



The Rambler

Spring 2020

From the President's Pen

A spring in your step. It's time to spring clean. A spring chicken makes the best eating. Spring onions are so tender. This season is the best, isn't it? A season of renewal, of new beginnings, of seed catalogues, of that certain smell in the air, of longer days, of warmer days, of snowdrops and the sight of the first robin. As Lewis Grizzard said, "Springtime is the land awakening. The March winds are the morning yawns". As Sheryl Crow says, "No matter how chaotic it is, wildflowers will still spring up in the middle of nowhere". As Marty Rubin says, "The deep roots never doubt that spring will come". And one of my favourites, as Robin Williams says, "Spring is nature's way of saying 'Let's party'". Put away the snow boots and get out the rubber boots. Put away the heavy parka and get out the lighter spring jacket. Put away the knitted toque and feel the sun on your head. Put away the snow shovel and get out the garden spade or bird binoculars or hiking boots or walking shoes. It's a great time to enjoy nature.

How many readings this have celebrated a Silver Anniversary? Well, the Bert Miller Nature Club is celebrating its Silver Anniversary this year. It was Monday, January 23, 1995, when Earl Plato had the first meeting of the Bert Miller Nature Club at the library in Ridgeway. I imagine Earl had a vision to create a space where like-minded people could gather together and talk about their love of nature. I imagine Earl had a vision to inspire people to connect with nature, to enjoy nature and hopefully, protect nature. On that snowy and cold day in January, I imagine Earl hoped to honour his mentor and good friend, Bert Miller, by establishing a nature club in his memory. We are all part of Earl's legacy now. Here's to Earl's vision. Here's to the first 25 years!

Now, we'll ALL have to work together to make the next 25 years a reality. Please consider volunteering for a position - sitting on the

board of directors, setting up the meeting room each month, assembling the sound/computer system for the guest speaker, organizing a hike or walk for club members, arranging for speakers, writing an article for The Rambler, assisting with the club's Facebook page or website or introducing and thanking a speaker. As the old saying goes, "Many hands make light work". It takes many people to make the Bert Miller Nature Club run smoothly. Please consider being one of the hands that might make the work a little lighter.

That was the end of my original article, written in early March. Well, things have certainly changed since then, haven't they? Since then we have had to cancel our March speaker (Inga on Fungi), our April speaker (Win on Wildflowers of the Niagara Glen), our May speaker (Paul on Butterflies and Dragonflies) and our June meeting (our annual hike and dessert potluck), not to mention our Marcy's Woods hike and our hike at the Niagara Glen. Since then we have been asked to physically distance ourselves from friends, family and neighbours. Since then we have been asked to wear face masks, sanitize our hands, shop as little as possible and stay home as much as possible. It feels as though the world has changed dramatically in a few short weeks. But some things haven't changed, have they? The birds are flying and building their nests. The daffodils and tulips are blooming. The leaves are starting to unfurl on our beloved trees. The grass is greening. Daffodils are covering our lawns. Nature doesn't seem to be aware of COVID-19; spring came anyway in all its glory. I hope you have been able to be out in nature as much as is safely possible these days.

We will keep you posted over the summer about upcoming meetings and hikes for the Fall/Winter season. Stay well and stay safe.

Deb

Welcome New Members

- Betty Gudza

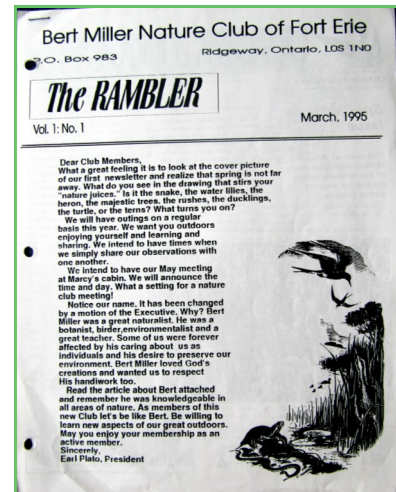
Upcoming Meetings

- All upcoming meetings have been cancelled.

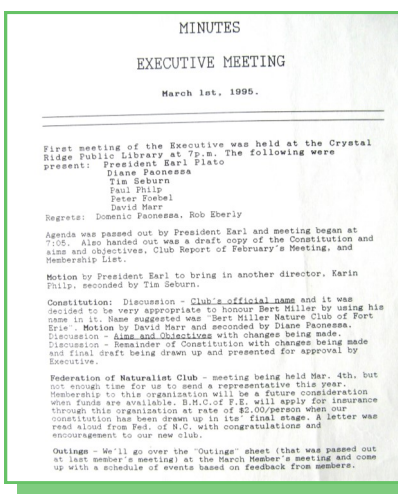
Upcoming Outings

- All upcoming outings have been cancelled.

