

Mountain Protected Areas UPDATE



No. 94 June 2017



Volcanoes are monuments to Earth's origin, evidence that primordial forces are still at work.

As much as we have altered Earth's face to suit our needs, we can only stand in awe before the power of an eruption.

NPS US Dept of Interior

Aina a ke akua i noho ai...land where the goddess (Pele) dwells
Photo Volcanoes NP Hawai'i Graeme Worboys September 2016

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WCPA Mountain Specialist Group Committee:

- Peter Jacobs (Chair)
- Patrizia Rossi
- Fausto Sarmiento
- Mike Tollefson
- Linda McMillan
- Gill Anderson (Mountain UPDATE Editor)

WCPA Mountains Senior Advisor:

- Graeme Worboys

Mountain UPDATE is a quarterly newsletter distributed to members of our Mountain Protected Areas Network

Note from the editor

Welcome to the 94th edition of the Mountain UPDATE, coming to you in May, as the Editor will be fortunate enough to be hiking in mountains of Spain (Picos de Europa) and France (Vanoise) in June and early July.

I hope you enjoy reading this UPDATE as much as I enjoy compiling the stories. Sometimes with each UPDATE key themes and messages emerge, this time I think it might be the importance of understanding more about mountain ecosystem services and alternative ways of protecting mountains. Happy reading. May 2017

New Members

We have a large number of new members (300) due to people renewing their IUCN WCPA membership and expressing interest in the Mountain Specialist Group. Obviously it is too many names to list here but I would like to note 2 new members that have contributed articles and feedback to the current UPDATE.

Diego Sberna - Eco-anthropologist and Mountaineer from Argentina. Diego has worked for the conservation of the Qhapaq Ñan - Andean Road System World Heritage since 2009.

Juraj Švajda - Department of Biology and Ecology, Faculty of Natural Sciences, Matej Bel University, Banská Bystrica

I have attempted to put Mountain Network *member names* in italics throughout the UPDATE.

From *People and Mountains* around the World:

Global

An expanded network of Mountain enthusiasts

News from *Peter Jacobs*, Chair WCPA Mountain Specialist Group

The WCPA Mountain Specialist Group is essentially a strong network of mountain experts that has been in place for about 25 years. There have been many significant achievements over that period to support Mountain Protected Areas globally.

The Mountain Network database already had 390 members but the recent WCPA membership renewal process significantly expanded the membership with 366 active WCPA members showing an interest in the Mountain Specialist Group. In effect this means the WCPA Mountain Specialist Group members and non WCPA Mountain Network members combined is now nearly **700** people. This clearly re-enforces the importance people place on mountains.

So I would like to take this opportunity to welcome the new 300 WCPA members that have signed up for the Mountain Specialist Group that have not been part of the Mountain Network previously. Shortly we will communicate more about the activities of the Mountain Specialist Group and how you can be involved.

If not a WCPA member – please think about joining

At this stage only 66 Mountain Network members are active WCPA members.

While Mountain Network members can choose not be WCPA members and still be involved and receive the Mountain News 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](#)

Recently I had a very successful meeting with Dr *Kathy MacKinnon* (WCPA Chair) along with the Oceania Vice-Chair, Ms Penny Figgis. We discussed future direction of the Mountain Specialist Group, including wider regional representation on the Committee and institutional support.

We also presented work to date on our key project, which is identifying unprotected Mountain Key Biodiversity Areas in all Bio-geographic Realms and a process for prioritizing advocacy. Kathy and Penny were very supportive.



L-R *Gill Anderson* (UPDATE editor), *Penny Figgis* (WCPA Oceania Vice-Chair), *Kathy MacKinnon* (WCPA Chair), *Peter Jacobs* (WCPA Chair Mountain Specialist Group)

Australian Alps (Alpine National Park)
WCPA Oceania Region



Editor NB A gentle prompt from Mountain SG member *Martin Price* led to this article about new and extended mountainous biosphere regions/protected areas – notes and images from UNESCO Media Services.

What is a biosphere reserve?

Biosphere reserves are special places for understanding and managing changes and interactions between social and ecological systems.

They are nominated by national governments and remain under the sovereign jurisdiction of the states where they are located. Their status is internationally recognized.

There are over 669 biosphere reserves throughout the world of which about two-thirds are in mountains.

New Biosphere Reserves in 2016

Albay (Philippines)

Located at the southern end of the Luzon Island, the biosphere covers some 250,000 hectares. The terrestrial elevation of the site culminates at 2,462 metres and its marine part reaches a depth of 223 below sea level.

Agriculture is the main source of income in this area.

Gran Pajatén (Peru)

Located in the Central Cordillera, the biosphere reserve is characterized by high altitudes and a pristine ecosystem. It encompasses the **National Park del Río Abiseo**, which is inscribed on UNESCO's World Heritage List. The site is home to fauna and flora of rainforests characteristic of this region of the Andes and has a high level of endemism.

It is the only place on earth where the yellow-tailed woolly monkey, previously thought extinct, is to be found. Gran Pajatén also lends its name to an archaeological site in the Andean cloud forests of Peru, which provides insight into pre-Inca society.

More than 170,000 people live in the biosphere reserve whose main economic activities are agriculture (cacao, coffee), livestock and mining.

