

# Mountain Protected Areas UPDATE



No. 63 - September 2009



St. Mary Lake in Glacier National Park, USA. Note small size of ice-fields in October. Soon, no glaciers??

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## UPDATE Newsletter Editor



[Dr. Larry Hamilton](#)

*The Mountain Protected Areas UPDATE is a quarterly newsletter edited Dr. Lawrence Hamilton and distributed to members of our Mountain Protected Areas Network*

Note: Names of Network Members appear in *bold italics* in our Newsletter

## IUCN - WCPA Vice Chairman

[Dr. Graeme Worboys](#)

A message from [Linda McMillan](#) To prevent problems for our text-only recipients, URLs are NOT hyper-linked in our newsletter. This prevents the newsletter software from inserting its link-tracking coding, which excessively expands the URLs in links.

Writing of an experience in Haleakalā National Park, one of my favorite authors, Barbara Kingsolver, says:

*The cliffs absorbed and enclosed us in a mounting horizon of bleak obsidian crags. A lake of cloud slid over the rim, wave by wave, and fell into the crater's separate atmosphere, dispersing in vapor trails. The sharp perimeter of the cliffs contains a volcanic bowl three thousand feet (915 m) deep and eight miles (12.9 km) across as the crow flies (or twice that far as the hiker hikes). The depression would hold Manhattan, though fortunately it doesn't. Altogether it is one of the most difficult landscapes ever to host natural life.*



And, writing of the few species that did colonize, and become endemics versus the introduced alien species, she continues:

*Haleakalā Crater is fortified against invasion, because of its protected status as a national park, and because its landscape is hostile ground for pineapples and orchids. The endemics had millennia to adapt to their difficult niches, but the balance of such a fine-tuned ecosystem is precarious, easily thrown into chaos: the plants fall prey to feral pigs and rats, and are rendered infertile by insect invaders like Argentine ants and yellow jacket wasps which destroy native pollinators. Haleakalā is a tiny threatened ark.*

~B. Kingsolver 1996. *High Tide in Tucson*

## Greetings...

...from the WCPA Mountain Biome Executive Team of **Graeme, Linda, Fausto, Mike, Harvey** and **Larry**. As well as this sending out this newsletter, much energy is currently being directed at **Current Activity of the Mountain Biome Executive Committee:**

Under **Graeme Worboys'** leadership, the Executive Committee has been drafting a Mountains and Connectivity Conservation Plan for 2009-2012. This is our proposed contribution to fulfilling the WCPA Strategic Plan Targets for 2005-2012. It has been reviewed by a group of the WCPA Executive. In connection with one of the proposed Actions, "...facilitate the establishment of an **Altai-Sayan Connectivity Conservation Area** (Russia, China, Kazakhstan and Mongolia)", **Graeme** spent part of July working with **Yuri Badenkov** in the Altai. He also worked with **Natalia Danilina**, our good friend who heads the Environmental Education Center "Zapovedniks" in Moscow. This is one of the regional initiatives in connectivity corridors being promoted by the Biome (others in Himalayas, Andes and Africa). (He is working earnestly for funding for work on the **Terai Arc**.)

En route he stopped over in Bonn, Germany at the request of IUCN to meet with the IUCN Law Team at the Environmental Law Centre. Even though the *Connectivity Conservation Management: A Global Guide* editing is completed, **Graeme** remains one of the busiest conservation volunteers in the world. The Convention on Biological Diversity Programme of Work leading up to CoP 10 in 2010 is keeping him hopping. He will be engaged with the September 14-18 WCPA Steering Committee meeting at **Jeju Island (South Korea)** on the Plan of Work for PAs, in connection with the CBD. Jeju is a volcanic island (Halla-san at 1,950 m) and a World Heritage Site. He will then undertake a World Heritage Mission to review the China Danxia nomination during the remainder of September along with Professor Kyung Sik Woo of South Korea

**Linda McMillan**, our Deputy Vice-Chair for Communication has been updating our web site, added a blog, and has been sending out News Flashes to Network members on selected time-sensitive items. She is the Production Manager for this and all other copies of UPDATE, and does a fantastic job. **Linda** has recently set up a WCPA Mountains Network group on **LinkedIn** for those who would like to more easily interact and communicate with fellow members. To become a member, contact **Linda** ([Linda@protectmountains.org](mailto:Linda@protectmountains.org)), and she will send you an invitation.

In June she went to Nepal and linked up with **Elizabeth Fox** (shown at right with Linda below), who

You can highlight and copy the non-hyperlinked URLs shown in the text; paste them into your web browser to view links.

To increase font size while you read this with your browser just click on the "View" tab at the top of your browser window, scroll down to "Text Size" and choose "Increase". This change can be reversed using the same path.

**NOTE:** Please send your news and information for UPDATE to our Editor, Dr. Larry Hamilton (silverfox@gmavt.net).

is now working in Rome, Italy. They participated in a series of events as conservation experts accompanying the international media people, courtesy of Network member **Ang Tshering Sherpa** of Asian Trekking. The focus was on local response to climate change, by those living within **Sagarmatha NP** (Khumbu area). It included the Action Run (see previous UPDATE) to highlight dangers of glacial outburst to Park residents (organized by **Dawa Steven Sherpa** with WWF-Nepal) and a Khumjung Festival involving villagers of all ages (with emphasis on youth), Park officials, monks from the Khumjung monastery and a Mothers' Group.

**Linda** points out that the almost 140 young people who raced the 35 km (22 miles) from the Imja Lake to Khumjung could not have outraced the glacial lake outburst flood which looms as a threat due to climate change. She was impressed with the spirit of the 1,800 participants who unite to try to protect the place where they live, and the Park's resources, from the impacts of global warming. More details on our website ([protectmountains.org/mountains-blog](http://protectmountains.org/mountains-blog)).



Khumjung is the site of both a school and a hospital set up by mountaineer Sir Edmund Hillary. It is also the birthplace of our late beloved colleague **Mingma Norbu Sherpa**, whose memorial they visited (shown left). **Linda** and **Dawa Steven Sherpa** are working to link science, sport and tourism to protect mountains. They are setting up collaborations between the International Mountaineering and Climbing Federation (UIAA--3 million members) and ecotourism groups to help science NGOs such as ICIMOD to assess biodiversity along large landscape transects.

