

Bitterroot AUDUBON



JANUARY 2020

NEWSLETTER

VOLUME 34, NO. 5

A NEW ERA IN STUDYING AND MONITORING WILDLANDS AND WILDLIFE: DRONES

By Philip Williams

Unmanned Aerial Systems (UAS), more commonly known as drones, are a groundbreaking albeit controversial developing technology with tremendous possibilities for natural resources management. While drones have hitherto been mainly used for military purposes, they are increasingly becoming relevant to forestry, wildlife, and general conservation practices. However, these opportunities come with pros and cons, like any technology made applicable to natural resources management and conservation.



Courtesy Philip Williams

One of the drone flight control systems used by Williams in his flight experiments near Stevensville, MT.

The overall newness and novelty of using UAS for conservation predicts an exciting & challenging arena rich with opportunity to develop, implement, test, and refine UAS ethically and practically for the benefit of humans and nature.

Philip Williams, MS, GIST, will deliver a presentation addressing the multiple uses, misuses, opportunities, and challenges of using UAS in a natural resources management context along with the many interdisciplinary fields it intersects (such as the legal/regulatory realm and technical aspects) with an emphasis on applicability to nature conservation.



Courtesy Philip Williams

Philip Williams stands beside a stream in Georgia while working on a prescribed burn operation.

Philip Williams completed an MS in Forestry at the University of Montana emphasizing geographic information systems (GIS) / remote sensing and ecological restoration in December 2019. He earned a GIS Sciences & Technologies Certificate (GIST)

in December 2016, and a BS in Forestry with two minors in Ecological Restoration and Wildland Fire Sciences and Management from the University of Montana in May 2016. Philip's research and career interests have revolved around using UAS for natural resources management in an ethical, effective manner as a tool to promote healthy ecosystems. He has spent time performing research and natural resources management in Montana, Alaska, California, Washington, and Georgia for the past seven years throughout his undergraduate and master's education. He was born and raised in Stevensville, MT, and credits the state's incredible outdoors with inspiring his love and respect for nature and scientifically sound and ethical natural resources management.



Courtesy Philip Williams

A stand of quaking aspen in autumn foliage is imaged with a drone flown by Williams in the Sapphire Mountains near Stevensville, MT.

Join Bitterroot Audubon Monday, January 20, 7:00 P.M. at the Forest Service Building in Hamilton to learn about this new era of managing our environment. The FS Building is at the north end of Hamilton, 1801 North 1st Street, west side of HWY 93. Enter the building on the west side. THE PUBLIC IS INVITED. Contact Kay Fulton for additional information 360-8664.

Letter from the President

By Becky Peters, BAS President

Welcome 2020! A new year! New beginnings! Here's hoping you all had time to relax with family and friends over the holiday season. I'm sure many of you enjoyed a good cup of coffee (or tea) during your rest and hopefully had time to read a new book on birds! Which brings me to my 4th installment about the



Calendar of Events

- Jan 18:** Beginner Bird Walk at Lee Metcalf NWR, Stevensville, MT 10AM-12PM.
- Jan 20:** "The Use of Drones in Studying & Monitoring Wildlands & Wildlife," by Philip Williams, Forest Service/DNRC Building, Hamilton, MT, 7PM, Board Mtg. 5PM.
- Feb 15:** Beginner Bird Walk at Lee Metcalf NWR, Stevensville, MT 10AM-12PM.
- Feb 17:** Audubon Meeting/Program "Fossil Hunting" by Jill Davies, Forest Service/DNRC Building, Hamilton, MT, 7PM, Board Mtg. 5PM.
- Mar 16:** Audubon Meeting/Program "Harlequin Ducks & Climate Change" by Chris Hammond, Lee Metcalf NWR, Stevensville, MT, 7PM, Board Mtg. 5PM.
- Mar 21:** Beginner Bird Walk at Lee Metcalf NWR, Stevensville, MT 10AM-12PM.
- Apr 20:** Audubon Meeting/Program "Grassland Birds, Wildlife & Ecology" by Kristy Blye, Forest Service/DNRC Building, Hamilton, MT, 7PM, Board Mtg. 5PM.
- May 18:** Audubon Meeting/Program "MPG Ranch: History & Research" by Kate Stone, Lee Metcalf NWR, Stevensville, MT, 7PM, Board Mtg. 5PM.
- Summer 2020:**
Wings Across the Big Sky Birding Festival, TBA

