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MAINE WOLF COALITION

Wolf Recovery in Maine Through Research, Education, and Protection

SPRING 2023 NEWSLETTER

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Announcements:

What's Happening?

Happy Spring!

Thank you for checking out the MWC Newsletter! We're excited to again be publishing it after a long absence. There's a lot going on in the wolf world here in Maine and the northeast, so let's get started.

Here in Maine, we've just applied to participate in our 28th Common Ground Fair which will be held Sept. 22, 23, and 24. We've had a booth at the fair every year that the fair has been held since 1994, and we're hopeful that our 2023 application will be approved. Assuming we are approved, we will have a brand new display this year with lots of photos, some exciting videos, and the pelts of two wolves that are with us in spirit every year to educate and inform fairgoers. We invite and encourage you to come visit our booth and volunteer to help out if you can.

We're getting some great videos and photos of large Maine canids and we recently welcomed a new member of our scat collection team. He/she prefers to remain anonymous.

The Northeast Wolf Recovery Alliance (NEWRA) of which we are a member, is doing great and has accomplished more in the last six months for wolf recovery than northeast wolf advocates have accomplished in the last twenty years. We have some great members from the U.S. and Canada.

Recently, we learned that the Great Lakes gray wolf killed in New York in 2021 was a wild wolf based on a radio-isotope analysis.

https://biologicaldiversity.org/w/news/press-releases/another-wild-wolf-killed-in-new-york-radio-isotope-test-confirms-2023-03-14/

The New York State Dept. of Environmental Conservation (NYSDEC) initially claimed the animal was a coyote based on an incomplete DNA analysis. MWC and our partners had tissue from the animal analyzed at two separate labs, both of which concluded that the animal was a wolf. The NYSDEC finally conceded that the animal was a wolf, yet had the radio-isotope analysis done to sow seeds of doubt in the public's mind. Any doubt was erased with the findings of the analysis. We're hopeful that further analysis of its DNA will tell us where in the U.S. or Canada the animal originated.

NEWRA has been communicating with the states of New York and Vermont to try to get those states to take action to prevent or minimize the killing of wolves. We're heartened by the fact that there is at least a dialogue with the state agencies. Here in Maine, the situation could not

be more different. Gov. Mills and IFW Commissioner Camuso have dug in their heels and want nothing to do with wolves or wolf advocates. Period. With the advent of NEWRA and a growing wolf advocacy movement, that will inevitably change. Remember-time is on our side. Wolf recovery in the northeast is inevitable regardless of the kicking and screaming that the states have done and will certainly continue to do.

Thank you all for your support!

Where do we go from here?

No less than twelve wolves and likely other wolves have been killed south of the St. Lawrence River since 1993. These include three in New York, three in Vermont, one in Massachusetts, two in Maine, two in Quebec and one in New Brunswick. Nearly thirty years ago, shortly after Maine's 1993 wolf was killed, I interviewed a wildlife biologist who was then working for the Maine Department of Inland Fisheries and wildlife. I asked him when Fish and Wildlife would take actions to protect wolves in the state and when Fish and Wildlife would start educating the public about the presence of wolves. His response was that the department would do something after the next wolf was killed. He further responded by saying that it was not the department's responsibility to educate the public about wolves. It was the public's responsibility to educate ourselves. That's why the Maine Wolf Coalition was established.

So now, we have no less than twelve dead wolves. What do we do with this information? How many wolves have been killed and gone unreported? How many living wolves are out there? Are wolves breeding south of the St. Lawrence River?

The twelve dead animals contain a treasure trove of DNA information that can tell us things like where they came from, whether or not any are related, and what levels of wolf/coyote admixture are present. Unfortunately, no one is conducting these analyses. The government isn't because the government wants to know nothing about wolves in the northeast. So, I guess it's up to us once again to do the work the government should be doing.

MWC is going to be working with Dr. Bridgett vonHoldt of Princeton University to try to find and collect samples from all of these twelve animals. We know where some of them are and we know people who know where some of them are. One would think that something as important as the carcass of a federally protected wolf in the northeast would be put somewhere for safekeeping. We're going to try to track down samples from these animals and get them to Dr. vonHoldt so that we can hopefully answer some of the questions, in particular whether or not any of the animals are closely related and is this evidence of a breeding population south of the St. Lawrence River.