And **Fausto Sarmiento**, together with Claudia Drexler (MRI in Switzerland) is sending out a News Flash series on "The Americas Cordillera Transect for Global Change Research", which is relevant to MtPA Network members. It is available in English and Spanish. <http://mri.scnatweb.ch/networks/mri-american-cordillera/>. (Note MRI also issues flashes for the Carpathians.) **Fausto** as Deputy Vice-Chair for Capacity Building is currently engrossed in planning a 2010 Capacity Building World Heritage Workshop focused on climate change, in South America, probably Ecuador. He is working with IUCN-SUR's **Victor Hugo Inchausty** and **Deirdre Slattery**. He was Guest Editor for an issue of *Pirene*s, a Journal of Mountain Ecology (No. 163) with the Theme: Farmscape Transformation and Global Change in the Andes. (See also Bits and Pieces).

Just before completing this issue, **Mike Tollefson** (former Superintendent at Yosemite NP and now with the Yosemite Foundation) has joined our Executive Team as Deputy Vice-Chair for Partnerships. Initially he will concentrate on collaboration with UNEP-WCMC to get spatial recognition of large scale Conservation Connectivity Areas in the IUCN PA mapping and data bank. He will be working with **Charles Besancon** of WCMC. Welcome **Mike** !

**Harvey Locke** has been temporarily co-opted in connection with the **WILD9 World Wilderness Congress** (see meetings) to plan for sessions on Connectivity Conservation. Those attending should plan on participating in a 3-half-day symposium on **Large Landscape, Connectivity and Climate Change**, November 10-12. The Congress Plenary Session on November 11 will feature the launch of our book on Connectivity Conservation Management. See [www.wild9.org](http://www.wild9.org). A MtPA Network members' get together is being planned by **Larry Hamilton** for lunchtime one of those days. Please send **Larry** an email ([silverfox@gmavt.net](mailto:silverfox@gmavt.net)) if you are attending WILD9 and will participate in this lunch gathering.

## New Sacred Mountain World Heritage Sites in June 2009

China's sacred Buddhist **Mount Wutai** is a cultural landscape site. Mount Wutai, the five flat peaks, is the highest mountain in Northern China and remarkable for its precipitous sides and five open treeless peaks. Temples have been built on this mountain since the 1st Century AD. There are 53 monasteries including the East Main Hall of Foguang Temple, the highest surviving timber building of the Tang Dynasty with life-size clay sculptures. It also features the Ming Dynasty Shuxiong Temple with its huge complex of 500 statues representing Buddhist stories woven into three-dimensional pictures of mountains and water.

**Sulaiman-Too Sacred Mountain** (Kyrgyzstan). This is the nation's first WH Site. For more than one and a half millennia this was a beacon for travelers on the Central Asian Silk Road, and revered as a sacred mountain. Its five peaks and slopes contain many places of worship (including two 16th Century mosques) and caves with petroglyphs (101 sites). The 17 places of worship are connected by footpaths. There are cult sites which are believed to provide cures for barrenness, headaches and back pain and to bestow longevity. Veneration of the mountain blends pre-Islamic and Islamic beliefs.

## Other Mountain World Heritage Site Inscribed

Of the two new WH Sites inscribed at the June meeting of the WH Committee, for Natural Values one was a mountain site, -- **Italian Dolomites**. These number 18 peaks in the Northern Italian Alps, all of which are over 3,000 m. The area is 141,903 ha and is a serial nomination of nine properties. The vertical walls, sheer cliffs and narrow, deep and long valleys make this a spectacular scenic area. There is a challenge to Italy to deliver a number of improvements to the management system (recall the Aeolian Islands case) over the next two years, and an inspection mission will occur in 2011. The push to list the Dolomites began back in 2004, with one of the most notable "pushers" being the famous mountaineer Reinhold Messner who has been climbing there for six decades. Many members of the Network, including **Gene Reetz**, will be happy to have their favorite mountains given this extra recognition and protection.

## Nahanni National Park and World Heritage Site Expansion (Canada)

Until June 2009, **Nahanni NP Reserve** consisted of 4,766 km<sup>2</sup> of the lower reaches of the river of the same name and the Flat River. In mid-June it was expanded over six times its area, as the **Greater Nahanni Ecosystem** of 39,000 km<sup>2</sup>. It now includes spectacular mountain terrain, as the upper watershed area has been included. This is the result of a lengthy consultation and study involving the Decho First Nation and Parks Canada. The working group studied: grizzly bears, woodland caribou, Dall's sheep, bull trout, glaciers, karst landscapes, tourism and socio-economic impact of the expansion. Included are the highest mountains (Ragged Range) and largest ice fields in Canada's Northwest Territory. It is recognized as Canada's premier wilderness river national park. Currently only 1,000 visitors per year, but that number will undoubtedly increase markedly due to the expansion with its many new natural wonders. This expansion also adds greatly to the protected area of the Yellowstone-to-Yukon Conservation Corridor. It becomes the largest core protected area within Y2Y. **Nahanni** was the world's first World Heritage Site, 1978.



## Do Conferences Ever Have Follow-up Field Action? YES!

UPDATE has previously reported on the complex of conferences and workshops held last November in Kathmandu at ICIMOD. In a Plenary session, as a keynote presentation, **Bruno Messerli** proposed some concrete steps that might advance the ICIMOD agenda in the Hindu Kush- Karakoram-Himalayas for biodiversity conservation and transborder cooperation in face of global change. These involved a set of altitudinal transects spaced east-west along the ranges. These were not only endorsed, but action has started. **Bruno** reports below:



"**Eklabya Sharma** and his team of ICIMOD prepared for this conference and the workshops a lot of basic data and documents for the whole Hindu Kush-Karakoram-Himalayan Region (HKH). In total the HKH region has 488 protected areas (IUCN categories I - VI, Heritage sites, Ramsar wetland sites and important bird areas), covering more than 1,6 million km<sup>2</sup> and representing 39% of the region's terrestrial area. (Figure 1, above right) This is highly significant, even if we have not yet the necessary climatic, hydrological, soil and land use data to understand the variability and vulnerability of biodiversity in a time of climate and environmental change. Taking into account the distance of around 3,500 km from the dry west to the humid east and the difference from the monsoon summer precipitation in the south to the boreal winter precipitation regime in the North over the Tibetan Plateau, it was decided to focus on 4 transects and 7 transboundary complexes or landscapes." (Figure 2, below left)



"The next step followed in May 2009. China initiated a workshop in Tengchong, Yunnan, for better cooperation between India, China, Myanmar and ICIMOD in the humid eastern Himalaya: "**Regional Experience Sharing Consultation on Landscape Approach to Biodiversity Conservation in the Eastern Himalaya**". The four days' consultation shared the biodiversity values and services provided by three key protected areas: the **Gaoligongshan National Nature Reserve** in China, **Namdapha Tiger Reserve and National Park** in India, and the **Hkakaborazi Park** in Myanmar. Although in different countries, all are within the Brahmaputra-Salween landscape and this transboundary complex has an astonishing level of biodiversity, and is the meeting point of three global 'biodiversity hotspots'."

