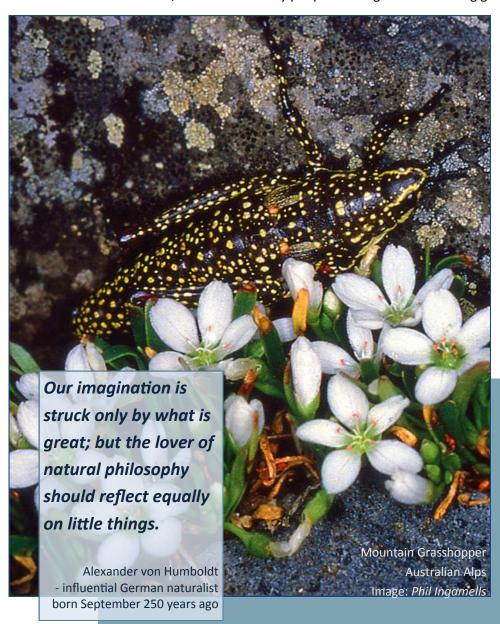
Mountain Protected Areas

UPDATE

September 2019 # 103

A note from the editor

Sometimes the environmental thoughtlessness, ignorance and greed of past 50 years is beyond comprehension...and as if nature hasn't had enough to content with we now have plastic rain (see page 11)! But there are always mountains to enchant and stories to inspire so please have a glance at the following pages. As usual thank you to everyone that contributed; there are so many people and organisations doing great work! Happy reading.



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From People and Mountains around the world:

Global

Where will the next Mountain Protected Areas come from?

News from Peter Jacobs, Chair WCPA Mountain Specialist Group

The WCPA Mountains Specialist Group Committee has been finalizing a paper describing a decision support tool for identifying and prioritizing mountainous areas that are not adequately protected. This stemmed from a workshop held at the 2016 IUCN World Conservation Congress (WCC) in Hawaii. Thanks to those Committee members that have given feedback and assistance so far. This is now ready for the next steps.

To progress this more widely, we have put in a proposal to run a thematic stream session at the IUCN WCC in Marseilles in 2020. The session is titled "Where will the next Mountain Protected Areas come from?" The main theme is the adequacy of the protection of global mountain landscapes and where do we need to grow the protected mountain estate. The topic will focus firstly how we identify where mountain ecosystems are not adequately protected followed by how we prioritize what's most important to protect, why and where might advocacy be practical. This is proposed to be based initially on the presence of Key Biodiversity Areas (KBA's). The issue is that while 17% of mountains are protected (outside Antarctica), of the 4000 KBA's identified in mountains, there are seemingly over 3000 not adequately protected.

The decision support tool will be tested at the workshop, if we get a place; but getting a session at the WCC 2020 is very competitive! If we have some success I look forward to WCPA Mountains Specialist Group members being more involved.

Winter Sports, World Heritage and WWF

Taken from IUCN Blog Putting sport and nature on same team June 2019 WWF Director General Marco Lambertini

While sport is often rooted in the outdoor environment, many are unaware of the value of nature to their sport and also the impact of sport on nature, particularly through large events and the building of new sports facilities. In some cases, sport impacts natural World Heritage sites – amongst the world's most valuable protected areas.

Tackling this impact must be an urgent priority for the sports sector in order to stop biodiversity loss, especially winter sports, that pose a particular risk to nature's 'crown jewels'.

The footprint from Russia's \$50 billion Sochi 2014 Winter Games stretches from the Black Sea to the Caucasus Mountains – Europe's most pristine mountain wilderness. Controversially, snow and sliding venues were located in Sochi National Park, immediately adjacent to the Western Caucasus natural World Heritage site, with super-scale building and infrastructure decimating rivers and fragile habitats and opening the area to further access and development.

Today, new threats come from plans to build the Kislovodsk-Adler highway through Sochi National Park and Caucasus Reserve, risking the largest stand of untouched mountain forests in Europe and undermining a programme to reintroduce the Persian leopard. In Russia, it can be said that the Olympics were the thin end of a destructive wedge for conservation.

Please read all of this excellent article: Putting sport and nature on same team Photos: WWF Russia



Western Caucasus natural World Heritage site



Sochi NP venue 2014 Winter Games

Global



From The Guardian & UNESCO

Vatnajökull National Park, Iceland - established in 2008, it covers 14% of the country and is largely spread over the southeastern central highlands, encompassing the Vatnajökull ice cap. With volcanoes, earthquakes, melting glaciers, explosion craters and geothermal activity, the site is nothing if not dramatic: the nomination document for the site described the park as "an area of alarming natural conflict, but also enchanting harmony."

Mountains of Culture:

Risco Caido and the Sacred Mountains of Gran Canaria Cultural

Landscape— Located in a vast mountainous area in the centre of Gran Canaria, Risco Caído comprises cliffs, ravines and volcanic formations in a landscape of rich biodiversity. The landscape includes habitats, granaries and cisterns whose age is proof of the presence of a pre-Hispanic culture on the island.

Erzgebirge/Krušnohoří Mining Region, Czechia/Germany — The cultural landscape of the Ore Mountains has been deeply shaped by 800 years of almost continuous mining, from the 12th to the 20th century, with mining, pioneering water management systems, innovative mineral processing and smelting sites, and mining cities.

