



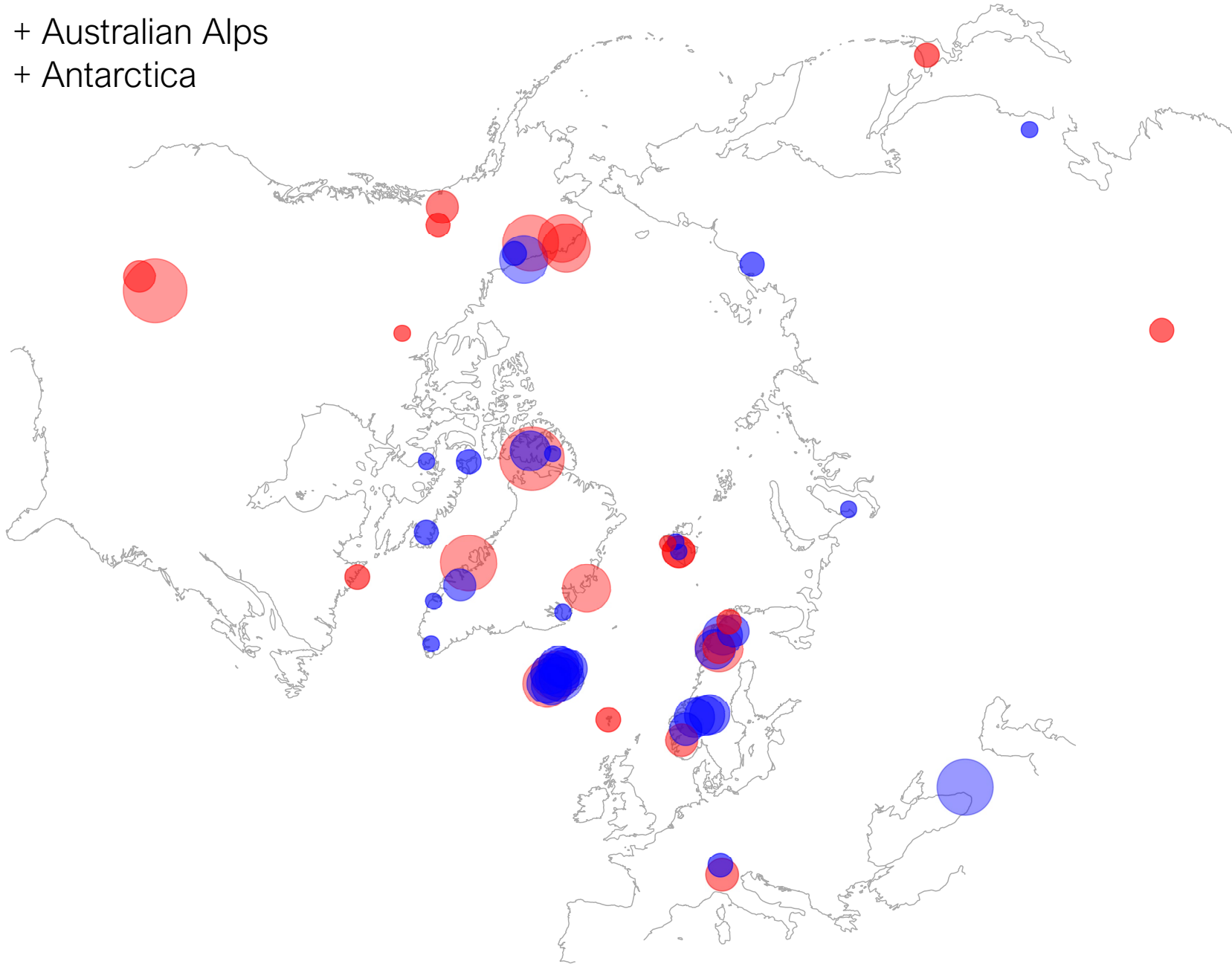
# THE ITEX+ DATABASE

A tour, some fun facts, and future plans



Think about: what should go in the data paper?