Watch for email updates or refer to the club's website or Facebook page for future updates.



The original minutes from the first Bert Miller Nature Club Executive Meeting (left), Vol. 1 No. 1 cover page of The Rambler (above, top) and the club's original logo (above, bottom). © BMNC Archives



And the Award Goes To...

by Lynda Goodridge



Congratulations to Marcie Jacklin, the 2020 recipient of the R.W. Sheppard Award, presented to her virtually (it will be presented in person at a later date) by the Niagara Falls Nature Club. This honour is given to individuals or groups for their "outstanding and dedicated leadership in the conservation of our natural heritage".

A member of both the Niagara Falls Nature Club as well as the Bert Miller Nature Club, Marcie is well known throughout Niagara

for her expertise as an avid birdwatcher, naturalist and environmental advocate. In addition to giving numerous presentations and leading many field outings, she has been a director for both the Buffalo Ornithological Society and the Ontario Field Naturalists. She is currently President and one of the founding members of Community Voices of Fort Erie, an organization working to protect

Fort Erie's natural and historical resources.

Marcie is Chair of the Niagara Birding Conservation and Tourism Collaborative, a fledgling organization whose mandate is to promote birdwatching as an economic driver for our region. She is also one of the organizers of the Birds on the Niagara event, an international festival that takes place during the winter on both sides of the Niagara River. Her passion for the environment and commitment to conserving our natural areas are most deserving of this recognition. Well done, Marcie, and thank you for all your hard work.



Marcie viewing birds through her scope. © Ron Goodridge

February Festivals - Celebrating Winter

by Dawn Pierrynowski

February was a busy month for festivals that the Club participated in. The International Winter Celebration of Birds on the Niagara was February 14 - 15 and Heartland Forest's Winterfest was on Family Day, February 17.

The three local nature clubs (The Bert Miller Nature Club, the Niagara Falls Nature Club and the Peninsula Field Naturalists) had displays and activities at the Niagara Glen Nature Centre on the Niagara Parkway for Birds on the Niagara. (<http://www.birdsontheniagara.org/>)



Lynda and Dawn show off the Club's display as well as the beautiful view of the Niagara Gorge. © Dawn Pierrynowski

Marcie Jacklin at Dufferin Islands; Niagara Falls Nature Club's Kayo Roy at the mouth of the Niagara River; and Peninsula Field Naturalists' Bob Highcock and Jean Hampson at Brown's Point.

Birds of Prey on display from the Canadian Raptor Conservancy were popular with one and all. <http://www.canadianraptorconservancy.com/>

The Niagara Glen Nature Centre is a warm, welcoming place with plenty of displays and activities. Their partnership with their sister provincial agency, Sudbury's Science North, brings

Lynda Goodridge and Dawn Pierrynowski set up the Club's indoor activities in a wonderful space overlooking the gorge. We were spoiled by the spectacular view and the visiting hawks circling outside the picture windows.

The well attended guided hikes were conducted by Bert Miller Nature Club's



One of the activities teaches about owls. © Dawn Pierrynowski

the popular Nature Exchange program to Niagara. What a great opportunity for everyone.

<https://www.niagaraparks.com/media-room/releases/niagara-parks-invests-in-the-revitalization-of-the-niagara-glen-nature-centre/> Having the International Winter Celebration of Birds on the Niagara was a perfect fit, and plans are underway for this festival to be bigger and better next year.

Debbie Wright and Dawn Pierrynowski had a busy experience at Heartland Forest's Winterfest. (<https://www.heartlandforest.org/>)



Dawn and Debbie show off the fun activities. © Dawn Pierrynowski

Children played the Bird Matching Game, made Animal Tracks and looked closely at Owl Pellets. This event was well attended by families with many interesting activities, displays and outdoor hiking on universally accessible trails.

Check out both of these wonderful nature centres. Look for the dates and times they are open to the public.

