



# Kemp's Point

Volume 22, Number 1, June 2021

News from the University of Wisconsin-Madison's Kemp Natural Resources Station

## Making Wisconsin's Airports Safe Again

By Karla Ortman

A Civil Air Patrol plane hits a buck in velvet at the Stevens Point Municipal Airport. A sandhill crane is ingested into the engine of a CESSNA landing at the Middleton Municipal Airport. A plane is totaled when it collides with a buck during landing at the Tomahawk Regional Airport.

These incidents are costly not only to the owner of the plane, but also to the airport. The repairs on the CESSNA was \$130 shy of a million dollars. Small, general aviation airports rely on income from hanger rental, landing and departure fees, and fuel sales. If an airport develops a reputation of having wildlife hazards, use can decrease and affect income. And let's not forget the animal that lost its life.

Airports with commercial airline and military use are required to have a current official wildlife assessment completed and on file (at least every 10 years or sooner if any changes are made to airport layout). Not just any person with wildlife knowledge and experience can complete the assessment for an airport. The individual must be trained and certified according to FAA guidelines, usually a USDA wildlife biologist. Some airports, like Milwaukee, have a USDA wildlife biologist stationed on site.

Other airports, like the ones mentioned above, do not have this requirement, but the assessment is recommended. Each airport receives \$150,000 annually from the FAA, but when a wildlife assessment costs \$60,000-\$90,000, it is usually not high on the priority list for smaller airports that have more immediate needs, like basic upkeep and repairs.

What is a small airport to do if they want to pro-

vide a safer place for pilots? Fortunately, they now have Michael Menon, whose goal is to make Wisconsin's airports as safe as possible with regard to wildlife mitigation.

Through the lens of a thermal imaging camera, the three deer appear as white shapes with glowing eyes. They are alert and keep a close watch on the truck with it's flashing yellow light and the humans nearby. It is a cool but pleasant May evening, my second visit to the Tomahawk Regional Airport with Michael for his monthly night survey.

Michael visits nine general aviation airports once a month where he completes a wildlife survey in the morning, afternoon and at night. He wants to know what is out there and what the animals are doing.



He listens and looks, utilizing binoculars, a thermal camera and a spot light, logging all observations. Data collection began at the end of 2020 and will continue for 24 months total.

At the start of a survey, Michael checks the weather radio and records temperature, wind speed and visibility. Using a radio tuned to a frequency used by pilots, he announces to Tomahawk traffic that a wildlife survey vehicle is entering the runway. The night survey process is simple: drive to one end

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of the runway, get out of the truck and perform a 360 degree sweep of the landscape with the thermal camera. Repeat this at the midpoint of the runway and again at the other end. Then Michael drives the entire length of the runway, on both sides, while shining a very bright spot

light from the open truck window, looking for anything that looks like wildlife – movement or eye shine.

On my first tag along in January, the temperature logged upon entering the runway was  $-2^{\circ}$  F. It was not surprising that the landscape scans with the thermal camera turned up nothing. At Tomahawk the forest line begins about 300 yards beyond the runway. When we drove the runway with the spot light, we discovered three deer bedded down a short distance into the forest. There really was life out there, in the cold! The temperature had dropped to  $-13^{\circ}$  F by the end of the survey.

The May visit was more fruitful. A couple Canadian geese were wandering around the airport grounds when I arrived. Michael had spotted something rather large on one end of the runway and wanted to go check it out before sunset. As we neared the end of the runway in the truck, a sandhill crane took flight. While not a particularly warm evening, frog song was steady and strong coming from the forest. Geese, a crane and frogs! Compared to the January night survey, this visit was already shaping up to be much more lucrative in the wildlife department.

While we waited for the sun to set, Michael and I sat inside the small airport building and I learned more about his journey to this project. Michael came to work for the Wisconsin Department of Transportation Bureau of Aviation in 2018 and brought with him more than 19 years of aviation experience and a familiarity with wildlife, including

USDA training. His new supervisor asked if he had an interest in becoming qualified to perform wildlife assessments for airports. Given his background and interests, this opportunity was very appealing, but Michael did not have the scientific wildlife background required. This led him to the master's program at University of Wisconsin, Madison, and the lab of Dr. David Drake of the Forest and Wildlife Ecology Department, where Michael is now a graduate student. Once his degree is complete and FAA Qualifications for Wildlife Biologist are met, Michael wants to see that all airports in Wisconsin have a wildlife assessment completed. He also hopes that other states will look to Wisconsin as an example of what they can do for their own state and airports.

