Fluxdata.org FLUXNET Dataset Synthesis Support

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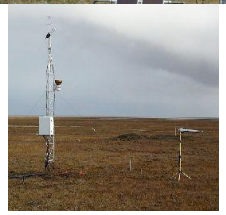
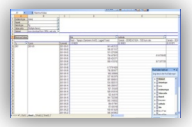
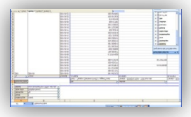
Fluxdata.org – Dataset Development



Individual Sites

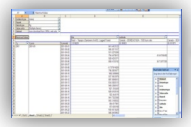


Flux/Met Data

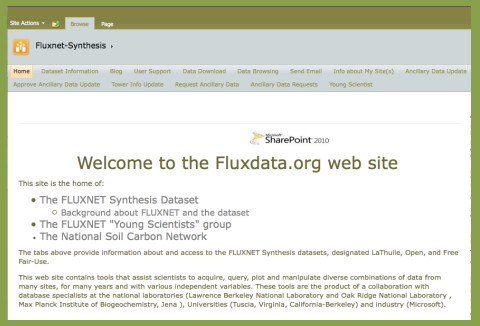


BADM Data

Flux/Met Data



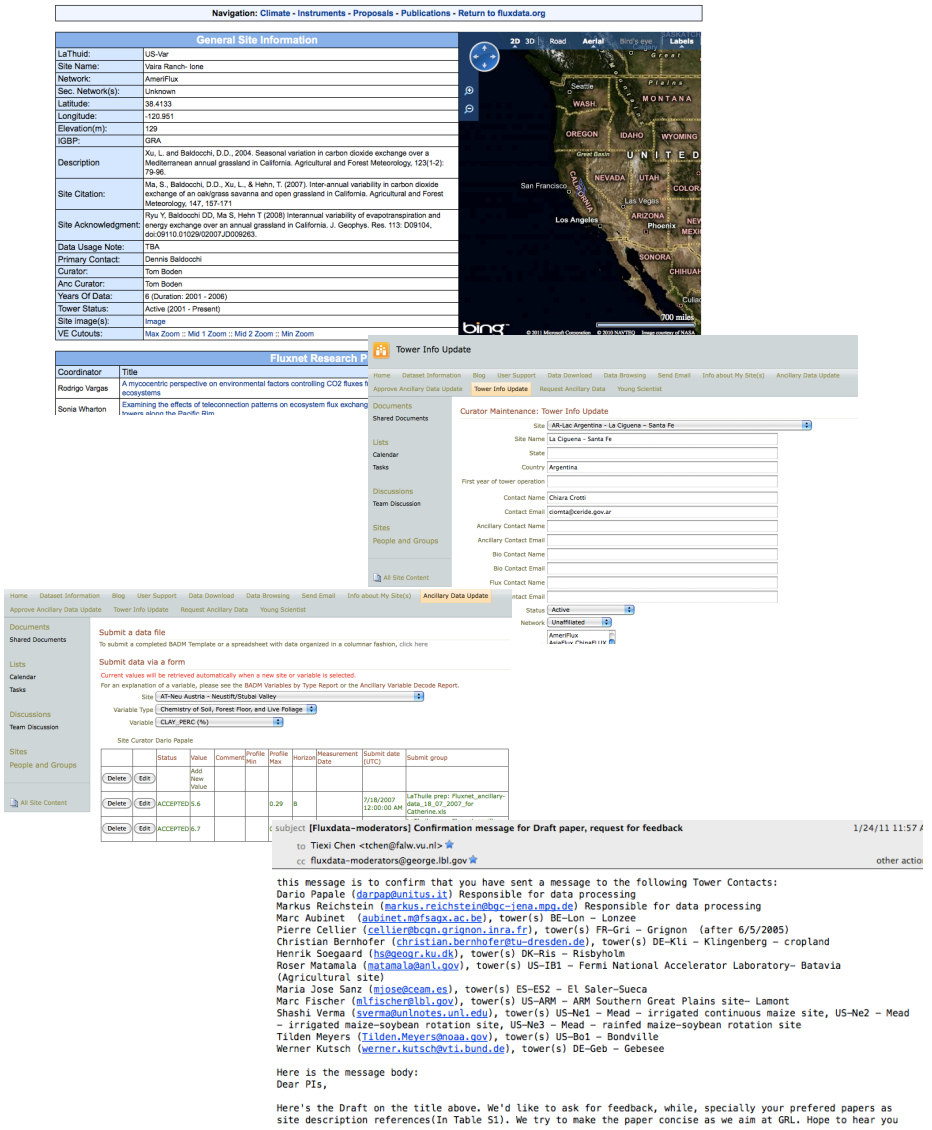
BADM Data + Flux/Met Gap-Filled/QA/Products



Fluxdata.org

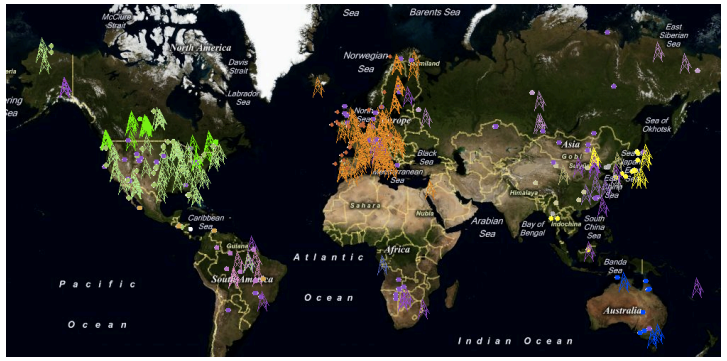
Fluxdata.org – Site PI Support

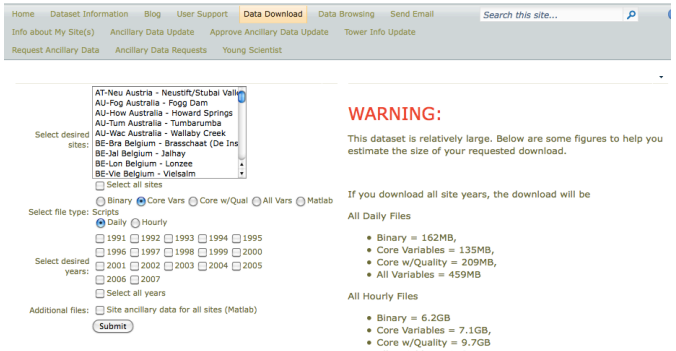
- Per site pages
  - Information about site
  - List of proposals using site
- Update information about site + BADM data (curated)
- List of approved proposals
- Personalized e-mail from proposers
- Provide site Acknowledgment/Citation/ Reference info

