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# Lettre n°33

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EDITORIAL:

## Chers collègues et amis,

J'espère que vous avez tous traversé la parenthèse « Covid » dans les meilleures conditions de santé et de sécurité et que vous avez repris (je le constate pour tous mes amis herpétologues sur Facebook) le chemin des découvertes naturalistes... Certaines choses vont changer dans la gestion de la lettre, j'ai été élu conseiller municipal d'opposition à Longjumeau, ville de 23 000 habitants, pour défendre notre hôpital de proximité, 1500 personnels de santé, 1<sup>er</sup> employeur de la ville, rôle essentiel dans le Nord Essonne contre le coronavirus : 36 lits de réanimation, 185 lits Covid en plus, travail exemplaire des soignants. Veuillez excuser par avance mes choix et mes retards. Les derniers articles de cette 33<sup>ème</sup> lettre étant, vous le constaterez vous-même, les plus « chauds »...

Alain Veysset, rédacteur

### **EDITOR'S CORNER:**

p2bis

## Dear Colleagues and Friends,

I hope you have all crossed the parenthese « Covid » in the best conditions of health and security and you have all recovered (it's the case for all my herpetological friends on Facebook) the way of naturalist discoveries... Certain things are going to change in the management of the letter. I have been elected as town councillor at Longjumeau, 23 000 inhabitants, to defend our local hospital, 1500 health personnels, first employer of the city, leading role in the North of our department (Essonne) near Paris, against coronavirus: 36 beds of intensive care, 185 beds more for the covid patients, exemplary job of the medical teams. Please accept my excuse for the choice and the delay. The last articles of this 33rd letter are, you will see yourself, the « hottest »...

Alain Veysset, redactor

# Conservation efforts for giant South American river turtles (*Podocnemis expansa*) have protected 147,000 females)

The paper surveyed 85 conservation projects that protect the 'charapa' in the Amazon and Orinoco river basins

Date: June 25, 2019





Source: Wildlife Conservation Society

Summary: By analyzing records in countries of the Amazon and Orinoco basins -- which include Brazil, Venezuela, Colombia, Bolivia, Peru and Ecuador -- researchers categorized 85 past and present initiatives or projects that work to preserve the South American River Turtle, or charapa (Podocnemis expansa), a critically endangered species. These projects are protecting more than 147,000 female turtles across the basin, an unprecedented figure.

The paper "On the future of the giant South American river turtle, Podocnemis expansa" was drafted by 29 Latin American researchers and scientists, including WCS's German Forero Medina, Camila R. Ferrara, and Camila K. Fagundes, Ruben Cueva, and Brian D. Horne. The collaboration stems from a 2014 workshop held in Balbina, Brazil in which park rangers, indigenous people, and conservationists from the six countries provided information on their work to protect the charapa. The efforts discussed in that continental meeting and subsequent study reveal the serious commitment of public and private entities to conserve the species.

The charapa is considered the largest river turtle in South America. It inhabits the tributaries of the Amazon and Orinoco river basins, and is an important cultural symbol for many communities in the region. It also has great ecological importance for ecosystems, as it helps transport fruits and seeds along the rivers and serves as prey for birds, catfish, foxes, jaguars, alligators, and water dogs. In the twentieth century, hundreds of thousands of turtles spawned on beaches throughout the continent.

Despite their local importance and past abundance, turtle populations are still threatened by the hunting and collection of adults and juveniles, looting of nests, the illegal trafficking of hatchlings to be used as pets, and the use of inappropriate fishing gear which can harm or kill individuals. In addition, broader degradation of their habitat is contributing to their decline.

Germán Forero, Scientific Director with WCS Colombia and lead author, called for the creation of a protection network for the charapa -- a regional monitoring program that would link technical information and lessons learned among all the projects in the six countries. He noted the importance of communities in this future network.

"The participation of local communities that live with the charapa is essential to protecting them," said Forero. "They live side by side with the turtles and are interested in controlling or preventing the commercialization of eggs or meat to ensure the ongoing sustainability of the species as a food source and important part of their culture."

Camila Ferrara, co-author and researcher with WCS Brazil, added that the formation of this network would be extraordinary, because it would allow stakeholders to design and assess methodologies for management and conservation of the species, from its gestation and protection of nesting beaches to population monitoring.