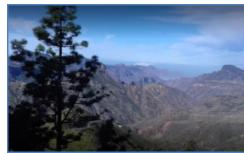
Krzemionki Prehistoric Striped Flint Mining Region, **Poland** – Located in the mountain region is an ensemble of four mining sites, dating from the Neolithic to the Bronze Age (about 3900 to 1600 BCE), dedicated to the extraction and processing of striped flint, which was mainly used for axemaking.

Plain of Jars, Laos - archaeologists believe the thousands of mysterious tubular-shaped stone jars date back to the Iron Age, when they were used in funeral practices.

Albanian WH extension celebrated

The oldest and one of the most biodiversity rich lakes in Europe is now recognised as World Heritage in its entirety. The already inscribed part of the Ohrid region, located in North Macedonia was extended to include the remaining one-third of the lake in Albania. Authorities and communities from both countries gathered to celebrate and confirm their commitment to safeguard exceptional natural and cultural values of Ohrid Lake, home to over 200 endemic species.

Brochure Begin your journey to Lake Ohrid region



Risco Caido web site



Wikipedia



Photo: GETTY IMAGES



Wikipedia

Reconfiguring the protected areas in Africa

Adapted from NAPA

Reconfiguring the protected areas in Africa in a changing world...is a new study commissioned by Papaco. The main recommendations involve improving their size and their boundaries, in order to help conserve species, as well as their functions and their natural balances.

The study also exposes some of the options to create, extend or reinforce PAs, for instance by creating new community conservancies or by reassigning neighbouring hunting areas.

An important risk is the lack of political commitment to conservation on behalf of governments and also their lack of momentum in performing their sovereign functions: security, rule of law, appropriate legislation and control of its enforcement. This commitment should be extended to controlling respect for the role and rights of each of the stakeholders, without any one of them infringing on the role or rights of their neighbours.

Far from isolating the protected area through individual management or through a geographical separation such as fences, it is recommendable to coordinate the action of all stakeholders and the planning of their actions in a joint effort, going beyond the protected area (and not looking inwards) in order to tackle future challenges.

Please read more of this study here: NAPA 128 & NAPA 129



Learning by Doing...rather than imported

Adapted from Geoffroy MAUVAIS Papaco Coordinator (NAPA editor)

In Africa, it is assumed that "models" from the North (where they have largely failed), or from the South (where they are based on a simplistic conception of conservation based on fines and fences) must prevail.

Since they provide a quick fix to a poorly evaluated situation, imported solutions are in the end favored by donors eager for short-term results, since they are never evaluated beyond that. To save nature, one must take the time to do it properly, by and with those who have a real and legitimate interest in it.

There is no model for this, there are only men and women who will or will not do the right thing in their own way. But it is absolutely necessary to give them full responsibility for these choices as soon as possible.



ARCOS Nature Based Village Model - for local transformation

From ARCOS news You can find details on NBV Model here

Earlier this year over 100 representatives of 9 mountain villages visited Rugarama village, one of the 10 Nature Based Villages (NBVs) established by the *Albertine Rift Conservation Society* (ARCOS Network) across Rwanda.

The aim of this visit was to learn how the Nature Based Village model works and to share knowledge and skills required for local transformation in terms of improving community livelihoods and environment sustainability.

Middle Stone Age humans in high-altitude Africa

Science August 2019

Recent archaeological research has produced evidence of the earliest human occupation of high-altitude habitats in the Andes and the Tibetan Plateau.

Ossendorf *et al.* now present the oldest evidence of human settlement and adaptation to areas above 4000m elevation in Africa. Their excavations at a rock shelter in the **Bale Mountains** of Ethiopia reveal obsidian artifacts and faunal remains, including abundant burnt bones, mostly of giant mole-rats (key food source).

The findings reveal the environmental conditions and show how Late Pleistocene humans adapted to the harsh environments of these glaciated high-altitude African landscapes.



Realising the sheer number of different challenges that need to be tackled in rural areas, ARCOS developed an integrated approach "BEST Approach" an abbreviation of the 4 key elements:

- Building leadership and sustainable institutions
- Enhancing environmental resilience
- Sustainable business solutions
- Transforming and Inspiring others



Giant mole—rat Photo: V Munier



Bale Mountains NP Photo: Rough Guides

America-north

Off—On–Off the Endangered Species List (USA)

By Katie Camero August 2019 Science

The U.S. Fish and Wildlife Service (FWS) have restored grizzly bears in and around **Yellowstone National Park** in Wyoming to the **U.S threatened species list**.

The agency's action complies with a court ruling that said FWS's 2017 removal of the grizzlies from the list violated the Endangered Species Act. The delisting would have allowed limited hunting of Yellowstone bears for the first time in more than 40 years.

Environmental groups and Native American tribes sued to block the action.

But (see below) the long-running dispute over the bears may not be over. Legislation to delist them yet again was introduced in February by two Republicans representing Wyoming. They argue the population of Yellowstone bears has recovered to a healthy level. Read the full press release.



Photo: iStockphoto.com/JackVandenHeuvel

Trump's Interior Just Released Plans to Dismantle Endangered Species Act By Virginia Cramer Sierra Club August 12, 2019

Today, against a backdrop of recent reports of global mass extinction, the Trump administration released final regulations weakening the Endangered Species Act, the nation's most effective tool in saving wildlife from extinction.

