



April 2016



Ecosystem News - The CEM Newsletter

Announcements

CEM Young Professional Award Winner

Many excellent Young Professionals were nominated for the CEM Young Professional Award this year, seriously challenging the selection committee, led by CEM SC member Said Damhoureyeh. There is, however, one clear winner. We are very proud to announce the winner of the next CEM Young Professional Award: **Dr. Nick Murray!**

Nicholas Murray is a research fellow at Centre for Ecosystem Science, University of New South Wales, Sydney, Australia. The jury was impressed with his academic achievements and his demonstrated commitment to conservation and ecosystem management, including voluntary work. In addition, over the past few years he has been an important part of the Red List of Ecosystems team. Congratulations!



Do you have an idea for making conservation a part of doing business?

Submit your idea or topic for a breakout session proposal for the international conference Natural Capital | Let's talk business!



The conference is hosted and organized by the Platform Biodiversity, Ecosystems and Economy (Platform BEE) and will take place on 23-25 November 2016 in The Hague (the Netherlands). The aim is to provide a platform to share the newest insights, approaches and lessons learned in the Natural Capital field and lay the foundation for a strong Natural Capital business network. For more information, submitting your proposal or for registering visit the [conference website](#). The deadline for submission is: May 27, 2016.

Indigenous People and Invasive Species – Update by Judy Fischer, Thematic Group Lead

The CEM [Thematic Group on Ecosystems and Invasive Species](#) led a Symposium at the IUCN World Parks Congress in November 2014 titled **Indigenous People and Invasive Species**. The opportunity provided for a number of Indigenous Peoples from around the

world to discuss their approaches to invasive species and provide their perspectives on the management, challenges and benefits of invasive species. Following the strong interest demonstrated on the topic at the World Parks Congress, Thematic Group Member Emile Ens developed an outstanding [publication](#) incorporating a 1-2 page input from presenters, others present and those unable to attend the Congress. The Booklet has been in high demand since its publication and as a growing document further contributions are always welcome. If you would like to contribute please contact [Emilie Ens](#).

Last chance to register: MSEAS Symposium – May 30 – June 3, 2016, Brest, France

Understanding marine socio-ecological systems: including the human dimension in Integrated Ecosystem Assessments. Keynote speeches will be delivered by two members of the [CEM Fisheries Expert Group](#). The symposium will focus on integration and assessment across multiple uses and sectors. This includes fisheries, renewables, coastal development, oil and gas, transport and conservation, and in particular the methodological and empirical challenges involved in including the human dimension in integrated assessments. The symposium is global in scope, with a focus on regions in which integrated ocean management policies have been developing in the last two decades. More [info](#) and [registration](#) (before mid-May).



Using technology to fight wildlife crime

The [Wildlife Crime Tech Challenge](#) is a global competition that rewards science and tech innovations that combat wildlife crime. The Challenge recently took the stage at South by Southwest (SXSW) Interactive, an annual technology conference. Wildlife experts, including two of the Challenge's 16 Prize Winners, Binomial Solutions and Paso Pacifico, presented a panel on tech innovations intended to fight wildlife crime. They also gave a demonstration of their innovations; artificial sea turtle eggs equipped with hidden trackers to reveal the routes poachers use to trade sea turtle eggs, and an exclusive look at a solar-powered wildlife surveillance system that relies on intelligent software to flag suspicious activity in protected areas.



World Conservation Congress 2016 Update

Following the closing of the motions submission process for the IUCN World Conservation Congress, all motions were reviewed for their scientific and technical characteristics. A total of 95 motions have been accepted. An online discussion is taking place **from 2 May to 3 July 2016**. Members are invited to participate through the [motions website](#).



And if you haven't yet [registered](#) for Congress, here is a small reminder: the early bird registration fees for the Congress will end on the **31st of May**.

The 5th International EcoSummit 2016 - Ecological Sustainability: Engineering Change

This year's EcoSummit will be held in Montpellier, France, from 29 August – 1 September. Started in 1996, this series of conferences aims to bring together scientists from multiple ecological disciplines to the benefit of environmental management. The focus of EcoSummit 2016 is the ecology of terrestrial ecosystems and all habitats that are integrated within those ecosystems, including river networks, wetlands



and coastlines. Focus will be placed on fragile ecosystems that are more likely to suffer the consequences of climate change and anthropogenic pressure. The summit will also address how terrestrial restoration can be carried out when the massive demand for food results in fragile ecosystems, forests and marginal lands being turned over to agriculture. More info and registration [here](#).

Call for nomination of experts and fellows for the Global Assessment and experts for the scoping of the Sustainable Use of Biodiversity

IPBES invites the nomination of experts for Deliverable 2(c): Global assessment on biodiversity and ecosystem services and Deliverable 3(biii): Sustainable Use of Biodiversity. Experts interested in being nominated are encouraged to contact their [IPBES National Focal Point](#) or organizational contact point. Click [here](#) for more information or go directly to the [application form](#). The deadline is 05 May 2016. Type text here



CEM on social media

More and more of our members are discovering our Ecosystem Management page on Facebook. A few recent items include the Steering Committee meeting, interesting publications, news from our thematic groups and an opportunity for young professionals to attend CBD COP 13. [Take a look](#) and stay tuned for more news, including CEM updates in the run-up to Congress.



