nestlings will be prepared for publication in 2020. Other planned publications include a paper on eagle population demography and nestling morphology, and technical reports on lead stable isotopes and non-target chemicals.
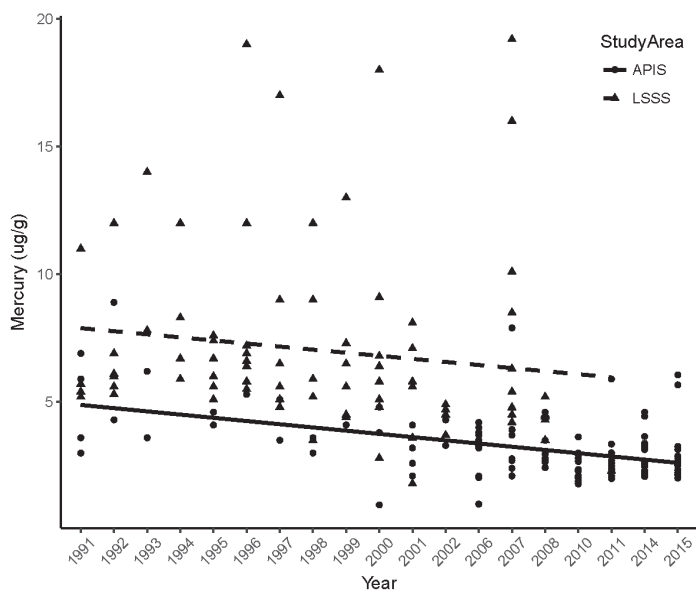
Graph 2. Mercury concentrations (in micrograms per gram, µg/g) in the feathers of bald eagle nestlings on Lake Superior in Wisconsin, 1991–2015. APIS=Apostle Islands; LSSS=south shore of Lake Superior. Solid and dashed lines indicate the trends for each site. LSSS had higher concentrations, but estimated trends indicate a 1.6% decline per year in both study areas.

Landbirds

The landbird monitoring program made some big strides this year, both in and out of the field. The biggest news is that every single bit of data we have has been entered into the landbird monitoring database. We are still doing quality checks, but we are done with the hard work of wading through old, faded data sheets made out by people who, in some cases, are long gone from the NPS. Unending praise and gratitude for completing this monumental task goes to Rebecca Key, the network's assistant data manager. Rebecca worked with the database designers to get all the details right; recruited, coordinated, and trained volunteers and interns to do the data entry; and stayed calm when the monitoring coordinator agreed to do something one way, then did the exact opposite later on.

Next up is analysis of data collected from 2014 through 2018 at all nine parks. This is the first time all nine parks have a sufficient amount of data for statistical analysis. Dr. Greg Shriver at the University of Delaware is leading the analysis project, and we expect a report in late 2020.

Kirtland's Warbler observed after a point count survey at Pictured Rocks.
© Brian Johnson

Thank You Bird Data Superstars!

Volunteers and Interns
  Allison Boettcher
  Zachary Hough Solomon
  Paige Huhta
  Emily Hutler
  Betsy Nichols
  Taylor Pichler
  Shelly Ray
  Levi Rhody
  John Richard
  Brandi Shapland
  Ella Shively
  Jake Tremble

Contractors
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  Cindy Heyd
  Allie Holdhusen
  Anna Johnson
  Sean Johnson-Bice
  Abby Keller
  Samuel Knopka
  Sadie Libal
  Celeste Roe
  Nicole Schafer
  Alice Van Zoeren

© USFWS / George Gentry

In the meantime, monitoring was successfully completed in eight of the nine parks this year. As usual, our success in completing this work is due to the dedicated efforts of volunteers, contractors, and park staff, most of whom have returned to do the surveys every year.

This year's most exciting observation happened at Pictured Rocks. Brian Johnson was walking back to his car after completing his last point for the morning when he heard a unique song. He followed the song and was treated to the sight of a rare Kirtland's Warbler. Though it was not recorded during a point count, it's the first record of a Kirtland's Warbler at any of our parks, and he had the good fortune to capture a photo of the bird and a short video of it singing.

This was also a very good year for warblers at Isle Royale. Not only were somewhat common species like the Blackburnian Warbler better represented than usual, but normally uncommon species such as the Cape May, Tennessee, and Canada Warblers were also relatively abundant compared to past years. Some additional observations of seldom observed species were Pine Grosbeak, Ruby-throated Hummingbird, and Sora.

Vegetation

The vegetation team spent its summer monitoring forests at Isle Royale, resampling all 52 permanent monitoring plots set up in 2010 and adding eight more.