Atlas Cedar (Cèdre de l'Atlas) (Morocco)

This part of the Atlas Mountains is rich in ecosystems with peaks up to 3,700 metres – it provides the region with critically important water resources and is home to 75% of the world's majestic Atlas cedar tree population. Fruit plantations, modern agriculture and tourist activities, which have taken the place of semi-nomadic pastoral traditions, are taking their toll on scarce water resources. The rich local Berber culture is particularly strong in this area.

Fajãs de São Jorge (Portugal)

Covers the entire Island of São Jorge where rugged coastal cliffs form a unique landscape of highland meadows, peat bogs and scrubs. The combination of high altitude and coastal ecosystems has resulted in a wealth of endemic terrestrial flora.

Close to 9,000 people live on the island.

3 interrelated zones aim to fulfil 3 functions:

- **Core area(s)** comprises a strictly protected ecosystem that contributes to the conservation of landscapes, ecosystems, species and genetic variation.
- **Buffer zone** surrounds or adjoins the core areas, and is used for activities compatible with sound ecological practices that can reinforce scientific research, monitoring, training and education.
- **Transition area** is the part of the reserve where the greatest activity is allowed, fostering economic and human development that is socio-culturally and ecologically sustainable



Extensions include:

Mount Hakusan Biosphere Reserve - Extension (Japan)

Comprises alpine, subalpine and montane zones around the 2,700 metre-high Mount Hakusan.

Trifinio Fraternidad - Extension (Honduras)

Mt Odaigahara, Mt Omine & Osugidani Biosphere Reserve - Extension (Japan)

Mountainous area in the Kii Peninsula of Honshu Island

Yakushima and Kuchinoerabu Jima Biosphere Reserve – Extension (Japan)

Encompasses the area inscribed on the World Heritage List, also under the name of Yakushima, and now covers the entire island, as well as the island of Kuchinoerabu and the marine area surrounding both.

Mount Sorak Biosphere Reserve - Extension (Rep. of Korea)

The reserve is located in the centre of the **Baekdudaegan Mountain Range**, which has the highest peak in the country and now encompasses inhabited areas, forests, and agricultural lands around **Mount Sorak National Park**.

Wester Ross Biosphere Reserve - Extension (United Kingdom of Great Britain and Northern Ireland)

America (north – central - south)

River piracy in the Yukon?

NB Editor – this article highlights that the effects of climate change on glacial environments may be more instantaneous and far reaching than previously thought – as if greater melt and contributions to sea level rise aren't enough, now we have disappearing rivers!

A vast glacier-fed river which flowed from Canada's Yukon territory across Alaska to drain into the Bering Sea has disappeared in what is believed to be the first observed case of "river piracy" - according to a scientific paper published in the journal Nature Geoscience and reported by ABC News (AP).

High average temperatures in the first three months of 2016 caused a dramatic spike in the amount of meltwater flowing from the **Kaskawulsh Glacier**, carving a deep canyon in the ice and redirecting the flow toward the Alsek River in the south, rather than the north-flowing Slims River. The scientists say the switch will have dramatic implications for the lakes and rivers downstream.

"Ongoing thinning and retreat of the **Kaskawulsh Glacier**, caused by over a century of climate warming abruptly triggered the river piracy which was geologically instantaneous and is likely to be permanent. The large supply of sediment to **Kluane Lake** from Slims River has ended, with unknown effects on the structure and chemistry of the lake and its ecosystems."

The south-flowing **Alsek River**, which is now receiving significantly increased flow from the glacier, is part of a UNESCO World Heritage region recognised for its "exceptional natural beauty" and plays a "pivotal" role in plant and animal migration.

Although the Yukon is a sparsely populated region, the scientists suggest that massive and virtually instantaneous restructuring of entire river systems could be devastating to economic infrastructure if it occurs where people are reliant on the water flow.



The Kaskawulsh Glacier covers about 25,000 square kilometres. The front has retreated nearly 1.9 kilometres since 1899.

Collaboration between scientists and managers

Some key findings from a relatively new book mentioned previously in the UPDATE, [Climate Change in Wildlands: Pioneering Approaches to Science and Management](#)

The book sets out to understand how climate and land use changes affect mountain landscapes of the Rockies and the Appalachians, and how these findings can be applied to wildlands everywhere.

Some of the key findings are:

- Climate has warmed about 1.3° F over the past 30 years in the Northern Rockies and is projected to rise from 4-9° F by 2100 in both the Rockies and the Appalachians.
- Climate warming to date has reduced snowpack in the Northern Rockies to the lowest levels in 800 years, caused river flows to decline and water temperatures to warm, allowed eastern warm water fish to become invasive in the upper Yellowstone River, and contributed to a die-off of subalpine forests, including the whitebark pine, whose nuts provide an important food source for the endangered Grizzly bear.
- Projected climate warming is projected to increase rates of these trends in the Rockies and cause decline of cover forests and subalpine forests in the Appalachians.
- Federal land managers have been developing strategies to over the past decade to address climate change impacts on federal lands and, within the Northern Rockies, to sustain the health of whitebark pine and other sensitive fish and tree species in the context of past warming.
- Success in using NASA remote sensing products with modern climate science and forest management in this project provides a demonstration for climate adaptation planning on other sensitive federal lands across the US. The NASA products are available for federal land managers and continue to be used in new projects to understand the impacts of climate change on resources.