In addition to wildlife, Michael surveys the landscape surrounding each airport property, a minimum 5-mile radius. It is important to know what habitat types exist near the airport because they affect the kind of wildlife risks that may exist for air traffic. Farm fields, lakes and retention ponds can attract large numbers of migrating water fowl that could mean trouble for a plane using the airport. All of the data gathered over the 24-month study will be combined into a model used to predict the risk of a wildlife strike occurring at a particular airport. This model will be a tool to gauge the level of risk and provide decision makers with options to help mitigate the risk. Some mitigation efforts are simple, like the installation of a fence, which Michael points out would have prevented the deer strike at Tomahawk. Other mitigation efforts may include keeping the grass cut at a particular height, or planting a specific type of grass not favored by wildlife. In some cases, it may be necessary to harass birds or other wildlife that are causing increased risk, but knowing when and how this can be done requires specific training and knowledge.

Nearing the end of the runway, Michael notices what appears to be an animal hunkered down, maybe eating on something, its back to us. A raccoon perhaps? I hold the light while he focuses the binoculars on the critter in question. Who knew that at night the underside of a traffic cone can look very much like a raccoon? The traffic cone was not recorded in Michael's observations. 🦝







## The Outdoor Classroom in Spring

UW-Madison students enrolled in Entomology 432: Taxonomy and Bionomics of Immature Insects visited Kemp Station in April as part of the substantial, individual collection requirement for the course. Led by Professor Dan Young, collecting immature insects at Kemp involved aquatic sampling, hand collecting in dead, decaying wood and fungi, in leaf litter, and in soil. A wide variety of insect larvae was collected as a culmination to field sampling at Kemp and from several other regions of southern and south-central Wisconsin. The field work is directed toward having students build an ecological appreciation of the myriad habits and microhabitats of immature insects. The collection also provides a unique opportunity for active, “hands-on,” participatory learning both in the field and lab as identification skills are developed.



## PhenoCam Deployed at Kemp Station

Thanks to research funds available from UW-Madison, Kemp Station is now a site for the PhenoCam Network. “The PhenoCam Network is a cooperative continental-scale phenological observatory that uses imagery from networked digital cameras to track vegetation phenology in a diverse range of ecosystems across North America and around the World. PhenoCam was established in 2008 and currently includes of over 500 sites. The image archive includes over 30 million pictures.” The camera was deployed on the tower atop the Office/Lab building at Kemp and is pointed NNE, toward the Boathouse and bay. Visit [kemp.wisc.edu](http://kemp.wisc.edu) and click on the green button labeled “PhenoCam at Kemp Station” to access the images.

Camprn - NetCam ScR - Thu Jun 03 2021 14:40:5 CST - UTC-6  
Camera Temperature: 40.0  
Exposure: 30.1





# Spring and Ice By Scott Bowe

When I moved to Kemp Station a few years ago, I started keeping a phenology calendar to mark important dates each year. My calendar might be similar to yours. I always record the first night I hear the spring peepers, the first hummingbird at the feeder, the first mosquito bite of the year, and when the crappies start biting! I'd be happy to share this calendar with anyone, less the crappie information. A good fisherman never shares his secrets.

