



Mountain Protected Areas UPDATE

No. 75 - SEPTEMBER 2012



Portachuelo de Llanganuco Pass (4767 m) with Nevado Chacraraju (6112 m), Nevado Pisco (5752 m) and Nevados Huandoy (6356 m) in the background (from right to left) in **Huascarán National Park**, Peru.

Photo courtesy of Olivier Chassot

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UPDATE Newsletter
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Mountain Protected Areas
UPDATE is a quarterly
newsletter edited by Dr.
Lawrence Hamilton. It is
distributed to members of our
Mountain Protected Areas
Network

Note: Names of Network
Members appear in *italics*

Dr. Graeme Worboys
Vice Chairman, IUCN-WCPA
Mountains Biome and
Connectivity Conservation

better than cartloads of books.
--John Muir

before being dammed

This from the man who wrote such inspiring passages **for reading** such as:

I never saw a discontented tree

and passionately:

These temple-destroyers, devotees of ravaging commercialism, seem to have a perfect contempt for Nature, and instead of lifting their eyes to the God of the Mountains, lift their eyes to the Almighty Dollar. Dam Hetch Hetchy!? As well dam for water tanks the peoples' cathedrals and churches, for no holier temple has ever been consecrated by the heart of man.

Notes from the Editor

As this issue #75 (some kind of a milestone) goes out, I really would appreciate some feedback from Network members as to content, balance between sections, length, irrelevance of some sections, too much advocacy, ease of reading, -or whatever topic has been keeping you awake at nights. Any responses will also serve as your mandatory "keeping in touch" requirement for membership (at least one contact in a year and a half). *Linda McMillan* and I want to make this as useful and interesting to you as possible, but we need to get periodic readings as to whether we are meeting needs. So send off a message to ye old Editor (silverfox@gmavt.net) and a copy to *Linda* (Linda@protectmountains.org).

We welcome the following new Network members:

Dr. Steve Carver, Director of the Wildlands Research Institute at University of Leeds, England. His was perhaps the earliest voice to raise the question as to the possibility of having wildlands, even wilderness, in Britain. He will play a major role in the WILD10 Congress (see Meetings).

Achaz von Hardenberg is at the Alpine Wildlife Research Centre in **Gran Paradiso NP** (Italy), and is an Editor of the Journal of Mountain Ecology.

James Hardcastle, from Down Under, has recently joined HQ staff at IUCN, Gland, on a secondment to the Global PA Program. Australia has been great in support of IUCN by this device.

Dr. Peter Jutro is Deputy Director for Science Policy of the US Environmental Protection Agency's Homeland Security Research Center. He has been a US negotiator in the UN Convention on Biological Diversity. He loves mountains, is a longtime friend and former grad student of mine. Welcome, *Peter*.

We welcome *Dr. Anne Outwater* (USA) who is with the Tanzania Wildlife

Conservation Society and is a mountain lover. She will keep her eyes on the snows of Kilimanjaro for us.

And, we welcome back to the fold stalwart conservationists *Doug* and *Kris Tompkins* (Chile), of the Patagonia Foundation. Their amazing involvement in **Pumalin NP**, **Corcovado NP** (see article this issue) and other large private PAs in Patagonia adds lustre to our group.

In various career moves from Yukon to Colorado and to British Columbia, we lost contact with *Juri Peepre*. He is Chair of Wildsight, and Project Manager of the Meskwa-Kachika Management Area, a vital link in Y2Y. We now have him back on the "hit list" as a member.

An International Connectivity Conservation Network is being launched on September 7 at the World Conservation Congress. This will be a sister/brother Network to ours, both under the IUCN/WCPA Theme on Mountains and Connectivity Conservation, headed by *Graeme Worboys*. This will be a voluntary Network of individuals and organizations working on Connectivity in large scale terrestrial and marine environments. The Executive Team moving this forward consists of: Coordinator-*Olivier Chassot*; Executive Member-*Ian Walker*; Communication Advisor-*Linda McMillan*; Secretary-*Rod Atkins*; Science and Capacity Building Advisor-*Bernal Herrera*; Senior Advisor-*Graeme Worboys*. Note: all except Bernal are MtPA Network members. There will be much overlap in membership, since Mt PAs and mountain ranges constitute so many "natural" connectivity possibilities. To become a member please visit: <http://connectivityconservation.net/membership-information/> Or contact rodney.atkins@bigpond.com.

Citizen Science Works for MtPAs

Our talented Executive Team member and Newsletter production wizard, *Linda McMillan* is a strong advocate of citizen science. She particularly advocates it in the case of mountaineers as contributions to MtPA management, and does so personally, mainly at Yosemite NP. A recent study by the US National Park Service in **Glacier NP** evaluated the efficiency of the High Country Citizen Science Program. It determined how well the program met volunteer expectations (finding: very well indeed); and the reliability of data collected. In the case of a mountain goat study, it found that with the proper study design, data collected by volunteers was statistically similar to that collected by aerial surveys or by on-the-ground biologists.

While use of volunteers is a tremendous cost savings over staff professional survey time, a considerable park investment is needed to manage and administer the program. The good news is that it is a valuable contribution to Park management and more than simply an educational investment cost.

(Source - *Park Science Vol 28 No 1*)

Vulnerability of Cloud Forest Reserves in Mexico to Climate Change

--Report from a 7-person team of scientists from Australia and Mexico in *Nature Climate Change* www.nature.com/natureclimatechange 18 March 2012

Cloud forests occur only within narrow altitudinal limits and contain a highly specialized suite of species dependent on montane topography and cloud-related microclimates. In Mexico, cloud

forests account for 1% of land area, but support the highest concentration of plant and animal diversity of any Mexican ecosystem and they constitute the second richest ecosystem for endemic terrestrial vertebrates in Mesoamerica. Although habitat loss and degradation by human encroachment are the chief contemporary threats to cloud forests globally, the narrow environmental tolerance of this ecosystem indicates that human-induced climate change could constitute an even greater peril in the near future. Changes in regional temperature and precipitation patterns are already influencing the extent and distribution of these forests, so it is essential that we understand how future climate change will affect cloud forests.