The Trump Extinction Plan would gut critical endangered species protections by making it much more difficult to extend protections to threatened species, delaying lifesaving action until a species' population is potentially impossible to save.

Are Park Rangers Being Misused As Border Force Security?

From The Sierra Club campaigns

The Department of the Interior is continuing a secretive program to pull park rangers and police from lands across the nation and send them to patrol the border.

Never in our nation's history (USA) have park rangers and police been used as border security. This unprecedented move is harming our most treasured spaces and wildlife, and putting the safety of park visitors at risk.

Parks across the nation need more funding and staffing. There is absolutely no good reason to relocate staff from their homes and inappropriately order them to work outside of their job description as unofficial border security.



Photo: Yosemite NP Park Ranger

Giant telescope to rise on hallowed peak in Hawaii

Science June & August 2019

The State of Hawaii has given astronomers a green light to begin to build the 30m telescope, which would rise on the volcanic peak of **Mauna Kea** as one of the largest telescopes in the world. Project leaders say they are set to begin construction after a 4-year delay caused by sit-down protests and court challenges from Native Hawaiians opposed to structures on a site they consider sacred.

"The resolution to this situation will likely include accelerated removal of decommissioned telescopes and Hawaiian land rights and self-determination. TMT and the astronomy community should support these efforts." Thayne Currie, astrophysicist at NASA Ames Research Center California, who uses Mauna Kea telescopes.



4,200m Mauna Kea Photo: MN studio/istockphoto

America-mountain parks and tourism

Amanda's Trail (Siuslaw National Forest, USA) – more than just a hiking trail

Summary of an article from Network members Jessica Hughes and Pamela Lanier

Within the Oregan Coast Range the Siuslaw National Forest has many diverse hiking

experiences: from sub alpine meadows to treks across ever changing dunes, lush temperate rain forests, towering waterfalls and rocky coastal headlands. Mary's Peak is the highest at 1,300m. Along these Oregon coastal cliffs is a stretch of land dedicated to a woman and her people, who, 150 years ago, were driven from their ancestral homes and their lands in what came to be known as Oregon's Trail of Tears.

Amanda De-Cuys (<u>Amanda's Trail</u>), was a Coos woman who lived in 1864 as the common-law wife of a white man. Together they had a daughter, approximately eight years old at the time of Amanda's removal.

The US military was tasked with rounding up those who had settled outside the reservation - a soldier noted during the last leg of the trip, "Amanda who is blind tore her feet horribly over these ragged rock, leaving blood sufficient to track her by. One of the Boys led her around the dangerous places."

For more than 150 years that history laid forgotten by most, with only the surviving indigenous ancestors who remembered and avoided the area and its painful history.

Two stunning national parks—Costa Rica

Mountain Partnership News August 2019—News Reina Sánchez Solano

Potrero de los Funes—Argentina

A walk and race between volcanoes and mountains allowed participants to enjoy the beauty of two Costa Rican national parks.

Irazú Volcano National Park is home to the highest volcano in Costa Rica. The origin of its name can be traced to an indigenous village called Iztarú, which existed in the foothills of the volcano; it is a word meaning *hill trembling and thunder*.

400 participants followed the 18 km route from Irazu to the La Central sector, a community living next to the **Turrialba Volcano National Park**.

The Turrialba Volcano forms a single system in conjunction with the Irazú Volcano.

The goal is for activities such as this one to strengthen rural tourism in the communities surrounding the **Turrialba and Irazú Volcano National Parks** and promote protected areas.

Proceeds from the activity went toward supporting the Board of Education of the Turrialba Volcano Educational Center, which they plan to use to repair park facilities in poor condition due to volcanic activity, in addition to supplying drinking water services which ten of their students are currently lacking.

From Matias Ayarragaray (Mountain Specialist Group Committee) is a biologist and professor at the National University of San Luis, Argentina

The University of San Luis has funds to work on several environmental problems that are threatening the mountain ecosystems of Potrero de los Funes river basin, in San Luis Province - an important tourism destination.

As director of a skilled project team, *Matias* is working with the local secondary school which teaches tourism, to tackle the problems of fire, invasion by exotic plants, erosion, and lack of environmental planning and management. The objectives are to protect and restore the forest ecosystems and to develop sustainable tourism.

The basin, town and school are situated in the "Sierras Centrales of San Luis" which is protected by law (Areas Naturales Protegidas de la Provincia de San Luis), but very little management. The laws though are important in supporting the area and providing a framework for the project.



New wilderness for Siuslaw

Wilderness areas contain most of the Siuslaw's old growth forest. Earlier in 2019 protected wilderness lands in Oregon's coast range was more than doubled when Devil's Staircase was added to the

National Wilderness Preservation System.

The Devil's Staircase, a waterfall, lies at the heart of one of the most remote locations in the state. It is surrounded by 30,000 acres of road-less land; and the steep terrain, thick vegetation, and lack of trails keep this gem isolated. Isolated and remote; scenic and rare features; healthy Chinook and salmon runs; populations of elk, bears, otters, and mink.