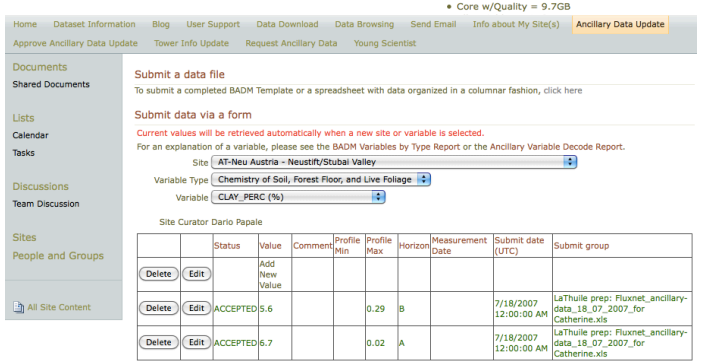


Fluxdata.org - User Support

- Interactive map of tower locations
- Data cube for data analysis (Matlab and Excel interfaces)
- Cross-site reports and aggregations
- Compiled BADM data reports
- Data download – variety of different formats
- E-mail site PIs
- List of proposals and published papers
- Map of towers used by paper
- Data update/curation process

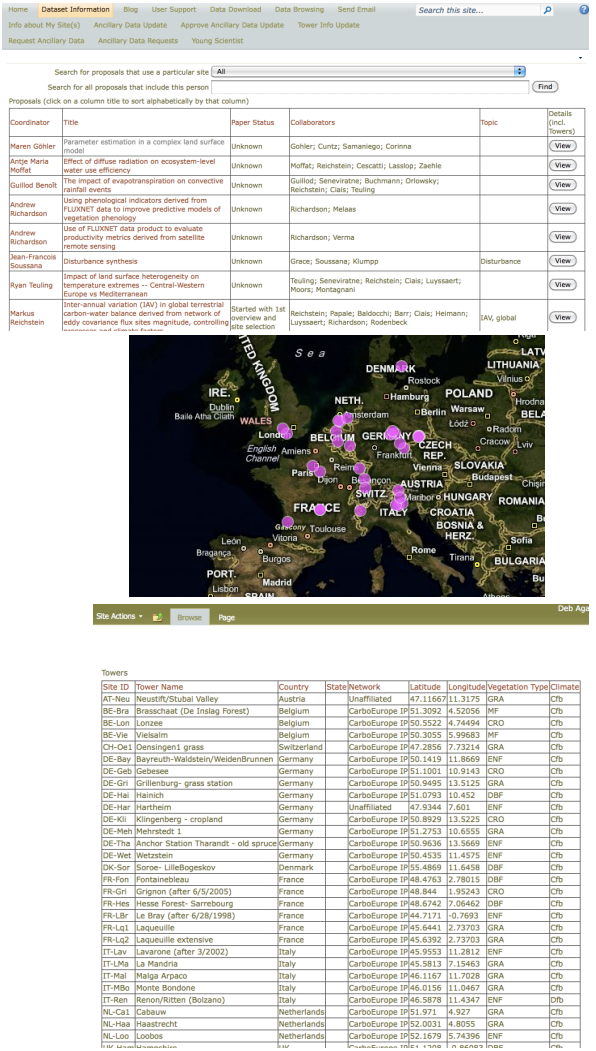






Fluxdata.org – Proposal Submission

- Download and complete proposal template
- List collaborators that need access to the data
- Include CV's of collaborators
- Submit proposal to the steering committee
- Typical approval time is 3 weeks
- Once approved all collaborators are eligible for accounts and access to download the data
- To add a collaborator, submit CV for approval (3 weeks)
- Update progress and sites used in the analysis using the fluxdata.org interface
- Follow data usage guidelines

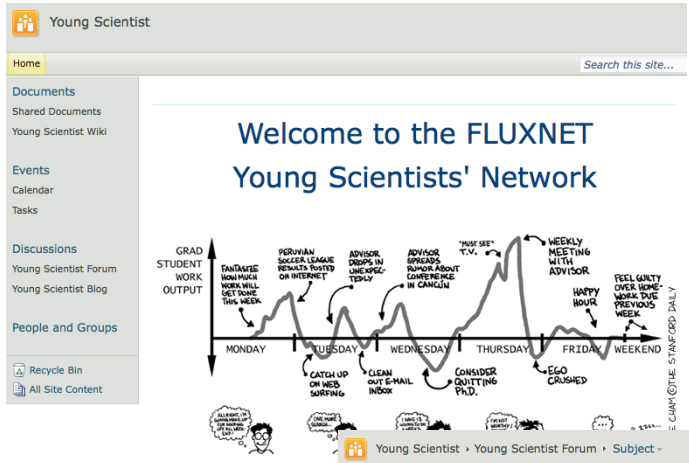


Towers

Site ID	Tower Name	Country	State	Network	Latitude	Longitude	Vegetation Type	Climate
AT-Neu	Neustift/Stubai Valley	Austria		Unaffiliated	47.11667	11.3175	GRA	Cfb
BE-Bra	Brasschaat (De Inslag Forest)	Belgium		CarboEurope IP	51.3092	4.52056	MF	Cfb
BE-Lon	Lonzee	Belgium		CarboEurope IP	50.5522	4.74494	CRO	Cfb
BE-Vie	Vielsalm	Belgium		CarboEurope IP	50.3055	5.99683	MF	Cfb
CH-Oe1	Oensingen1 grass	Switzerland		CarboEurope IP	47.2856	7.73214	GRA	Cfb
DE-Bay	Bayreuth-Waldstein/WeidenBrunnen	Germany		CarboEurope IP	50.1419	11.8669	ENF	Cfb
DE-Geb	Gebesee	Germany		CarboEurope IP	51.1001	10.9143	CRO	Cfb
DE-Gri	Grillenburg- grass station	Germany		CarboEurope IP	50.9495	13.5125	GRA	Cfb
DE-Hai	Hainich	Germany		CarboEurope IP	51.0793	10.452	DBF	Cfb
DE-Har	Hartheim	Germany		Unaffiliated	47.9344	7.601	ENF	Cfb
DE-Kli	Klingenberg - cropland	Germany		CarboEurope IP	50.8929	13.5225	CRO	Cfb
DE-Meh	Mehrstedt 1	Germany		CarboEurope IP	51.2753	10.6555	GRA	Cfb
DE-Tha	Anchor Station Tharandt - old spruce	Germany		CarboEurope IP	50.9636	13.5669	ENF	Cfb
DE-Wet	Wetzstein	Germany		CarboEurope IP	50.4535	11.4575	ENF	Cfb
DK-Sor	Soroe- LilleBogeskov	Denmark		CarboEurope IP	55.4869	11.6458	DBF	Cfb
FR-Fon	Fontainebleau	France		CarboEurope IP	48.4763	2.78015	DBF	Cfb
FR-Gri	Grignon (after 6/5/2005)	France		CarboEurope IP	48.844	1.95243	CRO	Cfb
FR-Hes	Hesse Forest- Sarrebourg	France		CarboEurope IP	48.6742	7.06462	DBF	Cfb
FR-LBr	Le Bray (after 6/28/1998)	France		CarboEurope IP	44.7171	-0.7693	ENF	Cfb
FR-Lq1	Laqueuille	France		CarboEurope IP	45.6441	2.73703	GRA	Cfb
FR-Lq2	Laqueuille extensive	France		CarboEurope IP	45.6392	2.73703	GRA	Cfb
IT-Lav	Lavarone (after 3/2002)	Italy		CarboEurope IP	45.9553	11.2812	ENF	Cfb
IT-LMa	La Mandria	Italy		CarboEurope IP	45.5813	7.15463	GRA	Cfb
IT-Mal	Malga Arpaco	Italy		CarboEurope IP	46.1167	11.7028	GRA	Cfb
IT-MBo	Monte Bondone	Italy		CarboEurope IP	46.0156	11.0467	GRA	Cfb
IT-Ren	Renon/Ritten (Bolzano)	Italy		CarboEurope IP	46.5878	11.4347	ENF	Dfb
NL-Ca1	Cabauw	Netherlands		CarboEurope IP	51.971	4.927	GRA	Cfb
NL-Haa	Haastrecht	Netherlands		CarboEurope IP	52.0031	4.8055	GRA	Cfb
NL-Loo	Loobos	Netherlands		CarboEurope IP	52.1679	5.7436	ENF	Cfb