Our work at ISRO in 2019 is particularly valuable due to its timing with respect to both wolf and moose densities. In 2010, our first year of sampling, moose density was estimated to be just over 500 individuals on the island for the third consecutive year. As a result, browse was infrequently observed in our plots that year. In contrast, moose densities soared to an estimated 2,060 individuals on the island during the 2019 winter study period. Not surprisingly, browse was both widespread and severe. We commonly observed browse directly on balsam fir (*see photo*), particularly on the west half

Browsed balsam fir on Feldtmann Ridge. We saw no evidence that young balsam fir was growing through or taller than the browse zone. NPS PHOTO

Paper birch stand north of Lake Desor. This photo illustrates the solid stand of ferns in the groundlayer—a potential food item generally avoided by moose. You can also see tree death in the foreground on the left side. The successional trajectories of this and similar stands are uncertain. NPS PHOTO

of the island. There, we also commonly observed young aspen stems with no leaves. Presumably, the leaves were stripped off by moose, and these small individuals will not survive.

Large expanses of even-aged birch forests were seen throughout the west half of the park, often with an understory of ferns (*see photo*). It is unclear how these forests will grow and change over time, as there are currently few-to-no saplings coming up. Survival of the ferns without an overstory is also unclear, underlying the complicated,

interconnected processes under high browse pressure.

A notable and likely indirect impact of reduced wolf density was higher water, presumably since reduced predation on beaver has led to increased construction of dams. At one of our plots along the Feldtmann Ridge trail, north of Lake Halloran, one of the three transects was so deeply submerged that we were unable to collect any data. At another site near Belle Harbor, there were numerous wet pockets that were not there when we visited the site in 2010.

Water Quality—Diatoms and Midges

The assemblage of diatom (algae) and midge (insect) species present in a lake or river reflects that water body's environmental conditions. Under most conditions, the silica-based cell walls of diatoms are preserved in lake-bottom sediment when the diatoms die. Once collected, those cell walls are used to identify the diatom species.

Park staff collected sediment samples from four lakes at PIRO and six lakes at SLBE in 2019. The samples were sent to our partners at the St. Croix Watershed Research Station, where the diatoms contained in the sediments will be identified.

Midge samples were collected monthly (May to August) from Lakes Siskiwit, Harvey, George and Desor at Isle Royale. This was the third and final year for collection on the first three lakes. We hope to determine if a third year of collecting could add to our understanding of the inland lake midge community, or if two years of collection is sufficient. The remaining six ISRO water quality lakes will become part of the midge project in coming years, along with four coastal sites on Lake Superior.

Since beginning this work in 2017, we have identified more than ten species that appear to be newly discovered in North America, and many more are new to the western Great Lakes. Combining 2017 and 2018 data, preliminary results indicate that our more than 6,400 specimens are

composed of 248 species in 75 genera.

We also began analyzing 2007 data from four sites on the upper St. Croix River (SACN). Those results show 253 species from 73 genera, with 21 species new to the region or the Nearctic (the biogeographic subregion that includes Greenland and North America), and 60 undescribed morphotypes. This species richness is quite high, even for midge studies. This, combined with the richness of mussel species in the riverway, suggests there are landscape-scale factors contributing to healthy aquatic communities.

An adult midge. The composition of the larval midge community in a lake is an indicator of habitat quality. NPS PHOTO / T. GOSTOMSKI

Water Quality—Inland Lakes

In addition to our routine water quality monitoring, network and park staff collected year-round lake water temperature data from Lake Richie (ISRO), Beaver and Grand Sable Lakes (PIRO), Lake Manitou and Bass Lake (SLBE), and Little Trout, Mukooda, and Shoepack Lakes (VOYA).

Alex Egan collects midge larvae from an Isle Royale lake. NPS PHOTO

This monitoring provides important information on water temperature as it relates to weather and climate, suitability for fish habitat, and resuspension of lake sediments that could lead to increased nutrient levels and algal blooms.

Apostle Islands National Lakeshore

We provided a diver and boat operator for several projects, including monitoring the water quality of Lake Superior in nearshore areas adjacent to the park, and surveying park waters for native and non-native mussels. These collaborative efforts span multiple federal agencies and academic institutions.

Indiana Dunes National Park

All sampling was completed at Middle Lagoon under the direction of Josh Dickey.

Isle Royale National Park

In addition to routine sampling, the ISRO crew serviced the Lake Richie temperature array, cleaned dissolved oxygen loggers in several lakes for a U.S. Fish and Wildlife Service project, assisted with common loon and songbird surveys, and collected chironomid midge samples from four survey lakes.