In Brazil, the charapa is not considered critically endangered, but a near-threatened species. Ferrara explains that although Brazil is home to important populations of the species, the turtle is still the second most consumed vertebrate group in the Amazon, surpassing even some fish. Therefore, she believes that the network should focus their efforts on strengthening environmental education in Brazil to ensure the sustainability of the reptile's consumption.

Ferrara said: "We are seeing positive results as work progresses, as communities are expressing greater interest in working with turtles. We have seen a decrease in the consumption of eggs, an important achievement that we must replicate throughout the continent."

The paper highlights the importance of the monitoring conducted by the Brazilian Institute of the Environment and Renewable Natural Resources (IBAMA), which provides the only way to assess the trends of populations over time and thus is valuable information for decision-making on the species.

In Colombia, initiatives are working to protect at least two large populations, one in the Caquetá River in the Amazon basin and another in the Meta River in the Orinoco basin. In both areas, local communities are committed to protecting the nesting females at beaches, and these programs are expected to receive continued support over time.

Going forward, the proposed network plans to develop a platform that can serve as an observatory of the species, tracking population trends across the basin over time to prioritize intervention sites and ensure the long term conservation of the species.

This paper reviews a diversity of initiatives that seek to recover these turtle populations. Rick Hudson, President of the Turtle Survival Alliance (TSA), believes that interest in protecting the charapa in South America comes at an opportune moment, as there are still robust populations of river turtles to protect; this is not the case in Asia, where many of turtle species have gone extinct.

Hudson said: "The lesson is clear: protect the habitat and large nesting aggregations of river turtles now and avoid crisis management in the future. This paper makes a strong case for improving levels of protection while there is still time."

### Story Source:

<u>Materials</u> provided by <u>Wildlife Conservation Society</u>. Original written by German Forero-Medina. Note: Content may be edited for style and length.

#### Journal Reference:

1. German Forero-Medina, Camila R. Ferrara, Richard C. Vogt, Camila K. Fagundes, Rafael Antônio M. Balestra, Paulo C. M. Andrade, Roberto Lacava, Rafael Bernhard, Alison J. Lipman, Ana Julia Lenz, Arnaldo Ferrer, Arsenio Calle, Andres F. Aponte, Bayron R. Calle-Rendón, Cássia Santos Camilo, Elis Perrone, Esteban Miraña, Fabio A. G. Cunha, Eva Loja, Jennifer Del Rio, Jorge Luiz Vera Fernandez, Omar E. Hermández, Rafael Del Aguila, Rafael Pino, Ruben Cueva, Sindy Martinez, Virgínia Campos Diniz Bernardes, Lila Sainz, Brian D. Horne. On the future of the giant South American river turtle Podocnemis expansa. Oryx, 2019; 1 DOI: 10.1017/S0030605318001370





Date: September 19, 2019

Source: University of Copenhagen The Faculty of Health and Medical Science

With a study of the network between nerve and muscle cells in turtles, researchers from the University of Copenhagen have gained new insight into the way in which movements are generated and maintained. In the long term, the new knowledge may have an impact on the treatment of, for example, ALS and spinal cord injuries. For most people, it is easy to put one leg in front of the other and keep walking. The ability to do it is second nature or, so to speak, in our bones. Quite literally.

'Most movements are actually generated in the spinal cord. Naturally, there is a conversation with high-ranking parts of the nervous system, such as the cerebrum, but there are also reflexes that simply stem from the back', says Associate Professor and Head of Research Rune W. Berg from the Department of Neuroscience at the University of Copenhagen.

He and his research group are behind a study of the network between nerve and muscle cells which has been published in the scientific journal Nature Communications, and which provides completely new insight into the ways in which movements are generated and maintained.

In the study, the research group used electrodes to study the spinal cord reflex of turtles when they scratched themselves with one hind leg. A reflex also found in dogs, cats and a number of other mammals. Humans are likewise equipped with a variety of spinal reflexes. And although in terms of the evolution, we are rather distant from the turtle, scientists believe that many of the basic mechanisms are the same. Thus, when the turtle rhythmically scratches itself using crawl movements from its hind leg, the fireworks of lightning quick neurological impulses that are set off inside the shell are not far from the mechanisms that also trigger our own muscles.