Stay tuned. After thirty years, this is just the beginning.

John Glowa

President/Founder

The Maine Wolf Coalition, Inc.

From the Biologist:

Wolves are in the Northeast: Will We Adequately Protect Them?

By John M. Glowa and Dr. Jonathan G. Way

It all started on a summer's day in August, 1993. A couple camping north of Maine's Moosehead Lake was cooking on their campfire when what looked like a black wolf came out of the woods. Less than a week later, that animal was shot by a bear hunter from Pennsylvania. It was the first DNA documented wolf in Maine in modern times.

That animal was the first of at least twelve wolves killed since 1993 that were found south of the St. Lawrence River in an area stretching from Massachusetts to New Brunswick, Canada. The largest was a 107 pound male killed in agricultural lands just south of Quebec City in 2006.

The northeast U.S. and Atlantic Canada including southern Quebec, New Brunswick and Nova Scotia contain tens of thousands of square miles of potentially suitable wolf habitat and abundant prey including tens of thousands of moose and hundreds of thousands of white-tailed deer. Established wolf populations live in southern Ontario and Quebec as close as sixty miles from the U.S. border which is

well within the documented dispersal range of wolves. Long believed to be a barrier to wolf dispersal, the St. Lawrence River freezes over completely each winter from Montreal to Lake Ontario and it may actually serve as a conduit for wolf dispersal. The eastern coyote, a coyote-wolf hybrid also called the "coywolf" is believed to have crossed the St. Lawrence River from Ontario a century ago. We now know from decades of wolf research in and around Algonquin Park and from dead wolves in the U.S. and Canada that wolves are doing the very same thing.

While the potential for natural wolf recovery in the northeast U.S. and Atlantic Canada is huge given the abundance of habitat and prey, unfortunately, neither the state nor federal governments want wolves to recolonize this region. In Maine, the Department of Inland Fisheries and Wildlife excluded the wolf from its 2015 State Wildlife Action Plan and effectively does not protect wolves by allowing the liberal killing of the eastern coyote, a closely related and similar looking animal that shares many of the same genes as the Eastern/Algonquin wolf. Furthermore, we petitioned for and were denied federal oversight in accordance with the similarity of appearance clause in the Endangered Species Act. Other northeast states have also made little or no effort to document, protect, or manage wolves.

For years, wolf researchers in Ontario have radio-collared wolves and used DNA analyses of canid scat to determine whether or not Eastern/Algonquin wolves in that province are expanding their range. In 2019, The Maine Wolf Coalition, Inc. (MWC) began its own research by collecting scat for DNA analysis. While the State of Maine refused to even consider our request of financial support for the study, we found funds to purchase materials to collect and preserve scat and conduct DNA analyses. Our initial pilot project of eleven samples had DNA extraction done at the University of California at Davis. The DNA was then sent to Trent University in Ontario for analysis. We are currently working with scientists at Princeton University and Michigan Technological University.

Our efforts are focused primarily in and around a huge 3.3 million acre (1 million acres larger than Yellowstone) gated area called the North Maine Woods. This region is largely undeveloped and uninhabited and it could easily support a wolf population. It is primarily a working forest criss-crossed by hundreds of miles of gravel logging roads which makes it perfect habitat for wolves and their prey, and for wolf research.

Our procedure is simple. We select an area to cover and simply drive the gravel roads looking for canid excrement. Currently, our team consists of just six volunteers and over a four year period we have driven hundreds of miles and have collected and preserved more than one hundred and seventy wild canid scat samples. These samples are awaiting analysis.

Of our initial eleven samples, seven contained usable DNA, with six determined to be "eastern coyote" and one categorized as a high percentage "Eastern wolf" with 84.3% eastern wolf ancestry and 13.9% eastern coyote ancestry. Nearly 1 percent was evenly divided between Great Lakes wolf and gray wolf ancestry. This wolf is to our knowledge, the first ever live DNA documented Eastern/Algonquin wolf in the U.S.