Irazú: highest and largest active volcano in Costa Rica at 3432m high & 500 square km base

Oceania—Australia & New Zealand

Uluru - Australia's most sacred mountain: the good and the bad news

From Parks Australia web site and The Guardian June 2019

The good news has been a long time coming...

For the park's A<u>n</u>angu traditional owners, Ulu<u>r</u>u and Kata Tju<u>t</u>a tell important stories from the beginning of time. According to <u>Tjukurpa</u> (creation stories) the park's unique geological formations were created by ancestral beings that have travelled through the landscape since time immemorial.

In 2016 a historic decision, the Uluru-Kata Tjuta National Park Board of Management decided they will close the climb to the top of Uluru on **26 October 2019**.

The date of 26 October is significant to the park's traditional owners, as it was the date in 1985 the park was handed back to them. In 2010 the Board committed to giving the tourism industry at least 18 months' notice to adjust any itineraries or marketing strategies.

But this closure has been discussed for many years with the park's traditional owners always asking visitors to respect their law and culture by not climbing Uluru.

"That's a really important sacred thing that you are climbing... You shouldn't climb. It's not the real thing about this place. And maybe that makes you a bit sad. But anyway that's what we have to say. We are obliged by Tjukurpa to say. And all the tourists will brighten up and say, 'Oh I see. This is the right way. This is the thing that's right. This is the proper way: no climbing'."— Kunmanara, traditional owner

NB Editors Note: Unfortunately the past weeks have seen an alarming increase in visitors rushing to climb before the closure, including a member of parliament!

The bad news: Australia's six commonwealth national parks – including Kakadu and Uluru – are not being effectively managed by the government agency tasked with preserving them.

In <u>a report</u>, the Australian National Audit Office (ANAO) said the director of national parks had failed to meet benchmarks set by auditors to probe the agency's management of some of the nation's most precious land. The audit found the director had no "robust" way of knowing that park management and operational plans were being implemented. The agency's work within the six parks was also "not effectively measured, monitored and reported on".

It must establish a 10-year park management plans to protect the sites, benefit traditional owners and enhance their value as tourism destinations. But the agency had not established "constructive relationships with traditional owners at the jointly managed national parks", the report said.



Uluru Image: Parks Australia

Central Asia

Yagnob National Park, Tajikistan—a land of ancient traditions, extraordinary environmental values and 5000 metre mountains

Adapted from 'Journey to Sodiana's heirs' and other notes by Anvar J. Buzurukov, who has worked for nearly three decades to protect the special natural and cultural heritages of the Yagnob Valley, with additional contributions by J. Marc Foggin

Zafarahad

The creation of the **Yagnob National Park, Tajikistan** in May 2019 should go a long way in helping to relieve the pressures of poverty and natural degradation of the Yagnobi people, descendants from the Sogdian empire.

Yagnob is a 60 km long isolated narrow river valley, separating the Zeravshan and Hissar Ranges. It is occupied by the indigenous Yagnobi people (around 25,000 individuals, living primarily in Tajikistan) who speak an ancient East Iranian language related to Sogdian.

In 1969 -70, around 7000 Yagnobians were forcibly moved to cotton-growing work-forces in the lowlands, where many died due to the hot weather conditions and hard labour. In more recent years, some families have returned to the valley and now 390 people live in extremely challenging economic and environmental conditions.

Primarily based on affinity of the ancient **Sogdian and Yagnobi languages** valley residents identify with Sogdiana, where earliest references date back to late VI early V century BC. Alongside Bactria and Khoresm, Sogdiana was the most ancient state formation (a society represented by the castes of priests, warriors, farmers and slaves) in Central Asia. Yagnobi community lifestyles and land-use patterns still generally follow the older traditions.

The Yagnobi people also have many special skills such as construction of complex irrigation systems and techniques for terracing the very steep mountain slopes. The highlanders grow wheat, barley, and potatoes that can potentially produce high yields in this area. Livestock also are raised in the valley, with animal husbandry contributing to local household economies though in some areas causing severe erosion, impoverishing the fragile mountain soils.

Traditions that support unique mountain agrobiodiversity are being studied and new community-friendly enterprises consistent with the conservation goals of the new park are being introduced and adapted with on-going participatory dialogues, such as community ecotourism. Building on community pride – in Yagnobi culture and especially in the unique Yagnob language, still spoken widely in the middle and upper reaches of the valley as mother tongue – the national park has been founded with the aim to protect not only the rich mountain biodiversity, but also to protect and strengthen the local culture by means of meaningful engagement through approaches such as community co-management.

Yagnob National Park was established by the Government of the Republic of Tajikistan in May 2019 with the following aims: (i) to protect nature, (ii) to conduct scientific research, and (iii) to promote tourism and other forms of sustainable use of natural resources. official document, 2 May 2019







Yagnobi people and valley Images: Anvar Buzurukov/TSEU

Asia—Himalayas

Spy satellites show Himalayan glacier melting doubled since 2000

From Environment editor The Guardian June 2019

The melting of Himalayan glaciers has doubled since the turn of the century, with more than a quarter of all ice lost over the last four decades, scientists have revealed. The accelerating losses indicate a "devastating" future for the region. The scientists combined declassified US spy satellite images from the mid-1970s with modern satellite data to create the first detailed, four-decade record of ice along the 2,000 km mountain chain.