So far, it has been a common assumption that the activation of muscle neurons originates from some sort of command centre that sends a signal to many cells at one time.

'Because the origin of movement has been difficult to find, it has long been assumed that it is a small core that sets the pace. Like some kind of metronome. But our data has shown that it may in fact be a large network', says Assistant Professor Henrik Lindén from the research group behind the study.

To test whether it was a matter of small command units or a large network, the researchers compared the relatively quiet rhythm of the turtle's movement with the rapid neurological impulses from the spine. To the surprise of the research group, the measurements showed no evidence of correlation -- and thus no evidence that the neurological signals in multiple cells should have originated from the same source, which would indeed have been the case if it had been a command centre that signalled to multiple cells at the same time.

Instead, the researchers now believe that neurological signals originate from a major, scattered network of cells, each of which sends signals to only a few other cells. A result which the group has subsequently replicated in computer models of a simulated, simple nervous system.

With these results, researchers have come a step closer to precisely understanding where and how movements are actually generated.

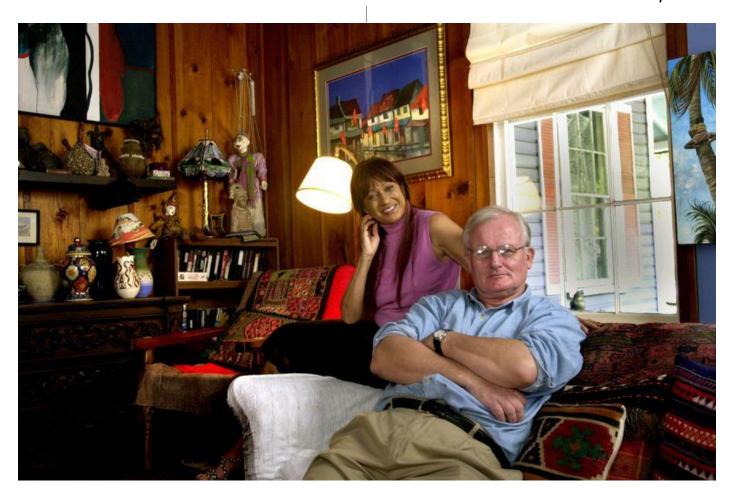
'If we do not know enough about the network and how it works, we grope a bit in the dark when it comes to treatment. Conversely, once we gain insight into the principles behind the distribution of the network, and which cell types are important, we can better put the treatment of neurological disorders on the right track', says Rune W. Berg.

Amongst others, he emphasises neurological disorders such as ALS as well as spinal cord injuries, for example from traffic accidents, as areas where increased knowledge about the spinal nervous system can lead to advances in treatment in the long term.

Likewise, new insights from basic research into the neurons of the spinal cord may benefit other parts of the neurology, for example in connection with cot death, which is associated with defects in brainstem activity. Now, the next step for the research group is to continue the mapping of the scattered neurological network with optical measurements that allow them to track the activity simultaneously over a larger area.

He was a so good friend for all french turtles' herpetologists, friend of the SOPTOM and the SHF. During a big congress in Gonfaron, Peter and his wife were in my jeep cherokee, very happy because they drove one in Florida, for a little tour to see the mediterranean sea at the "Côte d'Azur" ...

Alain Veysset



Peter Pritchard, and his wife Sibille Hart Pritchard at their Oviedo home across from the Chelonian Research Institute, when he was chosen in 2000 as the Orlando Sentinel's Central Floridian of the Year. (ROBERTO GONZALEZ, ORLANDO SENTINEL)

Florida zoologist Peter Charles Howard Pritchard, whose turtle and tortoise conservation brought international acclaim, and whose persona was of a dashing and ceaselessly curious academic, died Tuesday night in hospice care at age 76.

Pritchard's Chelonian Research Institute in Oviedo contains one of the world's most comprehensive collections of its kind. The University of Florida doctoral graduate had been named a Hero of the Planet by Time magazine and a Floridian of the Year by the Orlando Sentinel.

While ill during the past few years, Pritchard was visited by a steady stream of his former students traveling from around the world for a last conversation with their mentor.