+ Australian Alps  
+ Antarctica



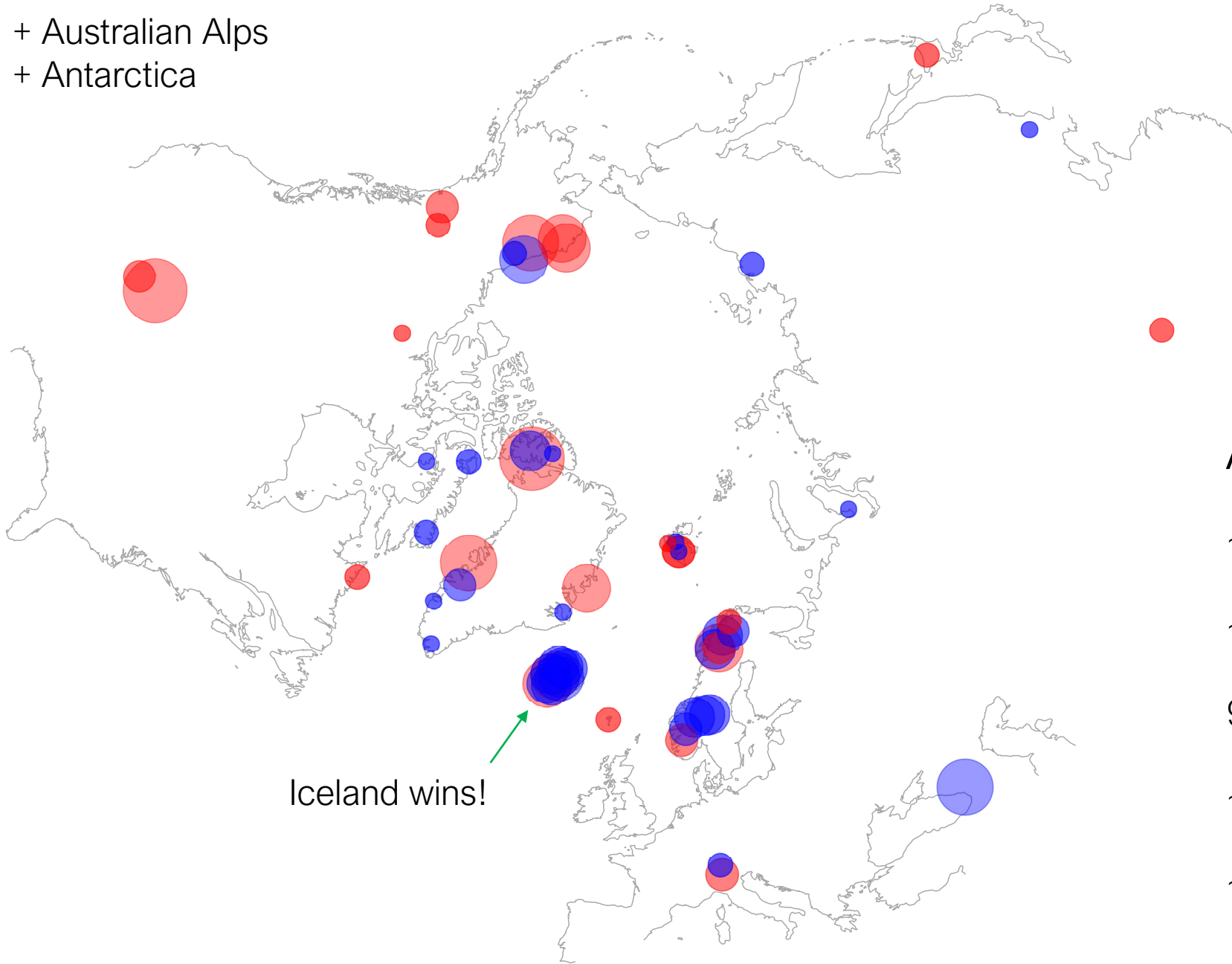
Blue = monitoring\* only

Red = monitoring + experimental  
warming

Size of circle = duration of  
monitoring (max 31 years)

(A few additional dots missing)

+ Australian Alps  
+ Antarctica



## ABOUT THE DATA

~70 study areas (sites)

