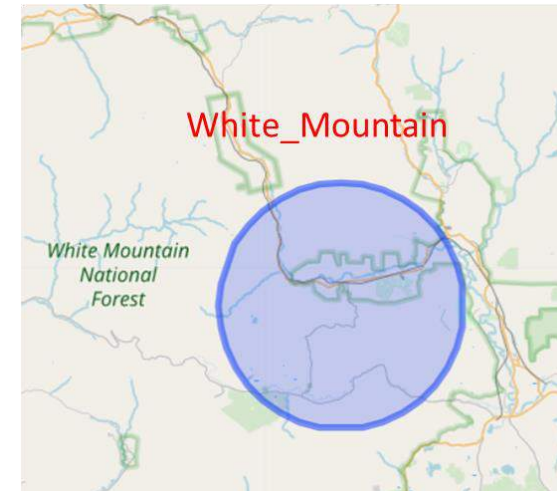
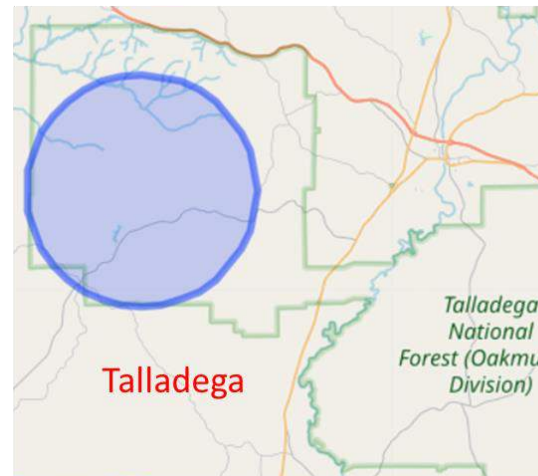
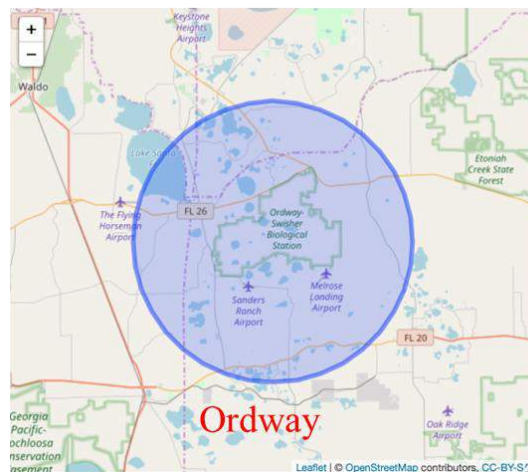
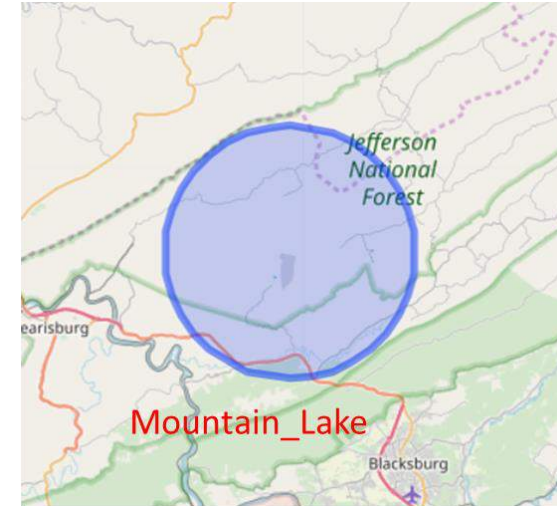
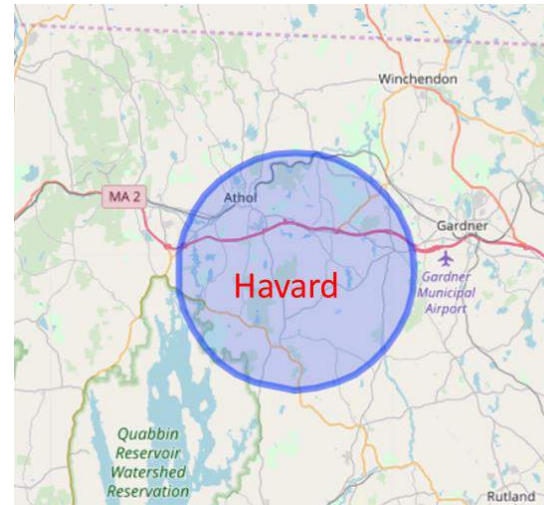