In addition to the scat samples, we have located six additional wolf relics at Harvard's Museum of Comparative Zoology including several from Indian shell mounds. In 2023, we plan to continue our survey work and are seeking additional funding to pay for the DNA analyses. Our small team has already

outperformed the state and federal governments by documenting the presence of at least one live wolf in the northeast and by proving how easily and inexpensively it can be done.

MWC was founded in 1994 to support wolf recovery in Maine through research, education and protection. Given the relatively little effort and funding that we have been able to devote to this project, and given the science behind wolf recolonization and the results to date, we are convinced that the northeast U.S. has a wolf population. We are hopeful that our work will help to make the case that wolves and "coywolves" in the northeast need to be effectively protected in order to restore the natural ecosystem. It is ethically and morally the right thing to do.

MWC Current Projects:

A nursing female wild canid poses for the trail camera. (source: MWC)

To Bait or Not to Bait? An Important Question!

On Facebook we frequently see questions and concerns about baiting the trail cameras. Is this dangerous? Are we conditioning the animals to be less fearful of humans? Are we changing their habits? These are all very good questions and concerns.

As most of you know, feeding wild animals is frowned upon for many reasons. Especially animals that could potentially become dangerous to people, pets or property. However, the danger lies in whether or not the animal associates food with humans or human areas.

When using trail cameras to capture images or videos of canids, the Maine Wolf Coalition sometimes uses bait and sometimes it doesn't. It depends on the situation. For example, in an area where there appears to be a lot of canid traffic a trail camera will be posted to record the movements of the animals. However, this is not going to provide high quality images that we can use to examine the canid's features or estimate heights. Usually, we get a quick image of a furry, four legged animal with a tail, moving very quickly through the area.

A highway of paw prints tell us that this area is used frequently by wild canids and is a good spot to place a trail camera. (source: MWC)

After placing a trail camera, a night time photo reveals the canid pack using this area as a highway. (source: MWC)

Sometimes a large canid scat and/or paw print is discovered by our field technicians which would warrant the placement of a camera and the use of bait. This is done to lure the canids in front of the camera and to keep them there for a short time in order to get high resolution photos that our biologist and tech experts can analyze. These baited camera sites are located in areas where the association of food with humans does not occur. The MWC does not want there to be any conflict between wild canids and humans. We want to keep people safe and the canids wild and alive. The animals simply stumble on the bait and scavenge like they do carrion found in the forest. The bait lasts a few days to a week

and is completely consumed by the time the camera is retrieved, usually 3 to 4 weeks later. After capturing high quality images of the canids, we take down the camera and move on to the next area containing canids of interest.

A beautiful canid poses for the trail camera. Notice the bait at the animal's feet. (source: MWC)

This amazing canid has come to check out bait which is buried under the snow. These pictures make it easier for our biologists to study the animals and their unique features. (source: MWC)

When it comes to deciding what bait to use, the field technicians are the best at deciding what will work for them and what they have available. It would be a perfect world if we could use road-killed animals all the time, but that isn't realistic. Dead animals are not always available when we need them and they start to decompose very quickly. Plus, it is not easy to transport dead animals to some of our locations. Most of our camera sites are in very remote locations and require a hike to get there. A popular bait used by our technicians is meat scraps. Most butchers have a surplus of extra scraps they cut off larger pieces of meat - these are easy to obtain and use. Another popular bait is dry dog kibble. It doesn't spoil. It's readily available and it's extremely easy to transport to remote locations. Also, it will not harm the animals and it is used by other scientists and ecologists world wide. As a matter of fact, ecologists studying the arctic fox are currently using dry dog food to supplement the arctic fox diet because climate change has negatively impacted lemming populations in the arctic and lemmings are the primary food source for the fox. Again, when it comes to bait, we leave it up to the technician to decide what will work best for the location depending on what is available.

Canid pups visit a trail camera site. (source: MWC)

MWC Tech Corner

Trail Camera Tech

Trail cameras have become incredibly popular over the last few years. The Bangor Daily News and other local Maine television stations have publicized their use and lots of people have been using them to find out what is going on in the woods.