Fluxdata.org – Young Scientist

- Mailing list (211 members) young-scientist@fluxdata.org
- Young scientist site at fluxdata.org
  - Blog
  - Forum
  - Wiki
  - Calendar
  - Membership list
  - Document repository



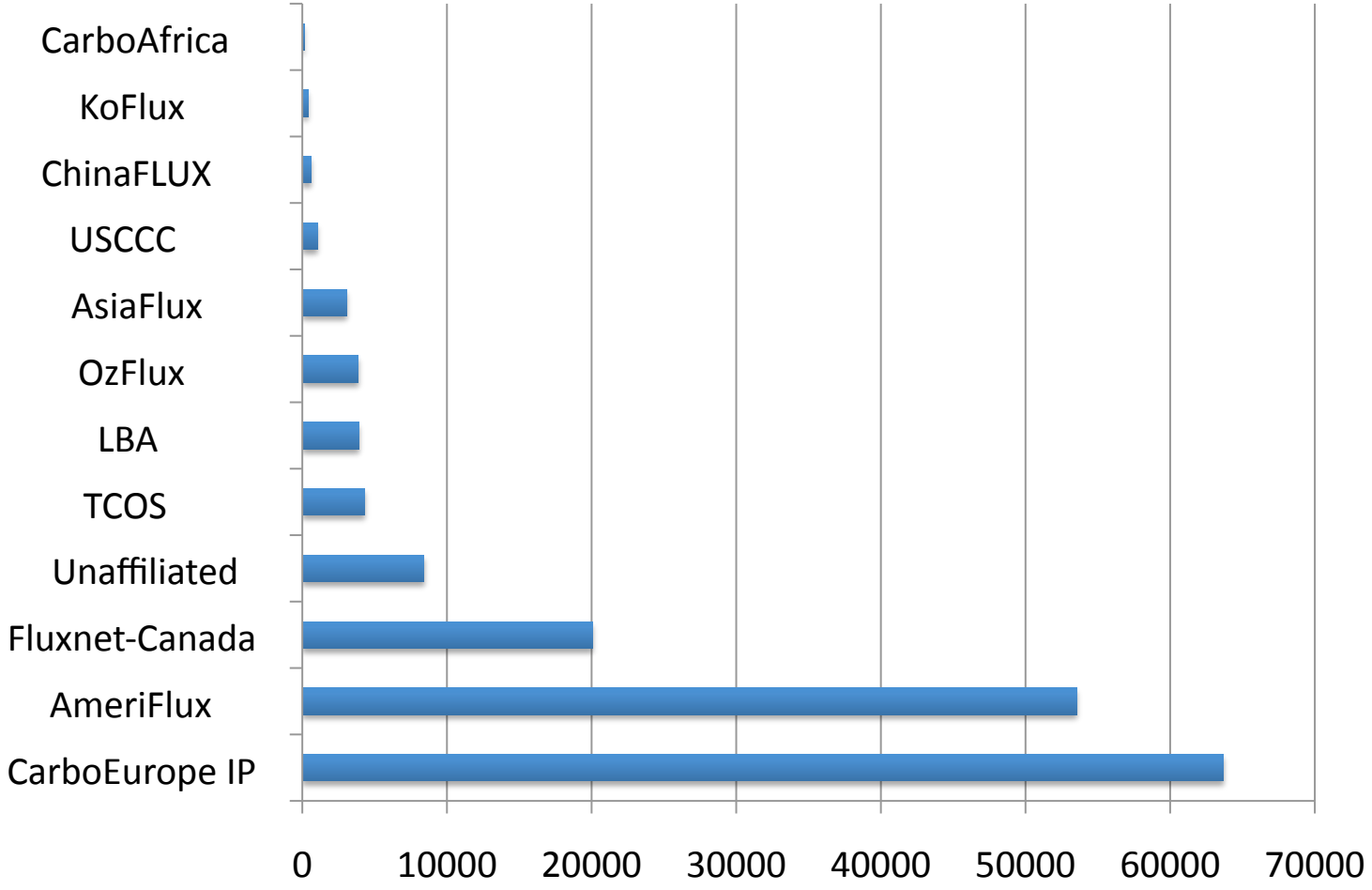
Current membership

Picture	First Name	Last Name	Email	Brief Bio
	Ayman	Abdel-Hamid	ay2e@hotmail.com	
	Zafar	Ahmed	ahmed.zafar@ou.edu	I am a Masters student at Computer Science department in University of Oklahoma, USA. I have acquired my BSc in Computer Science from Bangladesh University of Engineering & Technology (BUET), Bangladesh.
	Ray	Anderson	r.g.anderson@gmail.com	Currently finishing my PhD at UC-Irvine under Mike Goulden. Will be starting postdoc mid-2010 at LSCE under Sebastiaan Luyssaert. See my details at https://webfiles.uci.edu/rganders/webpage/
	Carmela	Arevalo	carevalo@nrcan.gc.ca	
	Ginaldi	Ari	ginaldi.lapan@gmail.com	
	Mary	Bjorkegren	mary.bjorkegren@kcl.ac.uk	
	Per	Bodin	p.bodin@swansea.ac.uk	