Joshua Maurer, from Columbia University's Lamont-Doherty Earth observatory, who led the new research, said: "This is the clearest picture yet of how fast Himalayan glaciers are melting since 1975, and why." The research is <u>published in the journal Science Advances</u>.

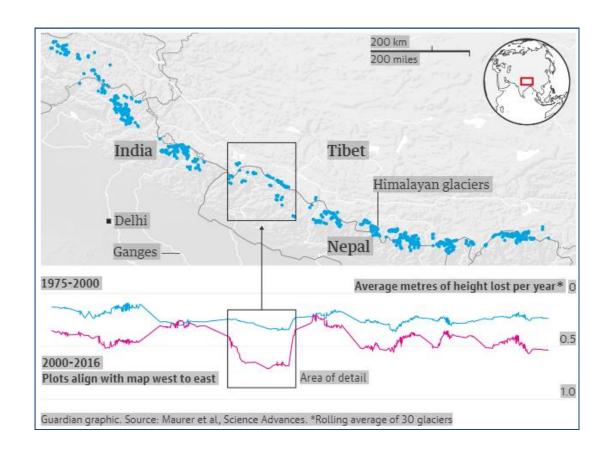
Serious consequences will be felt by those who rely on the great rivers that flow from the peaks into India, Pakistan, China and other nations. "It's the climate crisis you haven't heard of," said Philippus Wester, at the International Centre for Integrated Mountain Development (ICIMOD), who led an earlier February study and said the new work was very convincing. "Increasingly uncertain and irregular water supplies will impact the 1 billion people living downstream from the Himalaya mountains in south Asia."

The spy satellite photographs used in the research had lain unused in archives for some years but a computer tool enabled these 1970s photos to be turned into 3D maps. The scientists used this data to track the changes in 650 Himalayan glaciers. On average, the glacier surfaces sank by 22cm a year from 1975 to 2000. But the melting has accelerated, with an average loss of 43cm a year from 2000 to 2016.



Photo: Goncalo Diniz/Alamy

The analysis shows that 8bn tonnes of ice are being lost every year and not replaced by snow, with the lower level glaciers shrinking in height by 5 meters annually. The study shows that only global heating caused by human activities can explain the heavy melting.



Europe

Geocaches-trash or treasure?

From European Wilderness Society June 2019

Protected areas are becoming increasingly popular for placing geocaches. This however causes an environmental impact and disturbance to the area. The caches must be placed responsibly with regard to the environment, without causing harm to nature and other users of the area. In Austria, geocaching is present in all six national parks. Some parks have a higher risk of being negatively affected by geocaching than others.

The <u>Nature Conservation Agency of the Czech Republic</u> has set specific rules and recommendations for geocaching enthusiasts entering protected areas. These regulations are based on general visitor rules (found on the individual websites of the national parks). Basic rules to follow are:

- Respect trail markings
- Caches may not be placed in such a manner that searching for the cache is particularly dangerous
- Geocaches should not be buried in the ground and their placement must not damage the surrounding environment
- Landowners or managers can report unwanted caches in order to have them temporarily disabled or permanently archived
- The cache contents must be appropriate for outdoor life. Food and scented items which might attract animals are forbidden
- Respect structures under enhanced protection (e.g. monument trees) and their protective zones – when placing caches, think about the impact of the hundreds of others who will come to look for it
- Whenever a cache is placed in a protected area, the management must be notified
- In general, prior to placing a geocache, always check the legal regulations of a particular protected area





From official Geocaching blog

Geocaching is a real-world, outdoor adventure that is happening all the time, all around the world. To play, participants use the Geocaching app and/or a GPS device to navigate to cleverly hidden containers called geocaches. There are millions of geocaches in 190 countries.



Photo: Slovakia geocaching EWS



From European Wilderness Society & Rough Guides Features August 2019

The Balkan Peninsula is home to the last wild rivers in Europe. At present, around 3,000 hydropower plants are planned or under construction in the region, more than 1,000 of them in protected areas.

One main target river for this "hydropower tsunami" is the Vjosa, the longest existing wild, undammed river on the continent outside of Russia.

Recently, a protest against Albanian hydropower projects started a chain of protests called Action Weeks between July 6-16 in many Balkan countries. To protect the Vjosa from power plants, conservationists want to declare the river on its entire length as a national park. However, the Albanian authorities are currently showing readiness to only protect the upper section of the river.

Albania's Vjosa River is nicknamed Europe's Blue Heart for good reason. It begins in Greece, and its turquoise waters beat an untamed path through the Balkan Mountains, before emptying themselves into the Adriatic.

Echoing the fate of the continent's other waterways, the Vjosa River is the planned home of some 36 hydropower dams, funded by international banks. Locals have expressed concerns over threats to endemic species and what may become a blighted tourism industry. Critics also say that hydropower is an outdated and expensive form of technology.

Mountain high: oldest clear signs of pot use From Science June 2019

Cannabis is one of the world's most popular recreational drugs, but when and where humans began to appreciate the psychoactive properties of marijuana has been a matter of speculation rather than science. Now, a team led by Chinese researchers reports clear physical evidence that mourners burned weed for its intoxicating fumes on a remote mountain plateau in Central Asia some 2500 years ago. The study, published recently in *Science Advances*, relies on new technology that enables researchers to identify the plant's chemical signature and mind-altering potency.