The Maine Wolf Coalition (MWC) uses trail cameras to supplement its DNA testing program. It puts cameras in locations that test positive for wolf genetics and also in places that have interesting reported canid sightings.

When you're shopping for trail cameras what things should you look for?

Image resolution – Usually specified in megapixels or million picture elements and sometimes abbreviated as MP. The more the better, it will result in sharper pictures and higher resolution video. Most midrange priced trail cameras are in the 20+ megapixel range.

Video Capability – Most trail cameras on the market today offer the capability to record either pictures or video. Some trail cameras only can record still images. Other more advanced models can record both at the same time. Look for HD or even 4k video capability if you want better video quality. Video is great for capturing behavior.

Battery Life – It's important to look and see how long batteries will last in the field. Camera reviews will grade how well a camera conserves its battery life. More information on batteries later in this tech article.

Night Lighting – Most trail cameras have the capability to record images at night. Lighting types can be visible white light, 840nm infrared light (sometimes called low-glow) and 950nm or no-glow infrared. White light is obvious but what about the two versions of infrared? 840nm is invisible light but it's close to colors humans and some animals can see. Because of that it is seen as a dim deep red light. Cameras are more efficient in this sort of light and will image the scene a little brighter. 950nm is totally dark to almost all animals including humans. It's used heavily for security cameras and animals won't look up to see the dim red light. Cameras are less sensitive to this light and will be a bit more noisy. The MWC uses mostly 840nm cameras.

Night image of wild canid. (left) (source: MWC)

Connectivity – While most cost effective trail cameras simply write pictures to an internally installed SD or micro-SD card, some also offer wireless capability. There are two types of wireless capabilities; one that uses mobile cell towers and another that uses your personal WiFi. With wireless cameras you can get notified immediately if something has triggered it. Pictures will appear on your computer or phone magically! WiFi cameras are best for your close backyard where it can use your house's wifi. Cell phone cameras need access to a cell site and also have monthly fees involved.

Control Panel and Menus – There are two kinds of menu screens. One serves simply as a menu and allows you to set the camera to your requirements. A more advanced model will allow you to actually see a preview picture and review the captures on the card.

Memory Cards – Most trail cameras take either SD card or micro SD cards. You will need to consult with the manufacturer to make sure whatever type and brand you purchase will work with the camera. You will also need to purchase a card reader if you don't already have one. Most any version of an SD reader that can attach to your computer should work.

What about batteries?

There are basically two types of batteries, chargeable and disposable. For disposable batteries there are two choices, alkaline and lithium (the non chargeable kind). Alkaline batteries are pretty much the standard battery these days. They're very reliable but they have a couple of drawbacks. First they don't like the extreme cold and lose their effectiveness. MWC doesn't use alkaline batteries for overwintering cameras. Second, they can leak and damage equipment if they're left too long in a discharged state. If you're going to leave your camera out unattended for
many months then you might consider using lithium

batteries. They're quite a bit more expensive than alkaline but lithium batteries hold up way better in the cold and don't have a tendency to leak when they run out of power.

If you're worried about throwing all those batteries in the trash or want to save some money in the long run, then you should consider using rechargeable batteries. Nickel Metal Hydride (NiMH) cells are the most common of this battery type. You can get them in standard sizes like D, AA and AAA. They do have some downsides for trail camera use. They have a tendency to "self-discharge" which basically means that over a period of time they will run their charge down all by themselves. This is ok for trail cameras that get visited often like once a week or so. The voltage of a NiMH battery (think of voltage as the pressure of the electrical current) is less than normal batteries. If you do plan to use them make sure you consult your trail camera's manual to see if they're ok to use. Some trail cameras won't work with these.

There's a new technology of rechargeable battery that's currently just hitting the market. Lithium rechargeable batteries are now available that have built in circuitry that allows them to be used in place of standard sized batteries. The MWC has not yet tested these so we don't have any experience with them.

There are other options for some trail cameras that allow the use of solar cells to recharge modules.

That's a quick summary of trail cameras and their use. There's a lot more to these little boxes so if you want to dig deeper we've added a few links below.