Tropical montane cloud forests are among the most vulnerable terrestrial ecosystems to climate change- owing to their restricted climatic requirements and their narrow and fragmented distribution⁴. Although 12% of Mexican cloud forest is protected, it is not known whether Reserves will ensure the persistence of the ecosystem and its endemic species under climate change. Here, we show that 68% of Mexico's cloud forest could vanish by 2080 because of climate change and more than 90% of cloud forest that is protected at present will **not** be climatically suitable for that ecosystem in 2080. Moreover, if we assume unprotected forests are cleared, 99% of the entire ecosystem could be lost through a combination of climate change and habitat loss, resulting in the extinction of about 70% of endemic cloud forest vertebrate species. Immediate action is required to minimize this loss-expansion of the protected-area estate in areas of low climate vulnerability is an urgent priority. Our analysis indicates that one key area for immediate protection is the Sierra de Juárez in Oaxaca. This area supports many endemic species and is expected to retain relatively large fragments of cloud forest despite rapid climate change.



Spectacular Nevado Chopicalqui (6354 m).

Photo courtesy of Olivier Chassot, who recently spent several days hiking in this fine area..

Value of Repeat Photography Shown in Huascarán NP (Peru)

We have previously reported on the excellent work being done by *Alton Byers* on repeat photography at long intervals in the Himalayas. The following is taken from a paper he published in a past issue of *Mountain Research and Development*:

As part of The Mountain Institute's monitoring and evaluation program, historic landscape photographs from 10 photopoints of the 1936 and 1939 German/Austrian climbing and cartographic expeditions to the Cordillera Blanca (**Huascarán National Park**) were replicated in 1997 and 1998. Comparisons revealed contemporary changes in native forest cover, nonnative forest cover, glacial recession, grazing impacts, and urban expansion. Results indicated an apparent stability and/or increase in native *Polylepis* forest cover, significant regional increases in nonnative *Eucalyptus* and *Pinus* forest cover, improved pasture conditions in some areas, widespread glacial recession, and increases in regional urbanization. Important management-related questions in need of further study are identified, such as the impacts of cattle on *Polylepis* regeneration, correlations between road construction and forest loss, long-term impacts of nonnative forests, and strategies for the reintroduction of native forest species. Increasing the photographic, quantitative, and oral databases for

the **Huascarán National Park** and buffer zone will continue to provide important insights regarding contemporary landscape change processes, human versus natural impacts, and future management and restoration options.

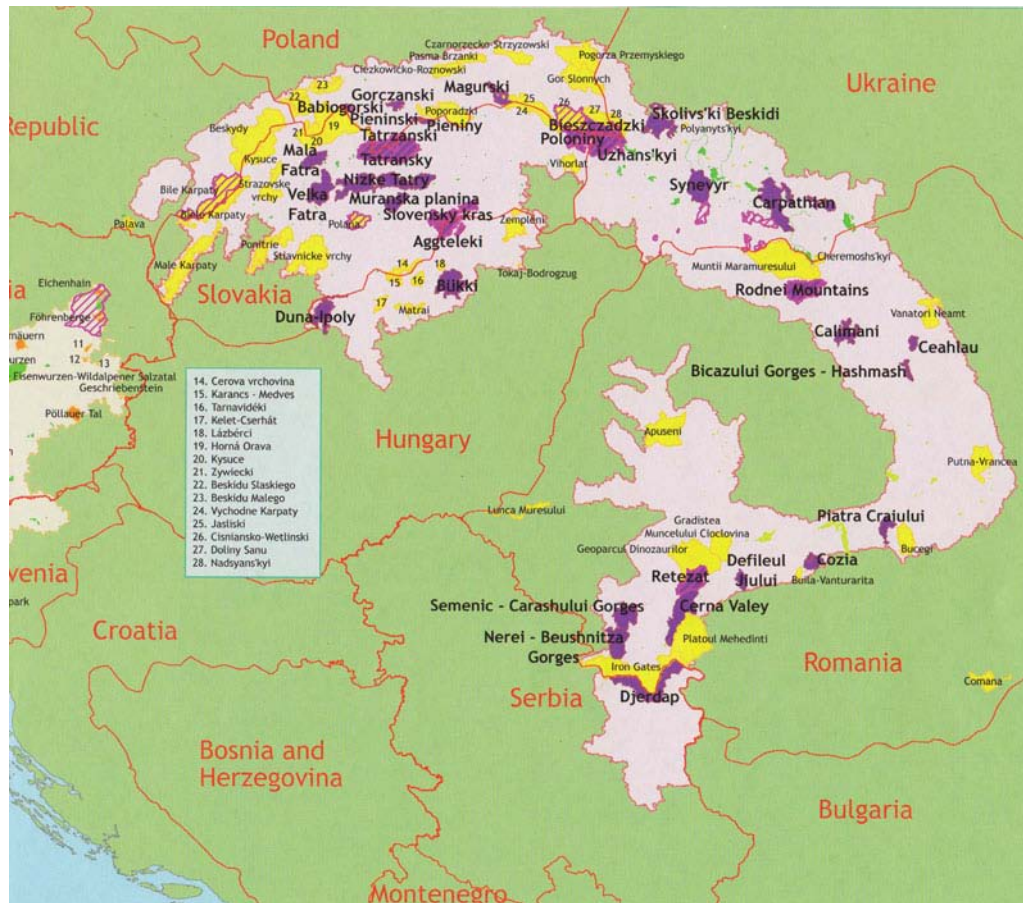
Importance of MtPAs in Climate Change Adaptation

The Nature Conservancy has recently carried out a multi-million dollar study of "natural strongholds" for species displaced by climate change, and has found that the best ones in the Eastern United States are in mountainous areas. Titled "Resilient Sites for Terrestrial Conservation," the study analyzed more than 156 million acres of land stretching from Virginia to Maine and into adjacent portions of Canada.

The kind of sites identified as best were those with a complex landscape that contained a lot of micro-climates -- mountains, valleys, slopes, caves, et cetera. Because climate shifts quickly with elevation, such variation is most often found in mountainous sites. A few dozen meters of elevation shift can offer a change of climate equivalent to several hundred miles of flatland travel. While large vertebrate mammals, like deer or bear, might be able to make long overland journeys to keep up with northward-shifting temperatures, smaller animals and plants just don't move that fast.

A diverse array of ecosystems piles into the folds and faults of the central **Appalachian Mountains**, a chain of peaks extending through Pennsylvania, Maryland, West Virginia and Virginia. The complex geology and high rates of biodiversity in the region --currently home to an estimated 7,452 plant and animal species - make it a potential "natural stronghold" in the fight against climate change. Enclaves like these central Appalachian Mountains offer enough climate variability that even slow-moving species should be able to "hop" from one climate regime to another.

Climate change is going to shake things up. What is needed is to preserve the stage -- even if things on the stage are rearranged, they'll find a place.