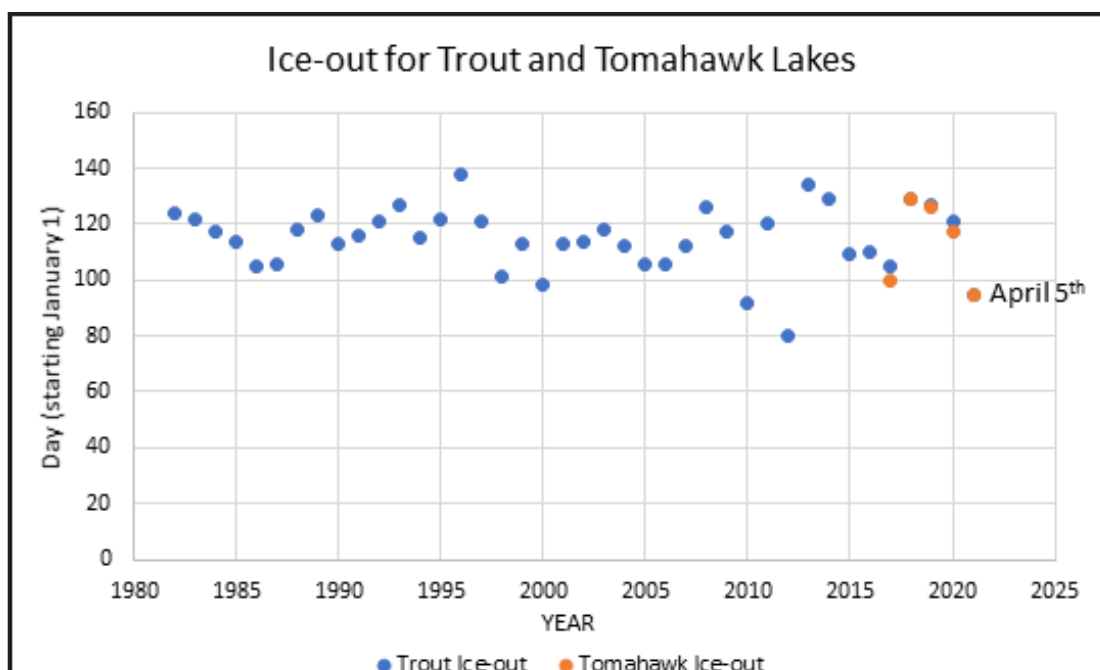
One other event that gets recorded each year is when the ice goes out on Tomahawk Lake. This year was early – Monday, April 5<sup>th</sup> – the earliest it has melted since I came to Kemp Station and according to a neighbor, the third earliest in recent memory. With COVID and masks and all of the restrictions of the past year, ice-out means spring and spring was more than welcome!

Noah Lottig, President of the Tomahawk Lake Association, shared some data with me. We don't have extensive records of ice-out on Tomahawk Lake, but the UW has kept records for years on Trout Lake.



Both Tomahawk Lake and Trout Lake are large deep lakes about 14 miles apart, so ice-out is within a few days each other. You can see from the figure below that April 5<sup>th</sup> is an early ice out with only 2010 and 2012 occurring earlier. In fact, ice-out in 2012 occurred on March 19<sup>th</sup>.

I would like to wish everyone a happy and productive summer season. I have certainly enjoyed the early ice-out this year, but I think I will wait a while before I go swimming. 🐼



## Walk Down a Dirt Road By Karla Ortman

A favorite place of mine to walk with my dog is a dirt road that dead ends after about a mile. Flanked by hundreds of acres of undeveloped private land, the road curves, rises, and falls as it passes through different habitat types. There is a boggy area, with its spicy fresh scent; a lowland with a trickling stream; a dominance of oaks at the top of the hill; a small red pine stand amongst an otherwise mixed hardwood and pine forest. It takes but a short distance before feeling almost alone in the world....no passing cars, homes or humans. An escape without going far. One might think each journey down the road provides the same scenery over and over, but there is always something new to see, week to week and season to season.

Once the land has warmed enough in the spring, each walk down the dirt road lends itself to new discoveries. My eyes scan the space between the road and where the forest begins, looking for the small plants I know will appear and bloom soon -- gay wings, barren strawberry, wintergreen, and Canada mayflower. Along the edge of the stream, marsh marigolds provide a burst of bright yellow on an otherwise still "greening up" landscape. The dog, on a very long lead, runs on ahead with glee over the many new scents, but quickly falls behind as he lingers over a particularly fascinating spot. As I wait for the dog,

I have time to squint up at the top of a tall tree where a tiny bird sings to the females he is attempting to attract. I try to make out some

colors, thinking binoculars would be handy now, as the song he sings is unknown to me. There is but a small window before these singing birds are hidden among leaves and my hope of bird identification is gone.

No matter the time of year, there is always the opportunity to see some wildlife in action. Coming around a curve, we may catch a glimpse of deer or turkey as

they quickly disappear into the trees, startled by the sudden appearance of a human and dog. An eagle perched upon a tall dead tree watches as we pass below. The pileated woodpecker flies across the road, "kuk-kuk-kuk-ing" as he goes, before landing on a distant snag already riddled by the likes of him. A snake slithers off the road as we disturb its sun bath. And if the snake failed to startle, the sudden flush of a ruffed

grouse is sure to make the heart beat quicken.