~270 subsites

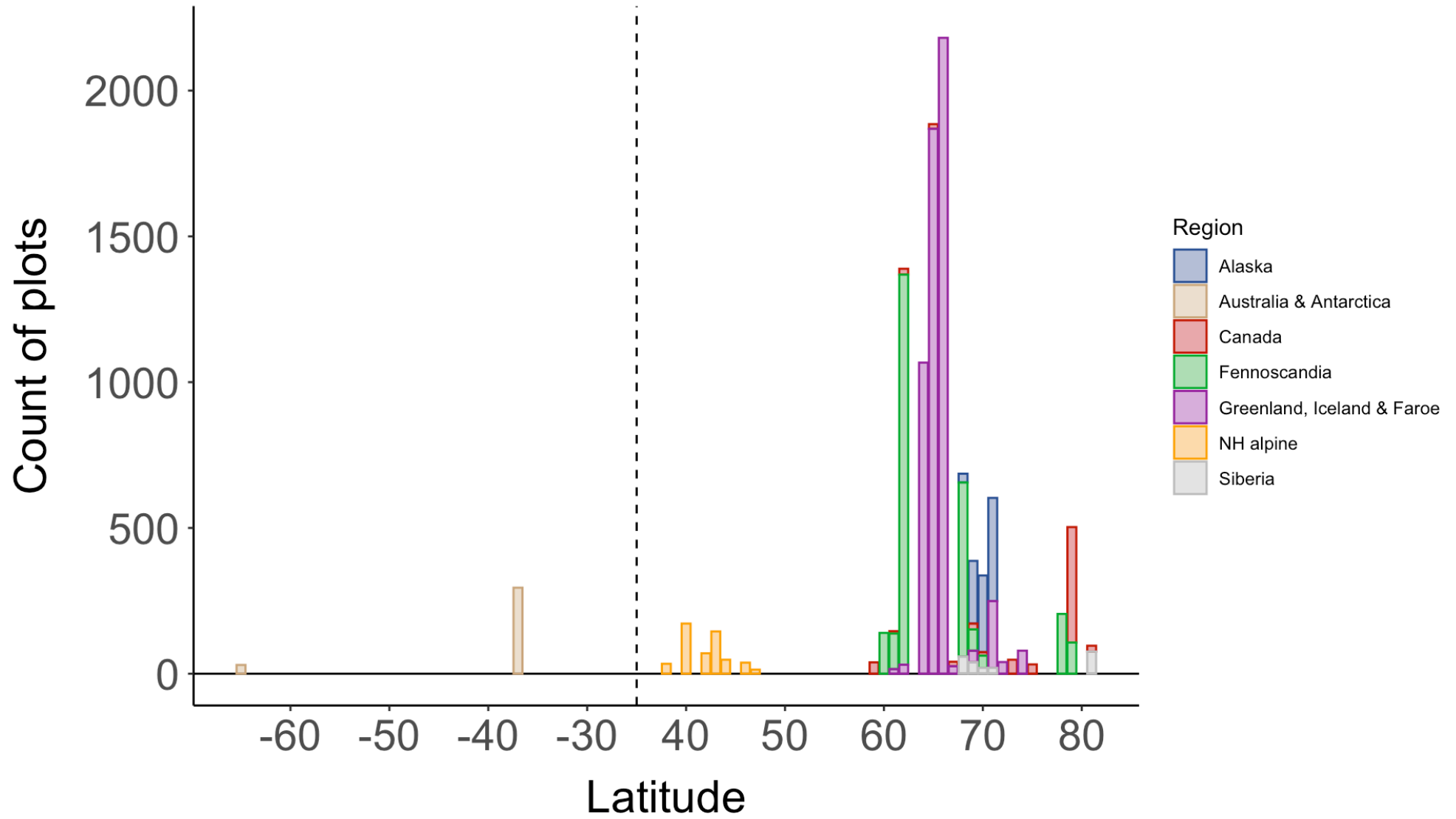
96 subsites with OTCs

~26,000 plot-years

~300,000 rows of (summarized) data

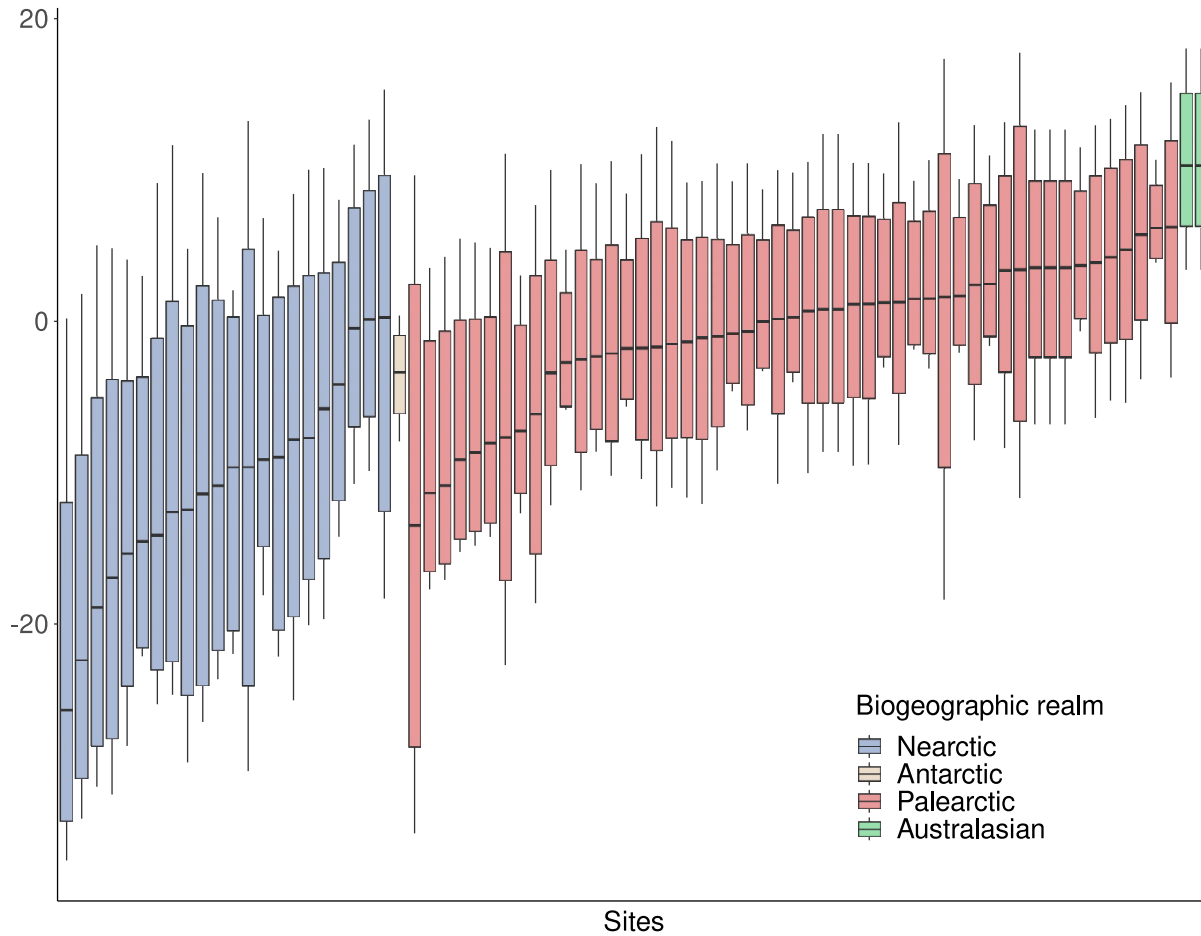
~1,400 species

# Number of plots by latitude/region

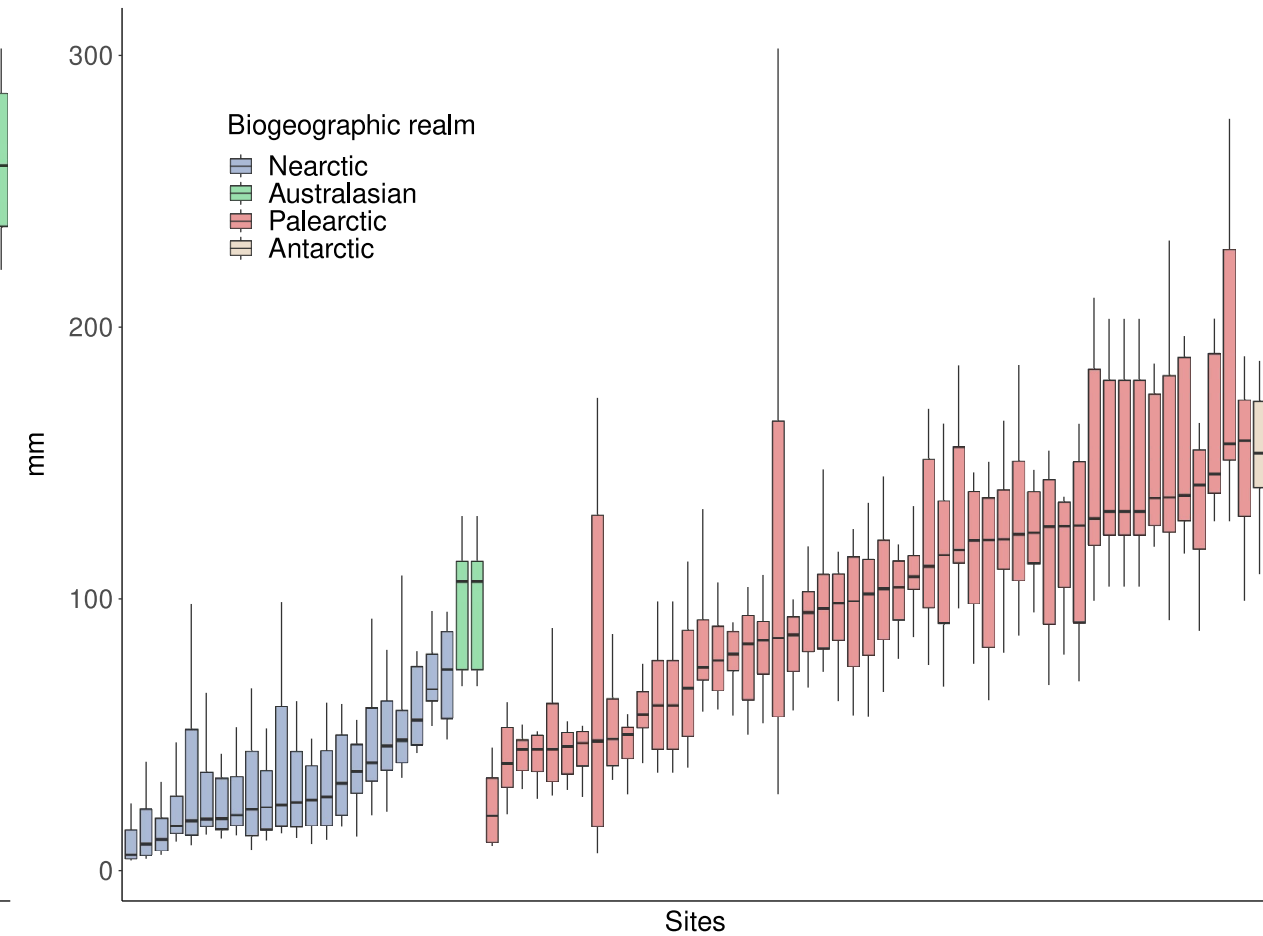


# Climate of sites

## Temperature



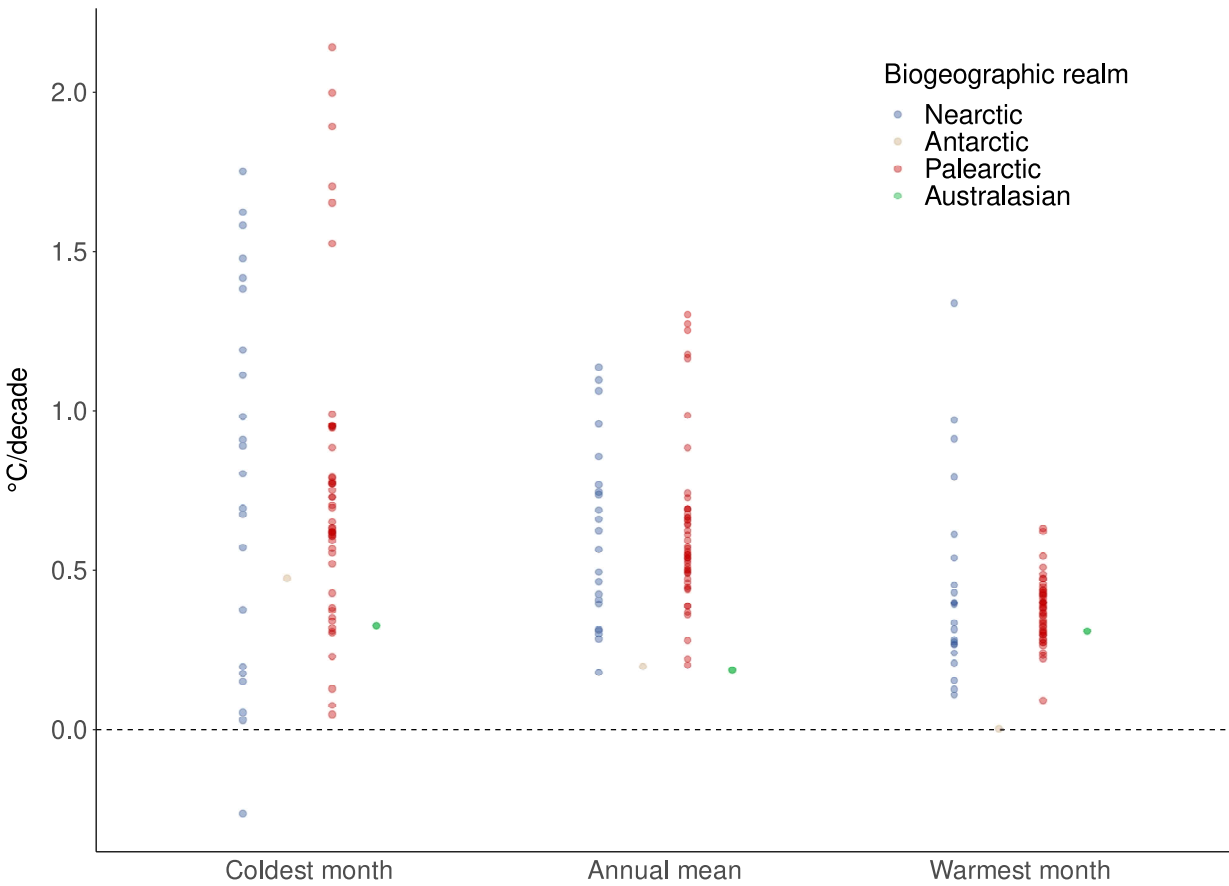
## Precipitation



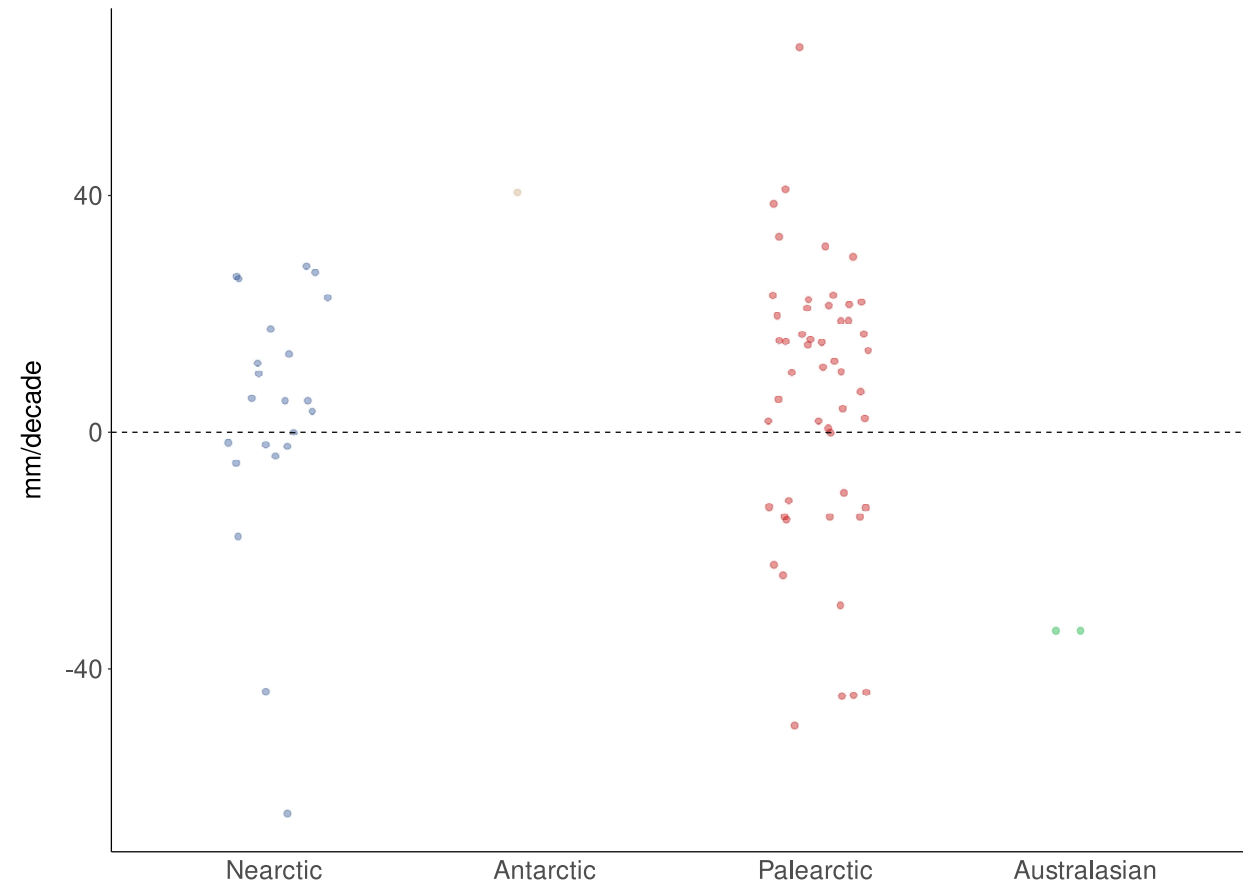


# Climate trends

## Temperature

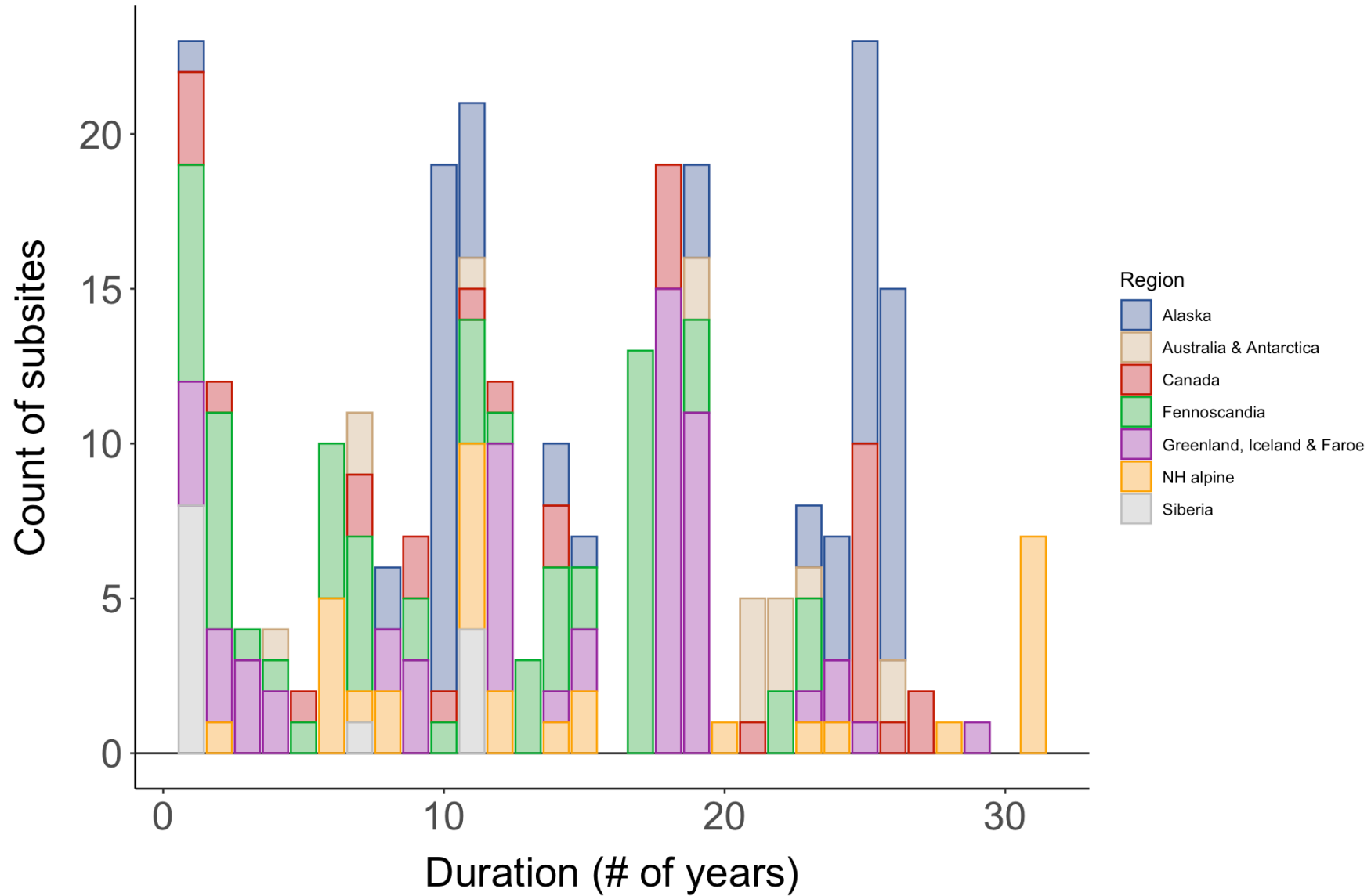


