

Soil Systems and Critical Zone Processes Technical Committee

December 15, 2014

Minutes

Called to order at 6:45 AM

Attending: Susan Trumbore, Binayak Mohanty, Marc Kramer, Wei Zhang, Henry Lin, Kate Smits, Tim White, Shmuel Assouline, Dani Or, Harry Vereecken, Kate Lajtha, Steve Banwart, Ester Sztein

Members as of 2015-16:

Lajtha, Kate	lajthak@science.oregonstate.edu	Chair
Vereecken, Harry	h.vereecken@fz-juelich.de	Chair
Pachepsky, Yakov	Yakov.Pachepsky@ars.usda.gov	Deputy Chair
Banwart, Steve	s.a.banwart@sheffield.ac.uk	Member
Ferre, Ty	tyferre@gmail.com	Member
Kramer, Marc	marc.kramer@wsu.edu	Member
Lin, Hangsheng	henrylin@psu.edu	Member
Or, Dani	dani.or@env.ethz.ch	Member
Pendall, Elise	e.pendall@westernsydney.edu.au	Member
Sztein, Ester	esztein@nas.edu	Member
Trumbore, Susan	trumbore@bgc-jena.mpg.de	Member
Yan, Xiaoyuan	yanxy@issas.ac.cn	Member
Young, Michael	michael.young@beg.utexas.edu	Member
Binayak Mohanty	bmohanty@tamu.edu	
Shmuel Assouline	vwshmuel@volcani.agri.gov.il	
Tim White		

We discussed sessions at AGU, and discussed our primary mission: to determine if there are holes in the program, and if we should find ways to suggest sessions or themes. CZO sessions are reported to be listed on the CZO website (criticalzone.org and <http://criticalzone.org/national/news/story/czos-at-agu-2015/>); next year the chairs will bring lists of the CZO and related sessions. This committee should spend time proposing titles of sessions that should be at 2016 AGU; deadline January 2016 to the chairs.

Possible sessions for 2016: Several members propose to resubmit the session on CZOs submitted by Völkl et al. for 2016 thereby aiming to get oral slots.

There were questions about technical committee membership and it was noted that we do not have clear rules about membership or member rotation. Harry and Kate will draft a proposal for membership process. It was suggested that members are invited for a 2-year rotation, but can be asked to continue by the co-chairs if they are interested and actively involved. Co-chairs rotate every 2 years but are a year offset from each other. It was proposed that the co-chairs meet to decide on nominating a new co-chair and then propose the nominee to the committee;

decisions will be made by majority decision of the committee members attending the technical committee meeting.

Jennifer King asked to rotate off; she is removed from the list.

Recent meetings were discussed:

Tim White: reported on SAVI (science across virtual institutes) meeting on critical zone observatories at Hotel Zelos, Sunday 12.13.2015 . At this workshop, three community initiatives were established: Analysing element concentrations versus discharge across CZO's worldwide, determining soil carbon balances based on zero-order flux balance for carbon across CZOs and studying methods to estimate the thickness of the weathered zone. The CZO community will be invited to participate in these initiatives.

Steve Banwart: In December 2014 5 national research funding agencies (USA, UK, China, France, Germany) convened a meeting to discuss opportunities for joint international research. At the meeting, the funding agencies took the first step in proposing a multilateral funding mechanism – the CZ Forum – to be modelled after the Belmont Forum (igfagcr.org). The participants agreed that greater science advances could be realized if funding barriers for joint international research were removed and if efforts to share news and data (such as czen.org) were improved.

Harry: In Europe, a large scale research infrastructure proposal, eLTER, was submitted for the European Union for funding. This proposal aims to establish a long term operated infrastructure of LTER and CZO sites across Europe. The proposal was evaluated and considered to be an emerging project. This means the proposers can apply for money to further develop this activity.

There is an ongoing initiative to establish an international graduate school for critical zone research. First idea will be presented at a poster on “International Critical Zone Research. Status, Networking and Challenges, Lin et al.” at AGU (EP31A) 2015. A further step will be taken at the planned Hydrogeology conference in August, 2016 in Beijing.

SWIRLS – what new SWIRLS????? Should we phase out Global Soils and bring in The Critical Zone as a mini-SWIRL? -- Kate will take action

Dani Or updated the committee on recent changes in GEWX and mentioned that there are notes that GEWEX should include soil, and that there will be a meeting in Leipzig in 2016 to plan this out.

Ester Sztein: “Soil: The Foundation of Life”. This workshop will be convened in 2016 at the National Academy of Sciences in Washington, DC (exact date TBD). This workshop will follow on some of the issues outlined in our 2015 review article *Soil and Human Security in the 21st Century* (<https://www.sciencemag.org/content/348/6235/1261071.full.pdf>). The goal of this USNC/Soils workshop is to discuss the foundation for sustaining and restoring soils for

subsequent generations. The workshop will be a one-day dialogue and planning session between scientists, private sector, and policymakers.

Henry Lin was asked to develop a proposal for a Chapman Conference on Critical Zone research. Harry and Dani can help.