Niwot Ridge Subalpine Forest
AmeriFlux Site Information

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AmeriFlux Data Managers Meeting
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(photo credit: Bill Bowman)
Peter Blanken:
Research Team / Research Questions
Site Description

Sean Burns:
Tower and Instrumentation
Data flow and processing
Peter Blanken (site PI)
Sean Burns (site manager, data processing)
Dave Bowling (co-PI, CO₂ and isotopes)
Russ Monson (co-PI, data analysis)

Additional collaborators: Mark Williams, Noah Molotch, Adrian Harpold (CU INSTAAR), David Noone, Max Berkelhammer (CU CIRES), Dave Moore, Paul Brooks (Arizona), Jielun Sun, Don Lenschow, Steve Oncley, Dave Gochis, Britt Stephens (NCAR), Bill Massman, John Frank (USFS), Dean Anderson (USGS), Stefan Metzger, Hongyan Luo (NEON)
Atmospheric CO$_2$ is increasing; requires a better understanding of sources, sinks, and transport.

Attempts to calculate scalar budgets requires accurate knowledge of transport & airflows in complex topography.

Controls on snowmelt as related to NEE.

What are the environmental factors that control exchanges of CO$_2$, water vapor and heat?

How does snow modify the scalar fluxes (heat, water)?

How heterogeneous is the subcanopy region?

Connections between water and carbon cycling?
<table>
<thead>
<tr>
<th>Species</th>
<th>46% Subalpine Fir - 28% Engelmann Spruce – 26% Lodgepole Pine</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>~ 100 years</td>
</tr>
<tr>
<td>LAI</td>
<td>~ 4.2 m$^2$ m$^{-2}$</td>
</tr>
<tr>
<td>Canopy Height</td>
<td>~11.4 m</td>
</tr>
<tr>
<td>Canopy Gap</td>
<td>~ 17%</td>
</tr>
</tbody>
</table>
CU tower

RM Young
PAR, PPFD in/out
USGS
LI-7500
(CSAT-3) part of time
CU LI-6262 inlet

RM Young Vane

Pressure (PTB101B)
RAIN
leaf wetness
CU, USGS

LiCor 6262 (not inlet)

LI-6251 (profiler)

CU mini-tower

 CU, USGS
USGS
LI-7500
CSAT-3
CU, USGS
CU, USGS

Tubing to LiCor 7000
Serial Connection \ Short-Haul Modem

Laptop (Linux) at Base of AmeriFlux Tower (quacker)

LI-7200, CPEC-200, Phenocam, Forestcam

russter2 is a NTP/PTP server

Desktop (Linux) in Trailer at LTER C-1 (russter2)

5-min "covar" statistics computed for QA/QC (saved as netCDF files)

Raw Data are extracted and loaded into MATLAB

30-min data shared at (http://urquell.colorado.edu/...
Questions?