Africa

Expanding the Conservation Patchwork for Mountain KBAs in East Africa's Albertine Rift

From *Elaine Hsiao* Ph.D. Candidate and Liu Scholar, UBC-IRES, Resources, Environment & Sustainability

Most of the mountain KBAs in the East African Albertine Rift region suffer from incongruent governance, due to transecting international boundary lines and different levels of protection and/or enforcement, related to capacity, corruption or resources.

These areas feature some of the highest human population densities in the world, making expansion of existing protected areas through the traditional national park model prohibitively challenging.

In some of the **Greater Virunga parks**, wardens had hoped to establish buffer zones between park and community land, but found the cost of community relocation preventative. As a result they resorted to fences and barriers to mitigate human-wildlife conflicts.

Unfortunately where communities encounter scarcity and are land or resource restricted, seemingly caused by the imposition of new protected areas, communities can be very negative or even adversarial towards park management. As an example, **Mount Elgon National Park** in Uganda has recently had to open its boundaries to review. Communities have been encroaching inside the park, arguing for years that the park borders are not legitimate. It is not known whether the park boundaries will remain or how they will be redrawn after this process.

It is also not uncommon to hear of politicians supporting local constituencies in land claims within protected areas during elections; then once voted in, lobby heavily to degazette portions of existing protected areas. In Virunga National Park, they even collude with armed groups or hire mercenaries to enforce land claims against rangers and army attaches.

As an alternative, community conservancies could be better explored and developed to provide conservation-based economic and land use opportunities. But if this is to be part of the future landscape patchwork, then a lot of investment will need to be put into building capacity and equipping communities for conservancy management.

There is some exploratory work being done and a lot of potential for this to add value to existing tourism-based community initiatives. Many of the existing community conservation projects (small livelihood projects, revenue sharing from park entrance fees etc.) are yielding some positive results, but probably not significantly enough to keep mountain protected areas from being island refuges for biodiversity.

Needless to say, mountain KBAs falling outside of existing protected areas are going to need a different approach.

Elaine Hsiao lives in Kigali, in the Central Albertine Rift straddling the borders of DRC, Rwanda and Uganda. Her cross-border research has also been expanded to include Mt. Elgon on the border of Kenya and Uganda.



Rwanda (photo Elaine Thomas)

[Balancing Coal Mining and Conservation in South-West Ethiopia](#)

Taken from AfroMont by K Suleman (2017), South African Institute of International Affairs (SAIIA) Policy Insights No 40, March 2017

The Great Rift Valley divides the Ethiopian highlands into the south-west and north-west highland plateaus. The south-western Afromontane forests are the primary centre of diversification and the only place in the world where genetically diverse species of *Coffea arabica* grow in their original habitat. The Yayu coffee forest, situated some 560 km south-west of Addis Ababa, is an essential component of the Afromontane forest ecosystem. The coffee forest was designated as a national forest priority area in the early 1990s and recognised as a UNESCO Biosphere Reserve in 2015. It is part of the Eastern Afromontane Biodiversity Hotspot and an Important Bird and Biodiversity Area of international significance. The area is also of cultural and historical significance since it possesses many archaeological and ritual sites.

The discovery of coal deposits in the coffee forest and the government's plan to extract the coal and produce coal-based chemical fertiliser and coal-fired thermal power has presented the greatest challenge to the existing conservation endeavors in the region.

Australia & New Zealand

Snowy Hydro 2 and Australian Alps catchments

The Australian Government has a plan to expand the hydroelectric scheme in the Australian Alps (in the Snowy Mountains) in an attempt to boost energy security. A group of concerned alpine ecologists revisited many of the issues discussed at the Australian Alps Climate Change Science Management Forum in 2016 and responded with an article about the need to continue and improve land management of high country catchments.

The \$2 billion upgrade and expansion will be an impressive engineering achievement. Snowy Hydro 2.0 will increase the scheme's capacity by 50%. Meeting this extra capacity will depend entirely on the natural water supply available in the Snowy Mountains. But the current environmental conditions of these mountains are compromising both [water delivery](#) and [water quality](#).

The only way to maintain water flow is to control the threats that are actively degrading the high country catchments. These include introduced animals, wetland loss, and climate change. Interestingly the Australian Federal budget just announced makes no (obvious) mention of climate change.

Please read the whole article from *Susanna Venn* and others at:

<https://theconversation.com/snowy-hydro-scheme-will-be-left-high-and-dry-unless-we-look-after-the-mountains-74830>

NB: The 2018 Australian Alps Science Management Forum is looking to focus on the future health and management of the alpine catchments. This forum is supported by the WCPA Mountains SG.

Australian Alps – oh deer!

From *Elaine Thomas* a story of a deer control trial to protect alpine peatlands in the Alpine National Park (Australian Alps). Deer are introduced animals in Australia.



Deer wallow in peatland

Alpine peatlands are a special vegetation community with high national conservation significance.

They are rare, being restricted to high elevations in south-eastern Australia, floristically diverse and provide critical habitat and refuge for a number of threatened flora and fauna species. Peatlands also have economic and social significance.

Over the past 10 years a marked increase in the number of Sambar deer and the area they occupy has been observed in the **Alpine National Park**, together with increased impacts on alpine peatlands.

In response Parks Victoria commenced a deer control trial in May 2015.

The trial involves three years of targeted deer control, by both contractors and volunteers, in four areas across two sites and compares this with the same number of non-treatment areas using before and after monitoring of peatland condition, deer abundance and density.

