



DEDICATED TO THE WORLD'S CUSTODIANS OF WILD SPACES & WILDLIFE



Frontlines Dispatches From Around The World

North & South America	2
Europe	4
Africa	5
Asia	10
World	13

North & South America



A new population estimate for jaguar (*Panthera onca*), based largely on the results of 117 camera-trapping studies and some models of human population density, suggests there could be more than 170,000 of the big cats throughout the Americas. The researchers caution that the estimate is likely to be optimistic. Jędrzejewski et al. (2018) [Estimating large carnivore populations at global scale based on spatial predictions of density and distribution ± Application to the jaguar \(*Panthera onca*\)](#).

The last 14 purebred red wolves (*Canis rufus*) were brought into captive breeding programs in 1969. Experimental reintroduction began in 1992 with all wolves living in the wild occurring in North Carolina. A rule that [allowed night hunting of coyotes](#) introduced in 2012, put the wolves, which are a bit bigger than coyotes and have been known to cross-breed with them, directly in the crosshairs. Dozens of wolves have been accidentally – and in some cases, it appears, intentionally – killed. The Fish and Wildlife Service announced that the wild population of red wolves had [crashed to about 40 individuals](#), including just three breeding pairs, and only about 220 red wolves exist in captivity.

The Boone and Crockett Club announced its support of The Wildlife Society programs to certify the next generation of wildlife professionals. "As champions of science-based wildlife management efforts and policy, the [Boone and Crockett Club](#) is pleased to partner with [The](#)

[Wildlife Society](#), a leader in wildlife stewardship through science and education," said Ben Hollingsworth Jr., president of the Boone and Crockett Club. "The greatest conservation issues of our time - such as the management of chronic wasting disease, challenges to the future of hunting, and pressures on the North American Model - [require collaborative approaches that effectively meld sound science, education, and policy actions.](#)"

The US National Park Service will start removing the rapidly multiplying mountain goat population in Olympic National Park after four years of study and public comment. In June 2018 the Park Service announced plans to relocate about half of the approximately 675 mountain goats to national forests in the North Cascades where mountain goats are native, but populations are low. Rangers or trained volunteers will shoot the rest. [Read more here](#)

A Final Rule on grizzly bear issued by the Fish and Wildlife Service in June 2017 violated the Endangered Species Act (ESA) according to the federal district court in Missoula, Montana. The delisting of the Greater Yellowstone Grizzly distinct grizzly population segment would have transferred management to the states. The court ruling prevents hunting already authorized by Idaho and Montana in 2018. The court was only tasked with answering "*did [FWS] surpass its legal authority when it delisted the Greater Yellowstone grizzly bear?*" and did not consider the merits of regulated hunting within any management system; the "ethics of hunting" were not at issue.

Wyoming wildlife managers have euthanized two grizzly bears that they believe killed an elk hunting guide and injured his client near the border of Yellowstone and Grand Teton national parks. According to authorities, the two men were attacked by the bears as they field dressed the elk, which they had shot but were only able to find the next day. The bears "aggressively" charged the men, officials said, but hadn't touched the elk. [Read more here.](#)