Carbon, Conservation, and Communities in the Carpathian Mountains

A technical workshop on capacity building for forest carbon projects convened May 28-29, 2012, in Uzhgorod, Ukraine, marking the successful completion of the first phase of a collaboration between the University of Vermont's Carbon Dynamics Laboratory, the Ukrainian National Forestry University, Agency for Sustainable Development of Transcarpathia (FORZA), and the Carpathian Biosphere Reserve. The event brought together over 50 experts and stakeholders for an intensive exercise involving plenary presentations, demonstration field site visits, working group brainstorming sessions, and synthesis. Information on the workshop, including presentations and results, can be found at: <http://www.uvm.edu/~cdl/2012workshop/>

According to Principle Investigator and lead workshop organizer *Dr. William Keeton*, University of Vermont, " Forest carbon projects could have multiple co-benefits for the **Carpathian Mountain** region of central-eastern Europe, including climate mitigation, biodiversity conservation, and watershed protection. The workshop identified both capacities already available within the region, as well as a number of challenges that must be addressed for projects to move forward. We produced a substantive set of recommendations that will help build capacity for Ukraine and other Carpathian nations to take advantage of this important opportunity."

In the next phase of the project, the partnership will conduct a feasibility study and explore investment and funding opportunities for developing a demonstration Improved Forest Management carbon project under the international Voluntary Carbon Market. The partnership is grateful for

funding provided by the Trust for Mutual Understanding, the U.S. Fulbright Program in Ukraine, the European Forest Institute, and the Institute for Environmental Diplomacy and Security at the University of Vermont.

Mount Taishan (China): Sacred and Profane

Jim (Muddy Boots) Thorsell has sent us a brief report of a recent adventure on one of China's sacred mountains, which points out some of the dilemma faced by many such places:

With an extra day after a trip to China last June I was invited to take the bullet train (310km/hr) from Beijing to Tai City to take a walk up the sacred mountain of Taishan. Back in 1986 our dearly departed friend (and former WCPA Chair) *Bing Lucas* did the evaluation of the WH nomination there and it was a good chance to walk in his hallowed footsteps. Indeed, as many of the staff in the park still remembered his visit and his photo is in the new visitor centre, I experienced a little of the "Bing Dynasty" still evident there. It was approved as a World Heritage Natural/Cultural Site.

It was a memorable day, not only the stiff walk up the thousands of stairs, but also to encounter the masses of visitors (averaging 10,000/day) at the summit. Only about 400 of these walked up, the rest preferring to take the bus/gondola combo. The summit area is replete with many inscriptions carved on the rocks and several shrines and temples for religious purposes. The summit is also replete with restaurants, souvenir stalls and a communication facility (photo below). By and large the Chinese authorities manage this level of visitation well but very little of the "sacred" sentiment seemed to be the motivations for the tourists.

There are many other sacred mountains in China such as **Emei** and **Huangshan** where the sacred is mixed with the profane. It is a challenge, not only in China to withstand commercial pressures, limit the numbers and promote the more spiritual values of such special places. *Bing*, where are you when we need you?



Summit of Taishan by *Jim Thorsell*

Photomonitoring on Alpine Summits- A Useful Technique?

The **Adirondack Park and Preserve** is one of the largest PAs in North America. It has only 170 acres (68 ha) of true alpine zone scattered on 21 summits. But these small sites are very special. They contain 30 rare or endangered plant species. It is imperative therefore to know what is going on in regard to climate change, and visitor impacts. The use of photomonitoring offers away of securing data. 50 photopoints have been set up on 9 summits. Holes in the rock are drilled to provide the same tripod locations. The same camera is used and moved from point to point. Photos are taken every 2 years in some areas, every 5 years in others. This provides a picture of improvement or deterioration over time. The technique can be done on a limited budget and by managers, without having to call in scientists to collect data, though scientists should be on hand in study design, and interpreting data.

Preliminary results have shown that one does not have to wait centuries to show the benefits of stewardship, for if the soils or organic mats are still in place, it was shown that in as few as 6 years, stewardship measures such as scree walls and education to restrict off-trail trampling were able to improve vegetation recovery status.

Corcovado National Park (Chile) - Created by Private Philanthropy

From time to time, we feature an individual lesser-known, but interesting MtPA. This is the case with Chile's spectacular **Corcovado NP**. It is located in southern Chile, south of Valdivia, and consists of some 294,000 ha (726,000 acres) from coasts, estuaries, wetlands, to mountains, glaciers, volcanoes, more than 80 lakes, and the watersheds of the Corcovado, Tic Toc and Miragualay Rivers. The Corcovado volcano, which gives its name to the Park has been extolled for its beauty by Charles Darwin and numerous Chilean writers, artists and poets. It towers to an elevation of 1,800 m, but the tallest peak is Yanteles at 2,000 m, and these are only around 10 km from the sea! Dramatic!! The extensive cloud forests (your Editor's favorites) contain the fabled *Alerce* trees. It is almost entirely a true wilderness area (no infrastructure).

The nucleus of the Park, leading to its formal creation in 2005 was two private land purchases by *Doug Tompkins* and Peter Buckley. Over time, with much negotiation with the government, the Patagonia Foundation (*Doug and Kris Tompkins*) deeded the land to the Chilean government, with the proviso that the surrounding Public Domain lands of these mountain watersheds be included in a new National Park. The consistent support of the President at that time, Ricardo Lagos, and the head of the Chilean Army General Juan Emilio Cheyre played a major role. Both men have essays in a gorgeous new (2012) book, as do *Doug Tompkins* and *Tom Butler*. **Corcovado National Park: Chile's Wilderness Jewel** contains great numbers of stunningly beautiful photos by Antonio Vizcaíno. This 232 page coffee table book is published by the Conservation Land Trust, Sausalito, California in both English and Spanish. Our hats are doffed to *Doug and Kris Tompkins* for this Park, for **Pumalin NP** and large areas of eastern Argentina which they have protected.

Albertine Rift Mountain Forests

The montane forests of the Albertine Rift are among the best prospects for connectivity conservation in Africa. Many PAs exist along this backbone of Eastern Africa and fortunately some are contiguous or separated from others by relatively modest gaps. The Albertine Rift Conservation Society (ARCOS) is working actively in the educational field with communities and with research institutions and governments to promote cooperation and regional thinking. It reports on its activities through a fine newsletter named Backbone. Its Executive Secretary is MtPA Network

member *Sam Kanyamibwa*. In the latest issue (June 2012) there are two articles dealing with the persistent enemy of PAs, --mining.