Proposal for extracting species names for US 6-site community phylogeny

Miao Sun
Hanyang Lin

Recap:

What I did earlier is using Centered coordinated of each site making a 10-km radius ring and then extract Seed plant accepted names from iDigBio + GBIF + Mark's original species list



General information for US-CN 11 site in total

Site	Area (km ²)	Elevation	ntaxa	ntaxa_update	Latitude(°)	Longitude(°)
White_Mountain	15.66	232	214	254	44.06388	-71.28731
Havard	49	351	800	897	42.5369	-72.17266
Mountain_Lake	12.6	1160	296	381	37.375654	-80.52214
Coweeta	16.26	914	583	681	35.052555	-83.45086
Talladega	53	135	349	533	32.923284	-87.4203
Ordway	38.44	45	632	749	29.68927	-81.99343
Changbai	1907.81	2744	1141	1140	42.42	128
Dongling	60	2303	773	773	40.06	115.50
Shennong	704.67	3106	1559	1559	31.61	110.31
Tianmu	43	1505	1188	1188	30.42	119.44
Gutian	81.07	1258	1209	1209	29.30	118.13

Note: the species number were generate by previous Miao's 10-km radius ring approach, not current; ignore.

Our new approach:

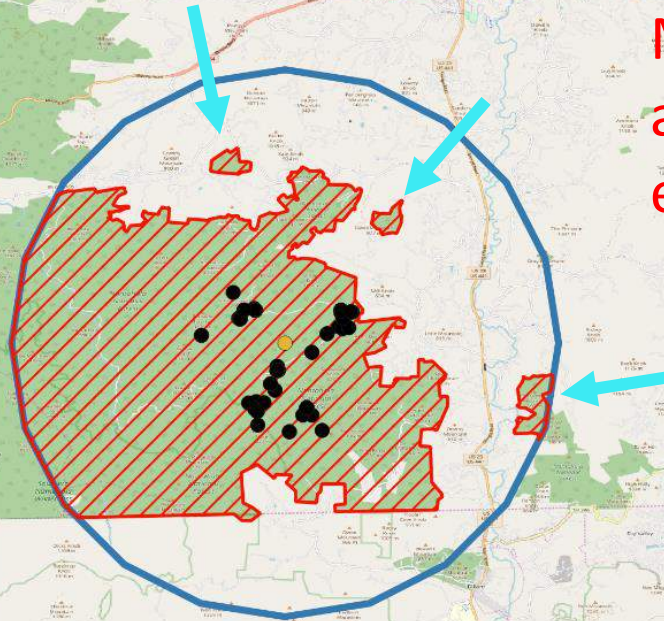
- Project tree species sampling coordinates for each of 6 sites (black dots in the map)
- Make a dark blue ring using centered coordinates (yellow dot) of each site with 10-km radius (Miao's earlier approach); All the rings in the map are in the same size, the visual difference is caused by scale.
- The red shed area is vectorized national forests range (or part; depends on it's relation with samples geocode and 10km-radius ring)
- Then based on these spatial relationships, We proposed one potential polygon; then we use this polygon to extract those species names as our target for community phylogeny.

Please make your comments and suggestions.

Coweeta

For Coweeta site, we suggest go with the red shed polygon to extract our species list.

Maybe excluding those tiny small areas (skyblue arrow) on the edge



Harvard

A map of the Harvard area, Massachusetts. A large blue polygon outlines a central region. Within this blue polygon, there are several smaller, irregularly shaped regions filled with red diagonal hatching. Black dots are scattered within these red-hatched areas. A black rectangular box on the left contains the text 'Harvard forest', with a line pointing from the box to one of the red-hatched areas.

Harvard forest

For Harvard site, we suggest take the whole the red shed polygon to extract our species list.

Mountain Lake

Mountain Lake Station
Zoom in

For Mountain Lake
site, we suggest take the
whole the red shed
polygon to extract our
species list.

Ordway

Ordway-Swisher
Biological Station

For Ordway-Swisher
Biological Station
site, we suggest take the
whole the red shed
polygon to extract our
species list.