The most recent event was the inception workshop for the so-called "**Sacred Landscape Kailash**" in June 2009, organized by ICIMOD, together with UNEP, represented by delegates from UNEP offices in Nairobi and Bangkok. The concerned three countries China, India and Nepal had prepared this meeting by national consultations between

political and scientific institutions and personalities, so that the inception workshop could progress successfully. I was deeply impressed about the open discussion, the friendly atmosphere and the fascinating results about the topics, the spatial limitation, the data exchange and the financial support. UNEP decided shortly after this workshop to fund the first two years and if the results would be promising, a continuation could be possible.

It is astonishing what happened in the HKH region in the short time between November 2008 and June 2009. If we think that also in 2008 an ICIMOD book about **Biodiversity Conservation in the Kangchengjunga Landscape** was published by **N. Chettri**, **B. Shakya** and **E. Sharma**, and initiatives have been taken for the Karakoram transboundary complex (Pakistan-China), where the ICIMOD framework is expected to be adopted. This means that activities have been started in all the four transects, not yet in all the seven special landscapes. This initiative also is in concordance with the CBD programme of work for mountain biodiversity. For this brilliant start we thank all the different national and international delegations for their cooperation, **Dr. Andreas Schild** and ICIMOD for the support and the organization of all the meetings and workshops, **Prof. Christian Körner** and **Dr. Eva Spehn** for their continuous support as the leaders of Global Mountain Biodiversity Assessment Program (GMBA), **Dr. Graeme Worboys** and **Prof. Larry Hamilton** for all the good advices and especially **Dr. Eklabya Sharma** and his team for the outstanding engagement in all the scientific and political aspects of such a great program for such a huge mountain system. (All questions about this program should be addressed to **Dr. Eklabya Sharma**, ICIMOD: [esharma@icimod.org](mailto:esharma@icimod.org)). (Thanks for this **Bruno**)

Note: The "clickable" images in the above article are "hot linked" to a page on our Mountains Biome Network website. The ICIMOD links on that page will allow you to view these maps in a much larger size. They are also appended to the end of this Newsletter edition.

## Area Territori i Paisatge (Catalunya, Spain)

Beginning around 1997, the *Fundacio Territori i Paisatge* (Territory and Landscape) under the umbrella of the Catalanian Bank (Caixa Catalunya) began an active program of protection and conservation of important areas in that northeast province of Spain, which includes the Pyrenees Mountains.

To date, it has acquired (and manages) over 24 properties, holds collaborative conservation management agreements with at least 89 areas, and has acquired timber rights to over 25 ancient forest sites. In a recent re-organization, **Miquel Rafa** has been promoted to

the Director position of the *Area Teritori i Paisatge* of the *Fundacio Caixa Catalunya*. In total the organization has achieved conservation status on 152,000 ha, or 4.75% of the land surface of Catalonia.

The conservation/protected sites include the Environmental Center at **Planes de Son** which hosted the collaborative Mt Biome Workshop of 2005 working on connectivity along the Cantabrian-Pyrenees Ranges, with possible linking across France through the Central massif to the European Alps Arc. **Miquel** continues to work on the Cantabrian-Pyrenees linkage which would connect two brown bear populations, with the support of the European Union LIFE project.

## Young Mountain Conservationists

IUCN is making an effort to involve more young people (defined as under 35 years) in its activities. Those members of the Mt PA Network under 35 are invited to identify themselves to **Svetlana Kopylova** at [s.kopylova@yahoo.com](mailto:s.kopylova@yahoo.com) and apply for membership in IUCN/WCPA or simply identify yourself to her if you are already a Commission member. This is directed at preparing the next generation of PA experts.

## Some Recent New or Renewed Members of the MtPA Network

**Pedro Regato** is Senior Program Manager at IUCN Centre for Mediterranean Cooperation in Malaga, Spain.

**Farooq Ahmad** is the Team Leader in Biodiversity Conservation at ICIMOD in Kathmandu, Nepal.

**Alice Chamberlin** is Executive Director of 2 Countries- 1 Forest in Warner, New Hampshire, USA.

**Bastian Fleury** is with the EV-K2-CNR Committee in Zurich, Switzerland.

**Dirk Hoffman** of the Bolivian Mountain Institute is in La Paz, Bolivia.

**Victor Hugo Inchausti** is the Protected Areas Program Senior Officer at IUCN-SUR Regional Office in Quito, Ecuador.

**Cecily Kabagumya** is with the Albertine Rift Conservation Society in Kampala, Uganda.

**Graeme Kelleher** is Senior Advisor, WCPA/IUCN in Canberra, Australia.

**Aaron Nicholas**, Director of Takamana-Mone Landscape Project, is our first member from Cameroon, West Africa.

**Alexandre Lorenzetto** of Parkswatch-Greenvest is working on a connectivity corridor in the Sierra de Montiquera in Brazil (one that Larry visited and tried to promote 6 years ago)

**Amy Krause** is the Mountain Partnership focal point for North America at the Banff Centre, Canada.

**John Nankervis** is with the New Zealand Conservation Authority in Wellington.

**Chris Rose**, a good friend, who is Regional Manager (East) for Parks Victoria (Australia), has returned to the fold.

**Jane Smart** the Head of the Biodiversity Conservation Group at IUCN HQ in Gland now has oversight of the Protected Areas Program.

**Eklabya Sharma**, Program Manager for Environmental Change and Ecosystem Services at ICIMOD, Kathmandu, Nepal.

**Ralph Tingey**, protected areas consultant, former Assoc. Regional Director of Resources and Operations of National Park Service, resides in Alaska (Anchorage area).

Incidentally, we have dropped a few for non-interactive reasons, but the growth is substantial and geographically varied as you can see.