For rest of article go to <a href="https://bit.ly/2v7INhT">https://bit.ly/2v7INhT</a>

BY Emily Brown, Unilad, 3/4/2020

A dedicated couple have been entertaining thousands of Instagram users with pictures of themselves coordinating outfits with their pet tortoise



We've all seen dogs dressed in funny outfits, and some pet owners even manage to get their unimpressed <u>cats</u> wearing clothes, but it's not every day you come across a fully dressed tortoise.

Let me tell you, though, it's a sight worth seeing

Kasey Kuchinski, 33, and Daniel Rodriguez, 33, from Sonoma, California, were inspired to coordinate their outfits after seeing families take on the trend on <u>Instagram.</u>

However, as the pair don't have any children, they decided to include their 20lb Sulcata tortoise, named Ethel, in their plans instead.

Illustrator Kasey explained:



I was seeing a trend on Instagram where families with children would take photos wearing matching outfits.

I just thought it would be funny to do the same but with our tortoise – it's sort of an inside joke I guess.

The 33-year-old has a background in fashion design, so she took it upon herself to create Ethel's little outfits either from her own material, or by altering children's clothes to fit a shell-clad body. She continued:

I try not to spend more than £4 on each outfit, otherwise this whole idea wouldn't be sustainable for us – she's gone through so many

The family share their matching outfits on the Instagram page <u>@etheltheglamourtort</u>, where Ethel, Kasey and Daniel can be seen wearing stripy summer outfits, pink formalwear, and knitted cream accessories.

The pet tortoise has been given a huge range of clothes thanks to the project, but Kasey hasn't been able to keep them all due to the sheer number of tiny outfits.



Kasey and Daniel see Ethel as their child, so it was only natural she be included when the couple decided to take on the Instagram trend.

Speaking about the beloved tortoise, Kasey continued:

Ethel's favourite activity is eating; she also likes basking in the sunshine and going for walks in the park.

Her favourite treat is bell peppers, she also likes bok choy, zucchini and pumpkin. Normally though, she just eats grass and weeds.

Although she is not a sea turtle she really enjoys beach days. There is plenty of sunshine, and a lot of rocks to climb and sand to dig in.



The lovable reptile has amassed a whopping 36,200 followers on Instagram, with users dubbing the unusual group as their 'favourite tortoise family'.

Hopefully there'll be lots more coordinated outfits still to come!

## Destroyed habitat creates the perfect conditions for coronavirus to emerge

COVID-19 may be just the beginning of mass pandemics

• By John Vidal, Ensia on March 18, 2020

This aerial photograph, taken on September 30, 2019, in Kahuzi-Biega National Park, northeastern Democratic Republic of Congo, shows an area devastated by logging. Credit: Alexis Huguet Getty Images

Mayibout 2 is not a healthy place. The 150 or so people who live in the village, which sits on the south bank of the Ivindo River, deep in the great Minkebe forest in northern Gabon, are used to occasional bouts of diseases such as malaria, dengue, yellow fever and sleeping sickness. Mostly they shrug them off.

But in January 1996, Ebola, a deadly virus then barely known to humans, unexpectedly spilled out of the forest in a wave of small epidemics. The disease killed 21 of 37 villagers who were reported to have been infected, including a number who had carried, skinned, chopped or eaten a chimpanzee from the nearby forest.

I traveled to Mayibout 2 in 2004 to investigate why deadly diseases new to humans were emerging from biodiversity "hot spots" like tropical rainforests and bushmeat markets in African and Asian cities.

It took a day by canoe and then many hours down degraded forest logging roads passing Baka villages and a small gold mine to reach the village. There, I found traumatized people still fearful that the deadly virus, which kills up to 90% of the people it infects, would return.

#### How quickly will COVID-19 spread? You have to know this one little number.

Whenever there's a new outbreak, scientists rush to calculate a number called the R0, or R-naught. Why? It's been a critical part of the scientific effort to understand just how transmissible the new virus is. Here's how. Share

Villagers told me how children had gone into the forest with dogs that had killed a chimp. They said that everyone who cooked or ate it got a terrible fever within a few hours. Some died immediately, while others were taken down the river to hospital. A few, like Nesto Bematsick, recovered. "We used to love the forest, now we fear it," he told me. Many of Bematsick's family members died.