## Precipitation





# Subsites by duration of monitoring



# Most common/widespread species (# of sites)

<b>SPECIES_NAME</b>	<b>nregions</b>	<b>nsites</b>	<b>nsubsites</b>	<b>minLat</b>	<b>maxLat</b>	<b>latRange</b>
XXXBARE	7	41	132	-64.76	81.4	146.2
XXXLITTER	7	40	164	-36.9	81.4	118.3
Diphasiastrum alpinum	6	37	79	41.99	81.4	39.4
Vaccinium uliginosum	6	36	81	41.99	78.87	36.9
XXXLICHEN	7	35	112	-36.9	81.4	118.3
XXXMOSS	7	32	108	-64.76	81.4	146.2
Carex bigelowii	4	32	92	58.64	74.29	15.7
Silene acaulis	6	30	53	40.05	78.87	38.8
Empetrum nigrum	6	29	66	43.54	71.4	27.9
Betula nana	4	28	84	60.7	71.59	10.9
Salix herbacea	4	26	44	46.34	73.14	26.8
Vaccinium vitis- idaea	5	24	78	41.99	71.32	29.3
Persicaria vivipara	6	23	53	40.05	81.4	41.4
Dryas octopetala	6	22	44	41.99	78.93	36.9
XXXROCK	6	22	53	-36.9	78.93	115.8

# Most widespread species (latitudinal range)

SPECIES_NAME	nregions	nsites	nsubsites	minLat	maxLat	latRange
XXXBARE	7	41	132	-64.76	81.4	146.2
XXXMOSS	7	32	108	-64.76	81.4	146.2
XXXFORB	6	8	49	-36.9	81.4	118.3
XXXGRASS	6	16	43	-36.9	81.4	118.3
XXXLICHEN	7	35	112	-36.9	81.4	118.3
XXXLITTER	7	40	164	-36.9	81.4	118.3
Carex	4	9	27	-36.9	78.87	115.8
XXXROCK	6	22	53	-36.9	78.93	115.8
Trisetum spicatum	5	14	37	-36.9	78.65	115.6
Poa	4	6	28	-36.9	78.19	115.1
XXXLIVERU	3	5	11	-36.9	78.19	115.1
Luzula	5	7	30	-36.9	74.48	111.4
Stellaria	2	3	10	-36.9	70.08	107
Cardamine	3	4	17	-36.9	69.98	106.9
Trifolium repens	2	6	12	-36.9	65.94	102.8

Region

- Alaska
- Australia & Antarctica
- Canada
- Fennoscandia
- Greenland, Iceland & Faroe
- NH alpine
- Siberia

Occurs from Svalbard to the Australian Alps!