## Light Pollution and PAs

We have, for the past three years been advocating attention to the problem of light pollution in PAs. **Dark Sky** initiatives are taking place in many areas. A newly discovered problem with light pollution concerns fireflies whose twinkle adds magic to warm summer nights. While **fireflies** are disappearing from many scenes due to pesticides and habitat loss, the mating function of their light flashes is being adversely affected by ambient light. The brightness of the flashing which affects mate choice is being dissipated. American know-how and commercialization to the rescue! A manufacturer has produced a line of artificial fireflies that flash and fade that can be placed in trees and bushes to provide what nature once provided free of charge, thus bringing back the nostalgia of an earlier time for us, -- but of absolutely no use to fireflies. (Source; *Sierra* magazine July/August 2009).



The WCPA Task Force on Cities and Protected Areas ([www.citiesandconservation.org](http://www.citiesandconservation.org)) has taken on the issue of urban light pollution as it affects PAs through a **Dark Skies Advisory Group**, headed by David Welch. This group is recommending that night sky protection be added to the criteria for World Heritage Sites. The Committee has produced a statement which is reproduced below, and it will be submitted to the WH Committee:

There are at least nine reasons to reduce light pollution and protect a natural night sky:

- Ecological integrity of natural environments;
- Wilderness experience, or the full enjoyment of a natural outdoor experience;
- Appreciation of integrity, character and beauty of urban and rural landscapes;
- Commemorative integrity, or the authenticity at historic sites and monuments;
- The preservation of cultural traditions, both aboriginal and classical, that relate to the night sky;

- The protection of human health, both medical and psychological;
- Contributions to energy efficiency;
- Astronomy, respecting both scientific and amateur observation opportunities; and
- Security through proper, non-glare lighting in urban areas.

The overall statement also contains material which is of particular relevance to Mt PAs:

*There are many areas and landscapes which present a night sky free of light pollution, particularly in remote, dry and high areas. And this asset should be protected. The greater challenge will lie in reducing light pollution in and near urban and agricultural areas, and in adding night sky appreciation to the array of enjoyment and learning experiences of visitors to protected areas. A night sky without artificial light is an imperative for the proper functioning of natural landscapes and our enjoyment of them, as creatures and ecosystems function both day and night. Artificial light is known to affect species migration patterns, predator-prey relationships, the circadian rhythms of many organisms, to name just a few of the consequences of light pollution. However, compared to climate change, acid rain, exotic species, habitat destruction and other stresses, natural darkness and artificial light are often overlooked when considering and protecting biodiversity and our appreciation of the natural world.*

## Large Landscape-Scale PAs in the Mediterranean Region

In a long-settled and developed region like the Mediterranean it is more difficult to achieve large conservation/protected areas. The best opportunities occur in mountains, but even in mountains of this region, human habitation and infrastructure largely preclude the establishment of large wildland PAs. The best bet here resides in Biosphere Reserves, which have core wild or re-wilding natural zones, buffered by peripheral zones where conservation land use regimes are in place or promoted. In such cases, fairly large landscape-scale conservation areas may be established and exist.

A recent listing of **Mediterranean Mountain Biosphere Reserves** of over 150,000 ha shows some interesting areas of which many of us rarely hear:

- **Southern Morocco Oasis BR:** 7,185,371 ha, extending from the lowland desert oases to the High Atlas summits;
- **Inter-continental Mediterranean BR:** 894,135 ha, including a network of protected mountain areas in southern Andalusia and in the northern Morocco Rif chain;
- **Dehesas of Sierra Morena BR:** 424,400 ha of extensive and very unique sylvo-pastoral landscapes in the western mountains of Andalusia;
- **Velebit BR:** 200,000 ha of a mountain range parallel to the Adriatic coast in Croatia;
- **Cazorla/Segur BR:** 190,000 ha (Andalusia, Spain);
- **Cilento & Vallo di Diano BR:** 181,000 ha of coastal mountains south of Naples (Italy);
- **Luberon BR:** 179,600 ha in southern France;
- **Sierra Nevada BR:** 171,646 ha in Iberia's highest mountain range (Andalusia, Spain).

Source: *Mediterranean Mountain in a Changing World* (see publications section).

## Sacred San Francisco Peaks

I hope that many readers of this newsletter have been following the ups and downs of the struggle by the Native Americans of the American Southwest to protect their sacred mountain from a ski resort expansion. The Coalition to Save the Peaks is composed of 13 tribes and a few NGO environmental organizations such as Sierra Club. While the physical expansion of the ski area is another wound to the spirituality of the mountain, it is the use of Flagstaff city wastewater that is a particular anathema to the tribes. The land is Federal public land administered by the US Forest Service (IUCN Category VI). The permitting of this use of public land was approved by the Forest Service over strong protests by the Coalition. There have been three court trials: 1) favorable to the development, 2) overruled by higher court in favor of the Coalition, and 3) an appeal by developer and Forest Service which was in their favor. The decisions are based on differing interpretations of the Religious Freedom Restoration Act. The last trial said that "the diminishment of spiritual fulfillment - serious though it may be - is not a 'substantial burden' on the free exercise of religion."

The Coalition recently petitioned the Supreme Court to hear the case. Last June 8, the Supreme Court refused to hear the case. One of the few strategies remaining is to work with the US Congress and Administration to amend the RFRA to clarify what is "substantial", and to have it cover spiritual values rather than merely access to a site. Stay tuned. This issue has implications for sacred mountain sites on all US public lands.

## Waterton-Glacier World Heritage Site in Danger?

*A maintained clearcut swathe marks the international border between the two Parks*



The world's first International Peace Park, a Biosphere Reserve and since 1995, a World Heritage Site, could be placed on the list of WH Sites in Danger. The peril is not within the Site, but adjacent to the Waterton portion in British Columbia (the Park is actually in Alberta). It concerns the Flathead River Valley, the last unsettled low elevation valley in southern Canada. It is an important corridor for animal and plant migration, including such species as grizzly bear, lynx, wolverines, badger and fisher. Many have been advocating for years that it be added to Waterton NP or given Provincial Park status by British Columbia. Coalbed methane extraction and mountaintop removal for coal have both been proposed in this area. The resulting pollution of the Flathead River (an international river) would affect the integrity of the adjacent World Heritage Site.