The trial uses a structured *learning by doing* approach ... and since 2015 we have done a lot (19 control operations over 2000 hours with over 220 deer culled) ... and learned a lot about deer and deer control.

Sambar deer are nocturnal, wary and shy; they are intelligent and learn quickly to avoid detection. They're not regarded as a premier game species for nothing.

So, what is their Achilles heel? What behaviour can we exploit to control their numbers and reduce their impacts? Until now, our ability to exploit any of their behavioural traits has been limited, but with the advent of readily available thermal imaging and night vision equipment we now have a better shot.

It is still too early to tell whether ground shooting can reduce the impacts of deer on alpine peatlands but anecdotally, the signs are encouraging, and foot-based night operations, by experienced operators, using thermal imaging equipment and targeting deer feeding areas, appear to be the most efficient and effective.

Central Asia – Himalayas

'Third Pole' National Park

From *Marc Foggin*, University of Central Asia and WCPA Mountain Specialist Group

This summer, scientific surveys will be undertaken to help delineate a park of unprecedented size, potentially encompassing the entire Tibetan plateau at over 2.5 million sq. km. As only China can do, a national park 250 times larger than Yellowstone is being proposed!

This is undoubtedly an extraordinary contribution to the global conservation agenda; through the protection of the headwaters of Asia's major rivers (affecting the lives of around 40% of the world's population) and its sheer size, providing a large scale buffer in an era of rapid climate change.

But will the anticipated direct cost to residents in the Tibetan plateau region be unnecessarily high?

Some academics in China are concerned the Tibetan Plateau as a whole is just too big to manage as a conventional park. Does this mean that we should not work to conserve the extraordinary unique habitats, wildlife, and especially the life-giving water of the plateau? Absolutely not! Environmental and ecological protection of the 'Third Pole' remains an imperative, as President Xi Jinping correctly directs the people and leadership of China. Future generations locally and downstream will reap the benefits.

However, a modified form of park management clearly is warranted, drawing on such national experiences as in the Sanjiangyuan Nature Reserve – itself in the process of being established as China's first National Park – in which community wellbeing and nature conservation are twin pillars for long-term sustainability. Alternative community-friendly solutions exist for the protection and maintenance of biodiversity and ecosystem services.

As in the world's oldest national park, **Yellowstone**, tourism might be developed as a core industry; however this equally must benefit the long-standing local custodians of the mountains, grasslands, and rivers of the Plateau – the local farmers and herders themselves.

International cooperation, such as in the context of China's "One Belt, One Road" initiative that aims to promote cultural ties and strengthen economic cooperation across Eurasia, could be leveraged to find ways of managing the proposed **Third Pole National Park** for both people and nature. IUCN's World Commission on Protected Areas (WCPA) would be an excellent place to start, drawing on its rich experience, if such collaboration were to be sought to help protect one of the last remaining 'wilderness areas' of the world – the world's vast, high altitude, mountainous Third Pole.

But a home grown Chinese model already exists, even within the Tibetan plateau region. So there is certainly hope that community development and wellbeing could be achieved together with the national and global 'greater good' – if participatory and integrated co-management approaches could be considered and adopted into ***an enhanced model of park management***. We should and can indeed work together to guard and keep it as "the last piece of pure land." The above article is referring to news recently published in the South China Morning Post,

<http://www.scmp.com/news/china/policies-politics/article/2088442/china-plans-worlds-biggest-national-park-tibetan>



Tibetan plateau (photo People in Nature)

China's First National Park: Sanjiangyuan National Park – source of 3 rivers

Marc Fogg alerted the UPDATE to China's First National Park; the following is taken from the [People's Daily Online](#) January 17, 2017

A national park planned in the Sanjiangyuan area to protect the headwaters of the Yangtze, Yellow, and Lancang (Mekong) rivers will by 2020 cover 123,000 square kilometres and officially become China's first national park as administered by the central government.

The administration bureau of **Sanjiangyuan National Park** said Monday that the park would have a budget of 1 billion yuan (\$145 million) this year for infrastructure construction such as roads, access control facilities, visitor centers, preservation stations and sewage treatment facilities.

The bureau started trial operation of the management of the national park, a vast wetland and grassland area located in Qinghai-Tibet Plateau.

Under the national park management, the park will hire more than 10,000 wardens to patrol over 120,000 square kilometers, an area bigger than the U.S. state of New York.

"The park is massive and sparsely populated. Most areas in the park do not have roads. Herdsmen can only ride horses to traverse the land," Zhai Jinquan, a planning official said.

Zhai said in order to enhance ecological protection and law enforcement work, the park would build roads and install a network for remote monitoring.

The **Sanjiangyuan Nature Reserve** was established in northwest China's Qinghai in 2000. The decision to turn the area into a national park managed by the central government was made at a meeting of the Central Leading Group for Reform at the end of 2015.

The park is rich in wildlife, including endangered species such as the Tibetan antelope and the snow leopard.

Under the national park management, herders and farmers will be turned into the central forces of environmental protection at Sanjiangyuan.

The work is expected to provide jobs, boost farmers' incomes and give them an incentive to protect the environment.



Tibetan antelope (Photo/sanjiangyuan.gov.cn)

Europe

Paper parks versus real parks...

