



The COVID-19 Pandemic: Is There a Silver Lining for Nature and Wildlife?

By Angela Vander Eyken

If you didn't already know (and you have somehow missed the copious amounts of social media posts and news broadcasts about COVID-19), we have been in lockdown for quite some time now – almost 14 weeks, to be exact. Life as we once knew it has been put on hold and is only now just starting to return to a new form of “normal”. Although the damage and devastation from these unprecedented times are indisputable, the slowing down has allowed some an opportunity to work on long-forgotten home projects, take on a new hobby, or simply cross some things off the old “to-do” list. Perhaps one of the greater silver linings has to do with Nature. The slow down has reduced green house gas and other polluting emissions globally, and it has also (more recently) been a time for many people to get outdoors and reconnect with nature. In fact, there has been a significant increase in wildlife sightings, with iNaturalist app users reporting 5,500 more sightings this spring compared to last year, and people from all over the world spotting more animals coming out into the open. While it is possible that these fascinating occurrences can be explained by more people having time to get out and report wildlife (bonus!), it does make you wonder what the animals have really been up to while us humans have been staying home. More importantly, can we be sure that our actions (or lack thereof) during the pandemic will have a positive impact on wildlife and nature both now and in the future?

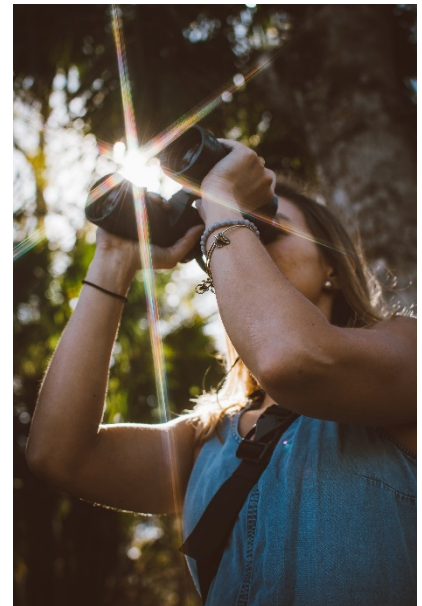


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While it may be too soon to fully answer this question, many scientists have hypothesized that the “Global Human Confinement Experiment” (as they have coined it) will likely have a wide range of both positive *and* negative impacts on biodiversity, conservation and environmental health. Let’s first have a look at some of the positives!

1. Reduction in human disturbance

Becoming couch potatoes has not been all that bad for the birds and the bees! Less noise and physical disturbance during the breeding season is expected to result in higher mating and reproduction rates for many species. Some species of wildlife have also been able to venture out into areas they typically would not have travelled before. For example, biologists predict that deer and other shy ungulates may actually be expanding their ranges as it becomes safer for them to explore further into newly gained peace and quiet, meanwhile, for similar reasons, other species have recolonized areas that were previously taken away from them, such as penguins in Cape Town, South Africa.

2. Reduction in air, water and local car traffic

Even though you’ve probably had to abandon the idea of escaping to a tropical island this season, the cancellation of flights has thankfully resulted in a significant reduction of climate-warming CO₂ and smog-causing particles. In just the early months of lockdown alone, global CO₂ emissions were reduced by 17% and in Peterborough, road traffic was



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reduced by around 80% (Le Quéré, 2020; The Peterborough Examiner, 2020). This is good news for almost all forms of life, especially plants, insects, and insect-eating birds. Less people on the roads also means safer passage for many species of wildlife, including foxes, skunks, porcupines, rabbits, deer, moose, frogs, snakes and especially slow-moving turtles who are frequently hit by cars as they cross busy routes in search of nesting sites. And turtles populations, especially needed this reprieve as it can take from 30 years up to 60 years for one

turtle to be replaced in the environment. As such, reduced road traffic could result in at least a small temporary stabilization or even rise in the population numbers of these animals. Additionally, much of the shipping activity by large vessels in waterways has slowed, resulting in less noise, disturbance, and water pollution for fish, whales and other aquatic species.

3. Reduction in park recreation

There has been some anecdotal evidence suggesting that closed parks and greenspaces have given a chance for wildlife to roam more freely, as well as mate and rear their offspring under less stress. It is important to note that the positive effects from this are likely to be short-lived since most parks have already re-opened.

All in all, this is great news for conservation and biodiversity; however, we are not out of the woods just yet! There are still less obvious potential consequences that scientists and experts are warning us to be aware of. Let's dive into some of them and learn a little bit along the way about how we can help avoid these negative impacts.

1. **Rise in outdoor recreation**

For some, lockdown has probably felt like a long-lived vacation, especially now that the weather is so nice! Since restrictions have been lifted, many have used this time to head to the cottage, get out boating on the lake, do some bird watching or even plan extreme backwoods camping trips. The problem isn't that people are getting out to enjoy nature; the problem is that so many people are doing it all at once. This can put stress on ecosystems and wildlife, particularly in cottage country in recently re-opened parks where animals have had time to relax without humans and then for their homes; the habitats including the soils, microbes, plants etc. that cannot rebound from intense disruption and disturbance as quickly as parts of southern Ontario.