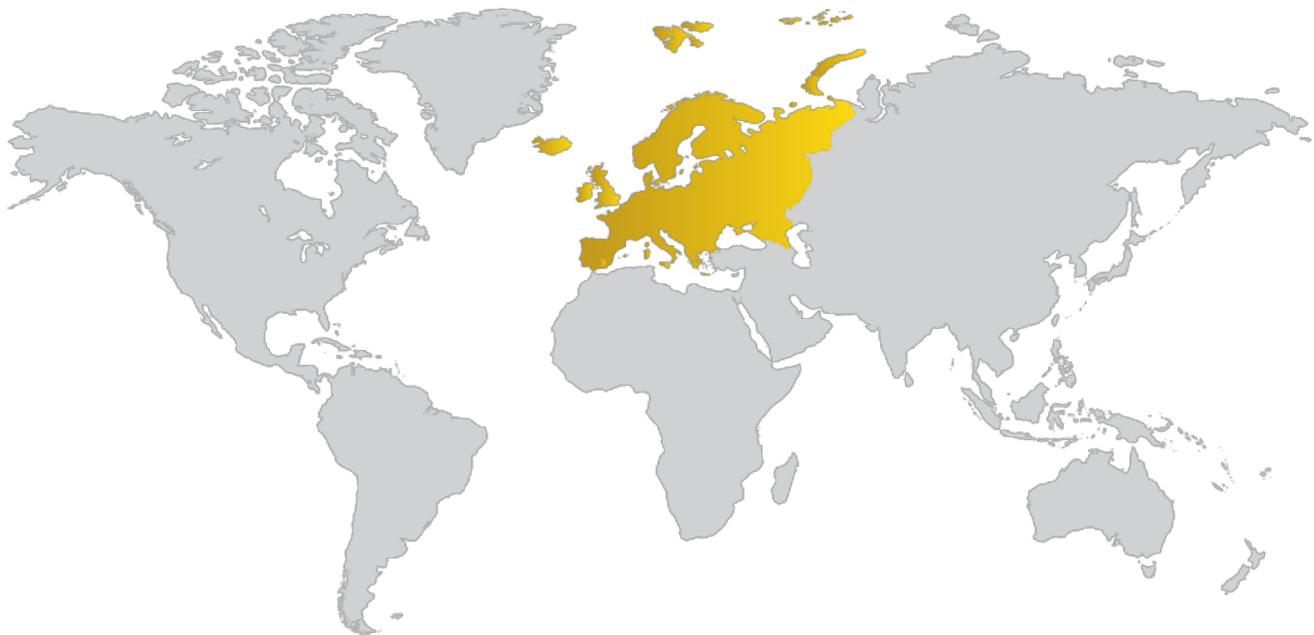
California Governor Brown vetoed The Iconic African Species Protection Act. The purpose of bill SB 1487 was to discourage Americans from safari hunting in Africa and to continue the "animal rights leadership" of the state. The underlying problem, according to Brown, was the Act's illegality with its many exemptions, conditions and exceptions.

President Donald Trump nominated Aurelia Skipwith to head the Fish and Wildlife Service. The FWS has been without a Senate-confirmed director since Trump took office. Skipwith, a biologist and lawyer, and former executive at Monsanto, is currently Deputy Assistant Interior

Secretary for Fish, Wildlife and Parks. If confirmed by the Senate, Skipwith would be the first African-American in this position. [Read more here](#)

The Right to Hunt, Fish, and Harvest Wildlife has now been added as amendment to the state constitution of North Carolina. On November 6th 2018, the amendment passed 57.18% to 42.82% with a total of 2,061,766 votes cast "for" the amendment. North Carolina will be 22nd U.S. state to constitutionally protect the Right to Hunt, Fish and Harvest Wildlife.

Europe



The hunting of Alpine ibex in the Swiss canton of Graubünden was studied by an international team of researchers to determine whether average horn growth or body weight had changed. The researchers examined the horn size of more than 8,000 ibex harvested between 1978 and 2013. They found that while even tightly-managed hunts cannot prevent hunters from targeting longer-horned animals, no long-term changes were found in the horn length and average body weight also remained stable. Most likely, the numbers of ibex removed from the population by hunters is too small to have an evolutionary effect. Professor Ulf Büntgen from Cambridge's Department of Geography accentuated that *"our results also emphasize the importance of continuous monitoring of hunting practices, especially in regions where hunters can*

choose animals based on certain traits". Ulf Büntgen et al (2018). [Horn growth variation and hunting selection of the Alpine ibex, Journal of Animal Ecology](#)

In Greenland reindeer remain one of the most important natural resources. They are a vital source of meat. Hunting reindeer has long been an important part of Greenlandic history and culture. Trophy hunters pay for the opportunity to hunt reindeer—making them an important part of the tourist economy. According to ancient practice, hunters share the meat with elders and other community members incapable to hunt for themselves ([Hatchmag](#))

