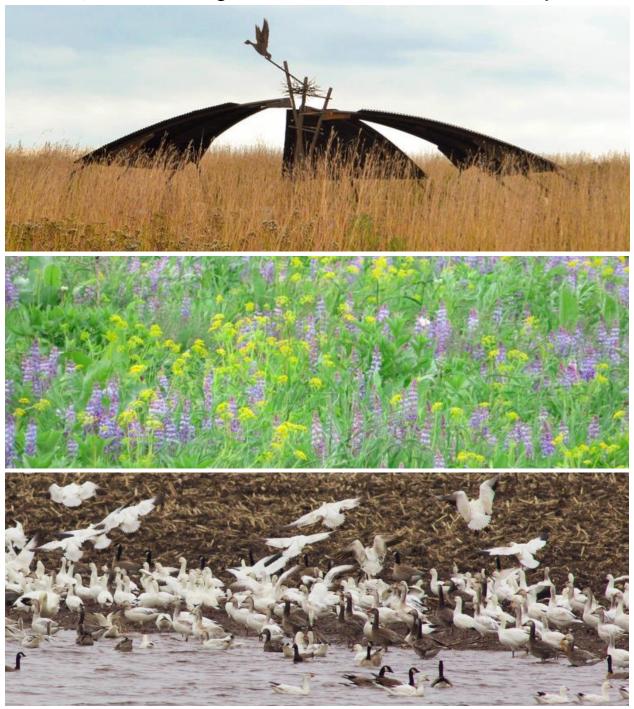
# Madison Audubon Society's Goose Pond Sanctuary

2017 Annual Management, Research and Education Report



Wingspan Viewing Pavilion by Mark Martin; wild lupine and golden Alexander in bloom by Maddie Dumas; five species of geese including a brant by Arlene Koziol.

# Section I: Staff & Board Members of Madison Audubon Society

#### **Goose Pond Staff**

Mark Martin, Land Manager Susan Foote-Martin, Land Manager Maddie Dumas, Land Steward

# **Goose Pond Sanctuary Committee**

Jim Shurts – Chair Curt Caslavka William Damm Janet Flynn Arlene Koziol Chuck Pils Susan Slapnick Greg Tiedt Topf Wells



# Madison Audubon Society Staff

Matt Reetz - Executive Director
Carolyn Byers - Director of Education
Brenna Marsicek - Director of Communications
John Minnich - Financial Manager
Cristina Zepeda - Communications Intern
Drew Harry - Faville Grove Sanctuary Land Steward

# **Madison Audubon Society Board of Directors**

Pat Eagan
Galen Hasler
Arlyne Johnson
Joanne Jones – Treasurer
Susan Knaack
Marcia MacKenzie – Vice President
Roger Packard – Board President
David Rihn
John Shillinglaw
Jim Shurts – Sanctuaries Committee Chair
Mareda Weiss
Topf Wells – Secretary

# **Section II: Introduction**

# A.) Overview of 2017

So much can happen in a year at Goose Pond Sanctuary; amazing wildlife sightings, new partnerships, improved natural habitat, great seed production, and facility improvements among others. In 2017, however, the highlight was undoubtedly the construction of the Wingspan viewing pavilion in the Bicentennial Prairie to honor Mark Martin and Susan Foote-Martin. Other highlights include a snowy owl irruption in late fall and winter; receiving a restoration grant for Erstad Prairie from the Department of Natural Resources (DNR) Voluntary Public Access Program; getting a glimpse at our more elusive wildlife as part of the DNR's Snapshot Wisconsin trail camera program; having a brant visit Goose Pond in spring; fledging 190 kestrels from our nest boxes; helping band 872 purple martins and collecting large amounts of prairie seed!

This annual report provides information on these highlights as well as historical changes, conservation activities, and other achievements that occurred at Goose Pond, Erstad Prairie and Otsego Marsh for the year 2017. The three of us love working on habitat restoration, working with wildlife, and working with our interns and volunteers. Thanks to everyone who volunteered time working on restoration, management and research projects, and also to members who provided funds to support this work.

# B.) In Memoriam

We want to recognize several friends of Goose Pond Sanctuary who passed away in 2017. Arnold "Pepper" Jackson, a student of Aldo Leopold, passed away at age 93, and Martha Christenson, a student of John Curtis, passed away at age 85. Ian Santino, a graduate student at UW-Madison who was conducting research on prairie bush clover at Goose Pond passed away at age 31. Arnold, Martha, and Ian have touched our lives and helped carry on the very





important work of increasing biodiversity, providing habitat for wildlife and protecting our planet. This report is dedicated to Arnold, Martha, and Ian. We remember them lovingly as we spend time on the sanctuary. (Photo: Ian Santino getting excited about botany, by Maddie Dumas. Arnold "Pepper" Jackson, by Mark Martin.)



# C.) Interstate Reroute Victory

In February we received news that the Department of Transportation (DOT) was considering an expansion to I-39/90/94 and was studying "East Reliever" corridor alternatives to the interstate, three of which, along with an interchange, would go directly through Ankenbrandt Prairie. This would have disrupted movement of wildlife, and brought noise, pollution and development right to the edge of

our sanctuary. Mark and Matt Reetz attended several local municipal meetings on the matter. Madison Audubon Society (MAS) issued a call in the February newsletter to our members to write to the DOT and ask them to stop considering this corridor expansion.

Whether due to community involvement, or because of other factors, on February 24th, the DOT announced its decision to cancel the study and remove the East Reliever alternative corridors from consideration. For now we can rest assured that our prairies will remain peaceful and intact, and nowhere near the interstate! Thanks to all who reached out to the DOT on our behalf! (Image: Corridor alternatives "B," "C," and "D" all would have cut through a corner of Ankenbrandt Prairie.)

# D.) Weather 2017

2017 experienced unusual highs and lows in terms of precipitation and temperature. Temperatures throughout the spring and summer months were about average, but precipitation was greatly above average in the spring and throughout most of the summer. In August, temperatures dipped slightly below average, and precipitation dropped off to well below average. Between April 1st and August 31st the water level in Goose Pond dropped three inches. The fall months experienced very little precipitation until November. Fall also saw above average temperatures well into December. The first frost occurred on October 16th. The Goose Pond ice-off date was the earliest ever recorded on February 28th, however the pond refroze several times after this date. The ice-on date was December 5th with several defrosts and refreezes. The unusually high precipitation in the summer led to excellent growth in the prairies, and dry weather in the fall led to large amounts of prairie seed collected.

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Rain	0.6"	0.5"	1.2"	5.5"	3.9"	8.0"	7.5"	1.7"	1.1"	1.8"	0.7"	0.5"
Snow	9.5"		7.0"									3"

# Section III: Education & Outreach

# A.) Interns



#### Goose Pond Intern

Graham Steinhauer was our full-time Goose Pond summer intern from May through mid-August. A senior from UW Stevens Point studying Wildlife Ecology, as well as an avid duck and deer hunter, Graham was very skilled in natural areas management, used to rugged outdoor work, and especially knowledgeable about wetlands. Graham helped us take soil samples, as well as map out the elevation of the wetland immediately south of the Kampen Road residence and locate areas for wetland scrapes to be constructed in 2018. He was also hard-working and enthusiastic. Graham was key for a record year of parsnip management on the

sanctuary! (Photo: Graham with a not-quite-ripe white wild indigo plant, by Maddie Dumas.)