Winter Tree Identification

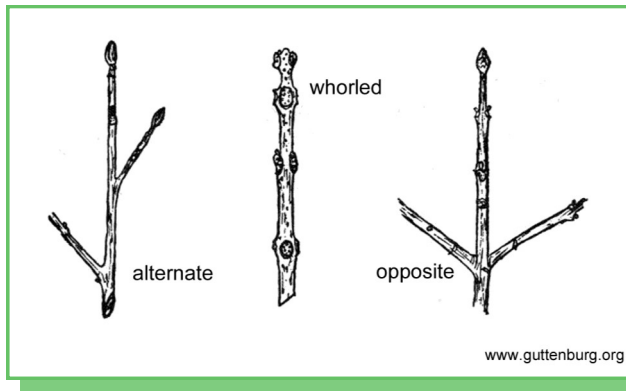
by Dawn Pierrynowski & Paul Philp

The 22nd of February was a cold but beautiful day for winter tree identification, with Paul Philp as our guide, at Shagbark Nature Park, in Ridgeway. We examined deciduous trees there in the morning and conifers at the Stevensville Conservation Area later. At the beginning of the forested trail, we identified our first tree. It was the Shagbark Hickory tree with its telltale shaggy bark and we compared it to the younger, smoother version.

Tree identification keys help to identify trees in the winter as does the bark, buds, leaf scars and location. It is not an easy task. Paul often refers to his mentor John Potter who would look at trees very carefully from the top to the bottom analyzing all the factors before finally identifying a tree in question. Memory gems helped us with the ID.

Look at the twigs and branches.

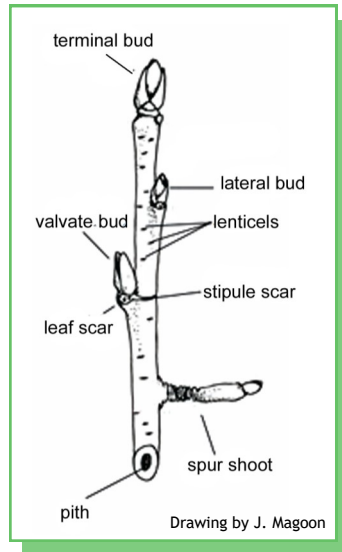
If they are opposite, they are ashes, maples, dogwoods or horse chestnut. A tip to remember this is "MAD HORSE: M=Maple, A=Ash, D=Dogwood, Horse=Horse Chestnut". Generally speaking, all other trees have alternate twigs and branches.



Look at the buds.

Texture, colour and size are important clues.

- ⇒ Basswood (smooth rounded reddish buds)
- ⇒ Bitternut (candle flame shape yellowish buds)
- ⇒ Sugar Maple (opposite scaled buds that come to a point)
- ⇒ Black Walnut (granular grey buds with an ET shaped leaf scar)
- ⇒ Ash (opposite buds with the terminal bud like a chocolate chip)
- ⇒ Oak (a cluster of buds at the branch tip)



Want to explore some more?

- <https://treebee.ca/identify-a-tree/>
- <http://ontariotrees.com/id/wintertreeidfeb2001.php>
- <https://www.ontario.ca/environment-and-energy/tree-atlas/ontario-southwest>
- https://www.eomf.on.ca/media/k2/attachments/Tree_Identification.pdf
- <https://www.eekwi.org/explore/identification/dichotomous-tree-key>
- <https://www.forestsonario.ca/wp-content/uploads/2016/04/Appendix-C-Winter-Tree-ID.pdf>

What a great day it was. Thank you Paul for your expertise and for making the trek to Fort Erie.



Ready to identify trees at Shagbark Nature Park.
© Dawn Pierrynowski

Look at the bark.

Alphabet bark -> White Ash
Burnt Popcorn -> Black Cherry
Ski ridges -> Red Oak

Look at the location.

Trees can be fussy.
⇒ Is it wet or dry?
⇒ Is the soil clay, silt, or sand?

American Beachgrass (*Ammophila breviligulata*)

by Nadine Litwin

Pioneer dune species, colonizer, primary stabilizer of moving sand, sand binder, beach builder.

Sand dunes, mounds of sand with characteristic dune vegetation, are natural protective systems along our shorelines. But these sands are constantly shifted by storm-driven wave action, the predominant disturbance regime along the Lake Erie shoreline.

Storm events are particularly significant during periods of high lake levels. During storms, particularly in spring and autumn, storm waves pick up the sand and transport it out towards the lake where it settles in

sandbars. In calmer weather, the waves carry the sand back to the beach where it dries out. The wind then picks up the finer particles and carries them further back into the dunes. Stabilizing sand beaches and dunes isn't as much about denying the lake its share of sand as it is about



Sand dunes at Point Abino in 1934. © Mayer, Flora of the Niagara Frontier Region, Zenkert

American Beachgrass (*Ammophila breviligulata*) *continued*

keeping the sand there for the lake to take.