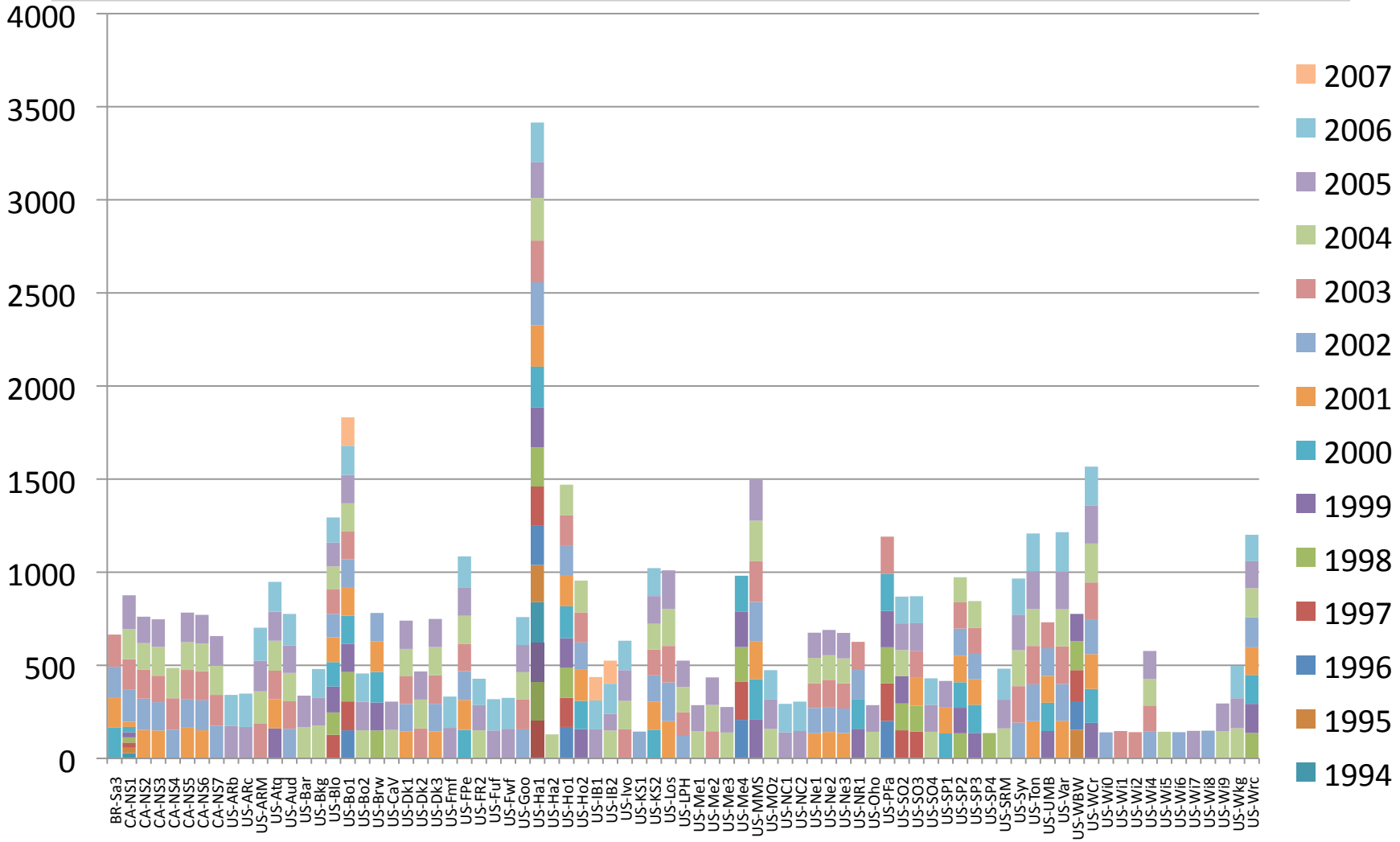
Fluxdata.org Statistics

- Fluxdata.org User Statistics
  - 359 users have access to the Free Fair-Use Dataset
  - 110 users are Tower PIs and contacts
  - 110 users have access to the Opened Dataset
  - 100 users have access to the LaThuile Dataset
  - 118 users are Young Scientists
- Download statistics
  - 163,096 data file downloads (53,565 AmeriFlux site data)