#### **Prairie Partners Interns**

This year we had an excellent group of interns. Five interns worked at Goose Pond one day a week for 12 weeks in the summer as part of the Prairie Partners internship program that is coordinated by Madison Audubon Society. The interns were from UW-Madison and UW-Stevens Point, and were majoring in a natural resource field. The interns learned hands-on skills doing activities such as invasive species control, kestrel banding, silphium borer moth surveys, nest box monitoring, and seed collecting. Each of the 2017 interns had something unique to offer our organization, and we are



grateful for their hard work, good attitudes, and knowledge! (*Photo: Interns and Goose Pond staff at the Aldo Leopold shack, by Curt Caslavka. From left to right: Maddie Dumas, Graham Steinhauer, Emily Jorgensen, Alex Gall, Krista Farrell, Caleb Burst, Katie Kozak, Susan Foote-Martin, Mark Martin.*)



# Fall Seed Collecting Interns

Emily Jorgensen and Caleb Burst, two of the Prairie Partners interns, stayed with us throughout the fall seed collecting season. They helped us with a bountiful harvest of species including white

wild indigo, golden Alexander, prairie dropseed, common milkweed, Canada milkvetch, spiderwort and Indiangrass. Caleb and Emily also helped us with brush control at Erstad Prairie, a fall burn,

and Christmas Bird Counts. (Photo of Emily holding a kestrel chick. by Maddie Dumas. Caleb with a big haul of garlic mustard at Otsego Marsh, by Maddie Dumas.)



### B.) Tours

- In April we gave a tour of Goose Pond to visitors from Oakwood Village
- In May we led an MAS field trip tour of Erstad Prairie
- In June we gave tours of the sanctuary to Goose Pond's first intern and recently retired supervisor of Madison's Conservation Parks, Russ Hefty, to Natural Resource Conservation Service Biologist Tally Hamilton and to MAS board members
- In July Mark and Matt Reetz gave a tour of Goose Pond to Rebecca Sanders, Executive Director of Great Lakes Audubon (our regional Audubon office)

# C.) Talks

- In March, Mark and Brand Smith presented on the MAS American Kestrel nest box program at the WI Bluebird Association Annual Meeting
- In August, Mark and Sue gave a talk to Oakwood Village residents about monarch butterflies

# D.) Events

- In January, Maddie attended the Fox Valley Wild Ones Conference in Oshkosh
- In February, Maddie and MAS office staffed a booth at the Madison Garden Expo at the Alliant Energy Center

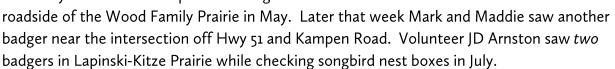
- Hosted MAS kestrel banding field trips with certified banders Janet and Amber Eschenbauch in June
- Toured the Aldo Leopold shack and Muir Park with the summer interns in August
- Hosted two MAS volunteer monarch butterfly tagging events, as well as a Natural Resource Foundation tagging event in September
- Hosted the Wingspan viewing pavilion dedication and a Scope Days/Introduction to Wingspan viewing pavilion event in October
- Hosted volunteer seed collecting events on multiple days for Poynette High School students, UW-Madison Zoology students, UW chapter of the Wildlife Society, and a local 4H club in October
- Mark and Jim Otto took Goose Pond volunteers to see raptor banding at Cedar Grove
   Ornithological Research Station on the shores of Lake Michigan in November

# Section IV: Wildlife

# A.) Special Wildlife Sightings

It was a great year for wildlife sightings with some records broken and new species added to the sanctuary lists. Here are some of the most outstanding wildlife sightings of 2017:

Badger sightings abounded in 2017, with at least four spotted and many more badger holes seen all around the sanctuary. Mark and Sue spotted a badger on the



Merlins were also more evident in 2017. One was seen hunting over the food plot in February. Monica Hall and Jim Otto saw another merlin that may have been in migration in early

September. Yet another merlin was spotted by Maddie and intern Caleb Burst in mid-December.



In March, Goose Pond hosted the usual abundance of migratory birds with an exciting special visitor: a brant. The brant, an Atlantic coast goose subspecies, was present at Goose Pond from March 29th through April 12th. Lucky visitors got to see as many as six species of



geese on the pond at one time! Goose Pond may be the only place in North America where six species of geese have been observed at one time. There have only been eight other sightings of the brant in Wisconsin in the past 27 years.

March migration also broke a state record with 288 Ross's geese at Goose Pond at one time, and a Goose Pond record with 1,400 snow geese at one time.

In August, Mark, Sue and John Shillinglaw saw the first ever pileated woodpecker for the

sanctuary bird list flying over Hopkins Road Prairie! Maddie also saw a pileated woodpecker in the trees at the Prairie Lane residence in October.

In September, Monica Hall photographed a juvenile peregrine falcon wearing two different colored leg bands. Two hundred bobolinks were observed feeding in the food plot on September 6th. Dane County Humane Society released a rehabilitated painted turtle that had been rescued on Highway I in mid-summer.



On October 16th, Mark and Melody Walsh found and photographed a white-faced ibis on the east pond. The first white-faced ibis recorded at Goose Pond was found by Ted Keyel, a former Goose Pond intern, in 2010.



In November, there was a Goose Pond record of 1,194 tundra swans on the pond. The first snowy owl of the season was seen on November 30th flying up Prairie Lane. December was an exciting time for snowy owls and at least six different birds were seen around Goose Pond.

Short-eared owls also spent time at Goose Pond with regular sightings of 1-5 short-ears at one time in the UW Arlington Agricultural Research Station alfalfa fields off of Hwy K and Goose Pond Road. (*Photos: American badger, by* 

Maddie Dumas. White-faced ibis, by Melody Walsh. Brant and short-eared, owl by Monica Hall.)

# **B.) Project Snapshot**

This fall, Goose Pond Sanctuary participated in the DNR "Snapshot Wisconsin" program. Trail cameras are distributed to educational centers and volunteers in selected counties and are placed on public or private land. The cameras take motion-activated photos in a series of

three. Once the photos are uploaded, we classify them by species (or flag blank or human photos). As a last step, and a check to the identification skills of the camera monitors, the photos are put online where volunteers all across the world can sign up to look through the photos and identify wildlife.

We placed our camera in Jill's Prairie where three trails intersect, adjacent to restored prairie and cropland. Our goal is to see the diversity in wildlife, seasonal use, and yearly changes in wildlife numbers. We've had some interesting observations already, including a Cooper's hawk and a snowy owl, both of which landed on the post supporting the trail camera. Deer were the most common animal caught on camera and we photographed more bucks than does. Deer left our area once winter set in. Coyotes are common, and their high numbers may be responsible for the lack of red foxes photographed, since they outcompete foxes. Coyotes prey on many of the species photographed including opossums, rabbits, pheasants,



feral cats, muskrats and fawns. (Photo: Trail camera, by Maddie Dumas.)