Dune vegetation is adapted to the special characteristics of a sand dune which include not only burial by the shifting sands, but also lack of moisture, few nutrients, intense light, strong winds, and extreme temperatures. Different plant species employ different survival strategies for survival in this environment.



Sand dunes at Marcy's Woods in 2020.

© Tim Seburn

Some maintain viable seeds at varying depths, and for varying lengths of time. Seeds of common Evening Primrose (*Oenothera biennis*) for example have been found to be viable for up to 80 years. Other plants like Sea Rocket (*Cakile edentula*) produce two sizes of seeds on a single plant which then remain viable at different burial depths. Some plants such as Wild Trailing Bean (*Strophostyles helvola*) use wave action to produce a 'seed rain': a few large plants along the mid-beach produce many seeds, which are propelled by fall storm waves up to the driftline. It seems no matter what the strategy, there is an exquisitely tight fit between the species and its environment.

American Beachgrass has a different strategy for survival,

and it is this strategy that makes it the primary choice for beach stabilization. It grows long, both vertically and, in particular, horizontally, forming an extensive mat of rhizomes that can knit together acres of beach. The most active periods of rhizome growth are in the spring and fall



Beach grass at Crescent Beach in 2020.
© Tim Seburn

when growth can be measured in metres. USDA specifies 1.8-3 metres (6-10 feet) in a single season. It can withstand a metre of sand burial, which actually stimulates the stems to grow. Old stems become roots which can extend 3-6 metres (20 feet) below the sand.

As if that isn't enough, American Beachgrass actually depends on storm-driven wave action for dispersal. Dr. Anwar Maun and his researchers at the University of Western Ontario described the growth as an advancing front of rhizomes that moves towards the lake and into the area reached by storm waves. This results in what they call a bud bank of dormant buds because on undamaged rhizomes a large percentage of buds remains dormant. Wave action helps to break dormancy by breaking up the rhizomes: the smaller the fragment, the greater the percentage of active buds. These rhizome fragments are then washed back up the beach by wave action, ready to sprout. Even after the worst of storms, we can count on American Beachgrass to be our best sand stabilizer and beach builder.

Eastern Coyote

by Tim Seburn

The first time I saw a coyote in Fort Erie was about 1978. My sister Kathy had recently married and was living on Spears Road, near Bertie Road. The den was located in the brush behind her house. That first year I had several sightings, and they became increasingly common as the years went by. Seeing a coyote is still a treat for me, but no longer a big deal.

Over the years, I have been trying to judge the size of the coyotes I see, particularly road kills. And it seems to me coyotes have been getting bigger. What do you think?



Kills from the 1940s at Point Abino.
© Fort Erie Public Library

Have you noticed this too? Although I've had this impression for many years, I've never been sure whether it was just my imagination. Then I came across this 1940s photo at the Fort Erie Public Library. According to the caption, these fellows had successfully hunted wolves at Point Abino. Look at the pointed ears. Effortlessly holding a wolf up with one hand? Really? This

inspired me to do a little research and I found coyotes were in Niagara by 1918. So even though these fellows

didn't realize it, they were probably holding up two coyotes for the camera, not wolves.

Now, for comparison, here is a 2020 photo of Niagara coyotes taken by Laurie Lent. Notice the more rounded ears. Even if I was still young and virile, I'm not sure I could hold one of these guys up with one arm tied behind my back. So what is going on here? Are these two photos of the same species of canid?



Niagara coyotes in 2020. © Laurie Lent

Scientists have taken to calling these guys Eastern Coyotes. But I've heard them being called coy-dogs, coy-wolves, or brush wolves. For years there has been a general sense that something has been going on, but no real agreement whether it was a bit of dog or a bit of wolf that we were seeing in these animals. But now, DNA analysis is solving the mystery.

In one study, ecologist and evolutionary biologist Javier Monzón analyzed the DNA of 437 Eastern Coyotes and

Eastern Coyote *continued*

found the genes contain all three canids – 10% dog (*Canis familiaris*), 13% Gray Wolf (*Canis lupus*), 13% Eastern Wolf (*Canis lycaon*) and about 64% Coyote (*Canis latrans*). Another study, conducted in Algonquin Park by Rutledge, Garraway, Loveless and Patterson, and published in the *Journal Nature* in 2010, hypothesized that eastern wolves have acted as a conduit of sex-biased gene flow between Gray Wolves and Coyotes.