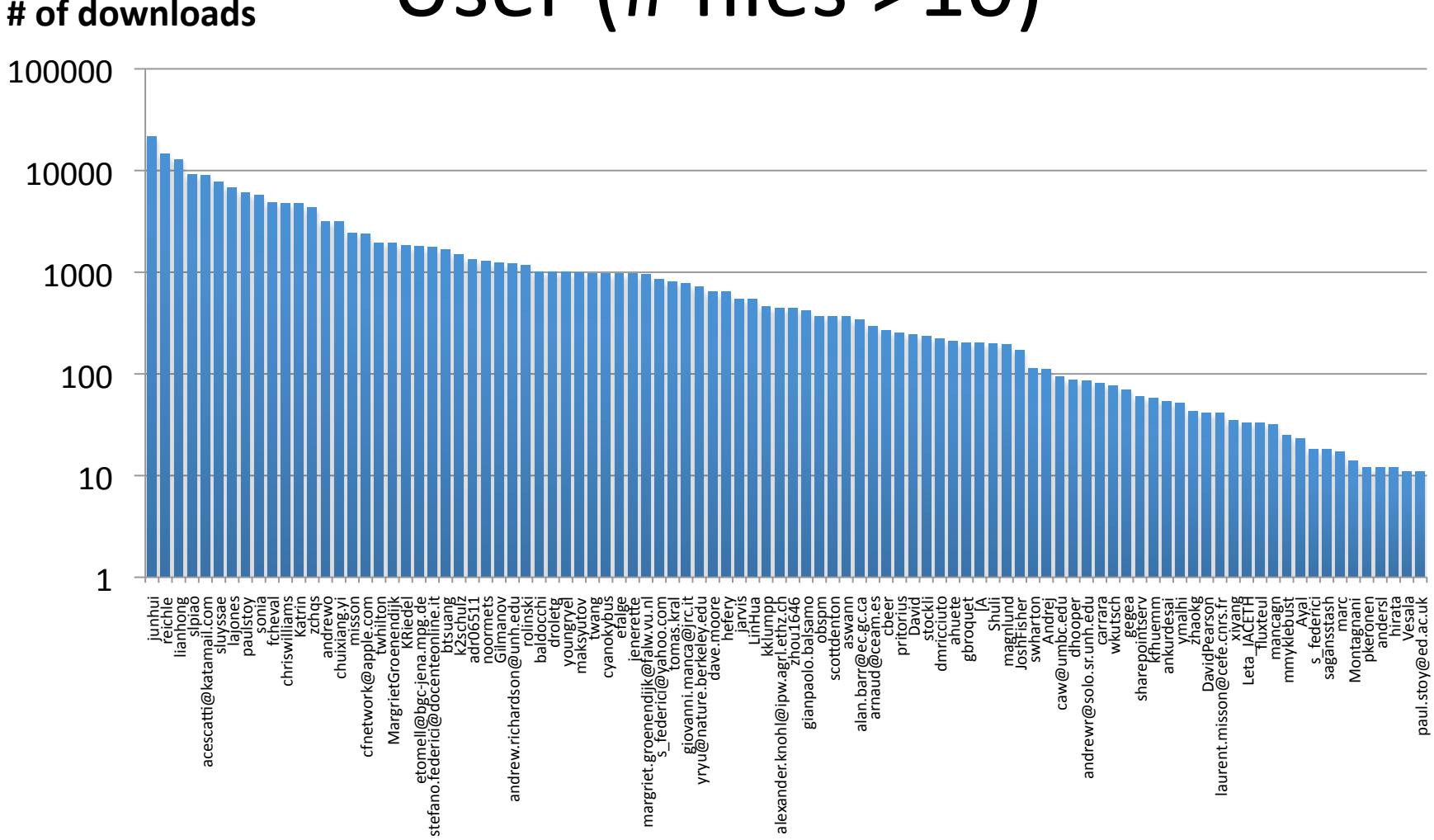
Fluxdata.org Downloads By Network



AmeriFlux Per Site Year Downloads



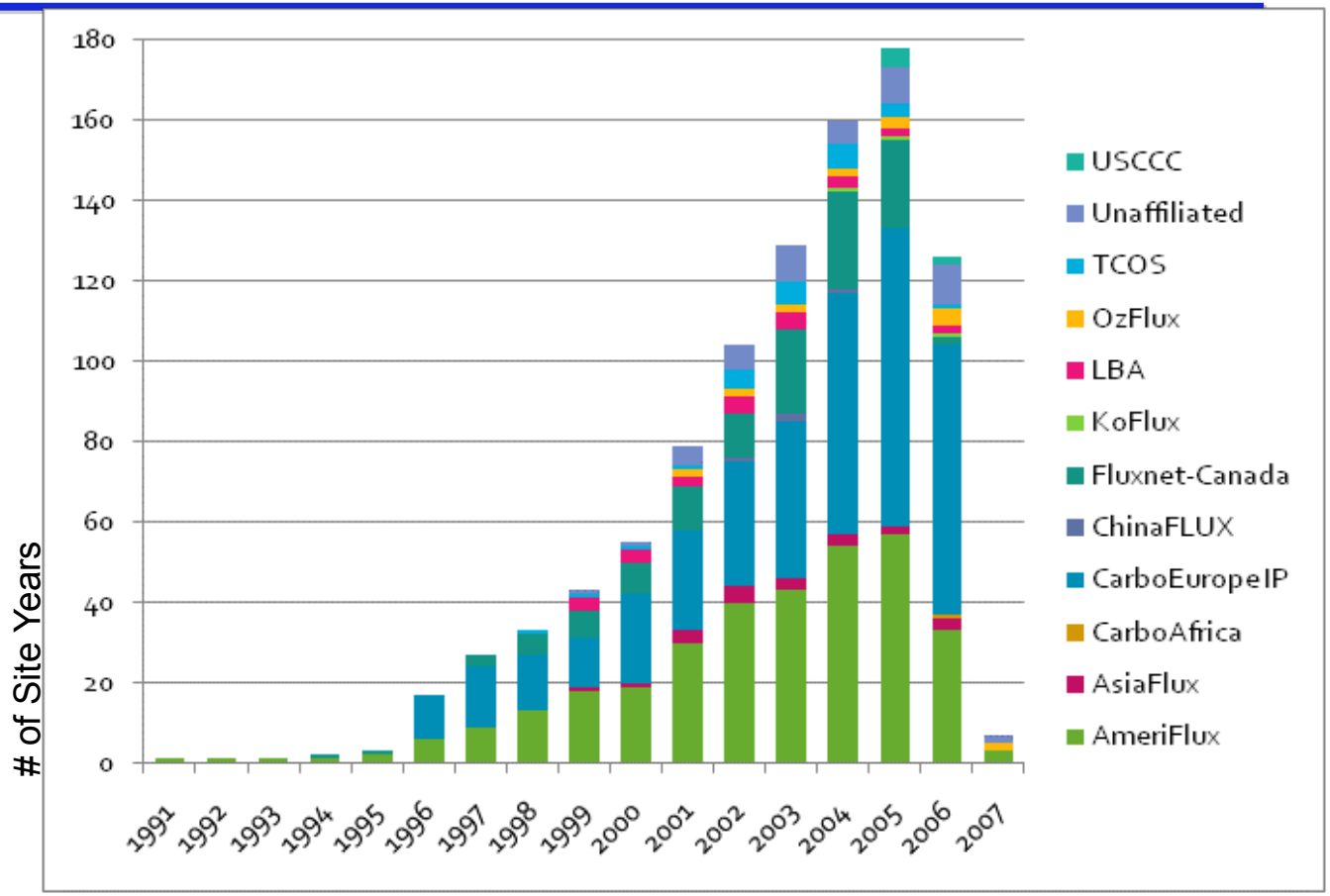
Fluxdata.org File Downloads By User (# files >10)