Only a decade or two ago it was widely thought that tropical forests and intact natural environments teeming with exotic wildlife threatened humans by harboring the viruses and pathogens that lead to new diseases in humans like Ebola, HIV and dengue

But a number of researchers today think that it is actually humanity's destruction of biodiversity that creates the conditions for new viruses and diseases like COVID-19, the viral disease that emerged in China in December 2019, to arise—with profound health and economic impacts in rich and poor countries alike. In fact, a new discipline, planetary health, is emerging that focuses on the increasingly visible connections among the well-being of humans, other living things and entire ecosystems.

Is it possible, then, that it was human activity, such as road building, mining, hunting and logging, that triggered the Ebola epidemics in Mayibout 2 and elsewhere in the 1990s and that is unleashing new terrors today?

"We invade tropical forests and other wild landscapes, which harbor so many species of animals and plants—and within those creatures, so many unknown viruses," David Quammen, author of Spillover: Animal Infections and the Next Pandemic, recently wrote in the New York Times. "We cut the trees; we kill the animals or cage them and send them to markets. We disrupt ecosystems, and we shake viruses loose from their natural hosts. When that happens, they need a new host. Often, we are it."

#### INCREASING THREAT

Research suggests that outbreaks of animal-borne and other infectious diseases like Ebola, SARS, bird flu and now COVID-19, caused by a novel coronavirus, are on the rise. Pathogens are crossing from animals to humans, and many are now able to spread quickly to new places. The U.S. Centers for Disease Control and Prevention (CDC) estimates that three-quarters of "new or emerging" diseases that infect humans originate in nonhuman animals.

Some, like rabies and plague, crossed from animals centuries ago. Others, like Marburg, which is thought to be transmitted by bats, are still rare. A few, like COVID-19, which emerged last year in Wuhan, China, and MERS, which is linked to camels in the Middle East, are new to humans and spreading globally.

Other diseases that have crossed into humans include Lassa fever, which was first identified in 1969 in Nigeria; Nipah from Malaysia; and SARS from China, which killed more than 700 people and traveled to 30 countries in 2002–03. Some, like Zika and West Nile virus, which emerged in Africa, have mutated and become established on other continents.

## Destroyed habitat creates the perfect conditions for coronavirus to emerge p10

Kate Jones, chair of ecology and biodiversity at UCL, calls emerging animal-borne infectious diseases an "increasing and very significant threat to global health, security and economies."

#### AMPLIFICATION EFFECT

In 2008, Jones and a team of researchers identified 335 diseases that emerged between 1960 and 2004, at least 60% of which came from non-human animals.

Increasingly, says Jones, these zoonotic diseases are linked to environmental change and human behavior. The disruption of pristing forests driven by logging, mining, road building through remote places, rapid urbanization and population growth is bringing people into closer contact with animal species they may never have been near before, she says.

The resulting transmission of disease from wildlife to humans, she says, is now "a hidden cost of human economic development. There are just so many more of us, in every environment. We are going into largely undisturbed places and being exposed more and more. We are creating habitats where viruses are transmitted more easily, and then we are surprised that we have new ones."

Jones studies how land use change contributes to the risk. "We are researching how species in degraded habitats are likely to carry more viruses which can infect humans," she says. "Simpler systems get an amplification effect. Destroy landscapes, and the species you are left with are the ones humans get the diseases from."

"There are countless pathogens out there continuing to evolve which at some point could pose a threat to humans," says Eric Fevre, chair of veterinary infectious diseases at the University of Liverpool's Institute of Infection and Global Health. "The risk [of pathogens jumping from animals to humans] has always been there."

The difference between now and a few decades ago, Fevre says, is that diseases are likely to spring up in both urban and natural environments. "We have created densely packed populations where alongside us are bats and rodents and birds, pets and other living things. That creates intense interaction and opportunities for things to move from species to species," he says.

#### TIP OF THE ICEBERG

"Pathogens do not respect species boundaries," says disease ecologist Thomas Gillespie, an associate professor in Emory University's Department of Environmental Sciences who studies how shrinking natural habitats and changing behavior add to the risks of diseases spilling over from animals to humans.

"I am not at all surprised about the coronavirus outbreak," he says. "The majority of pathogens are still to be discovered. We are at the very tip of the iceberg."