From our members

IUCN and Synthetic Biology

The meeting “Biodiversity Conservation in the Context of Synthetic Biology (SB)” was held from December 1st to December 5th, 2015, at the Rockefeller Foundation Bellagio Center in Bellagio, Italy. Simon Stuart, Chair IUCN SSC, and Claudio Campagna, WCS, were organizers. Twenty-five experts in genetics, (social) policies, science, conservation biology, SB, environmental law, communications, ecology and ethics attended the meeting. Among the people attending was CEM member Dr. Marina Rosales Benites de Franco.



The main goals were to develop an understanding of why SB is relevant to IUCN’s mission and vision, actions required by IUCN in response; and, to discuss the future of SB and conservation in order to decide the best way to interact with/influence it from the perspective of the international conservation community, particularly the IUCN community.

The group of experts discussed the collaboration between the Synthetic Biology and conservation communities in the context of the potential benefits and risk on ecosystems and biodiversity. Furthermore, SB related with invasive species and disease, climate change mitigation and adaptation, the concerns of the global conservation community and others important results that can be found in [the report](#) of the meeting.

Ecosystem management and human well-being in Burkina Faso

The economy of Burkina Faso is mainly based on natural resources. More than 90% of the population of Burkina Faso lives in rural areas, and base their livelihoods on crop and livestock production, forestry and fisheries. The impact of climate change coupled with desertification and population growth has led to increasing food insecurity in these areas.



In response, the Department of Aquacultural Development in Burkina Faso is identifying and developing tools to mitigate this threat. One such example is creation of fish ponds in rural areas, now being tested at five sites. This technique lengthens the period of water availability for plants (including crops), livestock and wildlife during the dry season, and greatly increases production of fish, an important source of protein. It also creates a microclimate around the site which is beneficial to local biodiversity. For more information please contact [Tiga Neya](#).

New Community Resilience Building Workshop Guide and Website

The need for governments, corporations, and organizations to build community resilience to hazards is strikingly evident. Ongoing events continuously reinforce this urgency and compel leading communities to proactively plan and act. Leadership of this type is to be commended as it reduces the vulnerability of people, infrastructure, and the environment. As a response to this ever increasing need and urgency, [Community Resilience Building](#) was created.



After a decade of development, the Community Resilience Building Workshop has been tried, tested, and is trusted by thirty five communities. The Community Resilience Building Workshop provides a friendly “anywhere and at any scale” approach for developing community resilience action plans. The CRB Workshops employ a unique community-driven process, rich with information, experience, and dialogue, where the participants identify top hazards, current challenges, strengths, and priority actions to improve resilience to all natural and climate-related hazards today, and in the future across the globe.

Impressions from the 18th International Conference on Biodiversity and Sustainable Energy Development

The World Academy of Science, Engineering and Technology (WASET) held their 18th Conference on Biodiversity and Sustainable Energy Development in Singapore last January. The conference aims to bring together leading academic scientists to exchange experiences and research results about all aspects of Biodiversity and Sustainable Energy Development. CEM member Taleb Mohammed Sghir of the Université Mohammed V in Rabat attended the conference and presented his paper titled: [Moroccan Mountains: Forest Ecosystems and Biodiversity Conservation Strategies](#).



National Consultative Workshop in India on Ecosystem Based Approaches to DRR and CCA

On 5th February, 2016, [CSIR-National Environmental Engineering Research Institute](#) and [UNEP Disaster and Conflicts](#) organized a one day "National Consultative Workshop in India on

Ecosystem Based Approaches to Disaster Risk Reduction and Climate Change Adaptation" at CSIR-NEERI, Nagpur Maharashtra. [Background paper](#) and more information [here](#).

Commonland Newsflash

Commonland was founded in 2013 by the IUCN Commission on Ecosystem Management, the Rotterdam School of Management - Erasmus University and private investors. It is a foundation that develops restoration projects that are based on the [4 returns approach](#). These returns are: inspirational returns, social returns, natural returns and financial returns.

The practical 4 returns business framework aims to establish Ecosystem Restoration Partnerships between people living on the land, companies, investors, governments and business schools, to restore degraded ecosystems that gives multiple returns, while teaching practical lessons and reaching international restoration targets.

Commonland projects include the establishment of Alvelal, a local landowners association in Spain, with more than 200 members. Commonland works with them on a 4 returns masterplan to restore the Altipano. In South Africa a company was set up to convert free range goat farming into regenerative aromatics agriculture and restoration. A new company was started in Australia to work on the restoration of the degraded Wheatbealt. In addition, a partnership was created to establish the Academy for Business and Landscapes. More information here: [Newsflash](#).