Species	October	November	December
Days with camera on	28	30	31
Birds			
Cooper's Hawk	2	1	
Ring-necked Pheasant			
Rooster	3		
Hen			3
Snowy Owl			1
Cat (Feral) - two cats	2		3
Cottontail Rabbit	7	9	1
Coyote	11	12	6
Deer			
Buck - at least 8 bucks	14	24	3
Doe	6	15	2
Muskrat		1	
Red fox		1	
Opossum	3	5	1
Raccoon	2	2	
Striped Skunk	3	2	



Cooper's hawk flying at the camera. October 11th.



Coyote at 5:26 pm on October 28th.



A rooster pheasant on October 6th.



A buck hits the trail at 4:48 pm on November 26th, three minutes after the close of the gun deer season.

# C.) Birds

# **Purple Martins**

This year Goose Pond Sanctuary helped sponsor Erin Manlick, a graduate student from the UW-Madison Nelson Institute for Environmental Studies in her capstone project on purple martins. Purple martins have a unique relationship with humans, and rely entirely on human-provided nesting structures. Erin studied the factors that contribute to a successful purple



martin nesting colony, including regular cleaning and maintenance of the nesting structures,

and large boxes with deep nesting cavities. In Columbia, Green Lake, and Marquette counties, Amish farms support the most successful purple martin colonies. Erin went farm-to-farm to interview families on their management techniques, and to gather data about the regional purple martin population. She also surveyed purple martins in Dane County and on Lake Wisconsin.

Erin found that 35 Amish farms and businesses provide one to seven boxes! The most typical type of nesting box is a cross-shaped structure with 14 deep nesting cavities, commonly



referred to as a "T-14" box. One Amish business constructs these boxes for sale. Plastic gourds that imitate the traditional gourds used by Native Americans to host purple martins, but now feature screw-off sides for ease of cleaning, are also used for nesting structures. A culture of family involvement and family pride in caring for purple martin colonies is a huge contributor to the success of the Amish colonies. Many families make it a weekly activity to monitor, clean, and remove house sparrow nests from their boxes.

In mid-July, Goose Pond Sanctuary staff, interns and volunteers returned to these farms to help Erin and purple martin researcher and certified bander Dick Nickolai band purple martin chicks. Over the course of two days, at six locations, we banded 838 chicks and one adult female! (*Purple martin photos by Arlene Koziol.*)



#### American Kestrel Nest Box Program

Madison Audubon couldn't be prouder of our American kestrel nest box program! We have the largest system of monitored boxes in the state, and perhaps the second largest in the nation. Brand Smith coordinates the program with assistance from 20 volunteers who construct, erect, and monitor boxes. Thanks to all, especially Brand Smith and William Damm for building the boxes!

This year, kestrels used 57 of 149 boxes in seven counties, with 47 successful nests fledging 190 young! These nests had an average of 4.6 eggs each.

Janet Eschenbauch and her crew from the Central Wisconsin Kestrel Research Center visited six times this year to band adult and young kestrels. The last few years Janet has been focusing more on banding adult kestrels to learn about site fidelity. In May, Janet and her daughter-in-law Amber caught 28 adult females and 4 adult males. Four captured adults had already been banded, including one adult female that had been banded in 2009 at Castle Rock State Park in Oregon, IL, making her eight years old! In the wild, kestrels live for an average of

fewer than five years. Janet also recaptured a male that had been banded near Rio in 2016 and had moved 65 miles north to nest in one of Janet's boxes at Buena Vista Marsh. In June, Janet and Amber banded another 102 young at Goose Pond. MAS members were invited to assist with and observe the banding of the young as part of an MAS field trip.



Janet also collected a 0.5 mm toenail tip from each adult bird, and one feather from one chick per box. By analyzing the different stable hydrogen isotopes in the toenail clippings, researchers can determine where our kestrels spend the winter and if migration distance impacts kestrel numbers. The feathers are being used to map subpopulations of kestrels across the country as part of the American Kestrel Genoscape Project. All nesting observations are sent to the American Kestrel Partnership, part of the Peregrine Fund. Observations were also entered in the Breeding Bird Atlas II. (*Photos: Amber Eschenbauch examining the wings of an adult female kestrel, by Maddie Dumas. Janet Eschenbauch netting an adult kestrel as it exits a nest box, by Mark Martin.*)



#### Tree Swallow Nest Boxes

Every year Goose Pond staff and volunteers monitor and maintain songbird nest boxes and report the results to the Bluebird Restoration Association of Wisconsin. This year the 81 nest boxes at Goose Pond fledged 257 tree swallows, 21 house wrens, and 6 Eastern bluebirds. The 14 nest boxes at Erstad Prairie fledged 66 tree swallows. The nest boxes are surveyed and maintained by Goose Pond staff, interns, and volunteers. Thanks to JD Arnston, Amy Ihlenfeldt & Frank Iltis, and Mark & Jenny McGinley for monitoring nest boxes!

At other sites in Columbia and Dane counties volunteers monitored nest boxes that produced another 284 eastern bluebirds, 360 tree swallows, 27 black-capped chickadees, and 226 house wrens! (*Photo: Tree swallow, by Maddie Dumas.*)

#### **Wood Duck Nest Boxes**

We coordinate a wood duck/hooded merganser nest box program with nest boxes in Columbia, Dane and Jefferson counties, including boxes at Goose Pond, Schoenberg Marsh/Erstad Prairie, and Otsego Marsh.

Mark and Jenny McGinley maintain and check 44 boxes at Anderson Waterfowl Production Area (WPA) (7 boxes), Jackson WPA (5), Ostego Marsh (15), and Schoenberg Marsh WPA/Erstad Prairie (17). We also have two boxes at Goose Pond.



Out of these 46 boxes, 41 were used, 25 contained hatched nests, and an estimated 254 ducklings jumped from the boxes. The hatched nests included 15 wood ducks, 6 hooded mergansers, and 4 boxes with both species. The highlight was at Schoenberg Marsh/Erstad Prairie where 14 boxes contained hatched nests. The top eight hatches totaled 123 young with an average of 15.3 per box. Raccoons figured out how to get around the PVC at Otsego Marsh on boxes placed over the water. Cone guards were installed on these boxes and this should stop any raccoon predation. In the past nine years the McGinleys have recorded 2,048 membranes from hatched nests with an average of 227 per year!

Ohne Raasch checked 58 boxes at Zeloski Marsh, part of the Lake Mills Wildlife Area, and 32 boxes at Faville Grove Sanctuary. At Zeloski Marsh Ohne found 50 hatched nests (42 wood ducks, 3 hooded mergansers, and 5 both species). At Faville Grove Sanctuary he found 27 hatched nests (23 wood ducks, 2 hooded mergansers, and 2 with both species).

Combining both areas about 1,025 ducklings jumped from our boxes in 2017. Thanks to Mark & Jenny McGinley and Ohne Raasch for their hard work.! (*Photo: Mark and Jim and Kathy Shurts checking a wood duck box at Goose Pond that contained a nest of hooded mergansers, by Maddie Dumas.*)





#### Breeding Bird Atlas II, Year Three

Significant progress was again made in the third year of the Breeding Bird Atlas II. In Columbia County where Mark and Sue coordinate atlas work, 123 participants have submitted 1,921 checklists and have confirmed 122 species breeding. Three of the 18 priority blocks are complete. Eight blocks have 40 plus species confirmed and another six blocks have 30-39 species confirmed.

