The AmeriFlux and FLUXNET research coordination projects

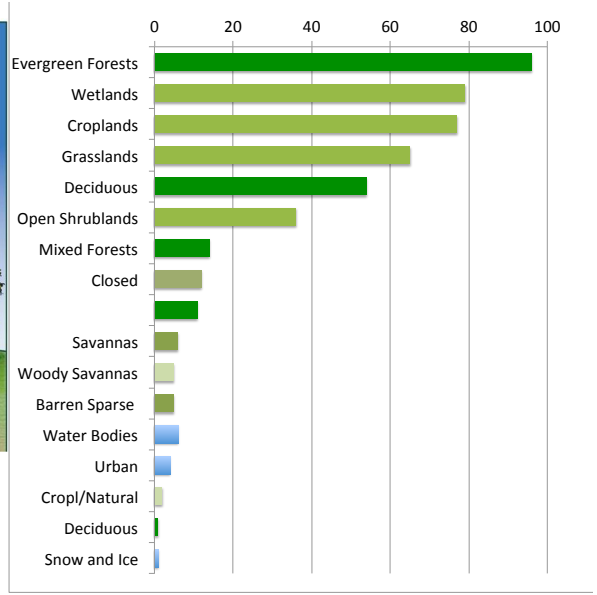
Trevor Keenan

AMERIFLUX MANAGEMENT PROJECT

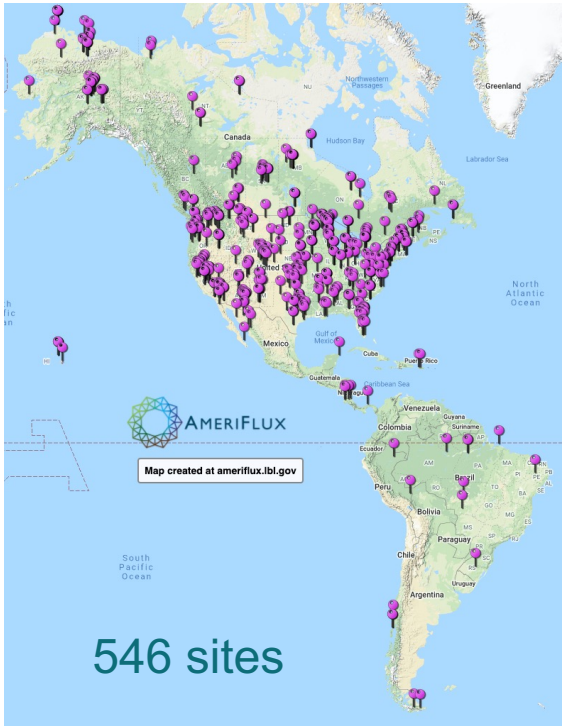
FLUXNET A Global Network

AmeriFlux: a community of sites and scientists measuring ecosystem-atmosphere fluxes using the eddy covariance method