Fortunately, you can still have a blast outdoors while also being considerate of wildlife around you by keeping these things in mind:

- Stick to the trail. Try to avoid veering off the established paths as this may trample sensitive habitats and disturb ecosystems (look out for tiny toads and frogs as they develop from tadpoles during this time!).
- Watch your wake. A day out on the lake can still be fun while at the same time protecting shorelines and water quality by reducing your speed to under 10 km/h within 30 m of a shoreline (the less the better!). If you are in the market for a boat, it is a good idea to purchase a four-stroke engine rather than a two-stroke since they are much cleaner and more fuel efficient. In addition, lifting your motor up as much as you can in shallow areas will also help to reduce damage to aquatic vegetation and vital fish and amphibian nurseries. Following all of these suggestions will help mitigate disturbance to shoreline habitats (including where many waterfowl nest) and reduce erosion and turbidity (cloudiness) which contribute to poor water quality and degradation of fish habitat.
- Leave no trace. This includes picking up and properly disposing of your waste, your pet's waste and discarded food, as well as ensuring that your campfire is fully put out with water before leaving the area or heading in for the night.

- Give animals space. You may be really tempted to get that perfect selfie with a moose or rare species of turtle; however, not only can this be dangerous to you, but it is also very stressful for the animal. Instead, keep a good distance (a couple hundred feet) and use that zoom!

2. Rise in the use of single-use plastics and harsh chemical cleaners

The use of personal protective equipment (PPE), including gloves, masks, and disposable plastic supplies, has increased by over 300% in some areas since the pandemic began (Klemeš et al., 2020). With the increased use of single-use plastics comes more litter since many people do not want to bring these potentially contaminated items back into their homes. In addition, contaminated plastics must be



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disposed of as hazardous waste which puts more strain on already-overwhelmed waste disposal areas. A great solution is to use re-usable masks (with an insert for a removable filter) and gloves that can be put in a quarantine container to be washed when you get home. Speaking of washing - constant washing of hands and increased use of alcohol, chlorine and bleach-based disinfectants washes more chemicals down the drain and into our beloved lakes. These chemicals have the potential to kill fish and other aquatic organisms, as well as wreak havoc on lake ecosystems.

To help mitigate these impacts, opt for more eco-friendly alternatives to hand soaps and surface disinfectants by following these general guidelines:

- Avoid sodium hypochlorite-based cleaners and quaternary ammonium compounds which can be harmful to both humans and the environment.
- Try sanitizing with vapor (yes, steam cleaning) – it can kill up to 99.99% of germs, viruses, and bacteria!
- Use more bio-based soaps, cleaners and disinfectants that are still highly effective but are less toxic. You can try using liquid castile soap made from plant oils (soap and water is more effective at killing the virus than alcohol-based sanitizer) and 3-5% hydrogen peroxide-based, or oxygen bleach (liquid) made of water and hydrogen peroxide as disinfectants which break down to be much less toxic to the environment (and you!) than chlorine. There is also no need to rinse off surfaces sprayed with hydrogen peroxide-based cleaners since the solution naturally decomposes to water and oxygen on its own.
- Opt for certified eco-friendly labels on cleaning products.

3. Loss of capacity for scientific research and conservation

Many jobs have been lost or opportunities cancelled due to social distancing requirements - scientific research and conservation projects are no exception. This has left many scientists and conservationists unable to conduct their field work and regular monitoring, care, or mitigation for at-risk species. Not only has there been a stoppage (or at the very least, a delay) in valuable conservation work, but charities and not-for-profit organizations have also been struggling to raise sufficient funds through their outreach initiatives. Some funding agencies have cut back or cut out giving programs altogether. This decline in revenue and therefore capacity for conservation organizations, scientists, and national and provincial parks may limit funds for conservation efforts in future years too. The lack of funding to groups that often take on major portions of government agenda and portfolios in this sector, means that lakes, wetlands, and wildlife are at greater risk and are overlooked. Meanwhile, it is these resources that ultimately supply us with products and services, from medicines, materials, to food and from pollination to water filtration, and it is the full spectrum of nature which supplies us with an abundance of peace, joy and inspiration.

One way that you can help is by getting involved in local fundraising initiatives, volunteering, and if you can spare even small amounts, by donating to local environmental groups and organizations.

While we may not know if the pandemic will have positive effects on nature and wildlife in the long run, we are certainly in a great position to learn and be mindful of our actions right now. The way in which we interact with nature has direct and impactful results on the air we breathe, the water we drink, the soil we stay and play in, and the animals we live amongst – And it is our duty to make sure we have a good impact.

If we take anything from this experience, let it be a renewed sense of appreciation of nature and the desire to coexist with wildlife in a much healthier manner!

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