Europe could farm a third less, go pesticide-free – and still feed itself concluded a French group of researchers. These shifts would come with huge environmental savings as greenhouse gas emissions would decline and global deforestation could be reduced by less demand for soybean products. Natural soil health could be restored, and more trees, hedges, and ponds on farmland would boost regional biodiversity of small game species like hares, partridges, insects and song birds. Poux, et al. 2018. [An agro-ecological Europe: a desirable, credible option to address food and environmental challenges.](#)

The possibility of trophy hunting for animals from the Russian Red Book to generate financing for their conservation should be assessed by the Russian Ministry of Natural Resources according to a proposal of State Duma deputy Vladislav Reznik. *“Measures taken by the state to conserve rare and endangered species cannot be considered sufficient in the face of tight budget constraints”* said Reznik, highlighting successful conservation hunting projects in other parts of the world. Reznik proposed *“to work out the possible implementation of similar programs in the Russian Federation”*. He also asked the Ministry to provide the data on the population dynamics of Altai argali, Chukotka snow sheep, Amur goral, and Putorana snow sheep. The Ministry confirmed that the funds allocated from the federal budget for the conservation of ‘red-listed species’ are insufficient and promised to address the issue ([Source](#)).

Africa

Plans for extensive timber harvesting in the Selous Game Reserve were revealed in tender documents. Almost 1,500 km² will be cleared, and 2.6 million trees felled. Opening up the



Selous to logging and related development may increase poaching. Apparently, no environmental impact study was finalized prior to the tender, nor was any official notification sent to UNESCO as required by the rules for World Heritage Sites. Authorities are also moving ahead with a plan to build a 2,100-megawatt hydro plant on the Rufiji River, despite concerns from conservationists over its impact on wildlife. Read more [here](#) and [here](#).

Eleven critically endangered black rhinos are dead in Kenya after the Kenya Wildlife Service and WWF-Kenya moved them from Nairobi to Tsavo East national parks. The deaths occurred within six weeks apparently from salt poisoning from the saltier water at Tsavo. Conservationists have blamed the deaths on greed, negligence and the nebulous, growing role of NGOs in Kenya wildlife conservation. [Read a full report here](#). In another case four out of six black rhinos from Addo Park in South Africa that were translocated in August to Zakouma National Park in southeastern Chad had died by end of October. Post-mortems and tests on blood, tissue and faeces have been sent to a lab in South Africa. Low fat reserves suggest that maladaptation to their new environment is the likely underlying cause ([Source](#)).

Deon Cilliers, a South African professional hunter, outfitter and taxidermist was convicted on 4 June after he had pleaded guilty to contravening various acts. Included in his plea was the illegal hunting of 39 captively bred lions; the keeping of eight caracals without permits and the importation and release of nine scimitar oryx. Most of the hunts took place without the

required permits on Bellevue Farm in the Free State. The court served Cilliers with a R1 million (ca \$75,000) fine or five years in prison ([News24](#)). Cilliers was one of two individual lion breeders involved in the High Court action being brought by the SA Predator Breeders' Association against the SA Government in 2007.

In South Sudan, a remote camera wildlife survey organized by researchers from Fauna & Flora International (FFI) and Bucknell University (USA) in cooperation with government and conservation authorities is documenting wildlife. The research is funded in part by a grant from the U.S. Fish and Wildlife Service. [Read more](#)

In Chad and Niger Addax ground surveys performed in 2016 and 2017 revealed pockets of Addax holding on in Western Chad and in the Termit & Tin Toumma Reserve in Niger. Local herders informed the survey team about the presence of a small population of 15-30 Addax. A hot season survey in Termit & Tin Toumma found fresh tracks of six Addax (three females, and two males and a juvenile) as proof of successful breeding ([IUCN SOS](#)).

In Jebel Irhoud, Moroccan researchers found 300,000-year-old human remains, as well as remains of wildlife – gazelle, wildebeest, zebra, big cats. The researchers speculate that Irhoud may have been a hunting camp or a pit stop on a longer journey. The flint of the tools found came from miles away ([The New Yorker](#)). Early humans may have comprised a large, interbreeding population dispersed across Africa whose spread was facilitated by a wetter climate around 330,000 to 300,000 years ago. The rise of modern humans may thus have taken place on a continental scale rather than being confined to a particular corner of Africa. More information [here](#) and [here](#). Hublin et al (2017). [New fossils from Jebel Irhoud, Morocco and the pan-African origin of Homo sapiens](#).