The block that includes Erstad Prairie and Schoeneberg Marsh Waterfowl Production Area has 50 species confirmed, and the block that includes much of Goose Pond Sanctuary has 41 species confirmed.

Interesting species confirmed in the 85 Columbia County blocks include wood ducks (confirmed in 31 of 85 blocks), mallards (21), hooded mergansers (9), osprey (12), bald eagles (17), sandhill cranes (34), black terns (5), great horned owls (13), chimney swifts (6), red-headed woodpeckers (11), American kestrels (19), common raven (1), purple martin (5), eastern bluebirds (25), and yellow warbler (12). (*Photos: Sandhill crane on nest at Otsego Marsh, and Goose Pond intern Graham with mallard nest in Wood Family Prairie, by Maddie Dumas.*)

#### **Christmas Bird Counts**

This year Goose Pond staff participated in four different Christmas Bird Counts (CBCs) at Pardeeville, Bridgeport, Madison, and Poynette. Mark, Sue, Maddie, and intern Caleb Burst kicked off the counts by participating in the Pardeeville CBC on December 14th. Maddie and Caleb searched south of Portage and the Wisconsin River. In 4.5 hours they saw 21 species and 339 birds. The highlight of the count was a single stop in a floodplain forest where they

saw a red-headed woodpecker, a red-bellied woodpecker, a brown creeper, and four tufted titmice.

This year the Madison Audubon Society office coordinated the Madison CBC! In addition, Mark, William Damm, and JD Arnston had a great day and their highlight was finding the count's only Iceland gull at the Dane County landfill.

Mark and Sue coordinated the 45th Poynette CBC that includes Goose Pond Sanctuary and was held on a bitterly cold day on December 30th. Thirty-two participants saw 62 species and 10,638 birds! Highlights included 308 mallards, 5 lesser scaup, 426 turkeys, 9 Cooper's hawks, 1 sandhill crane, 5 Eurasian collared-doves, 17 Eastern bluebirds, 1 yellow-rumped warbler, 1,973 dark-eyed juncos, 1,973 Lapland longspurs (missing in the 2016 count), 23 red-winged blackbirds and 198 common grackles. Four species of owls were found including one screech owl, three great horned owls, one snowy owl, and one barred owl. Nine feeder counters saw unusually high numbers of house finches (279), pine siskins (162), and common redpolls (20). On a warmer day, we might have seen at least five more species, but as it was, temperatures ranged from 1-4 degrees F.



#### **Great Backyard Bird Count**

The Great Backyard Bird Count (GBBC) has been held since 1998 in partnership with National Audubon Society and Cornell Lab of Ornithology. Anyone can participate by taking some time on one of the four days of the count to observe the birds in their backyard! Mark and Sue at the Kampen Road residence, and Maddie at the Prairie Lane residence, participated the in mid-February count. In four hours, Mark and Sue saw 9 species and 75 birds: 6 rock pigeons, 22 mourning doves, 2 American kestrels, 3 black-capped chickadees, 7 European starlings, 20 American tree sparrows, 4 dark-eyed juncos, 6 Northern cardinals, and 5 American

goldfinches. Maddie saw 9 species and 332 birds: 3 mourning doves, 1 downy woodpecker, 3 American crows, 1 American kestrel, 1 black-capped chickadee, 11 American tree sparrows, 11 American goldfinches, and 300 Canada geese and 1 ring-billed gull on the west pond. (*Photo: House finches, American tree sparrows and American goldfinches at feeder, by Maddie Dumas.*)

### **Great Wisconsin Birdathon**

The "Reckless Wrens" team of Mark, Sue, Maddie, Jim & Kathy Shurts, Heather Inzalaco and Marcel Wuethrich found 98 species of birds and raised \$700 as part of the fifth annual Great Wisconsin Birdathon sponsored by the Natural Resources Foundation of Wisconsin and the

Wisconsin Bird Conservation Initiative. The Reckless Wrens began at Goose Pond, visited Erstad Prairie and ended at Otsego Marsh. The highlight of the count was finding three black-crowned night herons at Erstad Prairie. The herons were probably a family as one of the birds had a lighter coloration and could have been a juvenile from 2016. The Birdathon, as a whole, raised a record \$90,000 for bird protection,



statewide! Fifty percent of funds raised by the Reckless Wrens went to Madison Audubon. (*Photo: Two of the three herons as seen through a spotting scope, by Heather Inzalaco.*)



#### **Banding Mourning Doves**

Sara Kehrli, Columbia County Wildlife Biologist, banded mourning doves at Goose Pond for the 11th year in a row in 2017! The DNR has a quota of mourning doves that must be banded every year to help determine harvest numbers. The excellent habitat at Goose Pond helps produce a lot of young mourning doves every year and it is

therefore easier to band them here. This year Sara banded 72 young, and 19 adult doves at the Kampen Road residence. Two birds that Sara had banded in previous years were recaptured; a 1-year and two 2-year old doves.

In eleven years of banding, Sara has banded 547 mourning doves at Goose Pond. In the first ten years of banding, 11 of these doves were reported by hunters, 8 from Wisconsin, and three from Georgia (848 miles), Louisiana (904 miles) and Mississippi (775 miles).

Goose Pond staff and interns were lucky enough to be able to help with this project. Part of the assistance we lend is in emptying the traps throughout the day of brown-headed cowbirds, red-winged blackbirds and other non-dove species. We had an unexpected visitor this summer, a young mink who was certainly more interested in the birds than the birdseed! After snapping his photo we lifted the



trap and watched him scurry away into the brush, unharmed. (*Photos: Banded mourning dove, by Mark Martin. Mink, by Maddie Dumas.*)

#### Friday Feathered Features

Madison Audubon Society's "Friday Feathered Feature" is a weekly column, and we alternate weeks with Faville Grove staff to provide essays. We feature birds (and sometimes other animals) that were recently spotted at Goose Pond whether present in large numbers, a rare sight, or just interesting. We try to make the features educational and hopefully visitors will come out and view the birds. We switch off weeks writing the feature with Faville Grove Sanctuary. Listed below are the 2017 Friday Feathered Features from Goose Pond. To see the complete set of 2017 Friday Feathered Features check out the Madison Audubon Society website.

December 29 - Northern Goshawk



December 15 - Snowy Owl



December 1 - Snapshot Wisconsin



November 10 - Tundra Swan



October 27 - Water Birds and Wingspan



October 13 - Bald Eagle



September 29 - Songbird Nest Box Results



September 15 - Pileated Woodpecker



September 1 - Chimney Swift



August 18 - Annual Butterfly Count



August 4 - Japanese Beetles and the Value of Birds



July 21 - Purple Martin



July 7 - Killdeer



June 23 - Dickcissel



June 9 - Breeding Bird Atlas II - Year 3



May 26 - Black-crowned Night Heron



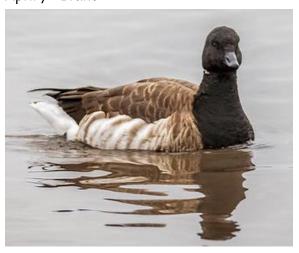
May 12 - American Kestrel



April 28 - Horned Grebe



April 7 - Brant



March 24 - Canvasback



March 10 - Mute Swan



February 24 - Dark-eyed Junco



February 10 - Merlin



January 13 - Christmas Bird Count



January 27 - American Tree Sparrow



# D.) Mammals

#### **Bat Survey**

On July 28th Mark and Sue counted five bats as part of the Summer Roost Emergence Count for the DNR. These bats are again roosting in the corn crib and upper barn at Goose Pond, however numbers continue to be down due to white-nose syndrome.