NB Editor: National and international protected area terms do not always correspond - a conservation challenge articulated well in the blog:

How can the international community help national parks in Slovakia?

by Juraj Švajda, Matej Bel University, Banská Bystrica, Slovakia

Every year authorities issue more than 2,000 exceptions from protection. Administrators of protected areas do not own the territories they administer and have no practical impact on its daily management. Seven different categories of protected areas and five levels of protection make the nature protection system quite complicated at the national level.

When you look at some protected areas in Slovakia, like the **Low or High Tatras** you will see that they are registered as category II (national park) according to the IUCN, but that does not correspond with the reality. Guidelines suggest that the category should be based on the primary management objective, which should apply to at least 75 percent of the protected area. The primary objective for a national park is to protect natural biodiversity along with its underlying ecological structure and supporting environmental processes, and to promote education and recreation. The situation amongst Slovak national parks is clearly contrary to the above-mentioned definition of IUCN for category II.

This is why some NGOs have come up with an initiative to split the system of nature protection into two zones: intervention and non-intervention.

One excellent example of insufficient management is the vanishing world of capercaillie as key species connected to old forests. Over the past 10 years their number in Slovakia has decreased by 40%. In the Low Tatras alone, more than 7,000 hectares of old forest have disappeared.

The current system of conservation with rapid habitat losses inside national parks is insufficient to sustain biodiversity and protect the national and regional biological heritage.

The International community should take urgent action to repair the current system instead of bringing new tools (e.g. green list of well-managed protected areas or wilderness certification).

As the first step to improve the situation in Slovakia we need to truly consider and update data in the World Database on Protected Areas (WDPA) so that we do not lie to ourselves and to the international community by purporting that paper parks are real parks. This only weakens real national parks and threatens reaching the Aichi Biodiversity Targets.

Above is an extract but please read the whole article <https://spectator.sme.sk/c/20495626/blog-how-can-the-international-community-help-national-parks-in-slovakia.html>



Low Tatras (photo K Kalisky)

In 2005, the IUCN mission to the High Tatras made 18 recommendations which have remained unnoticed. Most of the parks have not had valid management plans for nearly 20 years now and no approved zoning.

Of course there are activities which are not compatible with category II e.g. hunting, logging, infrastructure development.

Scree and Talus

June 5 World Environment Day: a global celebration of nature, a day to reconnect with places that matter most to you

Every World Environment Day has a different global host country, where the official celebrations take place. The focus on the host country helps highlight the environmental challenges it faces, and supports the effort to address them. This year's host is Canada. <http://www.worldenvironmentday.global>

Increasing aeolian dust deposition to snowpacks in the Rocky Mountains

From MRI publication list Clow, DW; Williams, MW; Schuster, PF (2016). Atmospheric Environment, Dec 2016

Mountain snowpacks are a vital natural resource for similar to 1.5 billion people in the northern Hemisphere, helping to meet human and ecological demand for water in excess of that provided by summer rain. Springtime warming and aeolian (moved by weather) dust deposition accelerate snowmelt, increasing the risk of water shortages during late summer, when demand is greatest.

Using a multivariate modelling approach, we determined that increases in dust deposition and decreases in springtime snowfall combined to accelerate snowmelt timing in the southern Rockies by approximately 7-18 days between 1993 and 2014. Previous studies have shown that aeolian dust emissions may have doubled globally during the 20th century, possibly due to drought and land-use change. Climate projections for increased aridity in the southwestern U.S., northern Africa, and other mid-latitude regions of the northern Hemisphere suggest that aeolian dust emissions may continue to increase, compounding the risk that climate warming poses to snowpack water resources in arid/semi-arid regions of the world.

From the IUCN Congress team

According to the 1373 participants who responded to the survey, the IUCN Congress 2016 in Hawai'i was one of the largest, most complex, best attended and most favourably reviewed Congresses in IUCN history. This will help us make the 2020 Congress even better. [PDF Report](#) **Looking forward to the 2020 Congress** we have just started the [process to select the host country](#) of the 2020 IUCN World Conservation Congress.

NB Editor Remember the Mountains SG had a very successful 'knowledge café' at the last Congress.

Eight Geological sites in Asia, Europe and Latin America become UNESCO Global Geoparks

From UNESCO media 5 May 2017

UNESCO Global Geoparks are territories that promote geodiversity through community-led initiatives to enhance regional sustainable development. They help monitor and promote awareness of climate change and natural disasters. They help local communities prepare disaster mitigation strategies. Many of them are in mountains.

With this year's eight additions, the world network now numbers 127 UNESCO Global Geoparks in 35 countries. They celebrate the 4.6-billion-year history of our planet and the geodiversity that has shaped every aspect of our lives and societies. Furthermore, Geoparks create opportunities for sustainable tourism, whose importance has been recognized by the United Nations, which named 2017 as International Year of Sustainable Tourism for Development.

Review of America's National Monuments created since 1996

Adapted from Wilderness Society News (May)

In April President Trump took his first step to dismantle or shrink national monuments across the country. The President issued an executive order directing the Department of the Interior to review over 20 years of national monuments designated under the Antiquities Act.

Letter to President Trump: "Americans want more protected public lands and waters, not less." More than 450 organizations representing millions of members across the country [sent a letter to President Donald Trump](#), and others in opposition to any effort to remove or decrease protections for any national monuments.



Bears Ears National Monument in Utah will receive special treatment- as mentioned in last UPDATE

The oldest protected area in Central Asia (from MPS)

Peak to Peak reports that events were held in Kazakhstan to celebrate the 90 year history of the **Aksu-Zhabagly Nature Reserve** located in the West Tien Shan.