Humans, says Gillespie, are creating the conditions for the spread of diseases by reducing the natural barriers between virus host animals—in which the virus is naturally circulating—and themselves. "We fully expect the arrival of pandemic influenza; we can expect large-scale human mortalities; we can expect other pathogens with other impacts. A disease like Ebola is not easily spread. But something with a mortality rate of Ebola spread by something like measles would be catastrophic," Gillespie says.

Wildlife everywhere is being put under more stress, he says. "Major landscape changes are causing animals to lose habitats, which means species become crowded together and also come into greater contact with humans. Species that survive change are now moving and mixing with different animals and with humans."

Gillespie sees this in the U.S., where suburbs fragmenting forests raise the risk of humans contracting Lyme disease. "Altering the ecosystem affects the complex cycle of the Lyme pathogen. People living close by are more likely to get bitten by a tick carrying Lyme bacteria," he says.

Wet market in Guangzhou, China. Credit: Nisa Maier Getty Images

Yet human health research seldom considers the surrounding natural ecosystems, says Richard Ostfeld, distinguished senior scientist at the Cary Institute of Ecosystem Studies in Millbrook, New York. He and others are developing the emerging discipline of planetary health, which looks at the links between human and ecosystem health.

"There's misapprehension among scientists and the public that natural ecosystems are the source of threats to ourselves. It's a mistake. Nature poses threats, it is true, but it's human activities that do the real damage. The health risks in a natural environment can be made much worse when we interfere with it," he says.

Ostfeld points to rats and bats, which are strongly linked with the direct and indirect spread of zoonotic diseases. "Rodents and some bats thrive when we disrupt natural habitats. They are the most likely to promote transmissions [of pathogens]. The more we disturb the forests and habitats the more danger we are in," he says.

## Destroyed habitat creates the perfect conditions for coronavirus to emerge p11

Felicia Keesing, professor of biology at Bard College, New York, studies how environmental changes influence the probability that humans will be exposed to infectious diseases. "When we erode biodiversity, we see a proliferation of the species most likely to transmit new diseases to us, but there's also good evidence that those same species are the best hosts for existing diseases," she wrote in an email to Ensia.

#### THE MARKET CONNECTION

Disease ecologists argue that viruses and other pathogens are also likely to move from animals to humans in the many informal markets that have sprung up to provide fresh meat to fast-growing urban populations around the world. Here animals are slaughtered, cut up and sold on the spot.

The "wet market" (one that sells fresh produce and meat) in Wuhan, thought by the Chinese government to be the starting point of the current COVID-19 pandemic, was known to sell numerous wild animals, including live wolf pups, salamanders, crocodiles, scorpions, rats, squirrels, foxes, civets and turtles.

Equally, urban markets in west and central Africa see monkeys, bats, rats and dozens of species of bird, mammal, insect and rodent slaughtered and sold close to open refuse dumps and with no drainage.

"Wet markets make a perfect storm for cross-species transmission of pathogens," says Gillespie. "Whenever you have novel interactions with a range of species in one place, whether that is in a natural environment like a forest or a wet market, you can have a spillover event."

The Wuhan market, along with others that sell live animals, has been shut by the Chinese authorities, and the government in February outlawed trading and eating wild animals except for fish and seafood. But bans on live animals being sold in urban areas or informal markets are not the answer, say some scientists.

"The wet market in Lagos is notorious. It's like a nuclear bomb waiting to happen. But it's not fair to demonize places which do not have fridges. These traditional markets provide much of the food for Africa and Asia," says Jones.

"These markets are essential sources of food for hundreds of millions of poor people, and getting rid of them is impossible," says Delia Grace, a senior epidemiologist and veterinarian with the International Livestock Research Institute, which is based in Nairobi, Kenya. She argues that bans force traders underground, where they may pay less attention to hygiene.

Fevre and Cecilia Tacoli, principal researcher in the human settlements research group at the International Institute of Environment and Development (IIED), argue in a blog post that "rather than pointing the finger at wet markets," we should look at the burgeoning trade in wild animals.

"[I]t is wild animals rather than farmed animals that are the natural hosts of many viruses," they write. "Wet markets are considered part of the informal food trade that is often blamed for contributing to spreading disease. But ... evidence shows the link between informal markets and disease is not always so clear cut."

#### **CHANGING BEHAVIOR**

at community levels."

So what, if anything, can we do about all of this?