Most important, just get some cameras out there in nature and see what's roaming around your backyard. You will be amazed at what you find. If you get some great pictures of big coyotes or maybe even a suspected wolf please contact us and pass it along to the MWC for analysis.

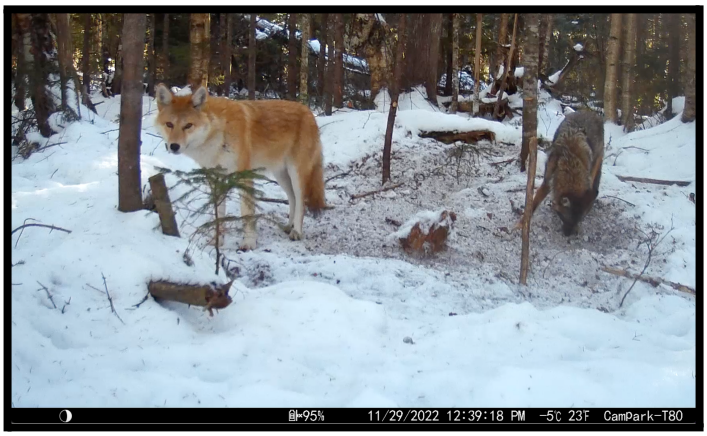
In a future newsletter we will discuss optimum locations and camera placement.

Wikipedia: https://en.wikipedia.org/wiki/Remote_camera

Trailcampro an online dealer that does significant testing:
https://www.trailcampro.com/pages/trail-camera-tests

NatureSpy on wildlife research using trail cams:
https://naturespy.org/help-articles_item/choosing-a-camera-trap-for-scientific-research/

A canid approaches a bait site. (source: MWC)



Two canids investigate a trail camera site. (source: MWC)

Letters From The Field

Living in the Woods with Wolves

Well, it's been around three months now since I last reported in. Call me Sven. I live on just under a hundred acres of northern Maine forest with millions and millions of acres of wild Maine around me. I'm convinced that there are eastern wolves here, and I'm out to prove it. Of course, I could never do that myself, so I have been working with the Maine Wolf Coalition as a volunteer field tech.

I spend time just about every day outside. There are an even dozen trail cameras at my place, each one strategically placed to catch a glimpse of everything wild that happens by. I'm learning as I go. These last couple of months had seen a big decline in large canid activity. I'll get a quick video of one, then nothing for a week or two. Then another quick video. Now that it's mid-March, the canid activity seems to be picking up. They're very secretive and wily, avoiding my trail system for the most part. I see their tracks sometimes in the snow where they cross a trail, but unlike the fox and fisher they don't seem to use them as a highway. The videos are of them in the background mostly. I'll try and post some videos & sounds on our new Substack page.

So on January 24, there was a very exciting video on one of the cameras. The first time I actually saw any pack activity! This was just after 2 am. In true military "vee formation", five large canids walked in front of the camera. A point, then a body of three

of em, then a rear guard. It was awesome! It was snowing pretty good and dark as can be. They were hunting. Here's a still of that video showing the middle three. The point and guard are out of view.

As exciting to me as that was, on the evening of March 12 things got really astonishing. Now I've heard faint howls before. And it's mesmerizing to say the least… But on the 12th, just after dinner, out of the dark forest behind me was a symphony of howling. Loud, crisp, and as far as I'm concerned, wolves! It sounded like a dozen of em, no way I can say how many there actually were. I fumbled nervously with my phone trying to get a recording, standing on my side deck in the snow wearing socks. They performed well! I didn't. Wrong button on the stupid phone. The howling stopped, and only my dog quietly growling broke the disappointing silence.
So I headed upstairs, opened a window, put dry socks on and with my phone now ready to go, I waited. Sure as the bears poop in my woods, it started up again. This time I hit the right button and I got the recording! Wow. They put on an even more compelling concert this time. I immediately sent it to the members of the team and I sat there waiting for a reply. For hours. I put my phone on a table, set a chair in front of it, and sat there staring at it all night just waiting for it to "beep"! OK, I didn't really, but I was pretty excited.