Years ago Rick Stockton told me that when he was young (the late 1940s to early 1950s) his grandfather would sometimes take him to Wainfleet Bog in the evenings to hear the wolves howl. This made me wonder whether a population of Eastern Wolves held on in Wainfleet Bog. I

have heard Gray Wolves howl a few times – a very haunting consistent howl, and no real “yips”. I have heard Eastern Wolves howl in Algonquin Park many times – consistent howling with a few “yips”. Like everyone, I have heard coyotes yip many times, but I had never heard coyotes howl, that is until last fall. Then, on several occasions, I heard a pack of at least six coyotes howling from the woods near my house. To my ear, this howling was identical to the howling I have heard many times in Algonquin Park, with only a few “yips” at the end.

Will this incredible auditory treat for one’s ears now become more common in Niagara? I sure hope so.

A Natural Remedy

by Lynda Goodridge

During these stressful times of COVID-19, nature can be one of our best friends. Richard Loev, the author of the book, **LAST CHILD IN THE WOODS**, has been promoting the importance of nature to our well-being since 2005, and now there is scientific evidence to prove it.

Research statistics confirm that time spent in green spaces can reduce the risk of type II diabetes, cardiovascular disease, stress and high blood pressure. A report from the University of East Anglia, published in **Environmental Research** on July 6, 2018, summarized evidence from over 140 studies (from 20 countries), involving more than 290 million people. The analysis focused on the health of people with little access to green spaces, compared to that of people with the highest amounts of exposure. The results indicate that people living closer to nature had reduced diastolic blood pressure, heart rate and stress.

Although researchers are unsure what is causing this relationship, studies from Japan, where “forest bathing” is promoted, suggest that the phytocides (organic compounds with antibacterial properties) released by trees could be part of the explanation.

The Japanese practice of forest bathing, or *shinrin-yoku*, involves experiencing nature through all our senses. It involves simply walking slowly through a wooded area and connecting with it through sight, hearing, smell, taste and touch. This opens our senses to allow us to bridge the gap between us and the natural world. According to studies done by Japanese scientists, a 2-hour “forest bath” will distress and relax you, as well as providing other health benefits, such as an increase in the number of NK cells (natural killer cells), a type of white blood cell that plays a major role in helping to reject both tumours and virally infected cells.

Physicians are getting behind this movement to look to nature for healing. The Benioff Children’s Hospital in Oakland, CA has a Center for Nature and Health, with clinical programs that promote access to nature as part of patients’ care and overall well-being. They enroll families in a monthly nature shuttle that puts doctors,

naturalists, and patients together in outings from the clinic into nature. The hospital’s pediatrician and researcher, Dr. Nooshin Razani, is thrilled to be prescribing nature as part of the clinical treatments. Her research on the positive effects of this approach has inspired other physicians and health systems to integrate nature-based interventions into their practices.

This scientifically-based evidence underlines the importance of preserving our natural spaces to maintain the health of our community. These areas are fast disappearing from our landscape, with the amount of development currently underway. A research paper in **Environmental Health Perspectives**, dated July 31, 2017, and involving 26 authors, laid out a framework to create a formal role for the positive impacts that nature has on mental health and to formulate a role for conserving nature in cities and integrating it into planning for these health effects. What a novel idea to give conservation a major role in planning decisions!



Whenever possible, take a walk in the woods and let your senses experience all that this natural beauty has to offer.** Researchers say we need a total of at least 120 minutes a week to attain the benefits these areas can offer. I guarantee you will feel refreshed, invigorated and de-stressed – something we all need in these troubling times. And, don’t forget to let your politicians know how important these spaces are for both our physical and mental health.