Seven Simple Action Steps we can take:

(www.birds.cornell.edu/home/seven-simple-actions-to-help-birds) - buying shade-grown coffee! Smooth segue there! As the Cornell site will tell you, 75% of the coffee farms are growing their plants in the sun and cutting down the forests that our migrating orioles, warblers, and thrushes need. Plus, this type of coffee farm uses harmful pesticides and fertilizers. Now, once consumers know what is happening to more than 42 of our precious Neotropical species of North American songbirds that winter in coffee plantations, will they pay more for sustainable coffee? The birds sure hope so! Please look for Bird Friendly coffee, small-scale farm grown, shade-grown, and it will be organic grown coffee to boot! If your grocery store doesn't have any – talk to the manager. If your favorite coffee shop doesn't buy it, take them this article and talk to them about our concern for the birds and how all of us can do our bit to help. Here's a great link for everyone: <https://nationalzoo.si.edu/migratory-birds/where-buy-bird-friendly-coffee> . The link will

take you to roasters and importers who can be contacted.

When Bill and I were on an Audubon tour in Costa Rica we visited two coffee farms. One was sun-grown and the farmers were so proud of their new out of country buyers that encouraged them to cut down their trees. However, they used more water and more manpower to keep the beans healthy than their neighbor's beans which were grown on the hill in the shade. The second coffee farm we went to was lush with several different levels of tropical vegetation. They needed very little irrigation or manpower. They boasted of how the beans grew themselves and were rich and robust tasting. We sat on the manager's porch and had a cup of his coffee – and I agreed! Here's a beautiful YouTube video to enjoy from the Smithsonian, filmed in Columbia. <https://www.youtube.com/watch?v=gqYOL9t4z-s>

Please keep your eyes peeled for not just organic, not just shade-grown, not just small-farm/fair trade, but bird-friendly as well! The birds will tell you it is worth it!



2019 Christmas Bird Count

By Mel Holloway

The Hamilton area Christmas Bird Count, the 30th, was held on December 14, 2019. We started with considerable fog that morphed into snow squalls and other varied weather. Temperatures ranged from the mid-20s to the upper 30s.

The count was conducted by 22 observers recording

News and Notes

Bird Walks at Lee Metcalf NWR, Stevensville, MT New to birding? Beginner Bird Walks at the refuge are held the third Saturday of each month. Meet at the Refuge Visitor's Center on November 15th at 10AM for a two-hour bird walk. Bring binoculars if you have them. Contact the refuge at [\(406\) 777-5552](tel:4067775552) for more information.

66 species and 7192 individuals. As might be expected, Canada Goose (1866) and Mallards (1537) were the most populous species. The least counts for species were Townsend's Solitaire, Hooded Merganser, Wilson's Snipe, Short-eared Owl, Merlin, Northern Shrike, Marsh Wren, and Common Redpoll with one of each reported. 105 Red-tailed Hawks and 59 Rough-legged Hawks were spotted.

Sandhill Cranes and Lewis's Woodpecker were sighted during count week, but evaded the count.

The general consensus seemed to be that fewer species and fewer birds were observed than in past years, but this is not true for some species.

What's the story, Story?

By Jim Story

Question: What is filter feeding among birds?