Once blood-thirsty mosquitoes and deer flies emerge, my dog and I are accompanied by a humming cloud of mosquitoes or a pesky

*There is always the question of what might be around the next curve, or over the rise of the hill.*

swarm of deer flies. I can't help but feel like the dust-cloud toting Peanut's character, Pig-Pen, with insects instead of dirt! Pausing for even a moment guarantees a bite. But just prior to the season of biting insects, walks are accompanied by a frog chorus, emanating from the ephemeral ponds in the forest or the call

of a single grey tree frog. And along the road side, new flowers on blueberry plants provide a hint of what the berry crop might be like this year. We take



*(Continued on Page 7)*



### **Dirt Road...** *(Continued from Page 5)*

a break from dirt road walks until we can do so again without being carried away by a swarm of insects!

My favorite time for dirt road walks begins when the day light starts to wane and temperatures turn cool. You can smell the change of season in the air. The trees never disappoint, turning their brilliant colors, first the red maples, then the yellow aspens and the bronze oaks. Once again, like at the beginning of spring, change is observed upon each venture. The change from the summer-long deep green through fall's palette until each tree is bare. The dirt road itself becomes a kaleidoscope of color, covered with fallen leaves. Soon, the road will be covered with snow.

Walking the road during a snowfall, where the green pines and balsams become dusted in white, feels like being inside a snow globe. Winter gives the surrounding forest a whole new kind of magic. And it is when I am able to "see" the various birds and mammals that have traveled or crossed the road before



us. Particularly fun is a morning walk following new snow. How many new tracks will we see? Or sniff, in the case of the dog? The ever-present deer and squirrel; coyote, grouse and turkey are common. Snowshoe

hare, fox and bobcat are fun discoveries. Even the trail of tiny mouse or vole tracks provide viewing pleasure.

The small and gradual daily increase in day light suddenly makes a sunny day appear different. The birds who

remained local for the winter have more to say. The frigid cold is a memory. All signs that winter will be fading into spring. The snow pack on the dirt road slowly melts and seemingly disappears over night after a couple warmer, sunny days. On the cold mornings that follow, thin layers of ice cover ruts in the road, and bring out the child in me – who can resist the satisfying crack and crush underfoot?

And so it begins again -- the land warms and the small plants appear. Find your own dirt road, or trail, or logging road to walk, over and over, where you will see something new, week to week and season to season. 🍄

## **Learning Opportunities**

### **Diseased, Decayed, Defective, and Dangerous: When Good Trees Go Bad**

Monday, August 23, 7:00 pm, Dr. Glen Stanosz

Trees provide a variety of benefits to society. But trees also lose branches or break when forces exceed their structural strength or the root-soil connection. Tree failure can cause severe damage to houses and other structures, deny access or use of infrastructure, and injure or kill people. Landowners have legal "duty of care" for trees on their properties, including responsibility to obtain expert assistance when appropriate. Learn how qualified arborists assess tree risk by estimating likelihood of tree failure and impact, and the consequences to property and people. Dr. Glen Stanosz is the UW-Madison emeritus professor of tree and forest health, and is also a certified arborist with the additional qualification in tree risk assessment.

### **Fungi Fest 2021**

Saturday, September 11

Mark your calendar! Fungi Fest is back, in a slightly different style for 2021. Join a morning foray to gather fungi in the forest at Kemp Station. Bring your own lunch and beverage. After lunch, each of our fungi experts will staff a learning station where they will share information and greater detail on identifications, and other topics fungi related. A detailed schedule will be available in August at <https://kemp.wisc.edu/outreach/>. Lodging is available for visitors coming a distance at a rate of \$18 per person, per night. Contact Karla for details, [karla.ortman@wisc.edu](mailto:karla.ortman@wisc.edu).

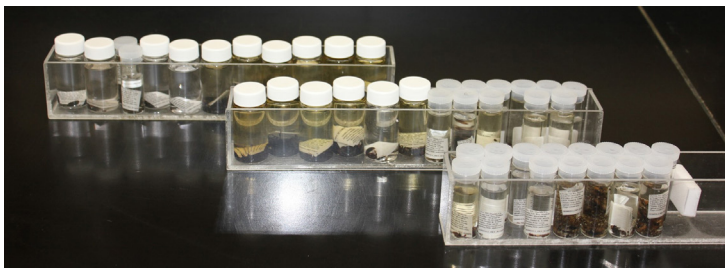


# Kemp Beetles: An Update

As of last month, Dr. Dan Young had filled 2 1/4 drawers at the UW-Madison Insect Research Collection with beetle specimens collected at Kemp Station, all mounted and sorted. Stored in vials are beetles yet to be mounted and sorted. He estimates that so far he has mounted about 10% of the 2020 Malaise trap beetles. The non-beetles have been sorted into other jars and will wait their turn to be further processed.