An aerial wildlife count in Busanga Flats of Zambia's Kafue National Park shows the game populations in the 1,300 km² park have developed well compared to the last count 10 years ago. 12,300 red lechwe, 1,800 puku, 2,400 wildebeest, 400 hartebeest, 240 roan, 200 sable and 400 buffalo were present, based on counts and calculations. Lechwe increased 4-fold, and wildebeest as well as puku doubled in numbers.

The Twenty-Four-Lions Team, a coalition of partners, including the Cabela Family Foundation, Ivan Carter Wildlife Alliance, The Bateleurs, Zambeze Delta Safaris, Marromeu Safaris, the local community and the Administração Nacional das Áreas de Conservação, released 24 lions

in the remote Zambeze Delta area (aka Coutada 10 and Coutada 11) of Mozambique in August 2018. The lions came from Tembe Elephant Park and Makalali Private Game Reserve in South Africa and will not be hunted; 15 have tracking collars to allow close monitoring. The project will increase lion numbers to ca 500 within 15 years. The area has been largely protected from poaching thanks to Zambeze Delta Safaris and over a million dollars in hunting revenues. Through dedicated anti-poaching efforts and sound conservation practices of the hunting safari companies over the past 24 years, other species of ungulates also flourish in the delta. The buffalo population went from 1,000 to 20,000; the original sable antelope population of 44 increased to more than 3,000. The meat obtained from hunting (over 30 tons in 2017) kept the locals well-fed, mostly eliminating the need for subsistence poaching. The Cabela Family Foundation has committed to funding research for at least six years. Read more at www.24lions.org.

The world's leading diamond company De Beers and Peace Parks Foundation have completed the first phase of an [elephant translocation project](#). 48 elephants were moved 1,700 km between the De Beers-owned Venetia Limpopo Nature Reserve in South Africa to Mozambique's Zinave National Park. Four elephants did not survive the journey. In a second phase 150 elephants will be translocated next year. Zinave is co-managed by Mozambique's National Administration for Conservation Areas and Peace Parks Foundation. For anti-poaching support, De Beers provides US\$500,000 over the next five years.

African officials from multiple countries made a case for hunting at the U.S. Interior Department's International Wildlife Conservation Council during a two-day session at FWS headquarters. Professor Joseph Mbaiwa from Botswana insisted that "*hunting be regarded a conservation tool*"; a Zimbabwean ecologist stated that "*trophy or safari hunting is key in sustainable wildlife utilization*"; and a Namibian official said hunting "*generates meat, money and jobs*". Imani Richard Nkuwi, of the Tanzania Wildlife Management Authority, called for "*opening up of U.S. market to Tanzania elephant and lion trophies*". Roseline Mandisodza-Chikerema, chief ecologist for the Zimbabwe Parks and Wildlife Management Authority, assured the IWCC that "*hunting is a conservation tool that if done scientifically with robust monitoring will assist conservation of wildlife species.*"

Pendjari National Park in Benin is home to tourist camps and hunting concessions. If well managed, increased visitor numbers to the complex could generate income for local

community members and protected area authorities. Pendjari is a key part of the 1-million-hectare W-Arly-Pendjari (WAP) complex spanning Benin, Burkina-Faso and Niger and one of West Africa's most important biodiversity safe-havens. The African Parks Network (APN) assumed management responsibility for Pendjari in mid-2017 and will assume management of Benin's portion of the W-Park. For wildlife, the WAP complex is a key stronghold for threatened species including cheetah, West African giraffe, African wild dog, elephants, lions and leopards. [Read more here.](#)

A population of the western lowland bongo (*Tragelaphus eurycerus eurycerus*) was discovered in Uganda by scientists of the [UK Chester Zoo](#), who work in partnership with the Uganda Wildlife Authority. The bongo images were captured by motion-sensor camera traps in the lowland rainforests of Semuliki National Park in southwest Uganda. The lowland rainforests are considered some of the oldest and most biodiverse forests in Africa and are continuous with the Ituri rainforest of the DRC. The western lowland bongo disjunct distribution range extends from Sierra Leone on Africa's west coast to nearby Togo and Benin, as well as from the southwest of Cameroon and the northeast of Gabon through the Central African Republic, southwest South Sudan, northern Republic of Congo, and northern DRC.