Initially it consisted of only 30,545 ha of mountain lands but today, the strict Protected Area is 5 times the size. In 2015 **Aksu-Zhabagly** was recognized by UNESCO as a Biosphere Reserve with a total area of 357,734 ha.



Education Database

The Mountain Partnership Secretariat (MPS) has launched an education database to assist members and students find courses and degree programmes on mountain issues offered by universities around the world.

The Mountain Education Database will help users to discover courses in their subject area of interest and compare them to courses offered by other universities and in different fields.

Tailored to the needs of mountain communities, mountain experts and scientists the Mountain Education Database is constantly updated, but please do not hesitate to contact the MPS to suggest new courses or add information about courses that are already present in the database. info@mountainpartnership.org or search the [Mountain Education Database](#)

Mountains 2018 - call for input

Mountains 2018, Brazil, is the second in a series of international conferences that will bring together scholars, professionals, policy-makers and other stakeholders from the mountain world.

The conference seeks to stimulate discussion and disseminate knowledge about mountains, based on lessons learned from scientific research and practical experiences related to the use of mountain territories and the challenges of promoting sustainable development in them.

This will include reflecting on how mountains can contribute to achieving the Sustainable Development Goals. See [Mountains 2018 Facebook page](#), Learn more about [LuMont](#), Read about [Mountains 2016](#)

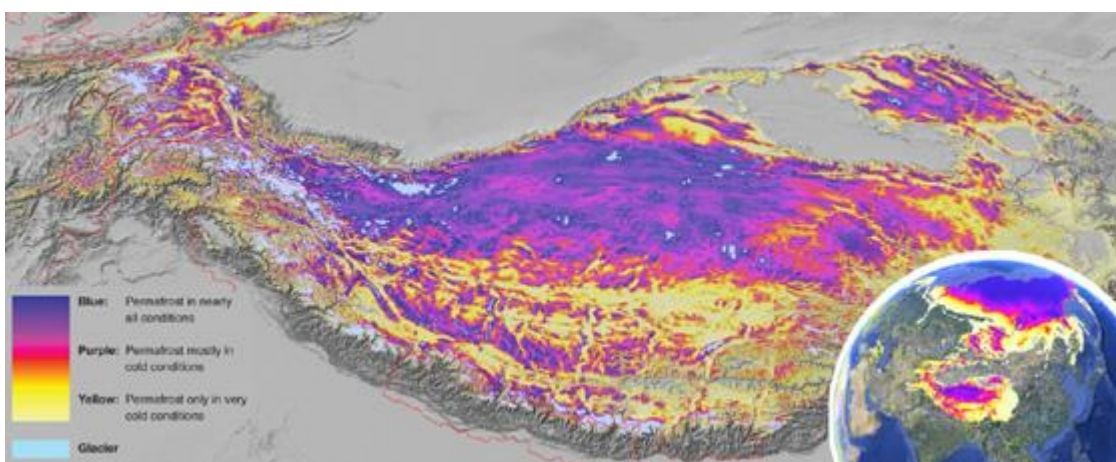
NB Editor I never cease to be impressed by the range and standard of projects undertaken or supported by ICIMOD – the publications, workshops and research – just to mention a few aspects of their work!
The following 4 articles can be followed up on the ICIMOD site: <http://www.icimod.org>

Permafrost

Scientists from ICIMOD's [Permafrost Special Project](#) have reviewed existing knowledge on permafrost in the Hindu Kush Himalaya (HKH), and explored what can be learned from other global areas.

Permafrost is frozen ground that remains at or below 0° Celsius for two or more years. In high-altitude regions, permafrost can underlie much of the landscape. The impacts of permafrost thaw have been observed in many regions, including the European Alps, North and South America, Central Asia and the Arctic.

But for the Hindu Kush Himalayas, published studies are few and relate mainly to the Tibetan Plateau in the context of Chinese highway and railway construction. To fill the knowledge gaps, ICIMOD is working to assess and better understand the dynamics of permafrost in the Hindu Kush Himalayas and its relationship to hydrology, hazards, ecosystems and livelihoods.



Gruber 2012

“Climate change affects permafrost in the HKH. We have to study the impact of permafrost thaw on the water, the associated hazards and the ways in which mountain people are impacted by it.” Dorothea Stumm ICIMOD

Climate Action at IPCC Outreach Event

More than 250 experts, policy makers, government officials, journalists, and youth convened in Kathmandu in April to discuss climate change in the Hindu Kush Himalaya. After sharing studies and experiences about climate change in the region, they discussed ways to combine their efforts to create meaningful action against the impacts of rising temperatures and other climate change effects.

Cryosphere research capacity building in Afghanistan

A training course titled “Application of Remote Sensing (RS) and Geographic Information Systems (GIS) for the Mapping and Monitoring of Glaciers” was organized in Afghanistan early in 2017. The training was organized in response to the need expressed in a number of consultations for capacity building related to the monitoring of glaciers and glacial lakes in Afghanistan. [READ MORE](#)

Mountain women - agents of livelihood and ecosystem change

This is an uplifting story by Sunayana Basnet about a number of Nepalese women that travelled to the Indian side of the [Kailash Sacred Landscape \(KSL\)](#) to participate in an exposure visit. It is a story about courage and boldness, and the co-operation of communities across borders to learn and be inspired to do better in their immediate world of conservation.