At its late June meeting, the UNESCO World Heritage Committee voted to send a fact-finding mission to Canada to investigate threats to the Waterton-Glacier International Peace Park. The Committee asked Canada and the USA to prepare a report by February 1, 2010 looking at cumulative impacts of mining and gas development in this important connectivity area outside the Site, but impacting it.

## Citizen Science in Glacier NP (USA)

During four days in August a group of citizen scientists, armed with GPS and survey forms will assist the Park research in counting mountain goats at a series of survey sites. This is the second such survey, funded by the Glacier National Park Fund. This is a ground truthing of an aerial survey carried out at the same time. The program is popularized by the adoption of a cuddly billy goat toy which is the emblem of the Fund. Sale of the toys benefits the Fund.

Subsequent surveys will focus on the pika and the Clark's nutcracker, both being impacted by global warming. These three species are regarded as "canaries in the coal mine" as indicators of climate change, and baseline data on populations and distribution can be collected in a cost-effective way using volunteers. Program is well worth copying elsewhere. Thanks to our citizen-science guru *Linda McMillan*, for this item. Check out [www.billyinglacierpark.com/find\\_billy/2009/8/13/its-finally-here.html](http://www.billyinglacierpark.com/find_billy/2009/8/13/its-finally-here.html).

## Adaptive Management versus Fixed Cap for Visitors

Some NGO conservation groups are currently pressuring the US National Park Service to establish firm cap numbers on visitors for specific areas within Yosemite NP. *Mike Tollefson*, a former Superintendent at Yosemite, and with long park experience, has offered the following thoughts on this topic:

The US National Park Service mandate in the 1916 Organic Act is to "conserve...unimpaired for the enjoyment of future generations." Over the last few decades Yosemite National Park has continually mitigated visitor impacts while accommodating an increasing number of visitors. Repeat visitors are often heard saying the park looks the better than ever. Two examples are Stoneman and Cooks Meadows. Thirty years ago they were spider-webbed with trails, heavily impacted. Today each meadow has a boardwalk that meanders through the meadow providing a wonderful visitor experience while protecting the fragile areas - adaptive management at its best.

Unfortunately the March 27, 2007 Ninth Circuit Court of Appeals opinion on the 2005 Revised Merced River Plan has emphasized the reliance on a fixed capacity number in a specific area rather than the more accepted practice of adaptive management.

How did this happen? As management practices evolved and improved at the agency level, the guidelines that make policy at the departmental level did not change. Unfortunately as the National Park Service changed its management policies, those in the Department of the Interior remained tied to a quantity of use, resulting in the court finding that plans must specifically quantify the "kinds and amounts", of use "that will not adversely impact" as the primary management tool. The plan's proposed list of adaptive management strategies was dismissed by the court for failing to specify quantifiable number of visitors.

There are many carrying capacity models available. All are worthwhile for specific purposes. Having a quantifiable number as the firm limit takes away any opportunity for mitigation using adaptive management tools. *Mike*, who is now President of The Yosemite Fund, says to others: "Avoid this trap."



## Connectivity Achieved in Portion of Y2Y

The Yellowstone-to-Yukon Conservation Initiative succeeded in 2008 in purchasing a key parcel of private land (Kid Creek) in British Columbia that protects one of three critical grizzly bear (and other wildlife) corridors linking BC with core wilderness in Idaho (USA). It spans the serious obstacle of Canada Highway 3. Based on local volunteer "Roadwatch in the Pass" sightings of wildlife crossings, under- or over-pass structures are being promoted, based on the success of the highway overpass in Banff NP in the Y2Y corridor (photo right). This acquisition in the Purcell Range had as major players: TransBorder Grizzly Project, Nature Trust of BC, Vital Ground, and The Nature Conservancy of Montana. This is a fine example of transboundary cooperation. The 2008 Annual Report of Y2Y is available at [www.y2y.net](http://www.y2y.net) as well as other Y2Y news. Network member **Rob Buffler** is the Executive Director.



## Bits and Pieces

**Bill Halainen**, who has been Editor of the **International Ranger Federation's newsletter** for almost two decades (17 years), is stepping down as of December 31, 2009. Interestingly it is 17 years since I began putting out an UPDATE on Mt PAs. In resigning, he points out the discouragement an editor feels that there are so few recipients who respond with news. Amen, **Bill!** We hope that a new editor can step up to provide this networking device for the important IRF.

Visitors on Thousand Turtle Mountain at **Laojun Mountain Nature Reserve** remove their shoes mid-climb to avoid wearing down the sandstone formation. This seems to be the ultimate in "treading softly", or minimal footprint.

The Nature Conservancy and partners launched the **Bogotá Water Fund** to protect the upper watersheds that provide water to 8 million people in the country's capital. The fund is modeled after Ecuador's **Quito Water Fund** which the Conservancy helped establish in 2000. Bogotá's fund is expected to raise US\$60 million over 10 years for conservation projects in regions upstream from the city and save as much as US\$4 million a year in water treatment costs.

**Martin Kappelle** has been appointed by The Nature Conservancy as Lead Scientist for the Latin America Region. TNC staff in the Region total some 300 in this science-based conservation program.

**Steve Trombulak** of Middlebury college, Vermont, has been appointed to a new Chair, - Professorship in Environmental and Biosphere Studies. As a conservation biology pioneer, **Steve** has been actively working on the **Two Countries-One Forest** coalition promoting a Greater Northern Appalachian/Acadian Bioregional concept.

American, and some Canadian Network members should be alert to the premiere showing this month on public television of the long-anticipated Ken Burns series **The National Parks - America's Best Idea**. Not to be missed. The series is 12 hours long, and will probably be shown in 6 episodes.

In many parts of the world, designating an area as a National Park (Category II, IUCN) implies the ultimate in conserving nature. However, some kinds of incompatible development can occur in such PAs, including actions by the park agency itself (e.g. roads, visitor facilities, concessions). The US Congress has recently enacted legislation that provides an extra layer of protection to certain wild zones within six US National Parks. One of these is **Rocky Mountain NP** in Colorado.

**The Thin Green Line Foundation** (Australia) has grown out of the **International Ranger Federation**. Its mission is to assist protected area Rangers facing difficult situations in the developing world. Through various fund-raising events and appeals, they directly send support to rangers and their families. For instance they have sent support to 17 families of rangers killed in Africa (many of them working to protect mountain gorillas in DRC), sent an additional US\$10,000 emergency money to rangers in DRC who are now working to protect mountain gorillas, and are sending support to 40 families in Africa and South/Central America. They are hoping to raise US\$3 million over the next 3 years. Any readers caring to support this may find details at [www.thingreenline.org.au/donation](http://www.thingreenline.org.au/donation).