Jones says that change must come from both rich and poor societies. Demand for wood, minerals and resources from the Global North leads to the degraded landscapes and ecological disruption that drives disease, she says. "We must think about global biosecurity, find the weak points and bolster the provision of health care in developing countries. Otherwise we can expect more of the same," she says.

"The risks are greater now. They were always present and have been there for generations. It is our interactions with that risk which must be changed," says Brian Bird, a research virologist at the University of California, Davis School of Veterinary Medicine One Health Institute, where he leads Ebola-related surveillance activities in Sierra Leone and elsewhere. "We are in an era now of chronic emergency," Bird says. "Diseases are more likely to travel further and faster than before, which means we must be faster in our responses. It needs investments, change in human behavior, and it means we must listen to people

Getting the message about pathogens and disease to hunters, loggers, market traders and consumers is key, Bird says. "These spillovers start with one or two people.

The solutions start with education and awareness. We must make people aware things are different now. I have learned from working in Sierra Leone with Ebola-affected people that local communities have the hunger and desire to have information," he says. "They want to know what to do. They want to learn."

Fevre and Tacoli advocate rethinking urban infrastructure, particularly within low-income and informal settlements. "Short-term efforts are focused on containing the spread of infection," they write. "The longer term—given that new infectious diseases will likely continue to spread rapidly into and within cities—calls for an overhaul of current approaches to urban planning and development."

The bottom line, Bird says, is to be prepared. "We can't predict where the next pandemic will come from, so we need mitigation plans to take into account the worst possible scenarios," he says. "The only certain thing is that the next one will certainly come."

## Shock as a feral cat is found with 17 critically-endangered lizarts inside its stomach p12

- The cat was found by a ranger at the Kaitorete Spit in Canterbury in New Zealand
- On inspecting the cat's stomach content, the ranger found 17 dead lizards
- An estimated 200 feral cats are believed to be roaming around Kaitorete Spit



May 29, 2020 by Sahar Mourad

for Daily Mail Australia

A feral cat trapped inside a spit was found with 17 dead lizards inside its stomach.

The cat was found by a ranger on the Kaitorete Spit in Canterbury in the South Island of New Zealand during a routine clean up.

On inspecting the cat's stomach content, the ranger found 17 highly endangered lizards.

The Department of Conservation refused to disclose the name of the lizard species in fear of reptile smugglers, <u>Stuff</u> reported.

On inspecting the cat's stomach content, the ranger found 17 lizards from a highly threatened species

The impact of roaming pet cats on Australian wildlife

An estimated 200 feral cats are believed to be roaming around the spit and are increasingly putting the lives of other endangered species at risk.

The lizards become more vulnerable in winter which sees them increasingly targeted by feral cats.

Southern grass lizards, another endangered species, are also common around around the Kaitorete Spit.

Threatened species ambassador Erica Wilkinson predicts a massive decline in the southern grass lizard population of up to 70 per cent within the next 10 years thanks to feral cats. Endangered species such as birds, insects and plants are also at risk from the 200 feral cats.

A feral cat prowling around a banded dotterel nest on Kaitorete Spit



Je signe en un clic

Le 101ème département français situé dans l'océan indien est un des hauts lieux de ponte pour les **tortues marines**, **espèces intégralement protégées**.

Cependant, le braconnage des tortues est un fléau à Mayotte.

La viande de tortue est considérée comme un mets de luxe et peut se vendre jusqu'à 50€ le kilogramme au marché noir.

Avec le confinement, la surveillance des plages s'est relâchée.

Les braconniers et leurs commanditaires en profitent : les cas de braconnage se multiplient.

Pendant le confinement, **28 cadavres de tortues ont été retrouvés sur la plage de Moya** ; plusieurs autres tortues braconnées ont été repérées à Papani, ainsi que sur plusieurs plages du sud.

Le total de tortues braconnées pendant le confinement dépasse probablement la cinquantaine.

La filière s'organise avec des rabatteurs, des découpeurs, des transporteurs, des revendeurs et des consommateurs.

Il faut faire cesser le braconnage et tous ceux qui en tirent profit.

Le 28 avril 2020, deux braconniers ont été interpellés avec 60 kg de viande de tortue. L'affaire est passée en comparution immédiate au tribunal. Cependant, en raison d'un « vice de procédure », les deux prévenus ont été relaxés!