99 Distinct users (+30 users who downloaded less than 10)

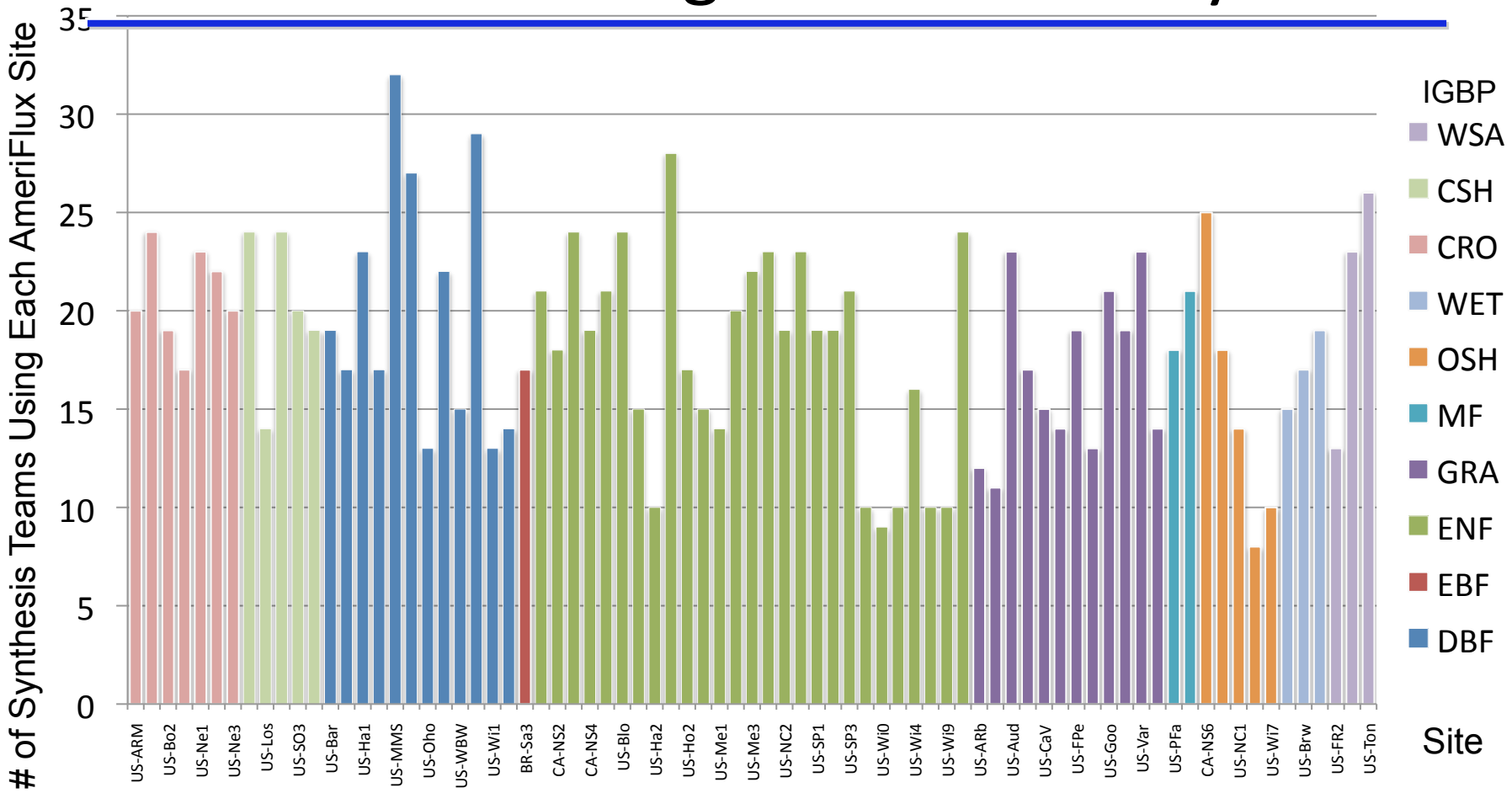
Sites Contributing Data to FLUXNET Dataset

Number of sites contributing data to existing FLUXNET global synthesis project



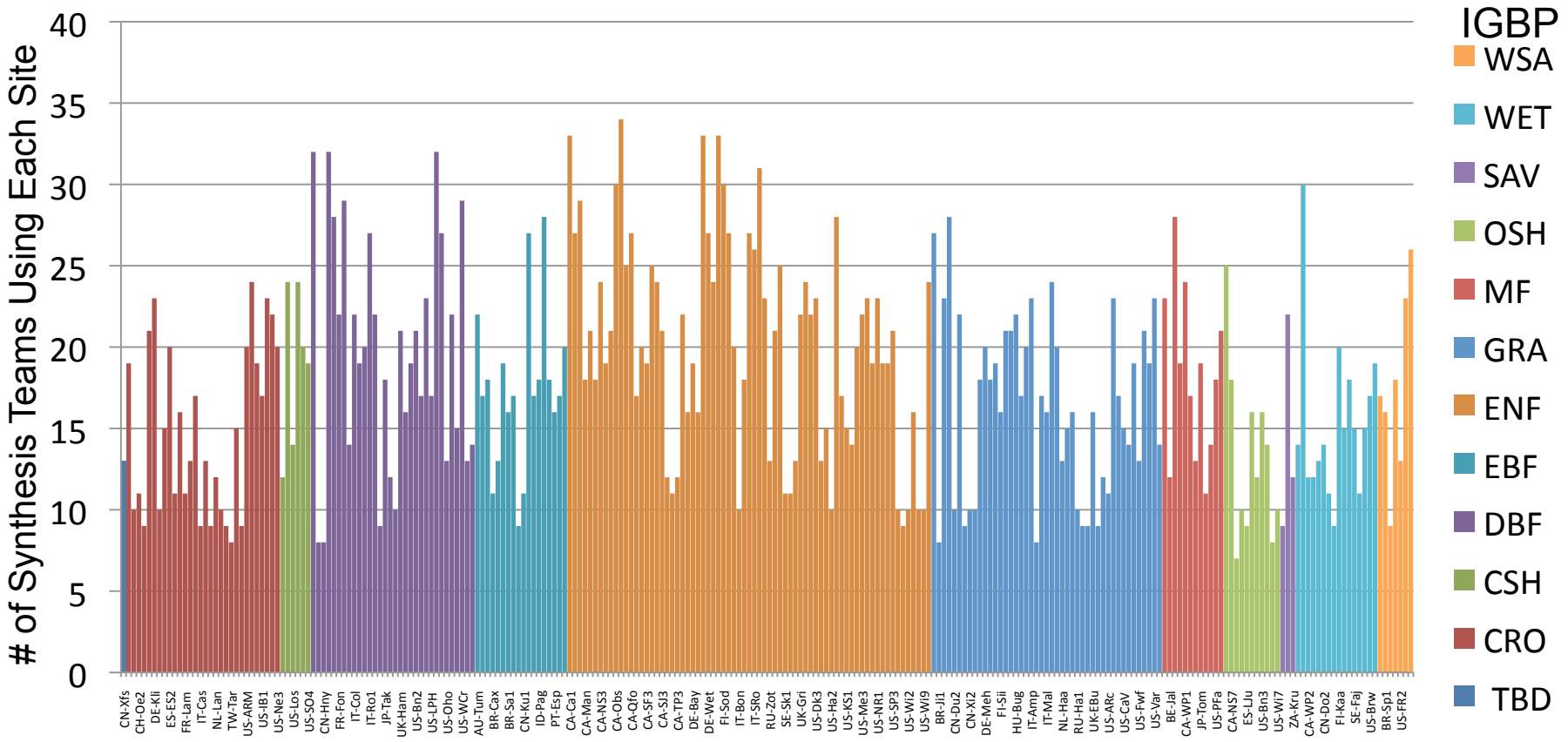
- 80 AmeriFlux sites (331 site-years) in Fluxnet dataset
- > 112 proposals for global synthesis papers
- FLUXNET dataset refresh underway (release in 2011)