We also assisted our partners at SCWRS and the University of Maine in completing field work for a two-year study of water column sediment and algae, and assisted Midwest Region staff with drop-camera work aboard the NPS research vessel *Echo*. As the name implies, drop-camera work involves dropping a video camera over the side of a boat, tethered to a monitor on board. This was follow-up work to see if features located during the lake-bottom mapping project could be identified. The team filmed a lot of interesting benthic structures such as boulder fields, ridges, sand plains, and a few curious fish. They also discovered a former dumping ground for barrels and boats.

Pictured Rocks National Lakeshore

We completed all monitoring at six inland lakes, and serviced temperature arrays at Grand Sable and Beaver Lakes in June and September. We also completed macroinvertebrate and habitat work on Miners River and Mosquito River.

Sleeping Bear Dunes National Lakeshore

Completed all scheduled routine monitoring and serviced temperature arrays at Lake Manitou and Bass Lake (Leelanau County) in the summer and fall.

Voyageurs National Park

Our crew completed routine monitoring on nine lakes and serviced temperature arrays on Little Trout, Mukooda, and Shoepack Lakes. We also assisted with loon surveys on the nine index lakes; collected water samples from Ek, Brown, Peary,

Celeste Roe negotiates the tricky portage into Isle Royale's Lake George. NPS PHOTO

Ryan, and Shoepack Lakes as part of an ongoing collaboration between GLKN, Voyageurs, and the U.S. Geological Survey (USGS) to monitor mercury in surface water at the park; and we collected larval dragonfly samples from Shoepack, Brown, Peary, and Ryan Lakes for the Dragonfly Mercury Project.

Water Quality—Large Rivers

This was a busy year for the large rivers program. We added sites to the regular rotation of water

quality monitoring, we started macroinvertebrate (aquatic insect) sampling, and did some additional sampling of spring ponds at SACN.

Routine water quality sampling at the upstream sites on the Namekagon River (Phipps, Earl, and Namekagon Trail landings) and the Upper St. Croix River (CCC Bridge) were completed as scheduled, but the rest of the sites were delayed two weeks until the ice went out on the middle and lower sections of the river. Then in May, road construction closures kept us from reaching the Phipps Landing site.

Emerging Issues

The Minnesota Pollution Control Agency (MPCA) has proposed listing the river reach from Taylor's Falls to Stillwater, Minnesota, as impaired for chlorophyll and phosphorous. This was not the result of a sudden decline in water quality, but was a product of river eutrophication standards developed by MPCA in 2015. Data collected by the MPCA and other agencies in 2017 and 2018 led to the listing decision. However, there were no NPS water quality sites on this stretch, so we added one just downstream of Osceola Landing. The river below Taylor's Falls sees heavy visitor use. It is the most popular canoeing reach in the riverway and is of special interest to park management.

We also added a monitoring site on the Namekagon River at the Leonard School Road Bridge near Cable. There is also a USGS stream gauge at this site, so our sampling will provide insight to the effect stream flow has on water quality in the Namekagon River. Having a monitoring station at Leonard School Road Bridge is also in line with what the interagency St. Croix Basin Team considers an ideal monitoring network. The Phipps Landing monitoring site will likely be dropped in 2020 in lieu of the new site at Leonard School Road.

At the request of park staff, we completed water quality sampling at Pacwawong Springs (a tributary of the Namekagon River) in June and July. The park had reports of algae blooms in the spring, and asked us to investigate. During sampling, mats of *Spirogyra* algae were observed growing on the bottom of the spring pond in areas shallower than about 2.5 meters (8.2 feet). Chlorophyll-*a* and nutrient samples were collected in both months and sent to a lab for analysis in August. Results are still pending.

Macroinvertebrates (Aquatic Insects)

We have assisted park staff with monitoring macroinvertebrates on the St. Croix since 2016. In 2019, we drafted a standard operating procedure (SOP) for macroinvertebrate collection that will be integrated into the Large River Monitoring Protocol in hopes of expanding this work to all GLKN water quality sites above Lake St. Croix. This SOP was based on a large river macroinvertebrate protocol developed by the Wisconsin Department of Natural Resources using Hester-Dendy artificial substrate samplers. We completed pilot fieldwork using this SOP at the eight free-flowing GLKN water quality sites above Lake St. Croix. We will complete identification of the collected invertebrates this winter, and we will continue this work into the future.

Rick Damstra places Hester-Dendy macroinvertebrate samplers near Earl Park Landing on the Namekagon River. NPS PHOTO / R. KEY

Hester-Dendy samplers are a series of wood tiles stacked together on a bolt and placed on or near the stream bottom. Insects colonize the tiles as they would a rock or log in the river. When collected, the tiles are each removed from the bolt and the attached insects are rinsed into a tray for sorting. NPS PHOTO

Weather and Climate

All three weather stations (APIS, PIRO, and SLBE) had annual maintenance during the summer. These GLKN-operated RAWS (remote access weather stations) fill gaps in nearshore station coverage for parks that were identified many years ago.