Course on landscape approach in mountains From Mountain Partnership News July 2019

The landscape approach for enhancing mountain resilience was under discussion at the 2019 International Programme on Research and Training on Sustainable Management of Mountain Areas (IPROMO) in Italy, from 2 to 18 July.

This year's IPROMO theme focused on the **landscape approach to managing mountain areas**, with topics ranging from the conservation of biodiversity to watershed management to food security.

Yangtze Trek!

A 28-year-old British explorer has become the first person to complete a 4,000-mile (6,437km) trek along the Yangtze River in China, the 3rd longest river in the world. Ash Dykes said the greatest challenge was reaching the source of the river before the expedition even began. At 5,100 m is almost the same height as Mount Everest base camp.

The Heritage Gap From Nakul Chettri, ICIMOD

Experts and policy makers came together earlier in 2019 to revisit existing sites in the HKH, and to **explore potential sites and opportunities to link sites across international borders**. Discussions on "Leveraging the World Heritage Convention for Transboundary Conservation in the Hindu Kush Himalaya" will feed into a comprehensive assessment report planned for the World Heritage sites of the HKH and also focused on providing guidance and clarity about the nomination process to countries interested in specific sites.





It's raining plastic: microscopic fibers fall from the sky in Rocky Mountains

United States of Plastic, is a new series by The Guardian to reveal global inequality and the environmental consequences of our dependence on plastic - a miracle material.

Plastic was the furthest thing from a US Geological Survey researcher's mind when he began analysing rainwater samples collected from the Rocky Mountains. He expected to see mostly soil and mineral particles but instead found multi-coloured microscopic plastic fibers.

The discovery, published in a recent <u>study</u> (pdf) titled "It is raining plastic", raises new questions about the amount of plastic waste permeating the air, water, and soil virtually everywhere on Earth.

There is more plastic out there than meets the eye, it's in the rain, it's in the snow. It's a part of our environment now and breathing plastic probably isn't good. We should start thinking about dramatically reducing our dependence on plastic.

<u>Arctic to Alps</u> Abundant levels of microplastic pollution have been found in snow from the Arctic to the Alps, according to a study that has prompted scientists to warn of significant contamination of the atmosphere and demand urgent research into the potential health impacts on people.

"Microplastic concentrations in snow were very high, indicating significant contamination of the atmosphere," concluded the study <u>published in the journal Science Advances</u>.

Snow captures particles from the air as it falls and samples from ice floes on the ocean between Greenland and Svalbard contained an average of 1,760 microplastic particles per litre, the research found. Even more – 24,600 per litre on average were found at European locations. The work shows transport by winds is a key factor in microplastics contamination across the globe.



Rocky Mountains NP

Scree and Talus cont.

Inspiring a new generation MNN July 2019

90th Anniversary Grand Teton National Park Photo: Rob Decker Rob Decker visited his first national park when he was 6 years old. That trip to Yosemite made an impact. Two years later, on a 10,000-mile cross-country trip with his family, Decker visited five more national parks. He photographed them with a Kodak Duaflex camera with black-and-white film and was hooked. He continued to study photography, and in 1979 had what he describes as the greatest experience of his life. He studied under photographer and conservationist Ansel Adams in Yosemite National Park.

"Everyone should have a chance to see these places - it's not just the awe-inspiring landscapes—it's the culture, the history of the country that is often encapsulated there."

Because several parks celebrate major anniversaries in 2019, Decker created limited-edition prints to commemorate the events.

Mountain Law From Mountain Partnership News

Late last year the State of Rio de Janeiro launches law specifically dedicated to mountains.

The law, provides a framework for regulating conservation of biodiversity, the efficient and sustainable use of mountain resources.

The law will focus on ecosystems classified as mountains including, cloud forest, mountain forest and areas that are of 1 000 meters above sea level. It also includes areas with a local elevation of more than 300 meters in height, whose slope and environmental conditions are characteristics of mountainous environments.

Plant Blindness The Guardian

Human destruction of the living world is causing a "frightening" number of plant extinctions, according to scientists who have completed the first global analysis of the issue. They found 571 species had definitely been wiped out since 1750 but with knowledge of many plant species still very limited the true number is likely to be much higher.

The number of plants that have disappeared from the wild is more than twice the number of extinct birds, mammals and amphibians combined. The new figure is also four times the number of extinct plants recorded in the International Union for Conservation of Nature's red list.

The main cause of the extinctions is the destruction of natural habitats by human activities, such as cutting down forests and converting land into fields for farming.

EXPLORE SCENIC LAKESHORES, VALLEYS, MEADOWS, STREAMS & CANYONS *RIDE THE LAKE BY KAYAK OF CANOE *CYCLE ALONG JENNY LAKE ROAD *CYCLE ALONG JENNY LAKE ROAD BIDDEN FALLS - CASCADE CANYON - INSPIRATION POINT STANGING CANYON GRAND TETON CRAND TETON NATIONAL US. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE



Chilean crocus, *Tecophilaea* cyanocrocus, was rediscovered in 2001 after years of searching and is categorised by the IUCN as critically endangered. Photo: Kew Gardens

A time to reflect, celebrate, stand alongside and support

World Ranger Day is celebrated worldwide each year on July 31st to commemorate Rangers killed or injured in the line of duty and to celebrate the work Rangers do to protect the planet's natural treasures and cultural heritage.