An experienced British backpacker managed to find backcountry areas large enough and wild enough to be lost in for 11 days in the **Blue Mountains World Heritage Site** in New South Wales. This was in Australian winter (July 4-15) with overnight temperatures close to freezing. After search parties, numbering 60 persons, failed to find him he walked out under his own steam, though not in good condition. Two Park Rangers were injured during the search and rescue operations.

At its June meeting in Seville, the World Heritage Committee placed **Los Katios NP** in Colombia on the In Danger List. This was at the request of the government in order to mobilize support for halting the illegal extraction of timber.

We have regarded the **Grand Canyon** (USA) as a Mt PA (when considered from the river or valley floor). The US Department of Interior has barred the filing of new uranium mining claims on lands near to and affecting the Park. This is particularly important on lands draining into the river that can be polluted by mine or tailings drainage. Meanwhile, Congress is considering a "Grand Canyon

Watershed Protection Act." This is fitting action, and in keeping with IUCN policy and recommendations on **Mining and Protected Areas**, especially World Heritage Sites.

Noise pollution again, at **Grand Canyon WH Site** (USA). Last year there were 56,000 air tours over the Site. The National Park Service and the Federal Aviation Administration are working on proposals to reduce the number or impact of these overflights. See previous articles we have carried on noise/silence in PAs.

**Retezat NP** is Romania's premier Mt PA. A new information center has been opened this summer at Petrele, the most important entrance point. It features educational material on alpine communities. More information at [www.florina@retezat.ro](http://www.florina@retezat.ro).

**Robert Hofstede**, Regional Program Coordinator of the IUCN Regional Program for South America, has been appointed as the Chairman of the Board of the Mountain Forum.

On the summit of **Nemrut Dag** in the Eastern Taurus Range of Turkey (2,150 m) is situated the famous burial mound of King Antiochus I of the Dommagene Dynasty (80 BC to 72 AD). It is surmounted by a large stone helmeted head. [See photo at [wikipedia.org/wiki/Mount\\_Nemrut](http://wikipedia.org/wiki/Mount_Nemrut)]

We have a lot of news in this issue about World Heritage. Here's one more: A program of World Heritage Studies (for a Master's Degree), in Cottbus, Germany celebrates its 10th anniversary this year. It is offered by the Brandenburg University of Technology Cottbus. The Director has the UNESCO Chair in Heritage Studies. [albert@tu-cottbus.de](mailto:albert@tu-cottbus.de).

**Erik Solheim** of Norge Naturvernforbund (Norwegian Society for the Conservation of Nature) sent me a book a few years ago, following a presentation I made at a meeting in Iceland. It was on **Jostedal NP**, a large glacier-featuring PA, coming right to the fjords. To my delight, the Norwegian Fjords/Arctic Svalbard voyage which Linda and I took in mid-June, sailed deep into Nordfjord, and we landed and hiked to the foot of Birksdal Glacier, one of the Park's many glaciers. Thank you Erik. We have deposited the book in the library of the National Geographic/Lindblad expedition ship Explorer for others to enjoy.

**The Mountain Studies Institute**, focusing on the San Juan Mountains in Colorado states that in the western USA, 50-80% of the region's water supply originates in seasonal mountain snowpack. Mountains are truly **water towers of the world** (an expression widely used, which originated back in 1992 when I believe it was first used by **Bruno Messerli**, in a publication in which I was one of the co-authors called "An Appeal for the Mountains")

WCPA Deputy Vice-Chair **Fausto Sarmiento** was appointed as a Fulbright Ambassador in mid-June, to the Brazilian Fulbright Program (Council for International Exchange of Scholars). He hopes to use this position as much as possible as a vehicle for capacity-building in mountain conservation.

The new WCPA Vice-Chair for an expanded North American Region (now North America-Caribbean) is **Cyril Kormas** of the WILD Foundation. He replaces David Harmon who will continue as one of Cyril's deputies, and continue to run the listserv. In the Caribbean, it is the non-Spanish speaking countries that are included. Mexico and Spanish Caribbean go with the Meso-American region. Congratulations, Cyril.

The IUCN Region of Oceania is exceptionally large and covers Australia, New Zealand, Pacific Islands and PNG. To enhance networking opportunities the WCPA Vice Chair for Oceania, **Penelope Figgis**, recently announced that she had appointed **Bruce Jefferies** as a Deputy Vice Chair. Bruce's role will include mobilizing and activating the WCPA network of protected area professionals in New Zealand and to contribute to the goals of WCPA and the broader program of the IUCN.

The Society of Conservation Biology has issued a report **Major Conservation Policy Issues for Biodiversity in Oceania**. This covers Australia, New Zealand, Melanesia, Polynesia and Micronesia, and is a call for action. It appeared in SCB's on-line journal Conservation Biology. [www3.interscience.wiley.com/journal/122511867/abstract](http://www3.interscience.wiley.com/journal/122511867/abstract).

With the World Wilderness Congress (WILD 9) coming up in November, we note this item on a large wilderness complex in the North Cascades Mountains of Washington State, USA. It is called the **Stephen Mather Wilderness**, and consists of the following: 504,614 acres (204,160 ha) in the North Cascades NP; 74,000 acres (29,900 ha) in Ross Lake National Recreation Area (62% of the area); and 56,000 acres (22,660 ha) in the Lake Chelan National Recreation Area (90% of the area). These are "Designated Wilderness" where human footprint is minimal.

**Rolf Diamont**, Superintendent of Marsh-Billings-Rockefeller National Historic Park in Vermont (the only NP in the State), is now President of the George Wright Society, the USA organization for Park professionals and supporters.

## Some Recent Publications of Interest

**Mountains of Spiritual World Heritage** by **Edwin Bernbaum** in World Heritage No. 51, pp 36-45, 2009. UNESCO World Heritage Publications, 7 Place de Fontenoy, 75352 Paris, France. [www.unescopublishing](http://www.unescopublishing). Readers might also be interested in World Heritage Papers No. 23, 2008, "Enhancing Our Heritage Toolkit: Assessing Management Effectiveness of Natural World Heritage Sites." Authors include Network members **Marc Hockings**, **Sue Stolton**, **Nigel Dudley**, **Jose Courrau**. Available on-line at [unesco.org](http://unesco.org) (go to Paper Series).