There is an abundance of information on the health benefits of nature. Here are a few links that may be of interest if you want to find out more:

<https://www.sciencedaily.com/releases/2018/07/180706102842.htm>

<https://time.com/5259602/japanese-forest-bathing/>

<https://ehp.niehs.nih.gov/doi/full/10.1289/EHP1663>

**When in effect, members should respect requirements for 2-meter physical distancing, or for remaining in isolation or quarantine

Bert Miller Nature Club

PO Box 1088
Ridgeway, ON
L0S 1N0



www.bertmillernatureclub.org
email: info@bertmillernatureclub.org

2019-2020 Executive

President •Deb Sherk
Past President •Lynda Goodridge
Vice President •vacant
Secretary •Peter BonEnfant
Treasurer •Rick Stockton
Memberships •Dawn Pierrynowski
Directors •Viki Busche
 •Eliza Durant
 •Janet Kellam
 •Dawn Pierrynowski
 •Tim Seburn

The Rambler Newsletter

Co-Editors
•Lorraine Brown-Joyce
•Tim Seburn

The Bert Miller Nature Club is a charitable organization formed in January of 1995 by a group of people interested in sharing their enthusiasm for nature. Earl Plato, a local naturalist and history buff, was the founding president. The Club is named after a well-known naturalist and resident of Fort Erie, Bert Miller, whose passion inspired all those who participated in his many rambles throughout the Niagara Peninsula. Since its inception, the Bert Miller Nature Club has been committed to preserving, protecting, restoring and improving the natural environment of the Niagara Peninsula. Through monthly meetings, field outings and advocacy activities, the Club strives to foster an understanding and awareness of our natural heritage and its value in enhancing the quality of life. It also promotes cooperation with other organizations having similar interests.

In conjunction with the Town of Fort Erie, the BMNC maintains stewardship of the Shagbark Nature Park, a rehabilitated natural area that features a woodland with marked trails and interpretive signage, a meadow containing native plantings and a chimney swift tower. The Park is located on Burleigh Rd between Nigh and Dominion Roads in Ridgeway.

Indoor meetings are held the second Monday of the month, September through June, and are open to the general public. Field outings are scheduled periodically. Please visit our website, www.bertmillernatureclub.org for more information on our club and a complete list of activities.

The Rambler newsletter is published biannually in the Spring and Fall. Members are encouraged to submit articles, nature events or experiences, photos and outing reviews to bertmillernews@gmail.com. Items submitted may be edited and will be used subject to space allowances. Thanks to the many members who take the time to contribute to making a newsletter for everyone to enjoy.

What Makes Science a Distinctive Way of Thinking? *by Rick Stockton*

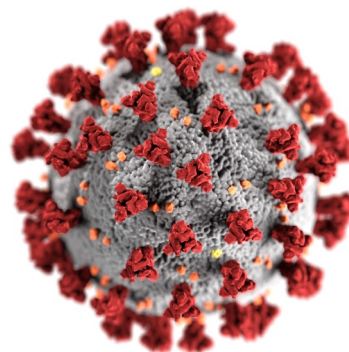
“Science is what we do to keep from fooling ourselves” (re-quote, Feynman). I will briefly talk about several ways that make scientific thinking distinctive, but my real purpose here is to speak about how, in an era of misinformation and disinformation, one can distinguish scientific truth from the increasing amount of noise.

We think of Galileo and Newton as examples of early scientists, and indeed they were, but modern science has evolved into a community effort that provides a critical interrogation of all claims that a scientist might make. Science is a way of seeing and exploring the physical world - the word comes from the Latin *scientia* which translates to “knowledge”.

Science starts by formulating a question about the physical world - a hypothesis - which is then studied through critical observation and measurement. The final results and analysis of this question are given to a community of experts, for their critical evaluation. The goal of this process is to obtain critically scrutinized, objective knowledge that will advance our understanding of a particular area of interest.

Science is an ever-expanding web of knowledge contributed to by millions of scientists worldwide. It is a means of truth-telling, which can be tested by the experience of its predictions: the carcinogenicity of tobacco is tested by the rates of lung cancer; the relationship between greenhouse gases and climate change is evidenced by changes in the duration of

seasons, increasing temperatures, enhanced wildfires and drought; and the solution to the most pressing current issue, COVID-19, will only be resolved through the science of antivirals, vaccines and an understanding of the basic biology of viruses and pandemics. Hopefully, these truths will prevail over ignorance and misinformation.



This illustration, created at the Centers for Disease Control and Prevention (CDC), reveals ultrastructural morphology exhibited by coronaviruses. Note the spikes that adorn the outer surface of the virus, which impart the look of a corona surrounding the virion, when viewed electron microscopically. A novel coronavirus, named Severe Acute Respiratory Syndrome coronavirus 2 (SARS-CoV-2), was identified as the cause of an outbreak of respiratory illness first detected in Wuhan, China in 2019. The illness caused by this virus has been named coronavirus disease 2019 (COVID-19). © CDC