Another MWC volunteer caught canids howling on a trail camera a couple of weeks earlier. It was really something to watch! So after I sent my recording in, a super talented member of ours used his fancy equipment and know-how to make

spectrograms of the howling. He then compared them to known eastern wolves in Algonquin Park. The other howls collected turned out to be inconsistent with the wolves. The recording I made was a near match in frequency to the wolves. John, the boss, was quick to point out that these results DO NOT prove that these are wolves. It will take DNA results, along with our other evidence to eventually make that claim. But unofficially, just my opinion, these are wolves. I live with them.

The AudioMoth (remote audio recorder) I put out for a couple of months to catch any howling did not produce anything compelling. Our tech guy did an outstanding job analyzing the data – creepy tree popping sounds when it's 20 below, ravens, dogs barking,
airplanes and the like, but no howling. Our timing was off. It's going back out next week, and I'll let you know what we get. I have a hunch the results will be more interesting this go.

So the work continues, with good progress fueling my spirit. I bought a high quality recorder, upgraded a couple of trail cams and with renewed activity in the forest I'll keep documenting these beautiful wild canids.

Sven March 14, 2023

Funding the Maine Wolf Coalition

The Maine Wolf Coalition (MWC) is a 501c3 nonprofit organization. We are dependent on donations from our supporters to complete our current projects and research. Every dollar donated to the MWC is used to purchase equipment such as specimen tubes for scat or trail cameras we use for animals of interest and most recently to identify the DNA of the canids using the most advanced scientific techniques at Princeton University and Michigan Technological University. If you are interested in donating to our research and to support our mission to document the presence of eastern wolves in the state of Maine, please make your check out to the Maine Wolf Coalition send it to the following address:

The Maine Wolf Coalition, Inc

30 Meadow Wood Drive

China, ME 04358

USA

Remember - your donation is TAX DEDUCTIBLE!! Thank you for your support!

Other Resources for our Supporters:

Eastern Coyote Research

Maine Wolf Coalition

MWC Facebook Page

Questions or comments, contact the MWC at:

info@mainewolfcoalition.org

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https://mainewolfcoalition.substack.com/

Canid puppy in Northern Maine (source: MWC)

BEHIND THE SCENES

Securing a trail camera to a tree. We are experts at it! 140 or so DNA samples we collected are preserved in tubes and are at Michigan Technological University now, waiting to be analyzed with state of the art equipment and ground breaking technology.

Educating the public at the Common Ground Fair.

We've been doing this for over 20 years!

Animal of interest to the right and a large scat from the same area to the left. DNA results are pending!

Kids Corner: Use the information found on the poster at the end of the newsletter to help you complete the crossword puzzle. Good luck!

Wild Canids of Maine

(Clues are from the Poster)