#### **Muskrat House Count**

In October there were 62 muskrat houses in open water on the west pond, and 15 muskrat houses in open water on the east pond. By the end of the month all of these houses had been destroyed by waterfowl trampling and wave action. The muskrats use the leaves and stalks from the arrowhead plants that cover the pond to construct their houses. The fibers of the arrowhead plants are not strong enough to withstand wave action and trampling of

waterfowl. By the time the pond froze over, an estimated 75 muskrat houses had been rebuilt along the shore of the west pond. These houses were more durable since they were constructed out of river bulrushes that have a stronger stem.

# E.) Amphibians

# **Frog and Toad Survey**

Mark, Sue, and volunteers Bob & Gerry Bennicoff participated in the Wisconsin Frog & Toad Survey again this year. Data from the survey goes to the DNR Bureau of Natural Heritage Conservation. This year they surveyed on April 15th, and again on June 4th, but cool weather prevented them from performing a July survey. The ten-count route begins at Otsego Marsh, has two stops at Schoeneberg Marsh/Erstad Prairie, and ends at



Goose Pond. This year the highlights were hearing a record number of green frogs, and finding wood frogs at Mud Lake State Wildlife Area, and at Thiele Road pond, about 2.5 miles north of Goose Pond. This is only the second time Mark and Sue have recorded wood frogs in over 100 frog and toad surveys! (*Photo: Cope's gray treefrog in the Kubota, by Maddie Dumas.*) The results of the 2017 surveys for three sites are below.

#### 2017 Frog and Toad Count

	Wood Frog	Chorus Frogs	Spring Peeper	Leopard Frog	(E.) Gray Tree Frog	Cope's Gray Tree Frog	Green Frog	American Toad
Otsego Marsh	0	3	3	2	0	3	3	2
Schoeneberg Marsh	0	3	3	3	3	3	3	2
Goose Pond	0	3	3	2	3	3	2	3

o=Was not heard

1=Individuals can be counted; there is space between calls (no overlapping of calls)

2=Calls of individuals can be distinguished but there is some overlapping of calls

3=Full chorus. Calls are constant, continuous and overlapping; individuals cannot be distinguished

# F.) Insects

# North American Butterfly Count

This year, sanctuary staff, interns and volunteers once again participated in the North American Butterfly Count. We held the count on July 28th, rather than early July. We noticed a marked increase in some species such as swallowtails, and both the Eastern tiger swallowtail and the giant swallowtail were new species observed in the count this year! Painted lady, viceroy, question mark, and common buckeye numbers were also way up. A record 344



monarchs were counted, in no small part because our later count date coincided with meadow blazingstar blooming. (*Photo: Question mark butterfly on flowering cup plants, by Maddie Dumas.*)

Species	2017	2016	2015	2014				
ADMIRALS	ADMIRALS							
Viceroy	29		1	2				
ANGLEWINGS	<u> </u>							
Question Mark	6	1	2	1				
Eastern Comma			10					
BLUES	BLUES							
Eastern Tailed-blue	9	9		8				
Summer Azure	1		4	1				
Common Buckeye	28	1						
CRESCENTS	CRESCENTS							
Northern Crescent	8	8	17	24				
Pearl Crescent	15		1	1				
FRITILLARIES								
Great Spangled Fritillary		2						

American Lady	2	6	2	4
·		-	-	
Painted Lady	113			5
Red Admiral	71	9	59	15
MONARCH	344	23	50	68
SATYRS				
Common Wood-nymph	39	131	28	5
SKIPPERS, FOLDED-WING		•	_	
Delaware Skipper		3	2	8
European Skipper			12	7
Least Skipper		2	13	1
SULPHURS			<u> </u>	
Clouded Sulphur	13	42	118	38
Orange Sulphur	1	2	11	31
SWALLOWTAILS			•	
Black Swallowtail	72	118	22	5
Eastern Tiger Swallowtail	9			
Giant Swallowtail	1			
TORTOISESHELLS			•	
Mourning Cloak	1	1	13	7
WHITES			<u>'</u>	
Cabbage White	24	38	32	27
SPECIES	19	16	18	19
TOTAL INDIVIDUALS	786	396	397	60
GOOSE POND TOTAL SPECIES FO	DUND FOR ALL YEAR	S = 24	L	
DATES	July 28	July 1	July 1	Ju

PARTIES	4	4	2	5
OBSERVERS	15	16	10	8
PARTY-HOURS	15.25	18.75	9	12
PARTY MILES WALKED	14.5	8	4.75	6.5
PARTY MILES DRIVEN	4	4.25	4.75	0

# Monarch Butterfly Tagging

This year, with the help of 140 volunteers, we tagged 401 monarch butterflies at Goose Pond. Compared to last year, monarch numbers were down at the sanctuary. Unlike last year where a large hatch coincided with peak bloom of showy goldenrods, the emergence of monarchs this past fall was steady, but never at the peak frenzy we experienced mid-September 2016. Volunteers tagged an additional 179 monarchs at sites other than Goose Pond. A grand total of 580 monarchs



were tagged with Goose Pond tags compared with 967 from last year.

Improving our historic rate of return of about 1%, we had 4 tags returned this year from three monarch preserves in Mexico about 1,740 miles away.

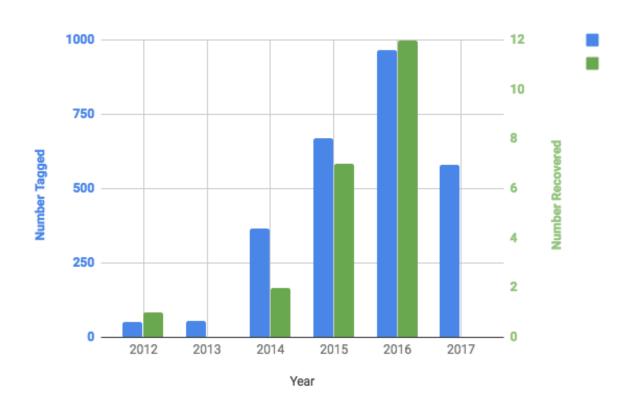


As usual, we had our taggers keep track of the plant that monarchs were nectaring or roosting on at the time they were caught. The preferred nectar plant was once again showy goldenrod, with observed use 38% of the time out of 516 nectaring visits. Thank you to all our wonderful volunteers who continue to help us with this huge citizen science project! (*Photos: Volunteer monarch taggers and a tagged monarch on showy goldenrod, by Arlene Koziol. A young monarch tagger with a monarch caterpillar, by Maddie Dumas.*)

Most Used Nectar Plants 2017	% of Total Visits
Showy goldenrod	38.4
Old field thistle	13.8
Sawtooth sunflower	13.4
New England Aster	9.1
Stiff goldenrod	7.0
Meadow blazing star	4.3
Goldenrod spp.	3.7
Smooth blue aster	1.6
Canada goldenrod	1.2
Sow thistle	1.0
Bergamot	1.0



Monarchs Tagged vs. Monarchs Recovered



#### Red-tailed Leafhopper and Prairie Dropseed

The red-tailed leafhopper (*Aflexia rubranura*) is a state-endangered prairie-obligate insect that uses prairie dropseed as its host plant. In line with our mission to increase invertebrate biodiversity, it is our goal to introduce the red-tailed leafhopper to Goose Pond Sanctuary. As part of this goal, Scott Sauer surveyed our prairies for the red-tailed leafhopper. Scott used a sweep net over and through patches of prairie dropseed in three



locations. As he suspected he did not find the insect present. This is unsurprising because the red-tailed leafhopper is not a strong flier and cannot travel long distances. Even a remnant prairie on UW Agricultural land a mile south of the sanctuary is too far to serve as a source of these insects for Goose Pond.