**Two on-line journals:**

**Eco.mont- Journal of Protected Areas Research** in English. Publishes articles by authors who work in Mt Pas, about management approaches based on science,. Available at [www.oeaw.ac.at/ecomont](http://www.oeaw.ac.at/ecomont)

**Revue de Géographie Alpine - Journal of Alpine Research** in French and English. Geographical topics concerning European alpine region. Available at <http://rga.revues.org>.

**Mediterranean Mountains in a Changing World. Guidelines for developing action plans** by **Pedro Regato** and Rami Salman. Published by IUCN and the Italian Ministry of Environment, Land and Sea. 2008. A report of a December 2007 workshop held in Malaga, Spain coinciding with International Mountain Day on December 11. Available at IUCN-MED, Calle Marie Curie 35 (Sede Social), 29590 Campanillas, Malaga, Spain. The numerous photos, many of them taken by **Pedro**, are superb in giving an overview of the variety and beauty of Mediterranean Mountains. [www.iucnmed.org](http://www.iucnmed.org)

**Biodiversity and Climate Change in the Himalayas.** ICIMOD, No. 55, Spring 2009. 34 pp in issue No. 55. Summaries of articles from the November 2008 ICIMOD conference and workshops, including those by **Bruno Messerli, Christian Koerner, Eklabya Sharma, Thomas Schaaf, Nakul Chetri, Graeme Worboys, Bruce Jefferies, Eva Spehn.** [www.books.icimod.org](http://www.books.icimod.org)

#### **Biodiversity Conservation in the Kanchenjunga Landscape**

Eds. **Nakul Chetri, B.Shakya and Eklabya Sharma.** 2008. ICIMOD. 172 pp. A collection of research papers on this important transboundary PA. [www.books.icimod.org](http://www.books.icimod.org)

**The World's Protected Areas (Status, Values and Prospects in the 21st Century).** Eds. Stuart Chape, Mark Spalding and Julia Marton-Lefèvre. 2008. UNEP-World Conservation Monitoring Centre / University of California Press, Berkeley. 359 pp. Contributions by 28 persons in the Mt PA Network. Includes both topics (such as Threats to Protected Areas) and regional analyses (such as The Caribbean). Many maps, photos, tables of data dealing with the world's 100,000 PAs and just over 12% of the Earth's land surface, plus marine environment. [www.unep-wcmc.org](http://www.unep-wcmc.org).

**Darkening Peaks: Glacier Retreat, Science and Society.** Ed by Ben Orlove, Ellen Weigandt and Brian Luckman. 2008. University of California Press, Berkeley, California. 296 pp. Since many of the world's mountain glaciers are in Protected Areas, this book is of interest to Network members. It deals with human relationships with glaciated mountains. US\$45, £32.50 hardcover.

**Mountain Biodiversity: Lifeline for the Future.** 2009. Mountain Forum Bulletin IX:2. This is a product of Mountain Forum, Global Mountain Biodiversity Assessment and Mountain Research Initiative, with support from ICIMOD. MF Executive Secretary **Frans Neuman** points out that this Volume IX No. 2 is a special extended issue. It contains an overview article by **Christian Koerner** and **Eva Spehn** and 13 articles/case studies on changes and threats to diversity in such diverse areas as the Swedish Scandes, Ethiopian Highlands, Georgian Caucasus and El Avila in Venezuela. **John Watson** is co-author on one on the low mountains of southwestern Australia. There is an extensive interview with **Nakul Chetri.** This excellent issue is available at [www.mtnforum.org/rs/mfnews.cfm?newsid=52](http://www.mtnforum.org/rs/mfnews.cfm?newsid=52).

## Useful Links

**UPDATE Archive** Past editions, hosted by The Mountain Forum: <http://www.mtnforum.org/rs/ol/periodicals.cfm?periodid=30>

**Our IUCN-WCPA Mountains Biome website has a NEW ADDRESS: <http://ProtectMountains.org/>**

**Connectivity Conservation** website: <http://conservationconnectivity.org/>

## Upcoming Meetings and Events of Interest

**36th Annual Natural Areas Conference.** September 15-18, 2009. Vancouver, Washington USA. Organized and hosted by Natural Areas Association and State of Washington Department of Natural Resources. Focus is on "Edges" in land management for species, habitats, human society and the earth. Abstracts deadline past. [www.naturalarea.org](http://www.naturalarea.org).

**4th International Symposium for Research in Protected Areas.** September 17-19, 2009. Held in Hohe Tauern NP, Austria and organized by the Park, ALPARC, ISCAR and IGF. Topics include long-term monitoring in PAs, climate change evidence, transdisciplinary research. [nationalpark@salzburg.gv.at](mailto:nationalpark@salzburg.gv.at) or program at [www.alparc.org/event-calendar/](http://www.alparc.org/event-calendar/).

**Linking Landscapes Summit 2009.** October 6-8, 2009. South Kingscliff, New South Wales. Sponsored by the park agencies of all Australian States and Territories and The Nature Conservancy. To consider landscape-scale actions needed in the face of climate, demographic and economic change. Overseas participants welcome. [www.linkinglandscapes.net.au](http://www.linkinglandscapes.net.au).

**Second DIVERSITAS Open Science Conference.** October 13-16, 2009 in Cape Town, South Africa. Biodiversity and society: understanding connections, adapting to change. First call for paper proposals deadline has passed, but see [www.diversitas-osc.org](http://www.diversitas-osc.org).

**Ecological Network in the Alps: a response to climate change that will conserve biodiversity?** October 15-16, 2009, Berchtesgaden NP, Germany. Organized by ALPARC (Alpine Network of Protected Areas). [www.alparc.org](http://www.alparc.org)

**World Forestry Congress.** October 18-25, 2009 in Buenos Aires, Argentina. Organized by FAO and the Government of Argentina. The theme is Forests in Development: A Vital Balance. A session on Mountains and two mountain side events are planned. [www.wfc2009.org](http://www.wfc2009.org).