The first relates a sad issue in Rwanda, in **Mukuru Forest** which is described as a disappearing treasure. It is a link in a potential connected corridor on the Congo-Nile divide, key to 3 PAs to the north, and to 2 PAs to the south, including the transborder (with Burundi) **Nyrengeve-Kibira Forest**. Tin mining, which is illegal inside the Reserve, is nonetheless eating away at this area, and has become the focus of an ARCOS campaign, for stepped-up government protection.

The second article concerns oil exploration by SOCO International in Block V which extends into the Congolese **Virunga National Park and World Heritage Site**. In 2010 the same company had been given a permit for exploration, but following protests by many NGOs, international organizations, and UNESCO, it was revoked. Here we go again! In September 2011 a new permit (ostensibly with more environmental constraints) was issued. ARCOS is assisting 9 local NGOs to have this permit withdrawn.

ARCOS, in cooperation with a UK-based charity Purple Fields Production, is showing throughout the region their new film *Change with Climate* to promote understanding and adaptive action throughout the Rift (Source: *Sam Kanyamibwa*). It can be seen on the website www.arcosnetwork.org.

Rio+20 and WCPA/IUCN

WCPA, and of particular interest to us, "Mountains" was a visible presence at the Rio+20 Earth Summit in late June. There was indeed a Mountain Pavilion, organized mainly by The Mountain Partnership, which sponsored a number of side events dealing with mountains and mountain peoples. In that Pavilion, *Olivier Chassot* implemented a WCPA Mountains and Connectivity Conservation session supported by the Tropical Science Center and Mountain Partnership. It was entitled **Mountain Connectivity Conservation Across Large-Scale Landscapes**. Another important session was organized on the role that **transboundary conservation** can play in developing an institutional framework for sustainable development. *Kathy Mackinnon* moderated the panel in which *Nik Lopoukhine* was a presenter.

A Third session focused on **Natural Solutions: PAs meeting global environmental challenges**, and was organized and chaired by *Kathy Mackinnon*, *Charles Besançon* and *Nik Lopoukhine*.

A fourth event was organized by ICIMOD (with partners) and was entitled **Mountain Knowledge Solutions for Sustainable Green Economy and Improved Water, Food, Energy and Environment Nexus**.

As I read the results from the official negotiations which were "glacial in pace and disheartening in outcomes" (according to one IUCN delegate), this 3rd Earth Summit was a huge disappointment and a consumer of much carbon, money and time that could have been spent in much more productive ways. Forest restoration of degraded lands seems to be the most positive official outcome. Of the group of photos included in the IUCN report of Rio+20, my favorite shows an Amazonian Indigenous person with bow and arrow drawn approaching two business-suited security guards at the Brazilian Development Bank who are ducking and dashing for cover of some kind!! It was on front page of Rio's major newspaper. The full IUCN report is available at the IUCN website www.iucn.org.

Network members who were part of the official IUCN delegation to the Rio+20 conference included: *Kathy Mackinnon, Jane Smart, Victor Hugo Inchausti* and *Nik Lopoukhine*. There were 3 position papers and 4 policy briefs presented, none of which specifically focused on MtPAs, but hopefully, the involved Network members carried messages about them and promoted them at every opportunity.



The Socotra Dragon Tree or Dragon's Blood Tree.

Hajhir Mountains (Yemen)?

Has anyone heard of these mountains? Probably not, unless you read the June issue of *National Geographic Magazine*. These rugged granite peaks rise to 1,525 m (5,000 ft) on one of the small islands (132 km by 43 km) of Socotra in the Arabian Sea, 220 miles off the Yemen coast, near the Horn of Africa. The islands are home to over a thousand endemic species (1,142 estimated) of plants and animals. The entire Socotra Archipelago (4 islands and 2 rocky islets) is a World Heritage Site, inscribed in 2008, and is a Global 200 Ecoregion, a Center of Plant Diversity and an Endemic Bird Area.

The mountains are on the largest island, and while the bulk of the island is arid, these mountains have true cloud forests (certainly not mentioned or mapped in the massive 2010 *Tropical Cloud Forests* book of *Bruijnzeel, Scatena* and *Hamilton*), and over 100 endemic species in this very limited area of greenery. One of the endangered endemics here is the dragon's blood tree. Though afforded some protection from exploitation, no formal PA has been established. The principal threat now seems to be climate change in which the cloud deck moves higher and is increasingly seasonal. Little to no



regeneration of *Dracaena cinabbari* (shown above) is occurring. Cloud forests worldwide are sensitive ecosystems to climate change, and merit protection not only as monitoring sites for this global threat, but for their rich and unusual biodiversity, and their water capture function.

Connectivity in the Northern Appalachians (USA and Canada)

In August, the US Federal government through its Forest Legacy Program, together with the Trust for Public Land, and pushed to action by a coalition of NGOs including Two Countries - One Forest and The Nature Conservancy's Staying Connected Program, have acquired by purchase a key 935 acre (378 ha) tract of land. This **Jackson Valley tract** is vital in linking **Vermont's Green Mountains to Québec's Sutton Mountain**, providing a corridor for bear, bobcat, moose and marten, --species of concern as umbrellas. Your Editor has been participating in this transboundary corridor, representing the WCPA Mountain and Connectivity Conservation Theme as well as being a Vermont Trustee of the Nature Conservancy. The purchase cost US\$585,000 and a grant of US\$93,000 from the Open Space Conservancy covered acquisition costs and a stewardship fund. The easement will be held by the Vermont Agency of Natural Resources. The famous Long Trail (the nation's oldest long-distance hiking trail), abuts it for about a mile, as it reaches the Canadian border. The area connects two formerly separated PAs on both sides of the border, totaling some 22,000 acres (9,900 ha). Still much more work to do, but this is a strong step forward!



Magellanic Woodpeckers and National Parks

There seems to be a wave of new papers appearing on the scene, pointing out the weaknesses of PAs and their failure to protect biodiversity effectively. It is therefore important to document cases where PAs are truly filling this role. A recent study in Argentina's **Nahuel Huapi NP** (elevation from 720-3574 m) is a case in point. The populations of a very large, conspicuous and charismatic avian species, the Magellanic woodpecker are declining rapidly in several parts of its range. It inhabits the mature *Nothofagus* and *Nothofagus-Austrocedrus* Forests of the Chilean Andes and southwestern Argentina. Though described as uncommon, this endemic has not been placed

yet on the Vulnerable list.