The African Community and Conservation Foundation (ACCF) was launched in November 2018 to fuel sustainable and transformative human impact and conservation in Africa. Its partner in Africa is the Grumeti Community and Wildlife Conservation Fund, which was created in 2002 with the support of U.S. investor and philanthropist Paul Tudor Jones. ACCF wants to raise both awareness and funding for wildlife conservation and community programs in the western corridor of the Serengeti ecosystem in Tanzania, in addition to other transformative and sustainable conservation and community projects throughout Africa. Paul Tudor Jones noted that "*African reserves are such iconic places, and they are overwhelmed by population pressure including poaching and competing uses for land ... We can and will find [solutions by] engaging scientists, researchers, conservationists, philanthropists, government officials, investors and an army of passionate peacemakers.*" More on the [ACCF Facebook page](#) and at <https://africanccf.org/>

Asia



The survival of the Nilgiri tahr (*Nilgiritragus hylocrius*) is imperiled by climate change. Nilgiri tahr live on less than 10 percent of the former range at 1,100 to 2,700m altitude in the rocky cliffs and grasslands of India's southern Western Ghats. Around 3,000 individuals are known to occur in isolated groups. The habitat suitable for the species currently spans 21,448 km². In future climate scenarios much of it could become unsuitable, shrinking the range to less than 8,500 km². A.J.T. Johnsingh, a member of the IUCN Caprinae Specialist Group, said the increased heat waves could be "detrimental to the overall tahr population." Sony R.K., Sen, S., Kumar, S., Sen. M., Jayahari, K.M. (2018). [Niche models inform the effects of climate change on the endangered Nilgiri Tahr \(*Nilgiritragus hylocrius*\) populations in the southern Western Ghats.](#)

The critically endangered Malayan tiger (*Panthera tigris jacksoni*) was recognized as new subspecies in 2004, when a genetic analysis found that it is distinct in mtDNA and micro-satellite sequences from the Indochinese tiger of northern Indochina, *P. t. corbetti*. The geographic division between *P. t. jacksoni* and *P. t. corbetti* is likely to be south of Isthmus of Kra. The taxonomy is currently under review by the IUCN SSC Cat Specialist Group. The Malayan tiger population was roughly estimated at 250 to 340 adult individuals in the southern and central parts of the Malay Peninsula in 2013. Now, Malaysia's Terengganu state government

proclaimed the 10,386-hectare Lawit-Cenana State Park. It is holding 18 highly threatened mammals, including the Malayan tiger, Asian elephant, Sunda pangolin, Asian tapir, dhole and white-handed gibbon, and more than 290 bird species, 66 of which are threatened. More information [HERE](#).

Rhino Poaching Kingpin Chumlong Lemthongthai walked out of Pretoria's Central Prison on 12th September 2018 after serving just under six years. He was escorted with new Thai travel documents to a Bangkok-bound aircraft. Chumlong confessed at his November 2012 trial to ordering rhinos for staged hunts from traders and private owners. Chumlong's syndicate arranged for friends, and in some cases Thai prostitutes, to do the actual killing. All of the "hunters" had legitimate permits and CITES documents obtained under false pretenses from SA provincial authorities. Chumlong was sentenced to 40 years behind bars but his term was reduced to 30 and then to 13 years on subsequent appeals. The SA Department of Correctional Services deemed Chumlong eligible for early release. More on rhino and elephant poaching in Southern Africa and Chumlong's network in [Rachel Nuwer's article in the New York Times of Sept. 24, 2018](#)

The endangered Persian leopard still roams the Zagros Mountains of Kurdistan along Iraq's border with Iran. Researchers Raza Hana and Korsh Ararat are based the Kurdish city Sulemani (aka Sulaymaniyah or Slemani) and work for Nature Iraq. One of their projects is the protection of the ecosystems where Persian leopard live along bezoar wild goat and wild boars. Environmental concerns have long taken a backseat to human conflict in their research area. They hope that the leopard conservation project will catalyze the entire country to shift direction. Ultimately, they envision a "peace park" that straddles Iraq and Iran. [Read more here.](#)