CO_2 Latent heat
CH_4 Sensible heat
N_2O O_3
^{13}CO H_2



Source: Network at a Glance @ ameriflux.lbl.gov



Custom mapping @ ameriflux.lbl.gov

AMERIFLUX

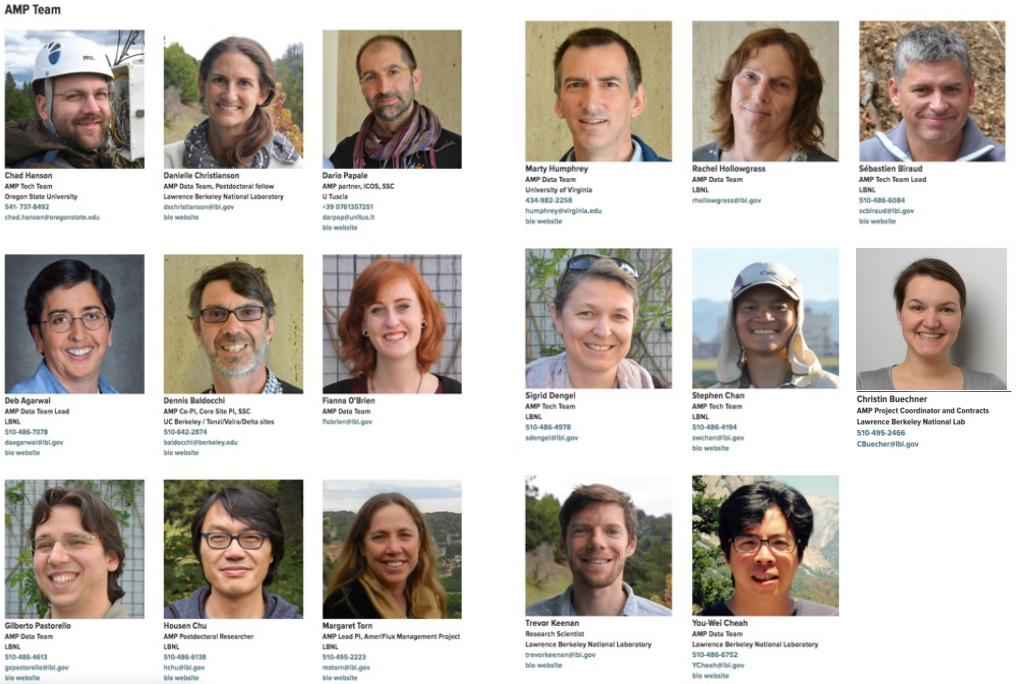
AmeriFlux Management Project

Data Support

Tech Support

Core Sites

Outreach

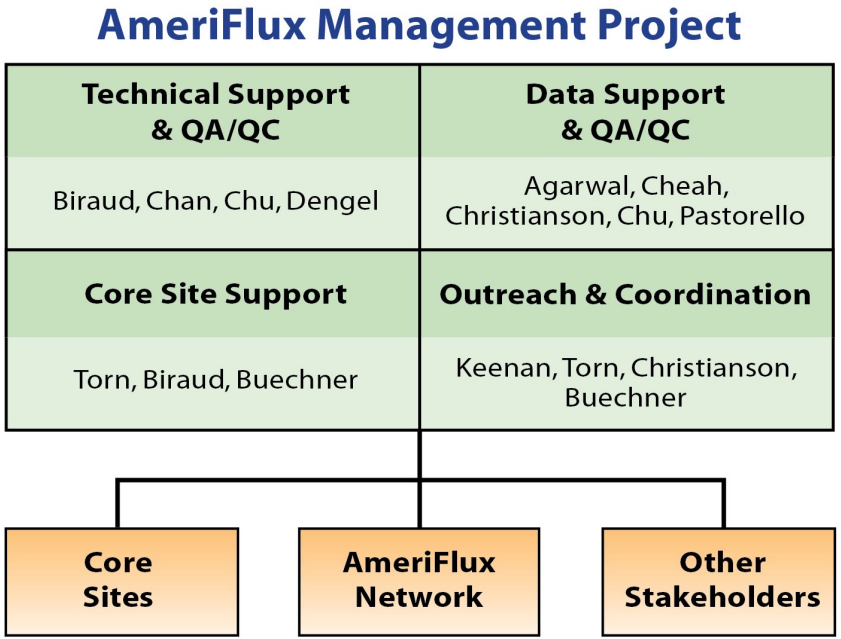


https://ameriflux.lbl.gov/about/ameriflux-flyers/

AmeriFlux

Funded to:

- Provide Technical Support
- QA/QC and Serve Data
- Fund Core Sites
- Develop website features
- Host meetings and workshops
- Grow the network
- Enhance community efforts



Network and Community Development Activities:

- AmeriFlux Webinar Series (sign up as an AmeriFlux member)
- Early Career Webinar Series (run by FLUXNET Early Career Network)
- Annual Meeting
- Workshops and hackathons
- Committees – DEI, Data Standards, Theme Years, Inter-network coordination
- Working groups (Model-Data integration, Natural Carbon Solutions)