They are rated as a keystone species due to the fact that the large cavities they produce while feeding and nesting are eventually abandoned and these then provide nesting, roosting, feeding and hiding places for a host of other birds, small mammals, reptiles, amphibians and invertebrates. Most cavities are made, according to the study, in trees greater than 170 years of age, with a minimum diameter of 16-20 inches (40-50 cm). Most such trees are declining in vigor and most have heart rot. Forest stands of these host species that are outside of the PA are generally harvested before these sizes and before heart rot occurs. In PAs, such trees are protected. This applies also to Chile's **Patagonia NP** and to many others of the region. A host of biodiversity is apparently being protected by PA policy in these cases.

Development proposals cause concern at Te Wahipounamu World Heritage Area, New Zealand

By *Paul Dingwall*, Member IUCN/WCPA & Consultant to UNESCO World Heritage Centre (formerly NZ Department of Conservation)

Many New Zealanders have expressed strong opposition to a government decision to approve in principle two major transport development proposals that threaten the natural values of **Te Wahipounamu (South West New Zealand) World Heritage Area**. Covering 2.6 million hectares (or 10% of the New Zealand landmass), the property is one of the largest on the World Heritage List. It contains several types of protected areas including four national parks. Listed under all four World Heritage natural criteria, it is a mountainous area largely in a natural state and considered by IUCN to be one of the world's great wilderness areas.

The Milford-Dart Tunnel proposal involves construction of an 11.3 km long (Single lane), 5 m diameter road tunnel, for bus traffic only, through two mountain ranges in **Mt Aspiring** and **Fiordland NPs**. The tunnel would shorten by 60% the road route connecting the major tourist centre of Queenstown with Milford Sound, which receives almost half a million visitors per year. An estimated average of 23 buses per day (peak of 40 per day) would use the tunnel.

The Fiordland Link Experience Monorail proposal involves construction of an electric-powered monorail system, linking the popular tourist centres of Queenstown and Te Anau as part of a travel package including a catamaran across Lake Wakatipu, all-terrain vehicles to the monorail terminus and a 44 km rail journey. One terminus for the monorail and some 30km of track would be in the World Heritage Area. A construction/maintenance track adjacent to the rail line would also be used for mountain biking. The train would carry up to 160 passengers and six crew. It is envisaged that four trains would operate eventually.

Impacts from the construction projects would include vegetation removal, topsoil stripping, disposal of 268,000 m³ of spoil from the tunnel, rail and road and tunnel construction, bridging of rivers and development of facilities. There would be potential impacts on terrestrial and aquatic ecology, the visual landscape, historic and archaeological values and recreation activities. In the case of the monorail, twenty-seven threatened indigenous species of biota occur on the route, including two mammals (bats), 12 birds, four lizards and nine plants. Recreation activities affected would be scenic viewing, kayaking, tramping (hiking), hunting and fishing.

The Department of Conservation, responsible for administering the area, after auditing the proposals, considered the long-term effects of both developments to be minor, and not contrary to the purposes of the Conservation Act or the provisions of the national park management plans. It has approved the proposed developments in principle, subject to the outcome of a public consultation process and to mitigation of potential adverse effects. Public opinion is firmly against the proposed developments. Some 68% of written submissions opposed the tunnel proposal and 91% of submissions opposed the monorail proposal. The Department is now analysing the results of the consultation and expects to make a recommendation to government on the proposed developments by the end of October 2012. These two major engineering proposals have all the ingredients of the fundamental dilemma faced by World Heritage managers of maximising opportunities for visitors to access and enjoy special places while minimising impacts on outstanding heritage values. If the proposed developments are approved, New Zealand will have to report to the World Heritage

Committee on the likely impacts on the outstanding universal natural values of the **Te Wahipounamu** property.

Jaguars in Southwestern USA

Just a few days ago the U.S. Fish and Wildlife Service formally proposed to protect 838,232 acres (33,9230 ha) as "**critical habitat**" for **endangered jaguars** in mountainous southern Arizona and New Mexico. When finalized in the next year, and joined with a developing federal recovery plan, the decision will help ensure jaguars return to the wild mountains and deserts of the American Southwest. Like wolves and grizzly bears, jaguars were killed en masse by federal trappers and sharpshooters paid to make the West safe for heavily subsidized public-land ranching. By the 1950s jaguars were virtually extinct, but in recent years began to show the first signs of recolonizing Arizona and New Mexico. Individual animals from a Mexican population have been exploring the borderlands of the two states recently. The decision has been a long time coming. The Agency listed the jaguar as an endangered species in 1997 following a lawsuit by the Center for Biological Diversity that ended protection delays stretching back to 1978. But it declined to protect the jaguar's habitat or develop a recovery plan!. This longed-for action will give additional security to existing PAs in the Sky Islands of that region, and build connectivity between Mexico and the Southern Rocky Mountains. Now if we could only make that damned border "security" fence/barrier more wildlife permeable!

Bits and Pieces

A recent study by 32 European scientific collaborators presented in *Science* dealt with plant biodiversity changes on 66 of Europe's Mountain summits between 2001 and 2008. While the boreal and temperate region summits mostly gained some new species from lower elevations, the **Mediterranean summits** showed signs of trouble. Only 2 gained new species, 4 remained stable, but 14 lost species. These southern European summits have a high proportion of endemic plants, so the losses are worrying. If as predicted, there is rising temperatures, decreasing precipitation, and an extension of the dry season, this loss will increase. Losses are compounded on unprotected summits by conflicting land use.

(*Science* Vol.336:353-355, 2012)

A small bird, the **Tibetan bunting**, may lead to additional protection for land in its habitat amid the rugged peaks of the Three Parallel Rivers. Land protection efforts are being led by a bird-watching monk, Tashi Zangpo. He and a fellow monk have formed the **Nyanpo Yutse Environmental Protection Association** (named after a nearby Local Tibetan sacred mountain peak). He has been able to persuade local yak herders to refrain from grazing one area during the critical ground-nesting period, and numbers there have increased from 5 birds in 2005 to 29 in 2009. Tashi recently started assisting *George Schaller* of Panthera in snow leopard and blue sheep monitoring in the area around his monastery at Baiyu.

The Nature Conservancy, in framing the challenge for the **Northern Appalachian/Acadia Region** (USA/Canada transborder), has stated it as: *Maintaining an ecologically connected (terrestrial) landscape across the Northern Appalachian/Acadia Ecoregion that sustains native wild life and benefits people.* Your Editor has been participating in this process on behalf of Mountains and Connectivity Conservation and as a Trustee of the Vermont Nature Conservancy. Other Network

members working on this include: *Phil Huffman, Louise Gatton, Bill Weber, Amy Vedder, Steve Trombulak, Conrad Reining, Jim Northrup* and *Thomas Minney*.