Answer: Filter feeding is a feeding strategy used by Flamingos, some penguins, auks, petrels and some ducks to strain small organisms from water. Except for the Flamingo and Northern Shoveler, most of these birds have very simple filtering structures. The Northern Shoveler has specialized plates lining its long bill. But, the most notable filter feeder is the Flamingo. It has many complex rows of horny plates lining the beak. Unlike most birds that have a smaller lower beak that works against a larger, immobile upper beak, the Flamingo has the opposite – a smaller, moveable upper beak that works against a larger lower beak. As a result of these beak adaptations, the flamingo feeds with its head upside down.

Local birding expert Jim Story answers your questions about birds and their habits. Jim welcomes your questions at jstory4689@gmail.com.

Call for Photos

Bitterroot Audubon is seeking images of birds for a feature in our newsletter: *Bird Shots*. If you have taken a great photo and would like to submit it for consideration, please email the jpeg image, with a brief description, to BASeditors@gmail.com.

Bitterroot Audubon is on Facebook and Instagram

If you use Facebook or Instagram, please look for Bitterroot Audubon and "Like" us!

Hamilton Christmas Bird Count Results:

COMMON NAME		DOWNY WOODPECKER	34
GREAT BLUE HERON	8	HAIRY WOODPECKER	17
CANADA GOOSE	1866	NORTHERN FLICKER	97
MALLARD	1537	PILEATED WOODPECKER	6
LESSER SCAUP	46	BLUE JAY	21
BUFFLEHEAD	10	STELLER'S JAY	16
RING-NECKED DUCK	61	BLACK-BILLED MAGPIE	257
COMMON GOLDENEYE	34	AMERICAN CROW	12
HOODED MERGANSER	1	COMMON RAVEN	130
COMMON MERGANSER	28	BLACK-CAPPED CHICKADEE	268
AMERICAN COOT	8	MOUNTAIN CHICKADEE	11
BALD EAGLE ADULT	18	RED-BREASTED NUTHATCH	52
BALD EAGLE IMM	4	WHITE-BREASTED NUTHATCH	33
BALD EAGLE UNK	2	PIGMY NUTHATCH	43
BALD EAGLE TOTAL	22	BROWN CREEPER	11
NORTHERN GOSHAWK	2	MARSH WREN	1
NORTHERN HARRIER	11	AMERICAN DIPPER	14
COOPER'S HAWK	3	TOWNSEND'S SOLITAIRE	1
SHARP-SHINNED HAWK	2	NORTHERN SHRIKE	1
RED-TAILED HAWK	105	EUROPEAN STARLING	321
ROUGH-LEGGED HAWK	59	AMERICAN TREE SPARROW	12
GOLDEN EAGLE	2	SONG SPARROW	14
AMERICAN KESTREL	9	RED CROSSBILL	21
MERLIN	1	DARK-EYED JUNCO	84
PRAIRIE FALCON	5	RED-WINGED BLACKBIRD	19
NORTHERN SHRIKE	1	HOUSE FINCH	263
CALIFORNIA QUAIL	516	KILLDEER	4
RING-NECKED PHEASANT	30	PINE SISKIN	39
WILD TURKEY	42	AMERICAN GOLDFINCH	46
ROCK PIGEON	85	LESSER GOLDFINCH	5
MOURNING DOVE	163	HOUSE SPARROW	346
EURASIAN COLLARED-DOVE	342	PINE SISKIN	39
GREAT-HORNED OWL	3	COMMON REDPOLL	1
LONG-EARED OWL	2	WILSON'S SNIPE	1
SHORT-EARED OWL	1	TOTAL BIRDS	7277
BELTED KINGFISHER	8	TOTAL SPECIES	66

Bird Shots



*Courtesy Mel Holloway
Green-winged Teal and Red-tailed Hawk from the Hamilton Christmas
Bird count, 2019.*

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and on Facebook!

Chapter Only Membership

The Bitterroot Audubon Chapter Only Membership is \$15/year. These members will be supporting local chapter activities, receive the full color e-newsletter, and enjoy Chapter benefits. To join as a Chapter Only Member, complete this form.

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Send this application with \$15 to:



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