Green Blood - Environment reporters facing harassment and murder The Guardian June 2019

Thirteen journalists who were investigating damage to the environment have been killed in recent years and many more are suffering violence, harassment, intimidation and lawsuits, according to a study by the Committee to Protect
Journalists (CPJ). Sixteen more are being investigated so the number of murders may be as high as 29, making this field of journalism one of the most dangerous after war reporting. On every continent reporters have been attacked for investigating concerns about abuses related to the impact of corporate and political interests scrambling to extract wealth from the earth's remaining natural resources. These resources end up in all manner of products – from mobile phones to pots and pans – with consumers largely unaware of the stories behind them.

Scree and Talus cont.

<u>Everest</u> Following the deadliest climbing season in four years, Nepal officials proposed new safety rules for those hoping to climb Mount Everest. Under the new requirements, climbers must show they've climbed at least one 6,500m mountain, <u>reports Reuters</u>. They must also submit a health certificate and be accompanied by a trained Nepali guide. Expedition companies would be required to have at least three years' experience guiding high-altitude climbs before they can lead Everest trips.

Canadian Mountain Network

Matthew Berry is the Managing Director of the newly formed <u>Canadian Mountain Network</u>. The network has received \$18.2M CDN for FY2019-2023 to support an integrated research, training and knowledge mobilization programme focused on Canada's mountain regions. Matthew said there are already great existing linkages with the WCPA Mountain Specialist Group in *Marc Foggin* and *Shailyn Drukis*! The UPDATE expects to hear more from this network in the future, especially their work around science and mountain protected area management.

A Voice for Our Changing Mountains at IPCC Lead Author Meeting

In July, experts from IPCC Working Group II met in Kathmandu, Nepal, to continue preparing their contribution to the IPCC Sixth Assessment Report. Among them was MRI Executive Director Carolina Adler, selected to co-lead the AR6 Cross-Chapter Paper on Mountains.

Northern Chile – clear skies, mountains and solar eclipse
2019 Images: Paiguano, Chile Marcelo Hernandez/Getty Images
Thousands gathered across Chile and Argentina to witness the only total solar eclipse for 2019. Northern Chile is being turned into a global astronomy hub.



<u>How reindeer evolved to survive freezing Arctic winters</u> By Elizabeth Pennisi *Science* June 2019 Santa's warm workshop is nothing like the cold, often-dark Arctic where reindeer really live. Above the Arctic Circle, temperatures can drop as low as -67°C and darkness can last nearly the entire day.

Now, a new genetic study reveals how reindeer have evolved to cope with these tough conditions.

One improvement: Compared with other mammals, the reindeer are much more efficient in their use of vitamin D. That isn't a complete surprise, scientists say, because reindeer need lots of vitamin D—created during sun exposure—to build their bony antlers, which even females shed and regrow every year. To overcome the winter sunlight shortfall, mutations in two of the 68 genes used to synthesize and process vitamin D make the process **up to 20 times more efficient**, researchers report in *Science*.



Alamy stock photo

WILDForest EWS May 2019

The European Wilderness Society has started a new project: <u>'Multi-perspective view on fauna biodiversity in forests and forest edge areas'</u>. The 2-year project is funded by the Austrian Ministry of Sustainability and Tourism. The pilot project aims to develop proposals for conservation and improvement of fauna biodiversity in forests and forests forest edge area.

Planning for climate change in Gondwana Rainforests From Earth Systems and Climate Change Hub Australia June 2019

The high elevation forests of the Gondwana Rainforests of Australia World Heritage Area (Gondwana Rainforests WHA) receive around half of their annual water requirement from clouds and fog. Shifts in the cloud base in a changing climate have important management implications for these regions. The Hub has been working with Gondwana Rainforests WHA managers to identify existing climate change information that can be used to shed light on the shift in the cloud base. Read

more: Hub case study



Tools, Publications and other Media

From GMBA News

Call for papers - Mountain landscapes: protected areas, ecosystem services and future challenges

This Special Issue of Ecosystem Services aims at addressing important knowledge gaps focusing on basic understanding of ecological functions and its drivers of change in mountain landscapes as well as on societal trends in and outside mountain regions to be able to cope with future challenges. A particular focus is set on protected areas that are interested in the management and the preservation of the biodiversity and the landscapes, through scientific research, environmental education, and the promotion and the development of sustainable tourism. Submissions by 30 November. Read more

From WCPA Connectivity Conservation Specialist Group

Titled Safeguarding ecological corridors in the context of ecological networks for conservation, this advanced draft is the culmination of over two decades of work and serves to implement IUCN Members' Assembly Resolution 2016-087 to further the consistent development, designation, planning, and management of connectivity areas and expanded networks. The <u>draft document and feedback form are available here</u>. Global online consultation running until 30 September.