Edwin Bernbaum, our Sacred Mountains guru, has recovered enough from hip replacement surgery to trek up to the Everest area to co-lead a leadership training program for mid-career professionals: **Himalayan Leadership Training Trek**.

The Swiss Agrotourism Association is now linked in a partnership arrangement with the Swiss Parks Network. One of the first projects is a guide to where agrotourism in or near Parks may be found. See www.agrotourismus.ch and go to "farm experiences in Swiss Parks".

An **International Wilderness Year in Europe** proposal has been initiated by PANParks according to Director *Zoltan Kun*. They are working toward the year 2014, and are obtaining support from a broad base of institutions and organizations. *Zoltan* will keep us informed, and we will provide more details as this unfolds.

There is now an Italian TV station, **Montagna TV**, devoted to mountains. Of interest even to those who are not fluent in the language - worldwide coverage of mountain topics. www.montagna.tv/cms/

The US Fish and Wildlife Service, under pressure from NGOs such as the **Center for Biological Diversity**, has last June proposed to protect an additional 3 plants and animals in Hawai'i under the **Endangered Species Act**. This adds to 97 others already protected in these biodiversity-rich islands. This could result in protecting 271,000 acres (109,600 ha) of "critical habitat", much of it in the volcanic mountainous terrain of the various islands. Hawai'i, with its high levels of endemism has been a glaring case of the impacts of introduced invasive species of plants, animals and diseases,-a consistent and huge problem in the fine MtPAs of Hawai'i.

PAs in Europe cover almost 21% of the terrestrial surface, --a high percentage in MtPAs. Their average size is roughly 50 km² (19.3 mi²). The largest network of PAs is the Natura 2000 Network, established as part of the 1992 Habitats Directive. One of the major biogeographic regions on this Directive is the Atlantic, Continental Alpine Region which includes the Pyrenees, Alps and Carpathian mountains and parts of Scandinavia.

There are now 580 Biosphere Reserves in 114 countries according to *Thomas Schaaf* of UNESCO. Several of these are transboundary BRs, including one of my favorite old timers, Krkonoše/Karkonosze. Thomas points out that there is one transcontinental BR, shared by Spain and Morocco, --the Intercontinental Biosphere Reserve of the Mediterranean designated in 2006. And there is now a trinational one, --**Trifinio Fraternidad BR** shared by El Salvador, Guatemala and Honduras.

In a provocative article in the last issue of the US National Park Service journal *Park Service*, the Chief Scientist for the Pacific West Region asks a question: "As climate change disrupts the lives of millions of people, will society still place a high value on wilderness?" He raises this because of the foreseeable conflict about commercial solar and wind and even geothermal energy in desert wilderness areas, and hydroelectric and other water storage systems in the mountain headwaters

areas where formerly mountain snowpack was the source of water, and where much wilderness is located.

At the July World Heritage Committee meeting in St. Petersburg, one new MtPA site was approved: India's **Western Ghats**. This 1,600 km long mountain chain has long been recognized as one of the world's eight hottest biodiversity "hot spots". Its forests are home to at least 325 globally threatened species of flora and fauna. A cluster of 39 sites was approved spread over 7,950 km² and four states. The average elevation of this north-south chain is 1,200 m, with the highest peak being Ana Mudi at 2,695 m (8,842 ft). This range intercepts the westerly monsoon rains and its western slopes are lushly forested. There are very many Holy Hills and Sacred Groves in the Western Ghats that have long had *de facto* protection.

The sacred mountain giving its name to **Tongariro NP and World Heritage Site** in New Zealand is at it again. On August 6, three new vents, each about a kilometer wide, ripped open, sending a plume 7,000 m into the clear night sky and carpeting surrounding areas in ash. Visitor access is still provided, but they must stay clear of restricted zones and check with Department of Conservation on access and road status. Any comments from Paul Green, former Park Director??

The week of September 28 - October 7 has been designated **European Land Stewardship Week**. It is the hope of the sponsors, Landlife, to have at least one celebratory event in each of the 20 countries. European MtPA Network members are invited to organize an activity for that week. www.landlifeweek.eu/

Thomas Hofer, the FAO Team Leader for Watershed Management and Mountain Development (and a former colleague of mine at the East West Center), has become the Interim **Mountain Partnership** Coordinator FAO).

Charles Besonçon has been Head of Protected Areas at the UNEP-World Conservation Monitoring Centre in Cambridge, UK for the past 6 years. This is where the World Database on PAs is located. He has taken a new position with the Convention on Biological Diversity Secretariat in Montréal, Canada. He will be managing **Lifeweb**, an initiative to increase PA financing within the CBD framework.

PANParks Foundation, led by *Zoltan Kun*, has so far designated 340,000 ha of European wilderness, free of development, hunting and logging. This will be well worth celebrating at WILD 10, the 2013 World Wilderness Congress to be held in Salamanca, Spain next year. (See Meetings.) **PANParks** has set a goal of a million hectares by 2015. And, indeed, **PANParks** is sponsoring a European Wilderness meeting in 2014 to highlight accomplishments and promote further action. It is seeking financial support for this wilderness campaign. www.panparks.org.

The WCPA website is now available in French and Spanish, and the Global PA Programme in Gland is seeking feedback. Contact marie.fischborn@iucn.org. www.iucn.org/es/sobre/union/comisiones/cmap and www.iucn.org/fr/proposunion/commissions/wcpa.

Again, December 11 will be **International Mountain Day**. This year marks the 10th anniversary of

the International Year of Mountains in 2002, a significant milestone on the march to global recognition of the importance of Mountains. The Mountain Partnership has announced this year's theme as "Sustainable Mountain Development". Not too inspiring, but MP will develop materials (fact sheets, posters, and other materials) which will be available on the MP website www.mountainpartnership.org/

Despite assurances by the **Yellowstone National Park** Superintendent and other National Park Service (NPS) leaders that Yellowstone National Park will be "cleaner and quieter," the NPS has indicated that it will support a winter-use plan for Yellowstone National Park that could more than double the number of dirty and noisy snowmobiles currently operating in the Park. The **Coalition of National Park Service Retirees** (830 members) oppose allowing more snowmobiles at the first established National Park in the world; and the group has submitted a letter to the Yellowstone Superintendent in support of Alternative 3, which would allow current levels of motorized oversnow vehicles to operate until the 2017-2018 season, after which all snowcoaches would have to meet "best available technology", with a **decrease in snowmobile numbers to zero during a 3-year phase-out period**.