Mark, Maddie, Graham, and volunteer Bob Bennicoff conducted a survey of the prairie dropseed plants in a 2.5 acre burned section of Browne Prairie in July. We found 1,723 prairie dropseed plants in a half acre surveyed. Given that we have about 20 acres at Goose Pond with a similar density of prairie dropseed, we estimate there are about 35,000 plants in this area of the sanctuary. This should be enough host plant to support a population of red-tailed leafhoppers! We hope to secure the necessary permits from the DNR in time to introduce this species in the summer of 2018. (*Photo: from http://dmitriev.speciesfile.org/ilinsects.asp*)

#### Honey Bee Keeping

Goose Pond Sanctuary has hosted the honey bee hives of beekeeper Paul Oliphant for the past four years. Paul does research on honey bees and beekeeping for the Dane County Beekeepers Association (DCBA). In fall of 2017, Paul held a three-day course for DCBA for new beekeepers. The abundant nectar of prairie plants keep these bees well-fed throughout the growing season. (*Photo: Paul and the beekeepers by Mark Martin.*)





# **Section V: Plant Life**

# A.) Goose Pond Wetland Vegetation Survey

On July 12th, Maddie and Graham performed a wetland vegetation survey on the west pond. Using a canoe and a push-pole to get through the dense mats of arrowhead, they worked around the edges of the pond, taking samples and roughly sketching aquatic and emergent vegetation distribution patterns. They concluded that Goose Pond appears to be in the "regenerating marsh phase"

characterized by little to no open water. This provides excellent habitat for more secretive species that require dense cover for nesting and feeding. This also works well with the local wetland complex that includes the east pond, and small ephemeral wetlands in neighboring agricultural land; generally areas with more open water. A diversity of wetland structure leads to an increase in wildlife biodiversity.

There were three dominant wetland plants present: arrowhead, an emergent that dominates the surface of the pond from mid-summer to mid-fall when the plant dies back and frost action causes the water to open up again; river bulrush, an emergent is confined to the edge of the pond; and coontail, a submergent species. Other wetland plants found include duckweed, water celery, longleaf pondweed and water hyssop. Goose Pond is only the second recorded location for water hyssop in Wisconsin. Native plants such as coontail are an important food source for aquatic invertebrates, which in turn attract and feed waterfowl, amphibians and predatory insects. (*Photo: Water hyssop by Maddie Dumas.*)

# B.) Focus Plant Species Lesser Purple Fringed Orchid

Lesser purple fringed orchid is a new plant species at Goose Pond Sanctuary! On August 1st, Maddie, intern Graham, and volunteers Gerry and Bob Bennicoff were collecting seed near the wetland on the western side of Hopkins Road Prairie when Maddie spotted a tall purple plant that was unmistakably an orchid. The plant was in fact, a lesser purple fringed orchid (*Platanthera psycodes*). This orchid was a volunteer, meaning we never planted the seed. The seed could have drifted into the area. Orchid seeds are extremely small and therefore capable of traveling long distances in the



wind. The lesser purple fringed orchid is not listed in Wisconsin, though it is considered threatened or endangered in six other states. It grows in a wide variety of soil and moisture conditions including mucky fens, to dry mown trailsides. Scott Weber wrote an excellent article about the lesser purple fringed orchid in the August 2017 edition of The Prairie Enthusiasts newsletter, *The Prairie Promoter*. As per Scott's recommendation, we fenced the orchid to keep it from being eaten by deer, and we will continue to monitor the area for more orchids. These orchids are short-lived and the flowering stem dies after flowering. Under the right conditions, a flowering plant can put out new roots and shoots that may take up to four years to flower again. Given this, and given the fact that only one plant was found, it might be awhile before we see the lesser purple fringed orchid at Goose Pond Sanctuary again, but we are happy that we got the chance to see it! (*Photo: Lesser purple fringed orchid, by Mark Martin.*)



# C.) Plantings Food Plot

For the second year in a row, we planted a seven-acre food plot on the south side of Kampen Road, north of Goose Pond. The plot was planted with a mixture of nine varieties of sorghum, buckwheat and three types of sunflowers. The sunflowers did not come on as strong this year as last year due to competition from foxtail. Fortunately, songbirds love to eat foxtail seed, so we had fewer beautiful

sunflowers to admire, but, more importantly, the birds had just as much to eat.

In September, many birds stopped to fuel up for their migration including 200 bobolinks on the 6th, and red-winged blackbirds in the hundreds. Throughout the winter we have been seeing ring-necked pheasants, mourning doves, American tree sparrows, American goldfinches, and common redpolls, a new species for the food plot. Raptors, including Cooper's hawks, red-tailed hawks, rough-legged hawks, northern harriers, and American kestrels also frequent the food plot, attracted by the large numbers of birds and small mammals. Bobolinks flocked up for migration fed in the food plot in August. (*Photo: Bobolinks on sunflowers by Maddie Dumas.*)

#### Kampen Road Residence Driveway Planting

Volunteers and visitors meeting at the Kampen Road residence will be greeted with a beautiful new prairie along the driveway in coming years. A 2.35 acre strip of former cropland has been planted into prairie. This land was entered into the USDA Farm Service Agency (FSA) "CP42 Pollinator Habitat" program. Because of its small size and showcase position on the sanctuary, we used an even more diverse mix of plants than we are usually able to including, meadow blazingstar (beloved by the monarchs), prairie blazing star, prairie phlox, wood lilies, lupine, stiff gentian, palespiked lobelia, prairie alumroot and many others. We hope this small prairie planting will not only



provide additional habitat for wildlife, but will serve as a great first impression and welcoming sight to all visitors. (*Photo: Sue carefully scattering seed, by Maddie Dumas.*)



#### **Partner Plantings**

This year Maddie and fall intern Caleb Burst helped MAS board member Topf Wells and MAS member Jim Hess plant 10 acres of Dane County land south of Paoli along the banks of the Sugar River for Trout Unlimited. Topf and Jim volunteer for Trout Unlimited and helped plan and execute extensive restoration work to reestablish meanders and improve the health of the river for trout and other wildlife. Most of the seed for the planting came from Goose Pond. The wet-mesic mix that was planted will hopefully flourish along the banks of the river. (*Photo: Fall seed-collecting intern Caleb mixes seed for* 

a planting by Maddie Dumas.)