E.g., Community Collaboration: Data Policy

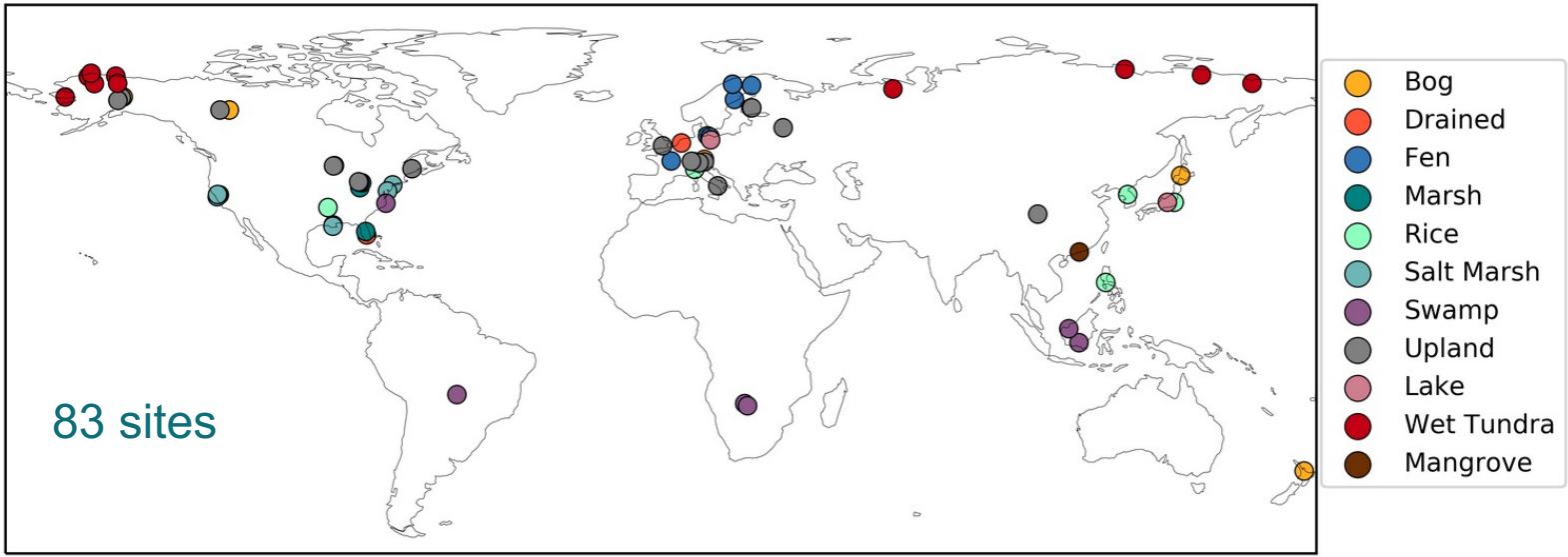
Moving to Open and FAIR data sharing

- Change to CC BY 4.0
  - Data free for use and reuse with acknowledgement
  - Core sites will move to CC BY 4.0
  - Consistent with FLUXNET, ICOS, etc.
- Two tier approach important for inclusion
- Embargo policy for encourage interaction with new groups

E.g., Community Collaboration: Year of Methane

Theme Years

FLUXNET-CH4 Community Product



AMERIFLUX

https://fluxnet.org/data/fluxnet-ch4-community-product/

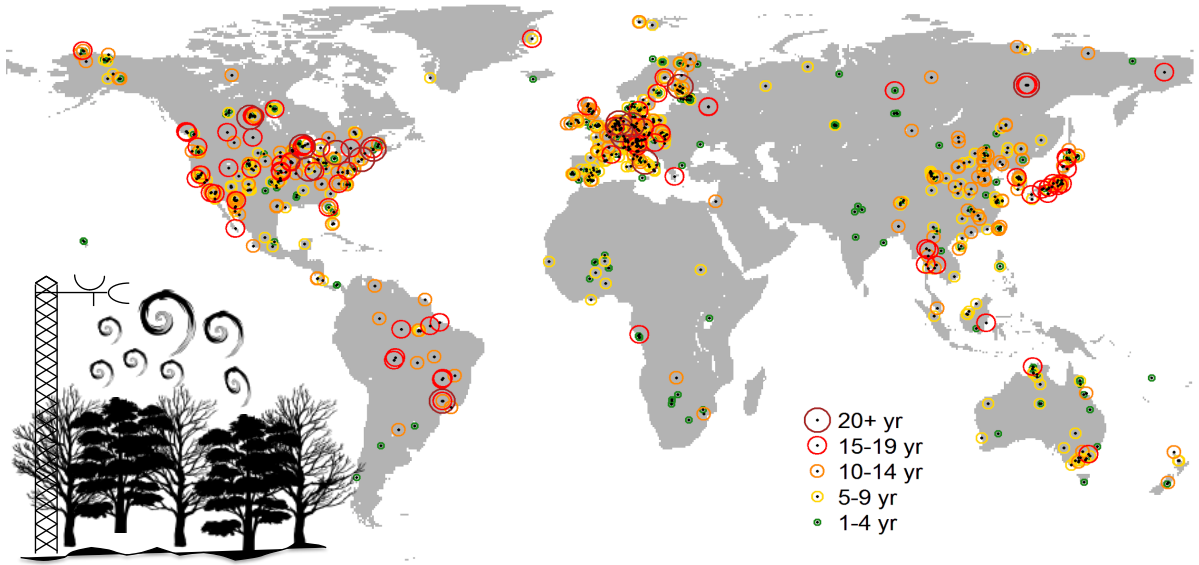
Theme Year for Network Action:

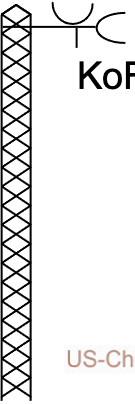
The Year of Water

Planned activities:

- Water year community committee
- Water focus at the AmeriFlux annual meeting
- Funding for water instrumentation
- Workshops planned

FLUXNET 2.0





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OzFlux
Land-Atmosphere Observatory

AsiaFlux

neon
National Ecological Observatory Network, Inc.

MexFlux

US-China Carbon Consortium (USCCC)

FLUXNET 2025 A Global Network

ICOS
European Research Infrastructure Consortium

AMERIFLUX

SulFlux

LBA

FLUXNET YSN

BrasFlux

F-CH_4

ChinaFLUX

SAEON
South African Environmental Observation Network

The FLUXNET Coordination Project (FLUXNET Co-op)

PI Keenan; Co-I's Novick, Moore

NSF

Accelerating Research through International Network-to-Network Collaborations (AccelNet)

FLUXNET Community Council

Chair (3ry term): Keenan
International Co-Chair (2yr term): TBD

European Fluxes Database

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Education & Outreach Lead:
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4 TBD 2-year seats

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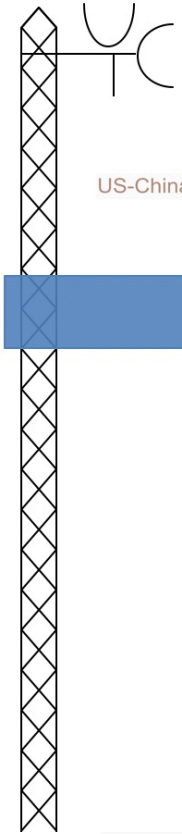

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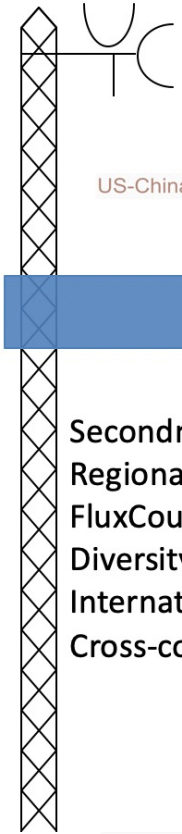
Data development

Community building



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Regional experience exchanges.
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Diversity and inclusion initiatives.
International instruction.
Cross-course collaboration.

Data development

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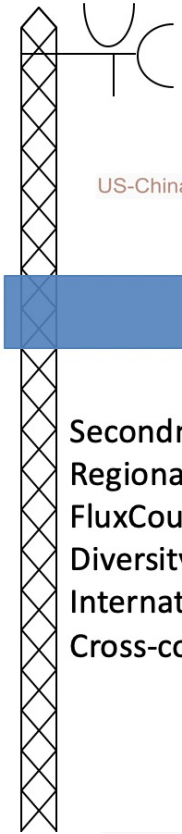

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A community code pipeline.
Regionalized processing options.
A FLUXNET codebase.
Community standards for data/metadata.
Self describing data formats.
Novel data types – Methane, N2O.
Inter-network APIs.
Scale aware data products.

Community building

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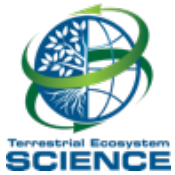
Community building

Three project conferences.
Side meetings at established conferences
Special sessions at AGU, EGU, AOGS
Regional exchange workshops
Synthesis efforts
Young Scientist Network
A special issue on FLUXNET

Get involved!

- FLUXNET Co-op (mailing list and twitter @fluxnet_coop)
- FLUXNET Early-Career Scientist Network (@fluxnet_ecn)
- Synthesis workshops – propose and lead events
- FluxCourse Fellows (announcements soon)
- FLUXNET Secondment Program
- FLUXNET Community meetings



Thanks!

Get the word out!

@FLUXNET_Coop @AmeriFlux

@trevorkeenan