Bhutan, India, and Nepal agreed formally on August 18 to enhance cooperation in the Kanchenjunga Landscape. This occurred at the Expert Consultation on Transboundary Biodiversity Management in **Kangchenjunga Landscape** held in Gangtok, Sikkim, India. Major Network players were *Nakul Chettri* and *Ecklabya Sharma*. The consultation was organized by the International Centre for Integrated Mountain Development (ICIMOD). This landscape includes **Mount Kanchenjunga**, third highest summit in the world (8586m or 28,169ft), and involves 15 different PAs in IUCN Categories 1a, II and mostly IV. It extends from tropical forests to alpine vegetation, to permanent snow and ice, from Asian elephants to snow leopards. Such an agreement was always the dream of our late wonderful colleague *Mingma Norbu Sherpa*, for it was his "pet" project.

Thomas Schaaf has been named Interim Director of UNESCO's Division of Ecological Sciences, and Secretary of the Man and the Biosphere Program (MAB). He holds the position of Chief, Ecological Sciences and Biodiversity Section. A busy man! He sends us the following information:

At the July meeting of the MAB Coordinating Council 20 new Biosphere Reserves were authorized. Of these, 6 are in mountain areas:

Jinggangshan (China)

Niubeiliang (China)

Island of Principe (São Tomé and Príncipe)

Tehuacán-Cuicatlán (Mexico)

Salzburg Lungau and Kärntner Nockberg (Austria)

La Gomera (Canary Islands, Spain). This includes Garajonay NP

The International Ranger Federation has just instituted a new (English only, so far) website with many new features www.internationalrangers.org

A member of the **Waterton Glacier International Peace Park Association** *Carl Prinzing* is attempting to start a Rotary International Peace Park Fellowship Program. It was thanks to International Rotary that this world's first Peace Park was established in 1923. *Carl* states that he has Canada and USA in agreement, but needs some other international countries that share

transboundary parks to join the group. If you are in such a situation, and interested, contact him for details at carlprinzing@gmail.com.

Some Recent Publications of Interest

Innovative Approaches to Manage Protected Areas. 2012. Eds. Michael Getzner and *Michael Jungmeier*. A product of Klagenfurt University's Masters Program in Protected Areas Management, this is a collection of interesting student case studies from their many different home countries. Most of them are focused on Mt PAs in Europe, though there is one from uKhalamba Drakensberg. Verlag Johannes Heyn. 20 euro. Information at mpa@e-c-o.at

Contesting Páramo: Critical Biogeography of the Northern Andean Highlands. 2012. By *Fausto Sarmiento*. Kona Publishing and Media Group. Our MtPA Executive Team member *Fausto* has produced a tour de force, of history, biophysical aspects, cultural factors, myth-busting and valid research in a geographical soliloquy on how biota of the páramo is connected to land and life in the Andes. US\$60. info@konapublishing.com.

Protected Landscapes and Wild Biodiversity. 2012. Edited by *Nigel Dudley* and *Sue Stolton*. IUCN Series 3 of Values of Protected Landscapes and Seascapes. This is the first global attempt to document the value of IUCN Category V PAs in maintaining wild biodiversity. Nine case studies and lessons learned. Three of the case studies deal with mountainous PAs: Somiedo (Spain), Oaxaca (Mexico), and Khonowa (India). Nigel's introductory chapter and his final conclusions chapter are excellent analyses of the values of inhabited PAs for biodiversity conservation. I do not know how these two prolific writing/editing partners keep up the pace. IUCN is fortunate! IUCN Publications, Gland.

The Mountain and the Chef. 2009. The first food/recipe book we have listed. By *Catherine de Montalembert et al.* A focus on the food, the *terroir* and the landscapes of **Mont Blanc**, where Chef Emmanuel Renault cooks and buys locally. Includes 52 seasonal recipes. This chef loves mountains! Hooray for eating local and seasonally! Published by Aubanel. 240 pages (English) or *La Montagne et le Cuisinier* (French).

Climate and Conservation: Landscape and Seascape Science, Planning and Action. 2012. Editors *Jody Hilty*, *Charles Chester* and *Molly Cross*. Island Press. Case studies from around the world about protecting biodiversity in the face of climate change, featuring large landscape projects. Other Network contributors include *Steve Trombulak*, *Andrew Plumptre*, *Ian Pulsford*, *Graeme Worboys*, *Yuri Badenkov*, *Tatyana Yashina*, *Wendy Francis*. Nine chapters focus directly on mountain areas from Antarctica to Albertine Rift to Altai-Sayan and others. 392 pages. Hardcover US\$70, paperback US\$35. www.islandpress.org or www.climateconservationbook.org.

Wilderness Stewardship and Science. This is the theme of Vol. 28, No. 3 (2011-2012) issue of *Park Science*, the journal of the US National Park Service. MtPA managers concerned with wilderness will find much practical material in this issue. Considerable discussion of wilderness character. www.nature.nps.gov/ParkScience.

Towards Developing the Karakoram-Pamir Landscape. 2012. This is ICIMOD Working Paper 2012/3. Kathmandu. This documents the current state of a process that started in 1989 for a transboundary initiative between Pakistan and China in this important area. It is a draft strategic framework of interest to those working with large landscape connectivity. Available hard copy from ICIMOD or electronically at www.icimod.org/publications.

Towards Developing the Brahmaputra-Salween Landscape. 2012. ICIMOD Working Paper 2012/4. A somewhat similar report of current strategy, involving Myanmar, China and India. Available as above.

Patrimonio Inmaterial: valores culturales y espirituales. 2012. To be launched September 7 in Santa Cruz de Tenerife. EUROPARC España. This bears the sub-title: *Manual para incorporarlos en las áreas protegidas*. It is Manual 10 in the series. It is guidance for incorporating and protecting intangible heritage, including: aesthetic, artistic, historical, ethological, religious, spiritual etc values. It is a product of the Silene Association of Spain, and *Josep-Maria Mallarach* has been playing a key role in the project.

Some Forthcoming Meetings of Interest

3rd European Alpine Week, September 5-8, 2012, Valposchiavo, Switzerland.
www.alpweek.org/2012 See below.