Effects of a major municipal effluent on the St. Lawrence River: A case study

The St. Lawrence River (SLR) is the second largest waterway in North America. The discharge of the City of Montreal wastewater treatment plant (WWTP) forms the largest volume of treated wastewaters being released into the river. It also ranks as the largest sewage treatment plant of its kind in North America. Over the last decade, intensive multidisciplinary research has focused on assessing the impacts of Montreal wastewater effluents on the SLR. CEM member David Marcogliese et al. describe the major findings of these investigations. Impacts of the effluents from the WWTP on aquatic organisms from the SLR are both toxicological and ecological, demonstrating the need for an integrated view of the impacts of municipal effluents on aquatic ecosystems. You can find the article [here](#).



Awards

Dr. Manish Mathur (Member of CEM) from Central Arid Zone Research Institute, Jodhpur, India has received the Young Scientist Association Award in February of this year, from the Bioved Research Institute of Agriculture Technology and Sciences (Approved by Ministry of Finance and Department of Science and Technology of India).



Resilient Pastoral Communities And Sustainable Natural Resource Management In Arid Africa

Arid and semi-arid lands (ASALs) cover 66% of Africa, 88% of Kenya and 90% of the Lower Tana Catchment, Kenya. They support 70% of Kenya's livestock herd and 90% of the wildlife. Unfortunately, the region is threatened by multiple challenges including climate change, poverty and weak governance.



Since 2012, the IUCN/Austrian Building Drought Resilience Project supported dryland communities to be resilient to the impacts of increasingly severe and frequent drought and floods in Lower Tana. The project achieved the following milestones to contribute to county planning and implementation:

- Development of sub catchment management plans tailored for ASALs.
- Delineation/branding of watering corridors that reduce resource conflicts by 50%.
- Development of community bylaws.
- Fruits for river banks stabilization and income in vulnerable group farms.
- Bio-enterprise (honey, gum and resin) production and marketing.
- Sustainable rainwater harvesting and management.
- Establishment of hydrometers and river gauging stations to support early warning systems.
- Trainings and exchange visits for improved skills and knowledge.

The project is expected to end in March 2018. For more information, contact Dr. [Ahmed Mohamed](#) and [Yasin Mahadi](#).

CEM is seeking nominations for the Luc Hoffmann Award

Do you know an individual that demonstrates initiative and environmental leadership? Someone who conserves nature and inspires others while doing so? CEM members are asked to nominate people that qualify for the Luc Hoffmann Award. The deadline is the 1st of June 2016. For more information about the nomination process click [here](#).

Application of IUCN Red List of Ecosystems Categories and Criteria: Guidelines

The IUCN Red List of Ecosystems is a new global framework for monitoring the status of ecosystems. It is part of the growing toolbox for assessing risks to biodiversity and aims to support conservation, resource use, and management decisions by identifying ecosystems most at risk of biodiversity loss. The basis of the IUCN Red List of Ecosystems is the IUCN Red List of Ecosystems Categories and Criteria, a set of eight categories and five criteria that provide a consistent method for assessing the risk of ecosystem collapse. These Guidelines (download [here](#)) assist correct implementation of the IUCN Red List of Ecosystems Categories and Criteria by providing information on the development of the protocol and a detailed overview of the scientific foundations supporting the categories and criteria.



The Third IUCN Red List of Ecosystems Photo Contest - Ecosystems at the Crossroads is open since last March 31.

The winner will be announced during the next WCC, in Hawai'i. [Link to web site](#)

Publications

- Aguilar L, Granat M and Owren C (2015) [Roots for the future: The landscape and way forward on gender and climate change](#). Washington, DC: IUCN & GGCA.
- Dhyani S & Dhyani D (2016) [Significance of provisioning ecosystem services from moist temperate forest ecosystems: lessons from upper Kedarnath valley, Garhwal, India](#). Energy, Ecology and Environment. pp 1-13
- Fisichelli NA, Schuurman GW and Hoffman CH (2016) [Is 'Resilience' Maladaptive? Towards an Accurate Lexicon for Climate Change Adaptation](#). *Environmental Management*. 57(4), pp 753-758
- Koutsidi M, Tzanatos E, Machias A and Vassilopoulou V (2016) [Fishing for function: the use of biological traits to evaluate the effects of multispecies fisheries on the functioning of fisheries assemblages](#). *ICES J. Mar. Sci.* 73 (4): 1091-1103
- Mathur M (2015) [Ethnic-Knowledge: Documentation And Interpretation](#). Jodhpur, Agrobios
- Niamir A, Skidmore AK, Toxopeus AG and Real R (2016) [Use of taxonomy to delineate spatial extent of atlas data for species distribution models](#). *Global Ecology and Biogeography*, 25, 227-237. doi: 10.1111/qeb.12405
- Wilson AM & Jetz W (2016) [Remotely Sensed High-Resolution Global Cloud Dynamics for Predicting Ecosystem and Biodiversity Distributions](#). *PLoS Biol* 14(3): e1002415. doi:10.1371/journal.pbio.1002415
- Baig, S. P., Rizvi, A., Josella, M., Palanca-Tan, R. 2016. [Cost and Benefits of Ecosystem Based Adaptation: The Case of the Philippines](#). Gland, Switzerland: IUCN. viii + 32pp. (I've featured it on Facebook this week. Link in the text but just in case link to pdf here: http://cmsdata.iucn.org/downloads/philippines_cba_study_final_version_2.pdf)

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