

Report of LTER ASM Working Group on the Impacts of land-use change on carbon and nitrogen cycling: a cross-site opportunity, 11 Sept. 2012, Longs Peak/Chasm Lake Room, The Estes Park Center, CO.

The meeting was attended by 26 people representing 14 LTER sites and PNW research station (see Table appended).

Goals

The goals of the meeting were to

- explore whether there is an interest in forming a network of diverse LTER sites to answer this question.
- find out if there are **simple** experiments that can be performed cross-site to inform C and N response to land use change.
- find out what we can measure.

Format

Our working group consisted of:

- Slide presentations by Ilya Gelfand, Leilei Ruan and Terenzio Zenone in regard to 3 example studies on Albedo measurements, and gas fluxes measurements with static chambers and flux tower.
- Questions and comments after each presentation.
- General question and answer, and comment and discussion session following presentation.

Questions discussed

- Land use types we can possibly use for cross site studies: deciduous forest, urban development such as lawn, grassland, salt marsh/watershed...We didn't decide if we should adopt the same land use for all sites or include as many as we can. Peter Baas from CWT mentioned that it would be better for each site to find one typical land use type and measure the comparisons before and after land use change.
- what we can measure in response to land use change. Soil mineral N, soil temperature, soil moisture and greenhouse gas fluxes (using static chambers) were proposed.

Outcomes

- Interest in collaboration between a few sites.

Future goals

In the future, we will

- 1) follow up with participants to determine who remains interested in creating a cross-site study and whether there are others to recruit;
- 2) if sufficient interest remains:
 - a) finalize a simple experimental design (land use type and plot size);
 - b) finalize what we can measure (e.g., soil nitrogen, temperature, moisture, greenhouse gas fluxes).

Attendees , LTER ASM, Estes Park, CO, 11 Sept. 2012

Name	Site	Email
Leilei Ruan	KBS	ruanleil@msu.edu
Neville Millar	KBS	millarn@msu.edu
Ilya Gelfand	KBS	igelfand@msu.edu
Terenzio Zenone	KBS	zenone@msu.edu
Melanie Vanderhoof	HFR	mevanderhoof@clarku.edu
Yong Zhao	PIE	yong.zhao@yale.edu
Daniel Warnock	SEV	dwarnock@unm.edu
Katya Hafich	NWT	katya.hafich@colorado.edu
Xuan Yu	ILTER	xyy113@psu.edu
Iurii Shcherbak	KBS	shcherba@msu.edu
Chewaka, Wakene	KBS	chewaka@msu.edu
Jackson Webster	CWT	jwebster@vt.edu
Jennie DeMarco	JRN	Jennied@nmsu.edu
Jane Smith	JRN	jgs@nmsu.edu
Brenda C. Nieto	JRN	bcnieto@nmsu.edu
Dingfang Chen	LUQ	dingfang.chen@gmail.com
Michael Carson	KNZ	macarson@ksu.edu
Kim O'keefe	KNZ	kokeefe@ksu.edu
Claire Addis	ARC	caddis2@alaska.edu
Lorien Reynolds	AND	Lorien@uoregon.edu
Peter Baas	CWT	pbaas@uga.edu
Sylvia Schaefer	GCE	Sylvia@uga.edu
Steve Wondzell	PNW research station	swondzell@fs.fed.us
John Blair	KNZ	jblair@ksu.edu
Jill Greiner	VCR	jtg3pm@virginia.edu
Noah Egge	VCR	noah@virginia.edu