“It is rightly said that if you educate a man you educate only an individual, but if you educate a woman you educate an entire family.” Sunayana Basnet

The visit was organized by the Kailash Sacred Landscape Conservation and Development Initiative targeting the women of the Api Nampa Conservation Area. They were taken to sites in India where degraded ecosystems have been restored using fodder species, and fodder management, both of which have become important livelihood strategies for locals in the region.



Participants - Jajurali village (photo ICIMOD)

The AfroMont-Mt Kilimanjaro Research Meeting

The AfroMont-Mt Kili mountain research meeting brought both African and European scholars together to discuss a wide range of mountain research topics. Presentations covered vegetation change on the slopes of **Mt Kilimanjaro** to mountain dung beetles, changes in the Pangani River Basin, and even the ancient lineages of endemic Lobelias in the mountains of East Africa.

“You should come next time – there will be something of interest that will make you think differently about Africa’s very beautiful mountains and the still vast amount of research that is needed to help us understand how they are changing.” Editorial AfroMont March 2017

The next AfroMont conference organised for African mountain science will be in Morocco in 2019.



Giant Lobelia (photo C Hemp)

Killing baby animals in Alaska

From Sierra Club News (April)

The Senate voted 52 - 47 to overturn the U.S. Fish and Wildlife Service’s Alaska National Wildlife Refuges Rule, which will now cede control of wildlife management on national public lands to a narrow set of extreme hunting interests.

Now hunters can kill grizzlies and wolves on Alaska’s wildlife refuges, including mother grizzlies with their cubs, and wolves with their pups in their dens.

Why do the resolution’s supporters want this? They claim that these so-called “predator control” activities will increase elk, moose, and caribou populations. But there’s just one problem: No scientific evidence backs up that claim. **Heather Moyer for Sierra Club**



Canaries of the mine

From Fausto Sarmiento

The University Antonio Ruiz de Montoya of Lima, Peru, organized an Open Forum to discuss the Latin American governmental responses to the global climate change negotiations, whereby emphasis was given to the key role that mountain protected areas play in serving as the canaries of the mine in relation to warming and deglaciation.

Some Recent Publications of Interest

A new publication highlighting the role of mountain protected areas in the Americas has just been published. Mountains Specialist Group committee member *Fausto Sarmiento* and Sarah Hitchner edited the book on "*Indigeneity and the Sacred: Indigenous Revival and the Conservation of Sacred Natural Sites in the Americas*". Please see the link here: <http://www.berghahnbooks.com/title/SarmientoIndigeneity>

Publications ICIMOD: These publications are available [online](#) and can be downloaded from [HIMALDOC](#). ICIMOD hopes you find them useful and would be happy to receive your comments.

Abundance, Distribution and Conservation Status of Siberian Ibex, Marco Polo and Blue Sheep in Karakoram-Pamir Mountain Area (2016) in: *Journal of King Saud University - Science* 28: 216-225

Results showed that the entire study area had a scattered but worthwhile population of Siberian ibex, Blue sheep and Marco Polo sheep, except Khunjerab Pass, Koksil-Pateshek and Barkhun areas of **Khunjerab National Park (KNP)**. Despite scarcity of natural vegetation and extreme climate, estimated abundance of ibex and Marco Polo sheep was not different from that in Protected Areas of Nepal, China, and India, except for Blue sheep.

A science based conservation and development strategy is proposed to restore viable wildlife populations and maintain ecological flows of Karakoram Pamir Mountains to benefit both the wild species and the local human communities.

[Traditional Practice and Knowledge of Indigenous and Local Communities in Kailash Sacred Landscape, Nepal](#)

The Kailash Sacred Landscape (KSL) is a transboundary landscape (area: 31,252 sq.km) around Mount Kailash. KSL is exceptionally rich in cultural and ecological diversity and has its own traditional systems of resource use and management. This study was conducted in different representative villages of four districts of KSL Nepal with the aim of documenting the traditional practice and knowledge of the indigenous and local communities regarding natural resource use and management.

Kangchenjunga Landscape [Kangchenjunga Landscape Conservation and Development Strategy and Regional Cooperation Framework](#)

Nakul Chettri (ICIMOD) is pleased to inform you that one of ICIMOD's six transboundary landscape initiatives now has an agreed Conservation and Development Strategy and Regional Cooperation Framework supported by a Regional Feasibility Assessment Report. The KL stands out from other landscapes for its high endowment of endemism and an intricate network of 19 protected areas. These two long awaited documents were launched in May, Thimphu (Bhutan), during an event organized for **Kangchenjunga Landscape**.

[A Multi-Dimensional Assessment of Ecosystems and Ecosystem Services in Barshong, Bhutan](#)

Understanding the services provided by mountains and how they contribute to the economic growth and livelihoods of hundreds of millions people is vital to the well-being of both local and global communities.

Rodney Garrard co-authored a publication that may be of interest to the network: `Climbing for Science and Ice` From Hans Kinzl and Mountaineering-Glaciology to Citizen Science in the Cordillera Blanca, which featured in the first Revista INAIGEM - Dec 2016.

Diego Juffe-Bignoli suggested: A global inventory of mountains for bio-geographical applications, might be a good resource for some of the mountain group experts. Alp Botany DOI 10.1007/s00035-016-0182-6

From – IUCN WCPA *Protecting the Planet* March News

Adapting to Climate Change Best Practice Guidelines

Protected area managers face enormous challenges: a lack of resources, invasive species, poaching, and development to name to just a few. Now along comes a threat that is bigger than all the previous ones and interacts with most of them. Climate change is real and an enormous challenge to our very understanding of the role of protected areas, humanity's key conservation tool.