# D.) Invasive Plant Species Invasive Species Management

We spend much of the field season controlling invasives in the prairies and preventing the establishment of new ones. The past five years we have focused heavily on wild parsnip and yellow and white sweet clover as these have been some of our most aggressive invasives. This summer the results of our hard work



were evident. We spent only two days controlling sweet clover. Wild parsnip still required a lot of work, but by mid-summer was well under control, especially in the Wood Family Prairie where it has been particularly problematic. In addition to these three problem species, we spent time digging wild carrot (Queen Anne's lace) in prairies west of Goose Pond Road, and



pulling and treating nodding thistle, Dame's rocket, garlic mustard, spotted knapweed, and a persistent patch of Japanese knotweed near the parking lot of Lapinski-Kitze Prairie. Japanese hedge parsley was also a target species this year as it was more abundant and problematic than in previous years. We mowed several large patches of Canada thistles, some of which we treated, some that will need to be treated next year. We also tried a new herbicide treatment on reed canary grass; this treatment appeared to be effective at eradicating small patches of the grass in our prairies. Canada thistle and reed canary grass will be our big priority invasives for the summer of 2018. (*Photo: Japanese knotweed, and intern Alex Gall with a monster nodding thistle, by Maddie Dumas.*)

#### **Teasel Eradication**

In 2016, a small, dense population of wild teasel, a very invasive species, was discovered along Highway 51 north of Arlington near the intersection with Richards Road. We cut and treated over 100 flowering stems and sprayed herbicide on several hundred first year plants. This was the first teasel found in the local area. This year we did not find a single teasel plant. Our hope is that this population has been eradicated, but we will continue monitoring.

#### Wild Chervil Control

Wild chervil, was discovered along roadsides adjacent to Goose Pond in the early 2000's. This invasive species has a presence in 16 counties in Wisconsin, and the DNR is working to keep it from invading further. In our area it escaped from a planting at a private residence. This year we again received a \$500 DNR grant to control wild chervil. We checked 114 miles of roadsides for this invasive and sprayed 14 gallons of herbicide. Compared to previous years, wild chervil numbers have greatly



declined, however we found several large, new clones. The good news is that fewer first year

plants were found compared to last year. (*Photo: Intern Graham treating roadside wild chervil plants by Maddie Dumas.*)

# **Section VI: Other Management**



# A.) Prescribed Burns

In 2017 we burned 61 acres of sanctuary land. Having spent the last two summers collecting baseline data on the state-endangered silphium borer moth in our prairies, we felt confident that we knew which areas provided key habitat to this moth and its host silphium plants and therefore needed to be divided into smaller burn units or left unburned entirely as per the incidental take protocol. Spring burns in 2017 included: 16 acres in a cool season grass field at Erstad Prairie; 17 acres in Ankenbrandt Prairie; 10 acres of mesic prairie in Jill's Prairie; 7 acres of dry-mesic prairie near the Kampen Road residence driveway in Browne Prairie; 5 acres in the eastern half of Bicentennial Prairie excluding the dense growth of prairie dock at the western end (a key silphium borer moth area); 5 acres in 92 East, and 1 acre of a big bluestem nursery bed. Burning this 1 acre of big bluestem ensures that there is high quality seed for us to collect with the seed stripper each fall. The burns were performed in April and May by Goose Pond volunteers and staff. (*Photo: Jim Shurts burning big bluestem plot by Maddie Dumas.*)

# B.) Seeds

# Seed Collecting

The long, warm, dry autumn and wet summer resulted in excellent seed production in 2017. We collected a total of 71 species, including over 700 pounds of Indian grass, all from burned sites! We also had a great year for white wild indigo. Perhaps because the seed ripened so slowly, the weevils that usually affect seed production in this species were unable to use the seed. We collected white wild indigo into December! We had a record year for golden Alexander, collecting over 40 pounds of seed!



Common milkweed also had excellent production due to a spring burn at Erstad Prairie; we collected 58 pounds of clean milkweed seed! We also had a good year for prairie dropseed, Canada milkvetch, and spiderwort. In 2017 we increased our focus on collecting early flowering species such as wood betony, prairie phlox, shooting star and prairie violets. Thanks to all the volunteers who helped us collect seed this year! (*Photo: Volunteer seed collectors by Maddie Dumas.*)



# **Partner Seed Cleaning**

We allow partners to use our seed-cleaning equipment to help them create additional prairie habitat. Partners using the equipment this year included Pleasant Valley Conservancy, Middleton Parks, Department of Natural Resources, Pope Farm Conservancy, Trout Unlimited, U.S. Fish and Wildlife Service, LaCrosse Natural Area Crew, and Don Schmidt for a restoration with the Town of Dunn.

(Photo: Maddie harvesting Indiangrass with the seed stripper by Mark Martin.)

#### **Seed Donations**

Often we donate Goose Pond Sanctuary seed to natural areas organizations and individuals. The more habitat we create the better off we all are! In 2017 we donated seed to: Jefferson County Parks, LaCrosse Natural Area Crew, Trout Unlimited, Pheasants Forever, Pope Farm Conservancy, Marcel Wuethrich for use at a restoration at the Odana Hills Golf Course in Madison, Bob & Gerry Bennicoff for use at a restoration around a retention pond in Sun Prairie, and many individuals for use on private restorations.

# **Section VII: Sanctuary Development**



# A.) Wingspan Viewing Pavilion

"Wingspan" is the name of the beautiful new viewing pavilion in Bicentennial Prairie off Prairie Lane overlooking Goose Pond. The brainchild of John Kaiser, a long-time appreciator of Goose Pond Sanctuary, Wingspan was built to honor Mark Martin and Susan Foote-Martin for nearly 40 years of dedication to the sanctuary.

Architect Jim Gempler donated the plans for Wingspan. His design carefully considered the natural context into which it was being built, and the purpose it would need to serve. The shape of the pavilion mimics the curve of a bird's outstretched wings. The outline of a lone goose flies north from the top of the structure. The structure is made of COR-TEN, a naturally rusting steel, the color of which matches the red -browns of a late-summer prairie. The central support beams are asymmetrical and set at varying angles to imitate the natural jumble of grasses surrounding the structure. The long,



low shape blends into the hillside and creates a viewing blind behind which bird watchers can admire the activity on the pond without flushing wildlife. Inside the structure, three long benches made of massive slabs of white oak provide a comfortable place to perch. Underfoot, a crushed granite trail winds down to Prairie Lane and provides handicap access.

Construction on Wingspan began in May and carried on until early October. Louis Meister of LMS Construction and Don Schmidt and his crew at Custom Metals generously donated their talent, time and energy to site preparations and construction. In late October we hosted a ceremony and open house to thank all our volunteers and donors. We cannot thank our volunteers enough for the incredible outpouring of support. It is a true testament to the importance of Goose Pond Sanctuary, and land managers Mark and Sue, to nature lovers all



over southern Wisconsin. Thank you also to the Kaiser family for conceiving of and providing matching funds for this project, and thank you to all our members and friends who donated to the project as well! (Photos by Arlene Koziol: a close-up of Wingspan on a glorious fall day; Mark and Sue cutting the ribbon with John Kaiser and Jo Ann Walsh at left; Don Schmidt, Jim Gempler, and Louis Meister rightfully celebrate the new structure they worked so hard to complete.)