AmeriFlux Site Usage in FLUXNET Synthesis



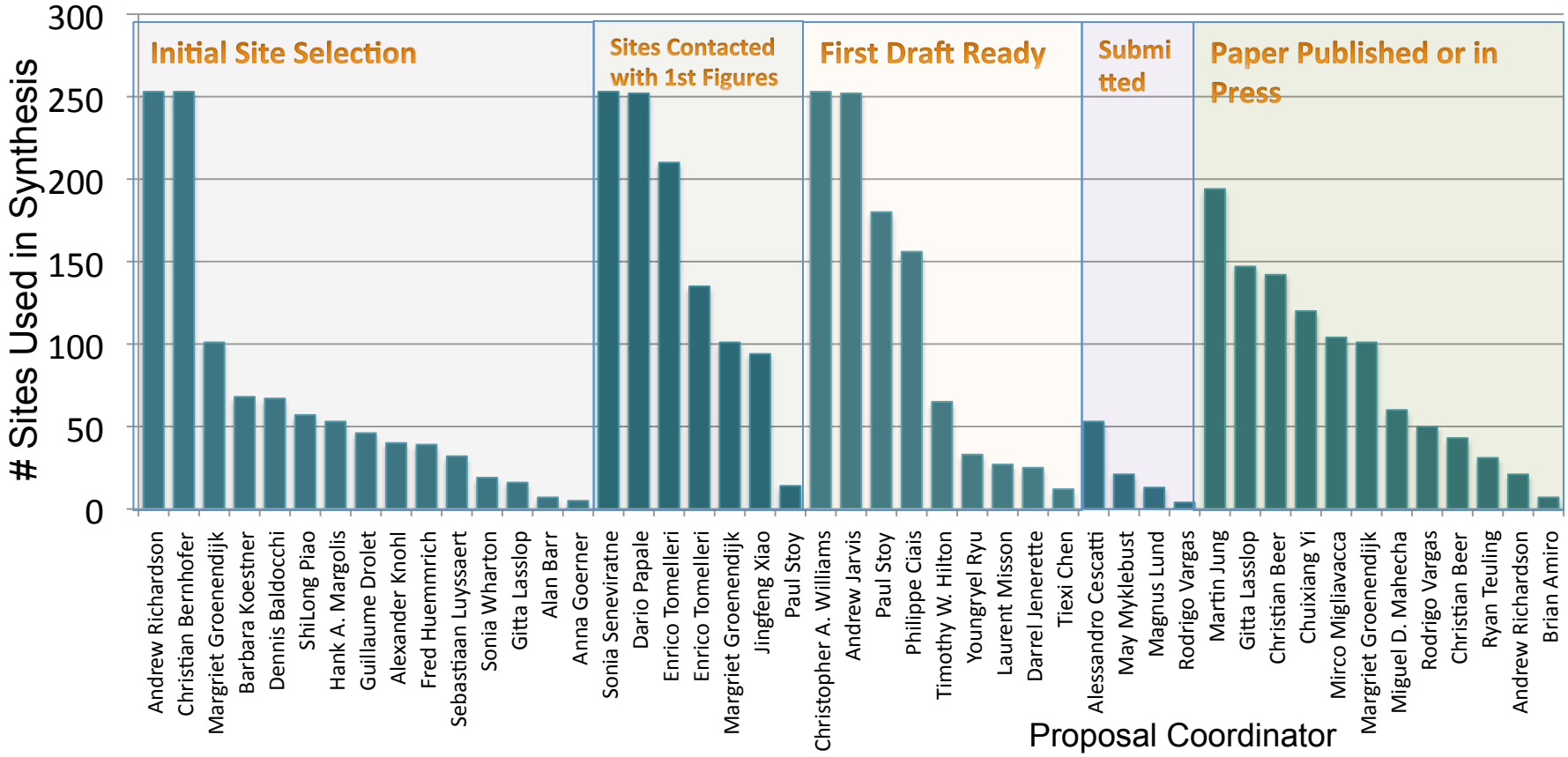
- ~50 of the 112 FLUXNET synthesis teams have an AmeriFlux tower contact
- Each AmeriFlux site is used in at least 8 FLUXNET synthesis proposals (32 max)
- There is an average of 18 AmeriFlux sites used per synthesis team (48/112 proposal teams reporting)

FLUXNET Global Site Usage



- Total number of people explicitly on proposals (Approx. 145-200)
- Each site is used in at least 7 FLUXNET synthesis proposals (34 max)
- There is an average of 18 FLUXNET sites used per proposal team

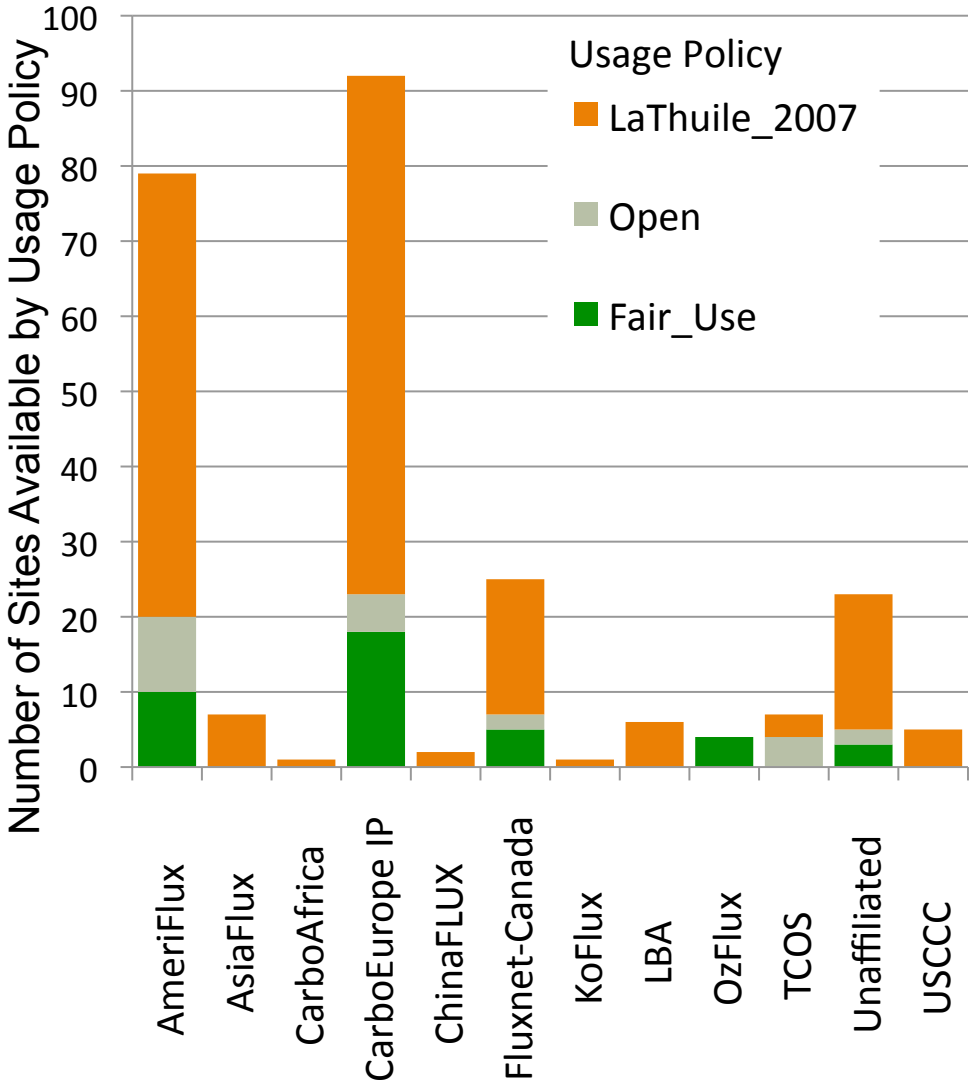
FLUXNET Synthesis Papers



65/112 synthesis teams reported current progress
(48 provided FLUXNET towers used, 5 withdrawn)
30 synthesis teams are at 1st draft or beyond
13 Published papers (+2 papers in press)