We lost our connection with the Sand Island (APIS) weather station last winter, and when we could finally get to it this spring, we found that something had chewed through the cord that connects the solar panel to the station's power source.

The PIRO station was toppled and sustained damage during a wind event in the fall of 2018. That station was was repaired this summer. We used some end-of-year funds to purchase a fourth RAWS station, which will be deployed in the coming year at the east end of PIRO (Grand Marais).

Snow depth sensors at all three stations continue to be problematic and have poor longevity. We will experiment with alternative snow depth sensors to try for something better.

We continue to support climate data access and summary reports through Climate Analyzer (www. climateanalyzer.us/glkn/). Each park has its own portal and dashboard on the CA. We suggest that

park personnel explore it on their own, but we are looking into developing some training tutorial webinars to help park staff make the best uses of the data.
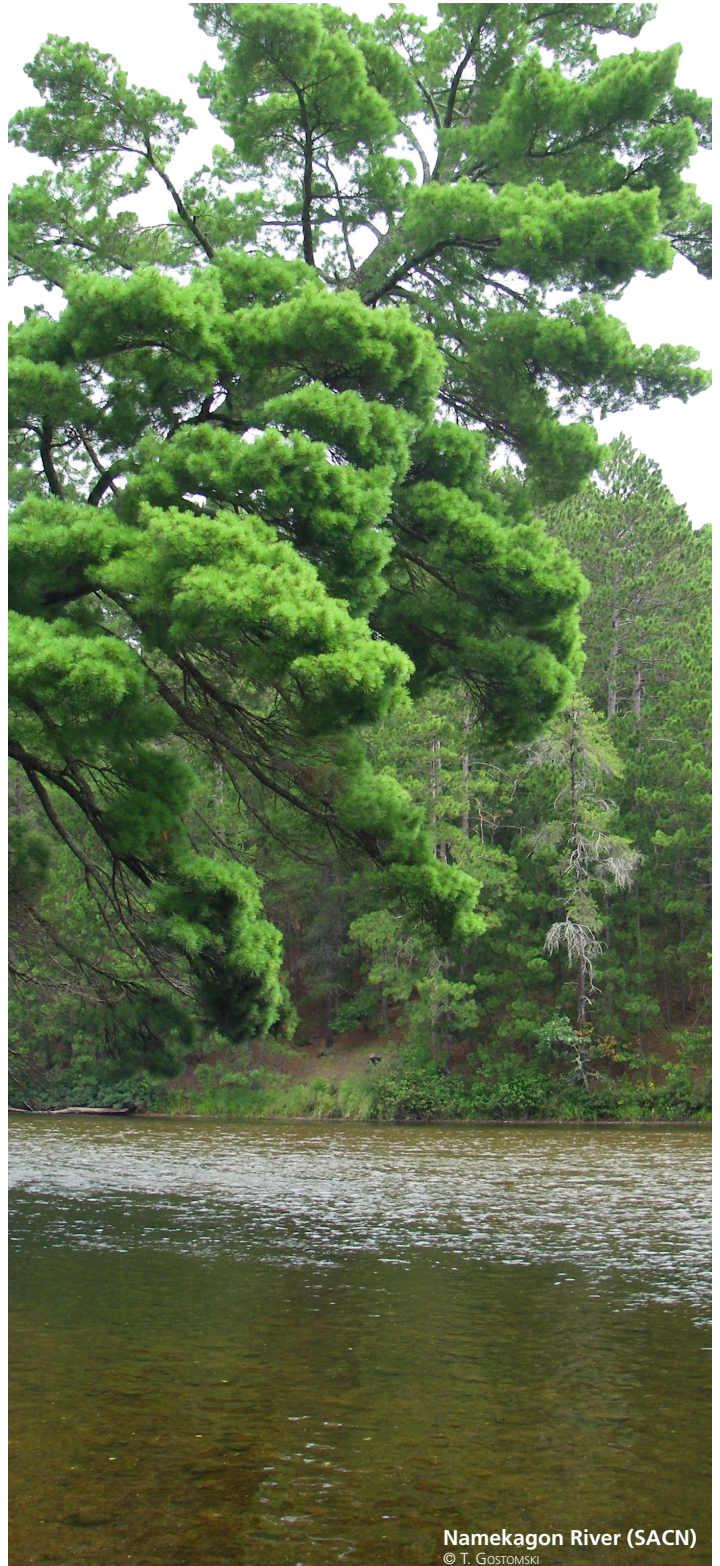
Namekagon River (SACN)
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Apostle Islands National Lakeshore

Grand Portage National Monument

Indiana Dunes National Park

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