Talladega

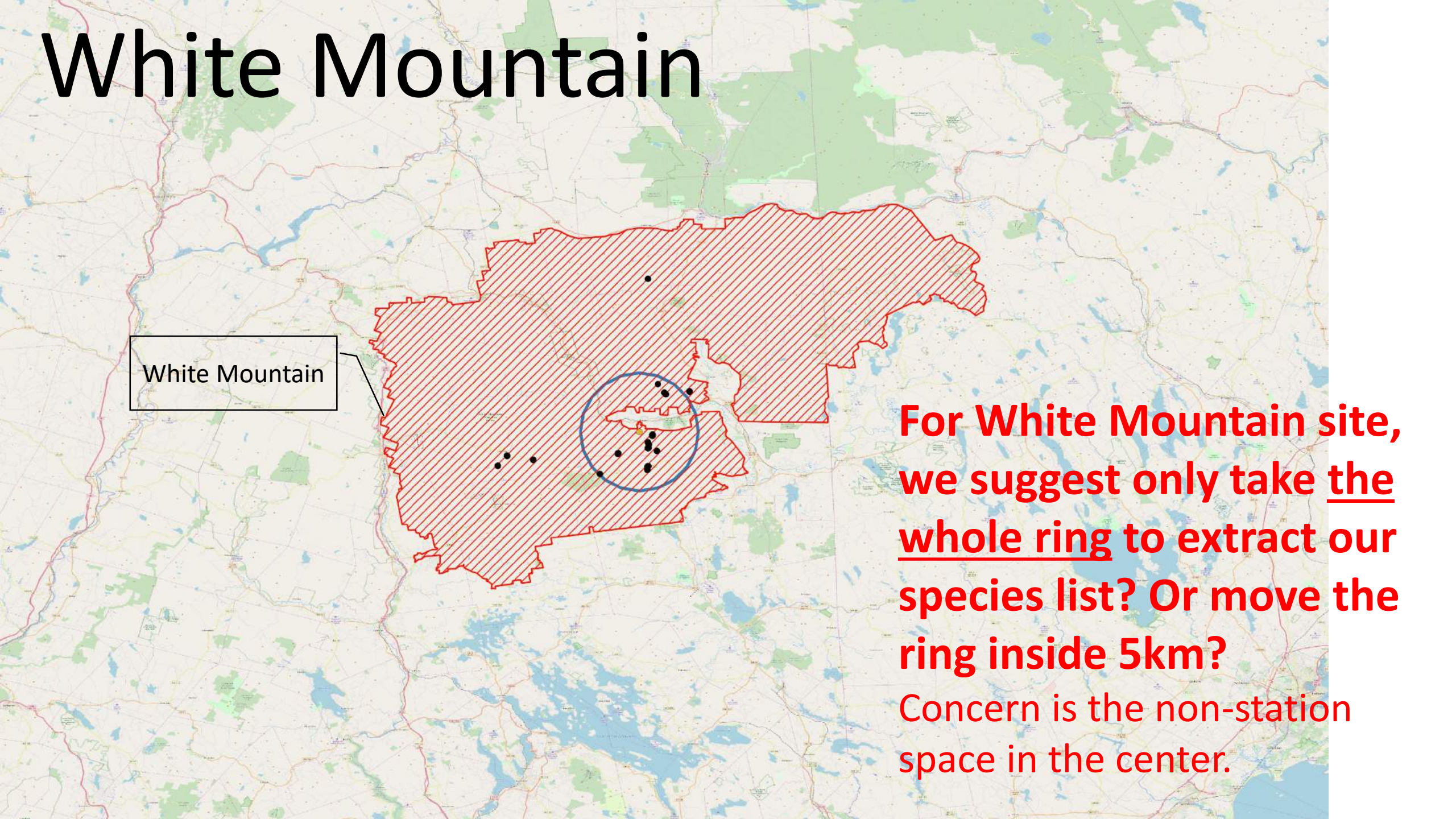


Talladega National Forest

Talladega National Forest
(Oakmulgee Diviosn)

For Talladega site, we
suggest only take the
whole ring to extract our
species list.

White Mountain



A map of the White Mountain region. A large, irregular area is outlined in red and filled with red diagonal hatching. Within this hatched area, a blue circle is drawn, containing several black dots representing sampling stations. A black box with the text 'White Mountain' has a line pointing to the western edge of the hatched area.

White Mountain

**For White Mountain site,
we suggest only take the
whole ring to extract our
species list? Or move the
ring inside 5km?**

**Concern is the non-station
space in the center.**