Across

[3] The eastern coyote/coywolf is a

[5] Celtic mythology regarded foxes as

[7] The Maine Wolf Coalition is a

[9] The larger of our two foxes

[10] Telling the difference between an eastern wolf and a coywolf is

[11] MWC DNA tests this

[12] Another name for the eastern wolf

[13] Gray wolves have been _____ by DNA in New England

[16] Red foxes weigh between 10-15

[19] Compared to a gray wolf, the eastern wolf is

Down

[1] Wolves, foxes and dogs are all

[2] Another name for the eastern coyote

[4] In New England, gray wolves have been mostly

[5] Eastern Coyotes are found ____ Maine

[6] Coywolves live in the

[8] A known population of wolves is 70 ____ from us

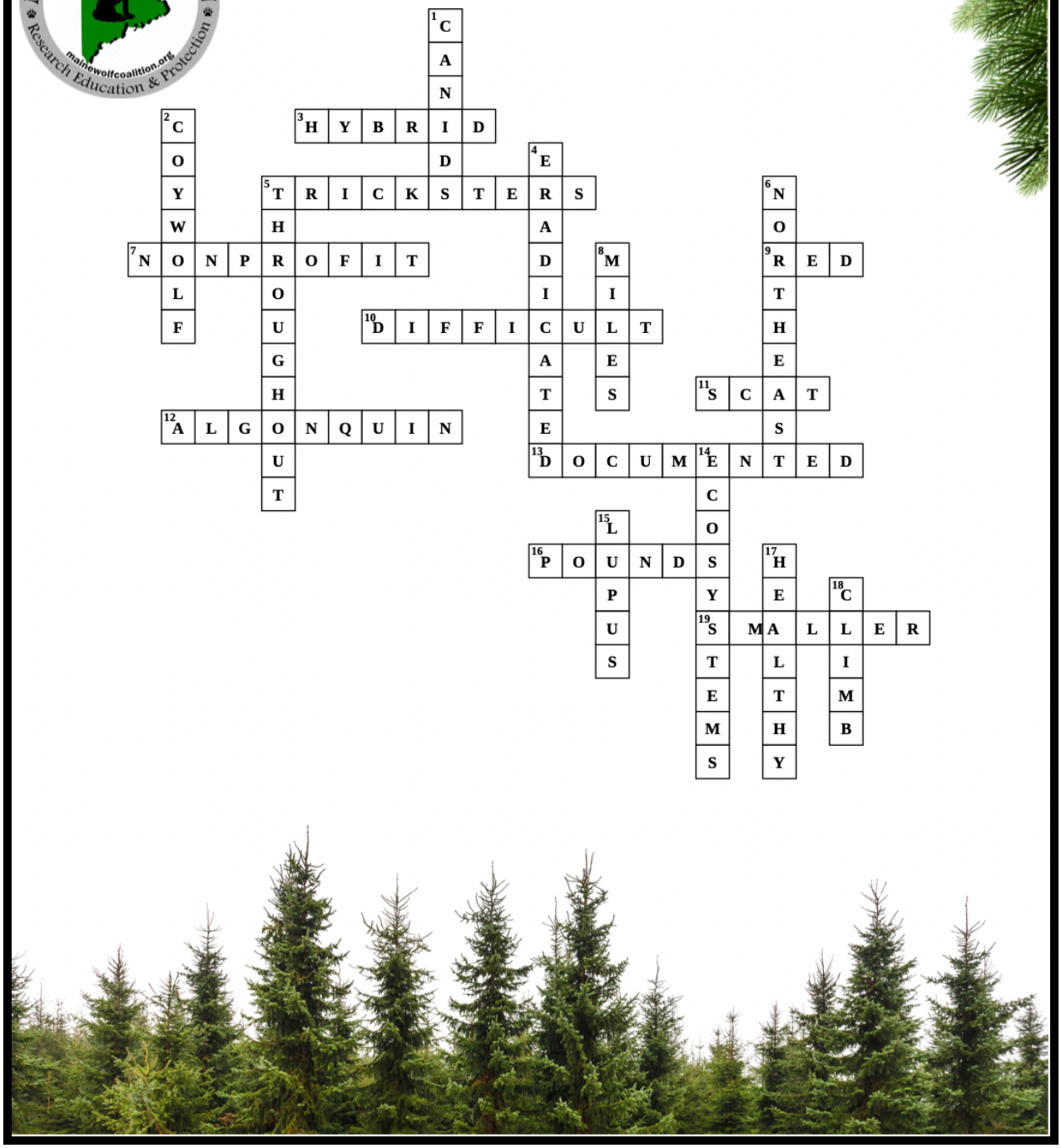
[14] Wolves make for healthy

[15] The gray wolf is Canis _____

[17] Maine's fox population is

[18] Gray foxes ____ trees

Solution


1 C A N
2 C O Y W
3 H Y B R I D
D
4 E A D I A T E
5 T R I C K S T E R S
H
7 N O N P R O F I T
L
F
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12 A L G O N Q U I N
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10 D I F F I C U L T
8 M I E S
6 N O
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S
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17 H
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19 S M A L L
T L
E T
M H
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18 C
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B

HOWLARIOUS WOLF JOKES!

What do you call a wolf that has a job as a lumberjack?

A TIMBERWOLF!

What do you call a wolf with a fever?

A HOT DOG!

What time of the year do Wolves like the most?

The HOWL-O-DAYS!

How are wolves like a deck of cards?

THEY HANG OUT IN PACKS!