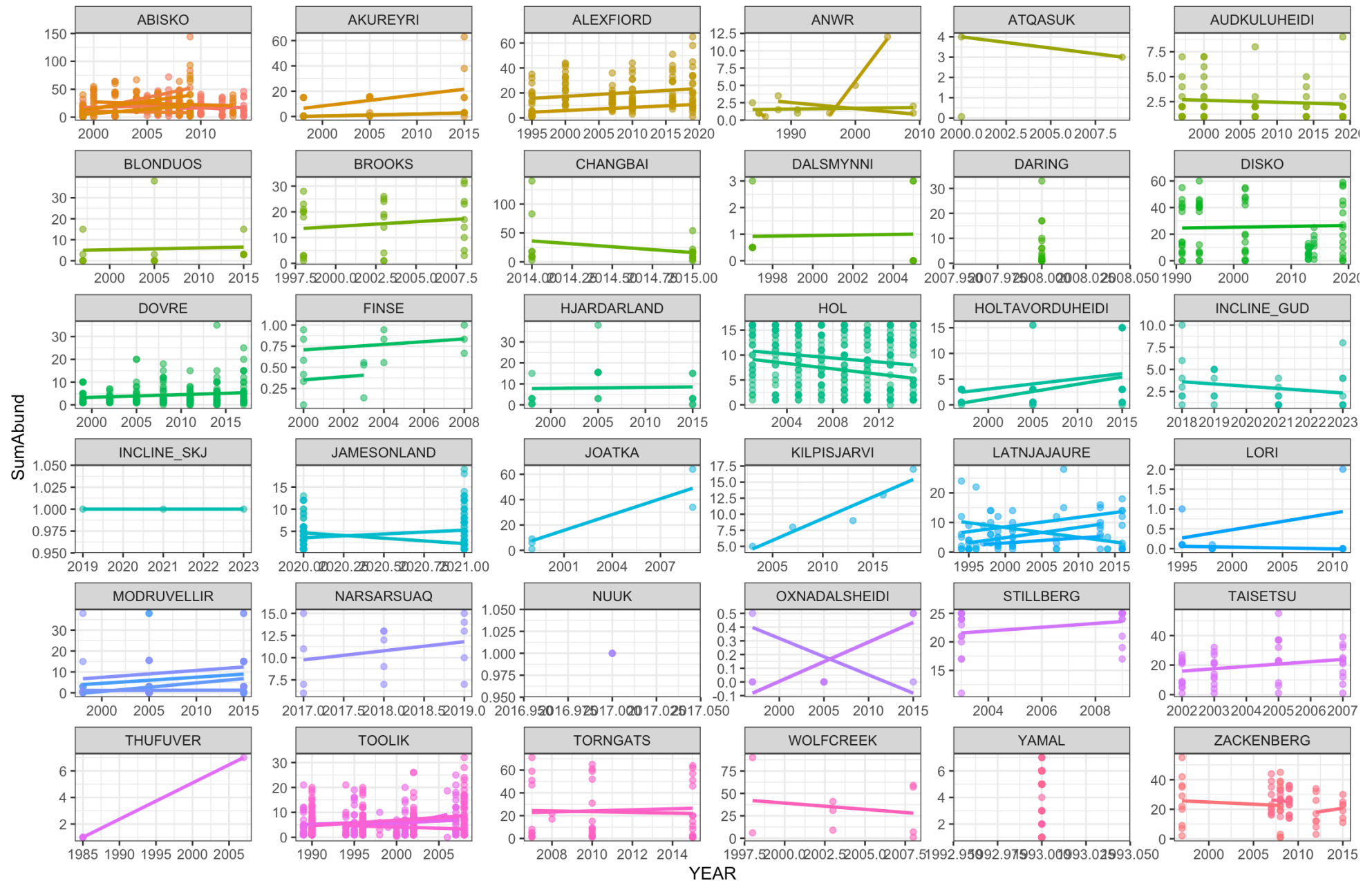
## Biggest winners (based on number of new subsites colonized)

<b>SPECIES_NAME</b>	<b>NumGain</b>	<b>NumLost</b>	<b>NumConstant</b>	<b>PropGain</b>
Diphasiastrum alpinum	26	7	46	0.329113924050633
XXXDUNG	22	3	15	0.55
Stellaria longipes	20	13	27	0.3333333333333333
XXXBARE	20	24	73	0.170940170940171
XXXLITTER	20	1	143	0.121951219512195
Cetraria islandica	18	11	42	0.253521126760563
Vaccinium uliginosum	17	5	58	0.2125
XXXLICHEN	17	22	61	0.17
Alectoria ochroleuca	15	2	13	0.5
Empetrum nigrum	15	0	48	0.238095238095238
Eriophorum angustifolium	15	6	50	0.211267605633803
Poa arctica	15	13	41	0.217391304347826
Tomentypnum nitens	15	3	35	0.283018867924528
Alectoria nigricans	14	3	12	0.482758620689655
Peltigera aphthosa	14	5	35	0.259259259259259