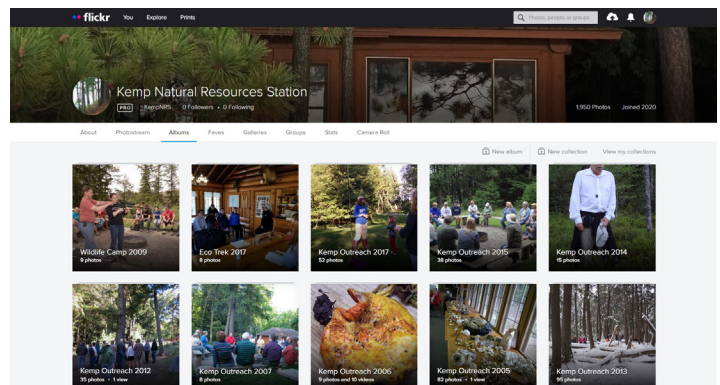
Dan writes: “Looking quickly at the mounted Malaise beetles from 2020, I find 21 families represented (about 20% of the beetle families known to call WI home, but many, many more families are represented in the unmounted material). The big winner so far in terms of species richness is the click beetles (family Elateridae). In the mounted drawers, I count 16 species of click beetles! The small, and poorly known “polypore fungus beetle” family that one of my graduate students is working on for her M.S. thesis research turns out to be the winner with respect to sheer number of specimens. I count 225 specimens representing 4–5 species. That is one of the biggest surprises in the 2020 survey since we normally encounter a couple specimens here and there of this group. I’m thinking the “fungi gang” might be interested in this statistic since *Tetratomidae* derive their very common name from the fungi (polypores) they tend to utilize as food during their larval stages.”



*Left: Many jars of beetles and non-beetles collected at Kemp Station in 2020 wait to be mounted. Ever wonder how entomologists mount insects? Check out this great video by Ed Riley, Dan's longtime friend and colleague: <https://www.youtube.com/watch?v=UhqW2ohlqxc>*

## Kemp Station On Flickr

The “work from home” year of 2020 provided an opportunity to work on projects that are otherwise challenging to find the time for. One such project was a way to share and store Kemp Station’s many photographs. Following the lead of the College of Agricultural and Life Sciences, a Flickr account for Kemp Natural Resources Station was created. Anyone may peruse this collection on-line. You may even find yourself in one or more photo and recall a special time spent at a special place. Visit [kemp.wisc.edu](http://kemp.wisc.edu) and click on the flickr icon at the very bottom right corner of the home page.



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## American Carrion Beetle (*Necrophila americana*)

Earlier this year as the snow began to melt, I found myself thinking about the American carrion beetle. Why would melting snow bring this creature to mind? It had to do with my activity at the time, which was picking up my dog's "business" that, now, with the melting snow, was being revealed. It was in the summer when I first discovered this rather large (0.5 – 1 inch) beetle on and around the dog feces. The beetles were flat, oval, mostly black, but yellow at the top with a black spot in the middle. It was not surprising to learn that it can be mistaken for a bumblebee while in flight. Albeit gross by human standards, these beetles have a fascinating life cycle. Adult beetles feed on a large carcass several days after death, before the decay phase begins – think raccoon or deer. They also mate during this feeding frenzy and females deposit eggs in the soil near the carcass. About 6 days later, the beetle larvae emerge from the soil to find the carcass in the dry stage of decay. The larvae feed on what remains on the carcass at this stage – sinew, hair, dried flesh – and develop into adults in about 10 to 12 weeks. Adults are considered opportunistic, feeding on a variety of carrion and other food sources. According to "Carrion Beetles of Wisconsin," Katovich *et al.*, this particular beetle was found on "...opossum, porcupine, raccoon, rodents, white-tailed deer, American crow, black-billed cuckoo, and fish carrion." It was also "...collected from banana-baited traps, unbaited, carrion-baited, and human dung-baited pitfall traps, sticky traps, and flight intercept traps. Specimens were sometimes hand collected from fungi and vegetation." The American carrion beetle is found in a variety of habitats, so keep an eye out for this natural recycler!

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