# B.) Improvements to Kampen Road Residence

#### **Electrical Work**

Thanks to the efforts of Goose Pond volunteer and retired electrician Bob Bennicoff and other volunteers, a new cable was buried between the corn crib and the Wick building and electricity restored to the barn.

#### New Well

A prescribed burn had to be postponed this year in April when the water suddenly stopped flowing at the Kampen Road residence. An increased demand for water due to the need to fill pumper units and jugs for the burn had tapped out the original homestead well! The well was hand dug, and was only 80 feet deep. Another well five miles away went dry around the same time. The Goose Pond Sanctuary committee concluded that a new, deeper well was needed. Sam's Drilling drilled the new well in May. Arlington Hardware installed a new wellhead and pump as well as a hydrant in the yard for improved access to water year-round.



(Photos: Drilling the new well at the Kampen Road residence, by Mark Martin. Louis Meister tearing out the old masonry work at the Prairie Lane residence, by Maddie Dumas.)

# C.) Improvements to Prairie Lane Residence

The Prairie Lane residence got a much-needed facelift to the front of the house when the old rotting porch and the sagging masonry around the cellar were removed. New concrete was poured around the cellar and a concrete patio added in place of the porch. New stairs were constructed to the front door.

# D.) Donations In-Kind Donations

Goose Pond is fortunate to have received generous donations of equipment this past year: new tools and storage containers from Jim Williams; 3,650 pounds of black oil sunflower seed for bird feeding from Mounds Food Pet Warehouse; 100 pounds of sunflower and sorghum seed for planting the food plot from Dodge County Pheasants Forever, and a framed photo of six geese on Goose Pond at one time taken by



Arlene Koziol. We also received donations of native plant seeds from Curt Caslavka, Randy Hoffman, and Tom & Kathie Brock. Thank you to all our donors! (*Photo: Volunteers Bob and Gerry Bennicoff taking a break from digging wild parsnip to look at a monarch caterpillar on a milkweed plant by Maddie Dumas.*)

#### **Volunteers**

This year at Goose Pond, 75 volunteers worked over **676** hours collecting seed, planting prairies, monitoring songbird nest boxes, surveying birds and butterflies, planting shrubs, managing invasive plants, performing prescribed burns, installing electrical work and other facility maintenance, tagging monarchs and helping build the Wingspan viewing pavilion! Thank you to all our volunteers! You keep our sanctuary vibrant and functional and we could not do our work without you!

# Section VIII: Erstad Prairie & Otsego Marsh

# A.) Erstad Prairie

2017 marked some exciting developments in the restoration of the 60 acre Erstad Prairie parcel that is adjacent to the U.S. Fish & Wildlife Service's 720 acre Schoeneberg Marsh Waterfowl Production Area. We participate in the DNR Voluntary Public Access and Habitat Incentive Program (VPA-HIP, or just VPA). As part of this program we allow public access to our land. The program is so well suited for us, they even asked Mark to be in a video about it!



The Erstad Prairie parcel has had only minimal restoration work done on it in the past, primarily, establishing a high-quality seven acre dry-mesic prairie.. Another 25 acres of upland are in cool season grasses, heavily invaded by wild parsnip and woody invasives such as honeysuckle, mulberry, box elder, and cottonwood. We created a restoration plan for the area in partnership with Justin Blindert, a VPA Liaison for the DNR. The goal is to get invasive plants under control and increase the plant diversity to create better pollinator and grassland habitat.

The first action of 2017 was to burn 16 acres that were most heavily invaded by wild parsnip. This parcel hosts a large population of common milkweed. Next we sprayed wild parsnip plants in May and June. By spraying early, we were able to avoid spraying the not-yet-sprouted milkweeds, and kill the parsnips when they were small and required less herbicide. We estimate a mortality of 99% of the wild parsnip!

In mid-July the burned parcel was a sight to behold and smell with thousands of flowering common milkweeds. Graham and Maddie surveyed the milkweeds and estimated 21,600



milkweed stems per acre, for a total of 350,000 stems in the burn parcel! This led to a record number of common milkweed pods, and resulted in a harvest of over 58 pounds of seed.

In the fall, Maddie, Emily and Caleb spent several days cutting and treating smaller shrubs, and basal barking box elders and shrubs on all 25 upland acres. Brush work will continue in early 2018. (*Photos: Maddie spraying wild parsnip, by Mark Martin. Common milkweeds in full bloom on burned parcel at Erstad, by Maddie Dumas.*)

# B.) Otsego Marsh

This fall, an observer spotted 1,500 Canada geese at Otsego Marsh at one time! The 80 acres at Otsego Marsh are some of Madison Audubon Society's most important acres for birds.

This year Otsego Marsh got a new caretaker, Richard Mertz, who is mowing the hiking trails and removing box elders. In exchange MAS allows the caretaker to take downed wood for firewood.



The Prairie Partners intern crew spent one day working at Otsego Marsh this year, pulling invasive garlic mustard. For the past four years we have concentrated on a two acre area in the hardwood forest and have been successful in keeping



the invasion at bay to allow for the regrowth of native woodland species such as wild geranium, wood violet, mayapple, and Solomon's seal. The invasion is so far gone on most of the 48 acres of upland forest that maintaining a small area of herbaceous woodland diversity may be all that can be done. (Photos: A buck at Otsego, by Richard Armstrong. Prairie Partners interns with a half-day haul of garlic mustard from Otsego Marsh, by Maddie Dumas.)

# Section IX: Past, Present, Future

# A.) Highlights of Past Years

For many years, Mark and Sue picked one important event in the history of Goose Pond Sanctuary to be the highlight of the year. These highlights tell of important natural events on the property and also show the great progress that has been made in expanding the sanctuary. Below is a selection of these highlights from past years:

- 1990 30,000 mallards use Otsego Marsh as staging area during migration
- 1991 1,200 snow geese in fall at Goose Pond
- 1993 Record rainfall 16 inches in June and July
- 1994 Large numbers of waterfowl, pheasant and gray partridge broods
- 1996 Sandhill cranes return to nest at Goose Pond Sanctuary after 100-year absence
- 1997 Snowy owl invasion in January and February on the Arlington Prairie
- 2000 Willy Hutcheson's sighting of six species of geese at one time at Goose Pond
- 2002 Goose Pond went dry lowered water levels provided excellent shorebird habitat
- 2003 Acquisition of 1,730 acres at Goose Pond, Rose Lake & Zeloski Marsh
- **2004** Acquisition of the 116-acre Northern Prairie (now known as Lapinski-Kitze Prairie)
- 2005 Great Gray Owl added to Goose Pond bird checklist
- 2006 A flock of 41 American avocets sighted in April at Goose Pond
- **2012** Tagging 50 monarch butterflies at Goose Pond.
- 2014 Sighting seven snowy owls at Goose Pond at one time
- **2015** Silphium borer moths (state-endangered) discovered at Goose Pond and tagging of a snowy owl named "Goose Pond"
- **2016** Graduate student Heather Inzalaco documents 51 species and 1,663 pairs of breeding birds at Goose Pond
- **2017** Construction of "Wingspan" viewing pavilion, and seeing six species of geese at one time on Goose Pond, including a brant, in March