Cette décision a été perçue comme « un permis de braconner en toute impunité ». L'affaire n'est, cependant, pas terminée, car le procureur et les parties civiles ont fait appel : un procès en appel aura lieu le 9 juillet.

Si, comme nous, vous êtes indignés de cette situation, réagissez avec nous pour dire **NON au braconnage des tortues marines à Mayotte.** 

Signez cette pétition, faites-la signer autour de vous.

Vous aiderez les protecteurs de la nature en montrant aux autorités locales qu'il faut en finir avec le massacre des tortues et faire respecter la protection de cette espèce.

The Connexion 6/3/20



Alligator snapping turtles can weigh up to 100kg when fully grown, and have strong, spiked jaws that can cause serious injury. (U.S. Fish and Wildlife Service Headquarters/Flickr)

Unusual reptiles found along the Canal du Midi near Toulouse (Haute-Garonne, Occitanie) have been identified as dangerous alligator snapping turtles, with local residents advised to be alert.

The turtles were first spotted on May 4 along the banks of the canal at Ramonville-Saint-Agne (Haute-Garonne) by a family living on a canal boat. They reported three small turtles each around 3cm long to the police, who contacted the French office for biodiversity to identify them.

The police officer <u>explained</u>: "They had three rows of spikes clearly visible along their upper shells. The specialist quickly identified them as alligator snapping turtles."

Alligator snapping turtles can weigh up to 100kg when fully grown, and have strong, spiked jaws that can cause serious injury. They are a carnivorous reptile, commonly found in North America.

It is thought the turtles found in France were released into the wild by humans.

## Common snapping turtles also found

Police in the Haute-Garonne have since confirmed finding another exotic species, the common snapping turtle, roaming near a playground in the Parc de Cinquante, around 9 km from Toulouse. The common snapping turtle, which is also carnivorous, can be dangerous to humans too

In a Facebook post, local police wrote that the 25cm-long turtle "seemed a little scared, but could become fierce if disturbed and inflict serious injuries".

They also warned locals not to play with any reptiles they find in the area.

Author links open overlay panel

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# **Summary**

Turtles and tortoises (chelonians) have been integral components of global ecosystems for about 220 million years and have played important roles in human culture for at least 400,000 years. The chelonian shell is a remarkable evolutionary adaptation, facilitating success in terrestrial, freshwater and marine ecosystems. Today, more than half of the 360 living species and 482 total taxa (species and subspecies combined) are threatened with extinction. This places chelonians among the groups with the highest extinction risk of any sizeable vertebrate group. Turtle populations are declining rapidly due to habitat loss, consumption by humans for food and traditional medicines and collection for the international pet trade. Many taxa could become extinct in this century. Here, we examine survival threats to turtles and tortoises and discuss the interventions that will be needed to prevent widespread extinction in this group in coming decades.

# For full article go to

https://www.sciencedirect.com/science/article/pii/S0960982220306369?dgcid=author

## How Humanity Unleashed a Flood of New Diseases

What do Covid-19, Ebola, Lyme and AIDS have in common? They jumped to humans from animals after we started destroying habitats and ruining ecosystems.

For article go to

https://nyti.ms/2V5qIuw



Actinemys marmorata à l'origine d'Emys orbicularis, très ressemblantes... Et, subissant (EC32), la même compétition destructrice de la Trachemys scripta elegans.



Hi Allen,

The COVID-19 pandemic's devastating global impact is demonstrating that half-measures to protect biodiversity are simply insufficient given the vast economic and human toll of this virus and others like it. If we want to avoid future pandemics and stop extinction, we must fundamentally change our relationship with wildlife and nature.

It's time for Congress to end wildlife trade now.

Will you join our next campaign call Wednesday, July 1 at 7 p.m. ET/4 p.m. PT to learn how you can get involved and take action to end wildlife trade?

We need your help to get Congress to introduce and pass legislation banning live wildlife imports and to significantly increase funding to combat wildlife trafficking.

Join us Wednesday, July 1 at 7 p.m. ET/4 p.m. PT to learn more about how you can help us work to end wildlife trade.

Together we can raise our voices to stop this threat to biodiversity around the world — and help save life on Earth.

For the wild,



**Quintin Mecke** 

National Organizing Director Center for Biological Diversity SaveLifeOnEarth.org

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