ICIMOD is pleased to share a link to the TEDtalk video titled, "The World's 'Third Pole' is melting away. Here's how we can stop it from disappearing" by the former Prime Minister of Bhutan, His Excellency Tshering Tobgay, during the TEDSummit 2019 held recently. In this video, His Excellency, referring to the findings of the latest HKH Assessment Report, makes an urgent call to create an intergovernmental agency to protect the glaciers, and save the nearly two billion people of the Hindu Kush Himalaya and the downstream region from catastrophic flooding that would destroy land and livelihoods.

From Valerie Braun Institute for Interdisciplinary Mountain Research

New issue of eco.mont - Journal on Protected Mountain Areas Research and Management is online eco.mont July 2019

From MRI News

S. Duglio, M. Letey. 'The role of a national park in classifying mountain tourism destinations: An exploratory study of the Italian Western Alps.' *Journal of Mountain Science* (2019): https://link.springer.com/article/10.1007/s11629-018-5356-9

From Mountain Research and Development A couple of interesting publications amongst many provided via web site: mountain research and development

Himalayan Mobilities: An Exploration of the Impacts of Expanding Rural Road Networks on Social and Ecological Systems in the Nepalese Himalaya, *Mountain Research and Development* 39(1), (6 June 2019). https://doi.org/10.1659/mrd.mm229

Mountains: The Origins of the Earth's Mountain Systems, *Mountain Research and Development* 39(1), (6 June 2019). https://doi.org/10.1659/mrd.mm232

IUCN has launched a new, updated thematic study on World Heritage volcanoes, highlighting 18 sites as having potential for World Heritage status. World Heritage volcanoes

The Ice at the End of the World, Jon Gertner http://www.sciencemag.org/about/science-licenses-journal-article-reuse

Lapis Guides – bringing citizen science and information technology together From Amadeus DeKastle and Marc Foggin

The Lapis Guides platform enables organisations, projects and researchers to create their own uniquely tailored interactive field guides including photographs, descriptions and maps.

Data is easily collected through geo-tagged photographic "sightings" and can be collected in the field even when far from internet connectivity, with observations later transferred to a centralized database when the user is back in range of cellular data or wifi.

Additionally, the platform allows researchers to develop monitoring tools specifically focused on their geographic areas of interest; it has a multilingual interface; observations submitted by the public can be reviewed and confirmed later online; and all data can be downloaded for subsequent use in other software, such as GIS for spatial analysis.

For more information, see http://www.lapisguides.org/



Some events and meetings of interest

- 11 September "Towards a common vision sustainable tourism in Alpine parks" Bern,
 Switzerland—exploring further ways to move ahead on the development of a common Alpine strategy on the future development and promotion of sustainable tourism in protected areas
- 8-12 September International Mountain Conference 2019 Innsbruck, Austria an excellent opportunity for experts from different disciplines to come together and discuss mountainrelated issues. Read more...
- International Mountain Conference
- 17-18 September Healthy People in a Healthy Environment: Valuing the Health, Social and Cultural Benefits of Nature, IUCN Australian Committee Queensland Museum, Brisbane, Australia healthy-people-in-a-healthy-environment-symposium-tickets
- 22 26 September **Pathways: Human Dimensions of Wildlife Conference** hosted by Colorado State University Estes Park, Colorado *Global conference and training program designed to address the myriad of issues that arise as people and wildlife struggle to coexist in a sustainable and healthy manner.*
- 1—17 October <u>III Latin America and Caribbean Protected Area Congress</u> Lima, Peru— Congress of Protected Areas of Latin America and the Caribbean—under the slogan Solutions for welfare and sustainable development.
- 8-9 October Alpine Space project ALPBIONET2030 Chamonix, France
- 9-10 October YOUrALPS Project Final Conference Chambéry, France



- 30 October 2 November **2nd Caucasus Mountain Forum** 2019 Ankara, Turkey Read more
- 11 17 November 9th World Ranger Congress, Sauraha (on the border of Chitwan National Park), Nepal

2020

- 23—28 February **World Biodiversity Forum,** Davos, Switzerland Read more
- 19-26 March 11th World Wilderness Congress (WILD11) Jaipur, India
- 11-19 June The IUCN World Conservation Congress France CONGRESS WEBSITE





Important links

IUCN World Commission on Protected Areas for an outline of the role of Mountain Specialist Group <u>IUCN WCPA</u>

Mountains and Mountain UPDATE and IUCN World Conservation Congress <u>IUCN World Congress</u>

Protected Area Governance and Management (book) Management Book ANU Press

IUCN WCPA sustainable tourism in protected areas Sustainable Tourism Guidelines

The Mountain Partnership is a United Nations voluntary alliance of partners dedicated to improving the lives of mountain peoples and protecting mountain environments around the world. Mountain Partnership Global Mountain Biodiversity Assessment (GMBA) GMBA

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While Mountain Network members can choose not to be WCPA members and still be involved and receive the Mountain UPDATE, the WCPA Chair Dr Kathy MacKinnon, and Mountain Specialist Group Executive and would like to encourage all to become WCPA members. This helps to secure good governance and management of the WCPA and the Mountains Group and enlightens all members to the wider activities of the WCPA. To learn more about WCPA membership go to:

WCPA membership

For any relevant mountain protected area news, please email me (Gill) on peopleinnature@bigpond.com

I look forward to hearing from you soon!