Nine Iranian conservationists, who work with the Persian Wildlife Heritage Foundation, were arrested on suspicion of espionage in January 2018 by Iran's Revolutionary Guards. One of them died in prison under mysterious circumstances in February; eight still remain in custody. IUCN Director General Inger Andersen said in October that "*the International Union for Conservation of Nature is deeply alarmed by the charges against these dedicated women and men committed to protecting Iran's rich natural environment and unique species; their work is of crucial importance to their country and its people, particularly at a time of severe environmental challenges in Iran. IUCN and its Commissions stand in solidarity with them*" ([Source](#)). In a letter released on 21 November 2018 and addressed to Iran's supreme leader Ali Khamenei, more than 330

conservationists and scholars from 66 countries assert that the imprisoned conservationists “*worked and carried themselves with the highest moral integrity*” and call for a “*fair and just evaluation of the evidence, access to lawyers of their choice, and a transparent trial*”. The authors of the letter strongly condemn the possibility that “*the neutral field of conservation could ever be used to pursue political objectives*” ([Source](#)).

A delegation from the China Wildlife Conservation Association (CWCA) – a national organization under the framework of China Science Association with the aim of promoting sustainable development of China's wildlife, and member of IUCN – visited the “Landesjagdschule Bayern” (Bavarian State Hunting School) together with CIC representatives. Professor Jürgen Vocke, President of the Bavarian Hunting Association (BJV), gave the Chinese guests a presentation on the German hunting system, the German way to train aspiring hunters, as well as the huntable species under German law and hunter-initiated habitat improvement measures. The Chinese delegation also had the opportunity to tour the hunting area managed by the Bavarian Hunting Association for training purposes and scientific research (BJV Magazine No. 6/2018).

Communities shield snow leopards from poaching and illegal wildlife trade in Tajikistan and the Kyrgyz Republic. In 2010, Panthera and its partners, including local communities, initiated a project in Tajikistan specifically focusing on preventing human-snow leopard conflict. In 2014, this project was extended to include the Kyrgyz Republic. In community-based conservancies, trophy hunting of wild ungulates and nature tourism has proven to be a powerful incentive for local communities to conserve the snow leopard and its prey. Nature tourism and sustainably-managed markhor, argali and ibex hunting (low-volume/high-value) generate local employment and revenue opportunities, decrease the costs of living with wildlife, increase livelihoods that are not related to wildlife, strengthen disincentives for illegal behavior, and improve education and awareness. Read more on the [People And Poaching Learning Platform](#).

A moratorium on hunting throughout Kyrgyzstan from 2020 to 2030 was proposed by deputy Emil Toktoshev in October 2018 during parliamentary hearings to discuss the draft law “*On the Prohibition of Hunting Some Animals in the Kyrgyz Republic*”. The parliamentarian said that there are quite a few countries in the world practice which have banned hunting. This is the

second time that a moratorium on hunting is being discussed. In March 2017, Kyrgyz parliamentarians rejected a hunting moratorium with a majority of 56 against 52 ([Source](#)).

World



Indigenous peoples make up less than 5% of the global population, but research, published in *Nature Sustainability* found that indigenous peoples still own or manage 38 million km² – about a quarter of all land outside Antarctica. Some 87 countries around the world, on every inhabited continent, have people who identify as Indigenous and contain land that is owned, managed or influenced by Indigenous people. Indigenous lands encompass nearly two-thirds of the world's most remote and least-inhabited regions. These areas are very valuable for conservation. [Read more here](#) and [also here](#)

The Caprinae Specialist Group newsletter is now available. The current newsletter features articles on the conservation and management of trophy hunting and artificial selection, barbary sheep conservation, the markhor and ibex in Afghanistan and poaching of Sumatran serow. [Read more here](#)

The IUCN SSC Guiding Principles on the Use of Trophy Hunting as a Tool to Create Conservation Incentives are essential reading material for all hunters and wildlife

management authorities. The global network of conservation scientists organized in the IUCN Species Survival Commission recognizes that well-managed trophy hunting can provide both revenue and incentives for people to conserve and restore wild populations, maintain areas of land for conservation, and protect wildlife from poaching. Download the Guiding Principles ver. 1.0, August 2012 in [Chinese](#), [English](#), [German](#), [Dutch](#), [Portuguese](#), [Russian](#), [Spanish](#), [French](#) and [Farsi](#).