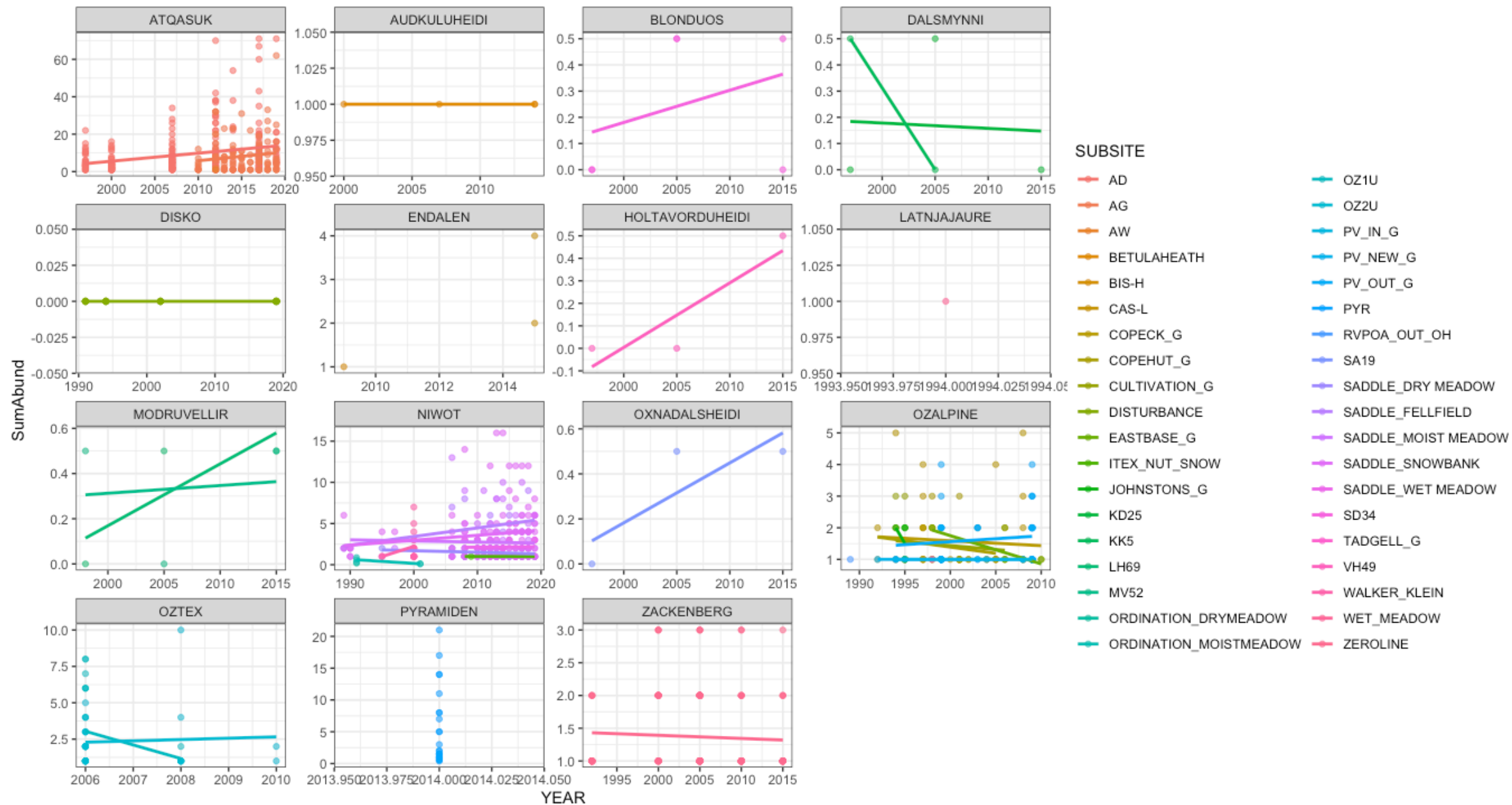
# Biggest losers (based on number of subsites a species disappeared from)

SPECIES_NAME	NumGain	NumLost	NumConstant	PropGain	PropLost
XXXBARE	20	24	73	0.17094017094017 1	0.20512820512820 5
XXXLICHEN	17	22	61	0.17	0.22
XXXFORB	4	20	11	0.11428571428571 4	0.57142857142857 1
Bryophyte	0	17	11	0	0.60714285714285 7
Salix glauca	12	15	19	0.26086956521739 1	0.32608695652173 9
XXXMOSS	9	14	80	0.08737864077669 9	0.13592233009708 7
Stellaria longipes	20	13	27	0.33333333333333 3	0.21666666666666 7
Poa arctica	15	13	41	0.21739130434782 6	0.18840579710144 9
Juncus biglumis	13	12	7	0.40625	0.375
Polygonum viviparum	10	12	55	0.12987012987013	0.15584415584415 6
Cetraria islandica	18	11	42	0.25352112676056 3	0.15492957746478 9
Luzula multiflora	8	11	23	0.19047619047619	0.26190476190476 2

# Abundance change for *Vaccinium uliginosum*



# Abundance change for *Trisetum spicatum* (the widest-range species)



A close-up photograph of a single, vibrant blue bell-shaped flower (likely a Campanula) in focus, set against a blurred background of dense, low-lying vegetation in shades of green and orange. The text is overlaid in the center of the image.

What is the future of the “ITEX+”  
database?



Please continue to send data (new sites, new years)!

Will make a “version” in early fall & use this for the data paper publication

Be on the lookout for emails from me and/or Karin regarding metadata, data checks

Submission goal: October/November