**Mountain Tourism in Natura 2000 Areas: Conflict or Opportunity.** October 22-25, 2009 in Kudawa Zdroj, Poland. An international seminar on the use of mountain Natura 2000 areas for recreation and tourism and the role of NGOs and local communities. By International Friends of Nature, Polish Tourist Country Lovers' Society, Institute of Tourism and Recreation (Cracow) in cooperation with Gory Stolowe NP (The Sudetes). Information from **Piotr Dabrowski**: dabrowshi@eko-tourist.krakow.pl.

**6th World Ranger Congress.** November 1-6, 2009 in Santa Cruz, Bolivia. International Ranger Federation and SERNAP (Bolivian Park Agency). [www.guardaparque.org](http://www.guardaparque.org)

**9th World Wilderness Congress.** November 6-13, 2009 in Mérida, Mexico. WILD Foundation and Unidos para la Conservación (UPC). Title: "Feel, Think, Act (Siente, Piensa, Actua)!" [www.wild9.org](http://www.wild9.org). WILD President is **Vance Martin**. Playing a key organizing role is **Harvey Locke**. There is a symposium on Science and Stewardship to Protect and Sustain Wilderness Areas. [info@wild9.org](mailto:info@wild9.org). Attendees-we will have a "Mountains Lunch" TBA.

**Healthy Parks/Healthy People International Congress.** April 11-16, 2010 in Melbourne, Australia. Major sponsors: Parks Victoria; IUCN; Beyond Blue; Deakin University; Australia Department of Environment, Water, Heritage and the Arts. Information at [www.healthyparkshealthypeoplecongress.org](http://www.healthyparkshealthypeoplecongress.org). Call for proposals is open until June 22, 2009. The WCPA Steering Committee meeting (in Ecuador in June) discussed establishing a new Task Force with this same name: Healthy Parks, Healthy People.

**Global Change and the World's Mountains.** September 27-October 1, 2010 in Perth, Scotland. Sponsored by: Centre for Mountain Studies (Perth College); UNESCO; Mountain Research Institute; Uni Twin; and Uni Millenium Institute. Focuses on physical and biological research updates, monitoring and changing social/cultural aspects. Members of the Organizing Committee include: **Linda McMillan, Graeme Worboys, Martin Price, Thomas Schaaf, Eklabya Sharma**. March 1, 2010 deadline for paper/poster submissions. For program details: [martin.price@perth.uki.ac.uk](mailto:martin.price@perth.uki.ac.uk). General information at [www.perth.uhi.ac.uk/mountainstudies/2010](http://www.perth.uhi.ac.uk/mountainstudies/2010).

## Mountains Biome E-News Production

**Linda McMillan**, Deputy Vice-Chairman, Communications, WCPA Mountains Biome

Please send your news and information for UPDATE to our Editor, **Dr. Larry Hamilton** ([silverfox@gmavt.net](mailto:silverfox@gmavt.net)). Thank you!

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**UPDATE EDITOR: Professor Lawrence S. Hamilton | Senior Advisor, Mountain Biome  
IUCN-World Commission on Protected Areas | Charlotte | VT | 05445**

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**APPENDIX on next page:  
Biodiversity Sites and Transects in the HKH Region**



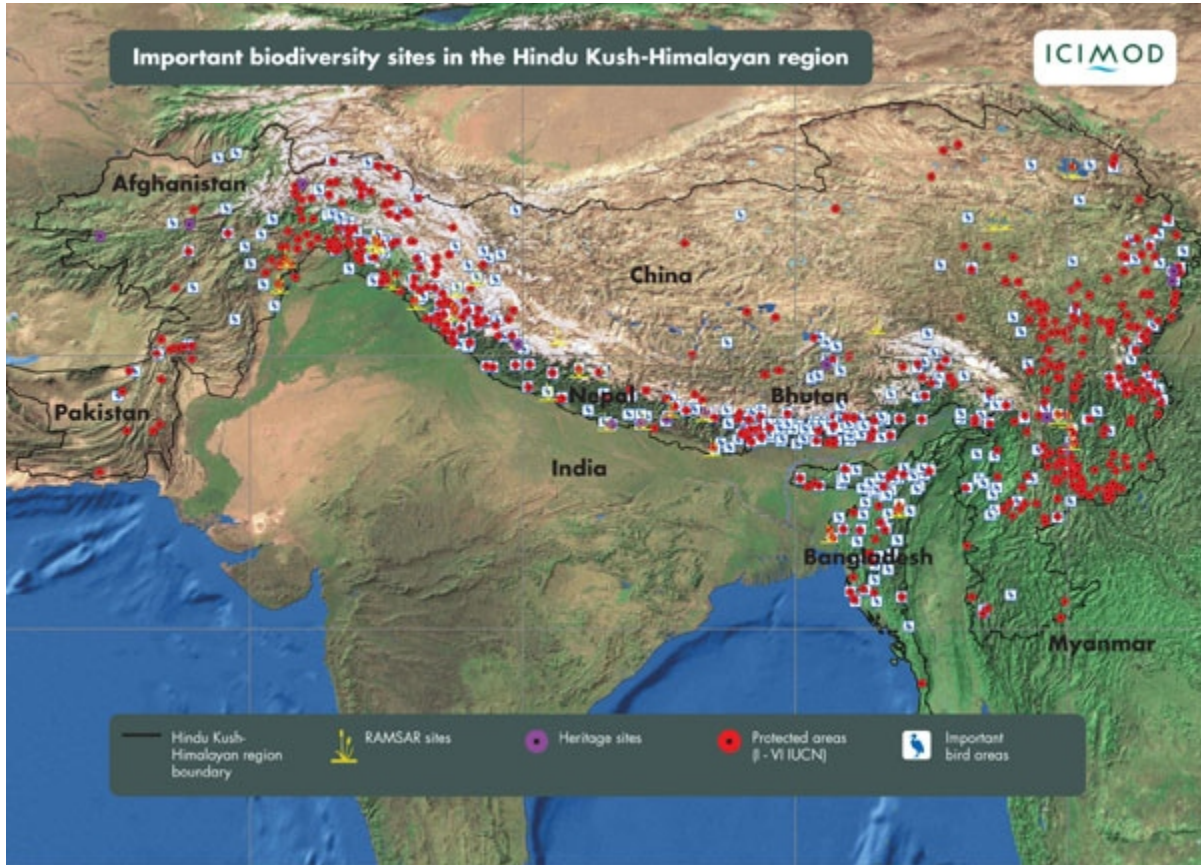


Figure 1 (above) | Figure 2 (below)