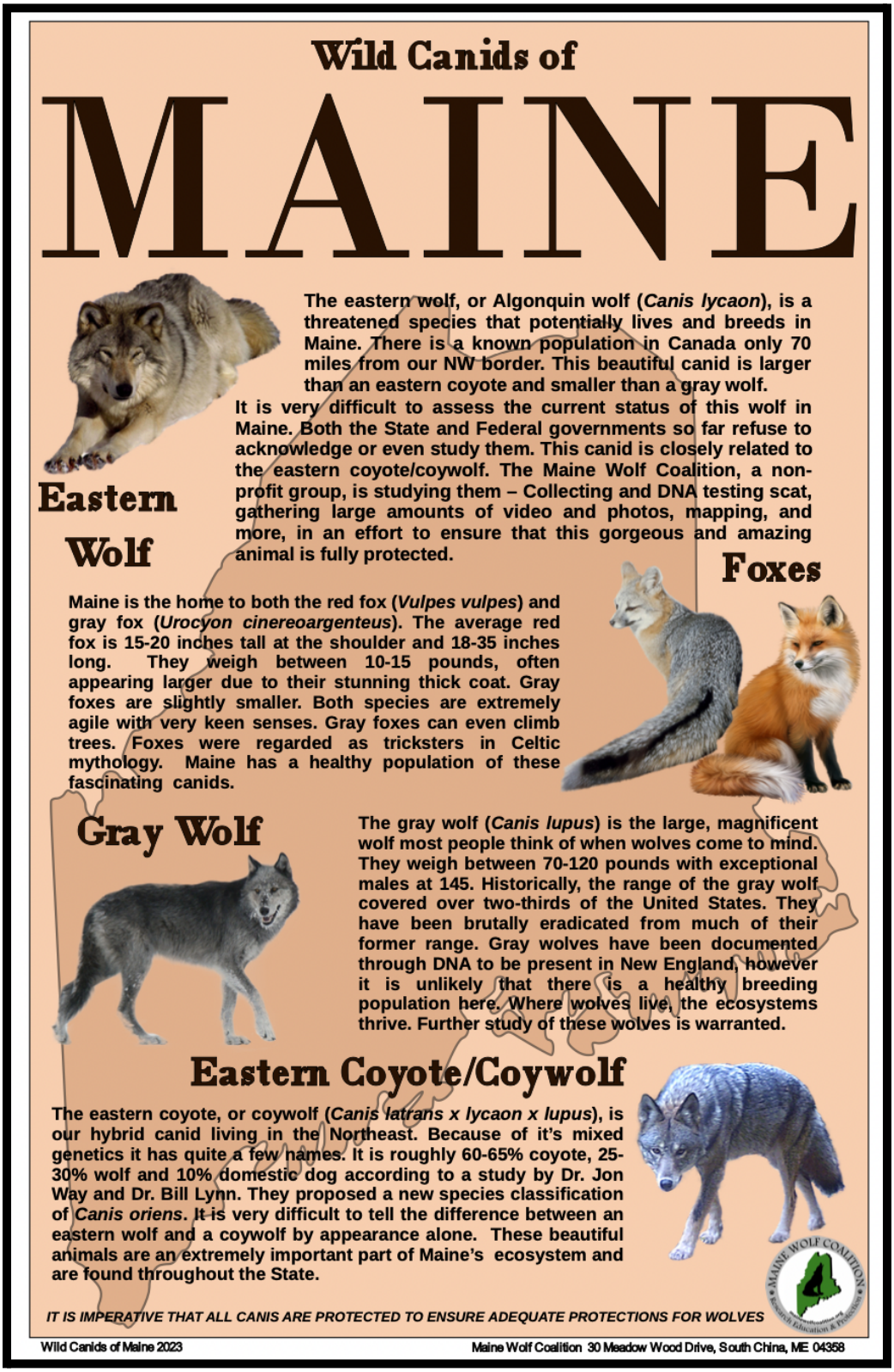
Knock Knock
Who's There?
Howl
Howl Who?
HOWL YOU KNOW UNLESS YOU OPEN THE DOOR!?

How do you make a Wolf laugh?

Give him a FUNNY-BONE!

What do you call a wolf who knows he's a wolf?

AWARE-WOLF!



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