[Read more](#)

Strategic Research Agenda: Mountains for Europe's Future

The short term aim was to get more mountain research topics into the 2018-20 calls of Horizon 2020, the EU's current research funding program; the long-term goal was to increase awareness of decision makers about the importance of mountains for all of Europe.

Mountains for Europe's Future – A strategic research agenda. [Download](#)



Global Support Initiative to Indigenous Peoples and Community-Conserved Territories and Areas (ICCA-GSI): Newsletter No. 1

The ICCA-GSI was formed to broaden the range and quality of diverse governance types in recognising ICCAs in order to achieve the Convention of Biological Diversity Aichi 2020 targets. It is implemented in 26 countries including Argentina, Belize, Benin, Brazil, Colombia, Ecuador, Georgia, Guatemala, Indonesia, Iran, Jordan, Kenya, Kyrgyzstan, Madagascar, Malaysia, Maldives ... [Read more](#)

The **PARKS** VOL 23.1 MARCH 2017 (the International Journal of Protected Areas and Conservation) issue can be downloaded [here](#). Among other interesting papers this issue of PARKS offers a paper on the values of protected areas (PAs) in the **Dinaric Arc** in Europe.

Economic and non-economic benefits of protected areas were assessed in 58 national parks in the Dinaric Arc of Europe, involving over a thousand local people and identifying major economic benefits from tourism, rural development and water.

The study used the Protected Area Benefits Assessment Tool in stakeholder workshops in all the parks studied.

The [Global Standard for the Identification of Key Biodiversity Areas](#) is finalised, has been approved by the IUCN Council. The Standard is available in English, Spanish and French through the above link. IUCN, 2016.

Special issue on **Mountains: Physical, Human-Environmental, and Sociocultural Dynamics** (978-1-138-06697-7) of the Annals of the American Association of Geographers Vol. 107 Num. 2 (2017). *Fausto Sarmiento* let us know that included is a selected collection of contributed, peer reviewed articles from top American scholars working on mountain systems of the world. Not only are there the "traditional" physical geography papers on mountain terrains, but also some heterodox papers on the human geography of mountain communities and a couple of themes related to the humanities and the mountains.

Some forthcoming events and meetings of interest

Call for applications for HUC individual grants 2017-2018

Individual grant proposals are expected to focus on the trans-boundary, or comparative, and/or multi-disciplinary aspects of one or more of the following areas in the Hindu Kush Himalaya:

- Water resource studies (monsoons, snow cover, permafrost, glacial lakes, wetlands, etc.) and management;
- Climate change impact on water resources;
- Disaster and risk management;
- Water, food, and energy security; and
- Upstream-downstream linkages and policy implication

Applications are reviewed on a rolling basis, ending 30 September 2017. Details: <http://www.icimod.org/?q=27130>

Courses (from Mountain Partnership)

5-19 July 2017 IPROMO Summer School - Environmental and economic issues to enhance mountain sustainability - Ormea – Pieve Tesino (Italy) further queries: rosalaura.romeo@fao.org and d.godone@gmail.com

The Future of Conservation Survey, UNEP WCMC

Meetings and Conferences 2017

9 May [European Ranger Congress 2017](#) Czech Republic

27 June [Biodiversity and Health in the Face of Climate Change](#): *Challenges, opportunities and evidence gaps*, Bonn Germany

13 July [ICEESD 2017](#), Stockholm, Sweden *19th International Conference on Ecosystems, Environment and Sustainable Development*

21 August [12th International Congress of Ecology](#), Beijing, China *Ecology and Civilization in a Changing World*

6 September EUROPARC Conference 2017: Magic Mountains, Portugal

24 September [IUFRO 8.01.02 Landscape Ecology Conference 2017](#), Halle, Germany *The Green-Blue Nexus: Forests, Landscapes and Services*

1 October [Mountains in the Changing World](#) #MoChWo, Kathmandu, Nepal

10 October *Fifth Meeting of the Conference of the Parties to the Carpathian Convention (COP5)*, Lillafüred, Hungary

2 November [6th International Symposium for Research in Protected Areas](#) Austria National Parks and Hohe Tauern National Park will host the 6th International Symposium for Research in Protected Areas at the Faculty of Natural Sciences, University of Salzburg, Austria.

6 November Conference of the Parties (COP 23) to the UN Convention on Climate Change Asia (TBD)

7 November [International Congress on Climate Change and its Impacts](#), Huaraz, Peru

7 November [Symposium on Atmospheric Chemistry and Physics at Mountain Sites](#), Gotemba, Shizuoka Prefecture, Japan

7 November II Conference of the Programme on Ecosystem Change and Society (PECS) Oaxaca City, Mexico [More information](#)

Important Links

IUCN World Commission on Protected Areas for an outline of the role of Mountain Specialist Group www.iucn.org/protected-areas/world-commission-protected-areas/wcpa/what-we-do/mountains

IUCN World Conservation Congress www.iucnworldconservationcongress.org

Protected Area Governance and Management (book) <http://press.anu.edu.au/?p=312491>

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. www.mountainpartnership.org

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

I look forward to hearing from you soon.