The IUCN/SSC-SULi Briefing Paper - Informing Decisions on Trophy Hunting is another important document for hunters and management authorities. With trophy hunting currently the subject of intense debate globally and moves at various levels to end or restrict it, this briefing paper draws on a set of case studies to highlight that while there is considerable poor practice in trophy hunting and a strong need for reform, well managed trophy hunting can - and does - positively contribute to conservation and local livelihoods in the face of intense competing pressures on wildlife habitat and widespread poaching. The paper was originally drafted to inform EU parliamentary discussions around import restrictions on hunting trophies and was subsequently updated as a broadly applicable decision-making guidance document. Download the [IUCN/SSC-SULi Briefing Paper - Informing Decisions on Trophy Hunting](#).

The new IUCN Red List of Threatened Species™ website is now live! It is more interactive, provides better search functions and makes it easier to download essential biodiversity data. [Visit the website](#) to explore, research and learn; for example, about [Argali \(*Ovis ammon*\)](#). It is definitely worth the effort!

The International Panel on Climate Change (IPCC) released the new findings after a week of deliberation in Incheon, South Korea. The summary tells a nightmarish tale—one much worse than any of those in the I.P.C.C.'s previous reports—surveying the climate-change impacts we're already experiencing with one degree of warming, and the severity of the impacts to come once we surpass 1.5 degrees of warming. Ten million more people would be exposed to permanent inundation, and several hundred million more to "climate-related risks and susceptible to poverty." Malaria and dengue fever will be more widespread, and crops like maize, rice, and wheat will have smaller and smaller yields—particularly in sub-Saharan Africa, Southeast Asia, and Central and South America. Security and economic growth will be that much more imperiled ([Summary Report](#)).

There are significant differences between 1.5- and 2-degrees Celsius warming, as shown in robust scientific literature. To restrict warming at 1.5 degrees Celsius (2.7 degrees Fahrenheit), governments and private businesses must make unprecedented changes—on a sweeping global scale—in energy systems, land management, building efficiency, industrial operations, shipping and aviation, and city-wide design. Within the next decade, human-caused carbon-dioxide emissions need to fall forty-five per cent below 2010 levels. By 2050, net carbon-dioxide emissions must equal zero. Representatives from the Trump Administration were in Incheon and approved the conclusions of the report. [Read more here](#) and [here](#)

**Publisher:**

Conservation Frontlines Foundation (USA).

Joint Editors-in-Chief:

Gerhard R Damm (South Africa)

Kai Wollscheid (Germany)

Consulting Editor & Hunting Brand Development:

Derek Carstens (South Africa)

Administrative Director: Colleen Roberts (USA).

Design and Digital: Estee Bauernebel (USA).

Opinions expressed in the quarterly Conservation Frontline E-Magazine, in our Frontline Dispatches and on the [Conservation Frontlines Webpage](#) are not necessarily those of the Conservation Frontlines Foundation and/or the editors. Whilst every care is taken in the preparation of our publications, neither Conservation Frontlines Foundation nor editors are accepting any responsibility for errors. Conservation Frontlines E-Magazine and Frontline Dispatches are published as a free service to the public. Please share our publications with others who may be interested. You can subscribe [HERE](#). To read or download previous issues click [Conservation Frontlines E-Magazine](#) or [Frontline Dispatches](#).

Conservation Frontlines and the free electronic distribution of its publications are funded by the

Conservation Frontlines Foundation

PO Box 917, Middleburg, VA 20118-917, USA

Email: admin@conservationfrontlines.org

© 2019 Conservation Frontlines Foundation 501(c)3. All Rights Reserved.