The Alps Reinvent Themselves. General Assembly of the Alpine Network (ALPARC), September 7, one day within ALPINE WEEK (September 5-8), Valposchiavo, Switzerland. A new ALPARC Association will be formed that day, binding it to the Alpine Convention. www.alparc.org and www.alpweek.org/2012

VII World Conservation Congress (IUCN), September 6-15, 2012 in Jeju Island, South Korea. Mountains and Connectivity Conservation inputs to program. Check on updates at http://www.iucn.org/2012_congress. Three sessions are of particular interest:

Launch of the International Connectivity Conservation Network on September 7, 11:00-13:00.
Sharing Benefits and Values from Transboundary Conservation. September 11, 14:30-16:30 A panel discussion which includes Network members *Olivier Chassot* and *Trevor Sandwith*. *Tatjana Rosen* and *Maya Vasilijevik* of the WCPA Transboundary Conservation Specialty Group have been working diligently on this.

Connecting Conservation, Law and Beyond: for an environmentally and socially resilient planet. September 10, 14:30-16:30. Network members organizing this, and/or making presentations: *Mighty Leader Graeme Worboys*, *Olivier Chassot*, *Ian Walker*, *Tatyana Yashina*, *Marie-Eve Marchand*, *Harvey Locke*, *Eduard Mueller*, *Charles Besancon* and *Nigel Crawhall*. A summing up by departing Chair *Nik Lopoukhine*. A powerhouse!!!

There is also a special workshop (No 839) on **Korean DMZ Biodiversity and Sustainable Future.** September 7, 17:00-1830, Room 202. Includes DMZ Peace Park design scenarios.

Pro Mountains: Tourism-Environment-Sustainable Development. September 7-9, 2012. Bustini, Romania. www.cartedd.cc.unibuc.ro/conference

International Conference on Managing Protected Areas under Climate Change, September 24-26, 2012 in Dresden, Germany. Organized under EUROPARC (Germany) and National Natural Landscapes (Germany), The event is being organized by Habitat Change and Central Europe Program of European Union. Included topics: monitoring, assessment of sensitivity, future management, awareness-raising, and legal and policy aspects. www.habitat-change.eu. Bringing researchers and managers together. Registration deadline is September 7 (75 Euro) 50 Euro. For details see www.habitat-change.eu/impact or contact Katrin Vogel (k.vogel@loer.de).

Europe's Wilderness Days Conference, September 26-28, 2012, Nagu, Finland. Hosted in Archipelago NP; sponsored by PANPARKS Foundation. Theme is Engaging New Constituencies in Wilderness Protection. Since most of the designated wilderness areas are in mountain areas, MtPAs should be well treated. Registration (by August 31) at www.panparks.org/sites/default/files/docs/ewd2012/registration-form-EWD2012.doc. Program details at www.panparks.org/sites/default/files/docs/ewd2012/ewd2012_draft_programme.pdf Or contact ebalogh@panparks.org

Trans-boundary Shared Resources-Africa Summit, 2012 October 10-12, 2012. Johannesburg, South Africa. Sponsor is Africa Management Communications (AMC) International. A myriad of topics included, no special emphasis on mountains, but much of value to transboundary cooperation. *Kevan Zunckel* will carry the banner for Mountains and for the WCPA TBC Specialist Group. www.amc-intsa.com

Healthy Parks, Hungry People VII World Ranger Congress. November 4-9, 2012 near Arusha NP, Tanzania, in Ngurdoto Mountain Lodge. Field trips to several MtPAs, including Kilimanjaro. Details at www.pamsfoundation.org/world-rangers-congress

Protected Areas in a Changing World. March 11-15, 2013. Denver, Colorado, USA. The George Wright Society Conference, with the Organizing Committee including *David Parsons* (Chair), *Brent Mitchell* and *Jan van Wagendonk*, with *Angeles Mendoza Sammet* on the Native Involvement Working Group. Deadline for proposals for papers, posters, exhibits, workshops or concurrent sessions is October 1, 2012. www.georgewright.org/gws

Not to be confused with

Mountain Protected Areas in a Changing World. May 21-24, 2013. Spindleruv Mlyn, Czech Republic. Organized by Transboundary Parks and Biosphere Reserve Krkonoše (Czech) and Karkonosze (Poland) Administrations and the Czech Ministry of Environment. Working language is English, and focus will be on changes, challenges and experiences in management of "medium altitude" Mt PAs. Deadline for papers / poster abstract submission is October 15, 2012. <http://konference.krnep.cz/konference/1/informace/>

International Symposium for Research in Protected Areas. June 10, 11, 2013. National Park Hohe Tauern. Optional excursion June 12. Proposal Deadline September 15, 2012. Final selection December, 2012. www.hohetauern.at

10th World Wilderness Congress. October 4-10, 2013. Salamanca, Spain. *Theme: Make the World a Wilder Place.* Co-sponsored by Aldo Leopold Wilderness Research Institute, Czech Academy of Sciences, University of Leeds Wildland Research Institute and The WILD Foundation. Each WILD10 component will address the question, How can we protect, sustain and restore wild nature while also providing enhanced social and economic opportunities for human society? WILD10's practical objectives will be met through:

A full concept paper and specific proposals are available for WILD10 projects under three main streams: **PLANET:** *Nature Needs Half*; **PROSPERITY:** *Living With and From Nature - Valuing Our Natural Capital*; and **PEOPLE:** *Mobilizing Constituencies and Building a Social Movement*. Practical outcomes will advance biodiversity, ecosystem services, climate change mitigation, and other benefits to humankind derived from the protection and connectivity of intact and restored wild nature. The Symposium on Science and Stewardship to Protect and Sustain Wilderness values will be an important part of the Congress. It is co-chaired by *Alan Watson*, *Zdenka Krenova* and *Stephen Carver*. A call for abstracts will be issued in December.

World Parks Congress November 2014. Planning underway. Sydney, Australia is the venue. Keep tuned as *Nik Lopoukhine* and *Trevor Sandwith* swing into action with the new Chair.

Useful Links

UPDATE Archive: More recent editions are posted on our website:

<http://protectmountains.org/mtnpa-update/>

Earlier editions are hosted by The Mountain Forum:

<http://www.mtnforum.org/rs/ol/periodicals.cfm?periodid=30>

IUCN-WCPA Mountains Biome website: <http://ProtectMountains.org/>

IUCN-WCPA Connectivity Theme website:

http://www.iucn.org/about/union/commissions/wcpa/wcpa_what/wcpa_conserving/d/

Connectivity Conservation website: <http://connectivityconservation.org/>

Linda McMillan

WCPA Mountains Biome + Production Editor of Deputy Vice-Chairman, Communications
Mountain Protected Areas UPDATE, News Flash, and the Mountains Biome Blog



Beautiful Hetch Hetchy Valley today, in Yosemite National Park