AmeriFlux Data Availability in FLUXNET

- 10 Sites Free Fair Use
  - US-Ha1,US-Los, US-Me4, US-MMS, US-Pfa, US-Syv, US-Ton, US-Var, US-WBW, US-WCr
- 10 Sites Opened
  - US-Arb, US-Arc, US-ARM, US-Bar, US-Fmf, US-FR2, US-Fuf, US-Fwf, US-SRM, US-Wkg
- 59 Sites Closed (only available under FLUXNET LaThuile Policy)
- *Can update elections via fluxdata.org or with me today-Wed*

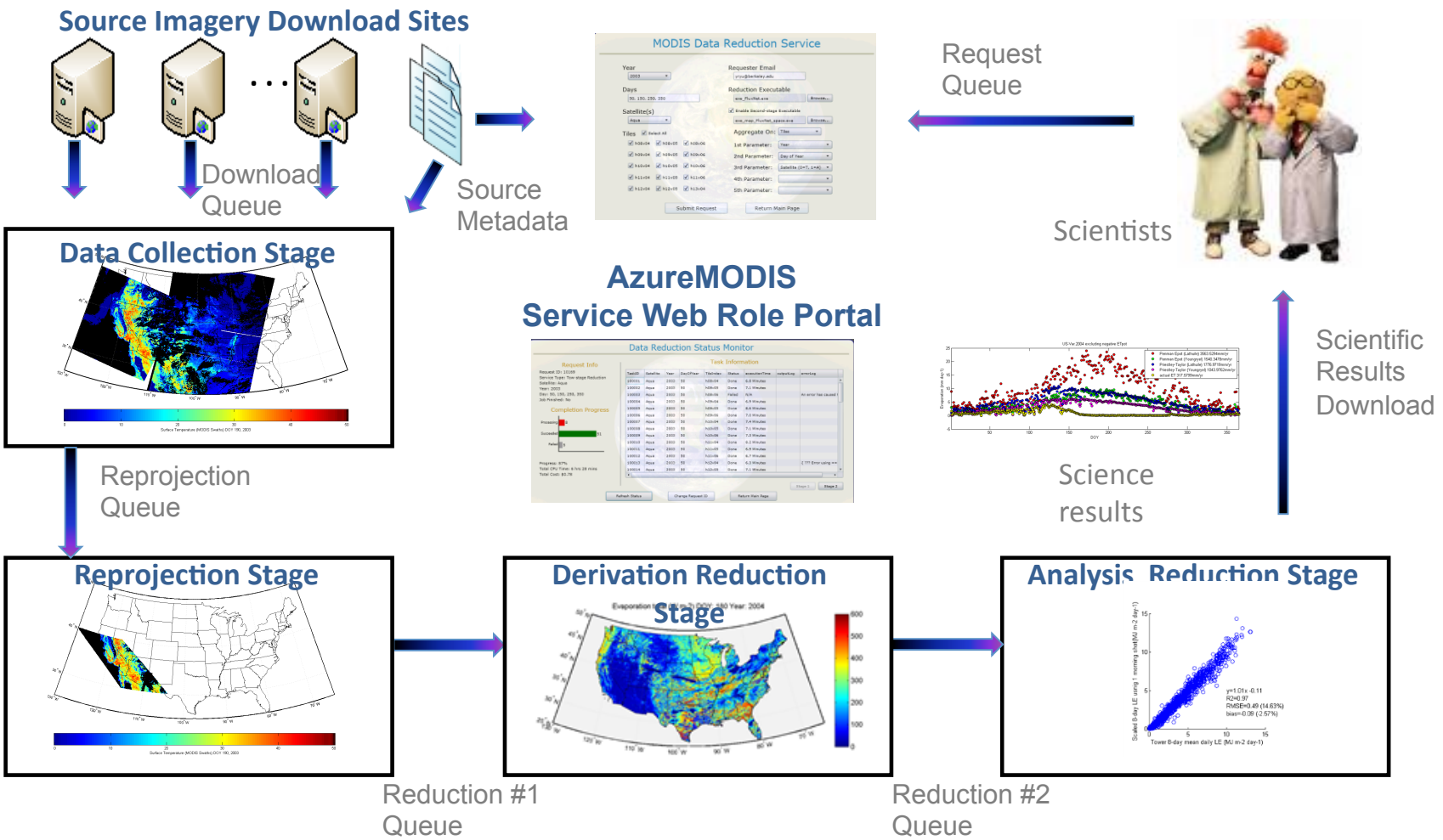


BADM Factoids

- 145 FLUXNET BADM templates or other spreadsheets processed from 94 FLUXNET sites
- 78 AmeriFlux sheets from 43 AmeriFlux sites processed
  - 16041 data values extracted from spreadsheets
  - 365 updates received via the fluxdata.org web interface
- 28 of those templates were either submitted initially or updated at the NACP site synthesis submissions
  - 58 NACP sites: 19 active FluxnetCanada, 28 active AmeriFlux, 11 inactive AmeriFlux
  - 47 BADM submissions: 19 active FluxnetCanada, 25 active AmeriFlux, 3 inactive AmeriFlux
- CADM files provided to regional networks

Microsoft MODISAzure

Collaborators
Youngryel Ryu (Harvard)
Jie Li (UVa)



http://research.microsoft.com/en-us/projects/azure/azuremodis.aspx

Fluxdata.org Next Steps

- Breakout 4-5pm today – Detailed discussions (BADM data, Fluxdata.org, site policy elections, and proposal submission)
- Next release of FLUXNET dataset
- Next iteration of BADM template
- Disturbance data improvements
- Additional support for tracking of data contributors and ties to papers
- Additional datasets and cross-dataset analysis tools
  - MODIS ET product (Ryu 2011)
  - National Soil Carbon Network
- Additional data usage and synthesis support