Fusing disparate measurement data for forecasting the growth of trees via Hidden Markov Models

Prof. Albert Y. Kim akim04@smith.edu
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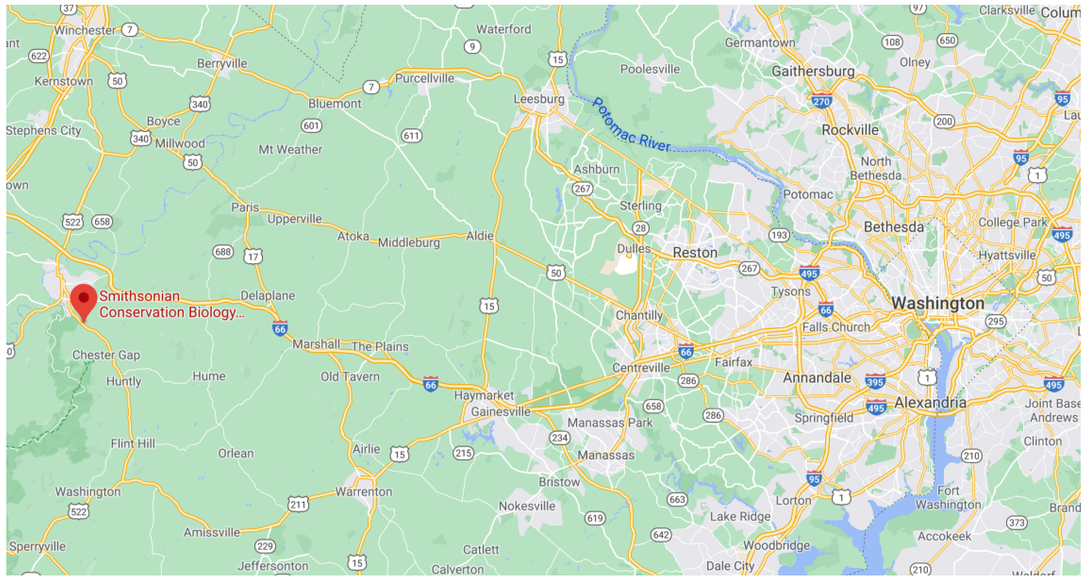
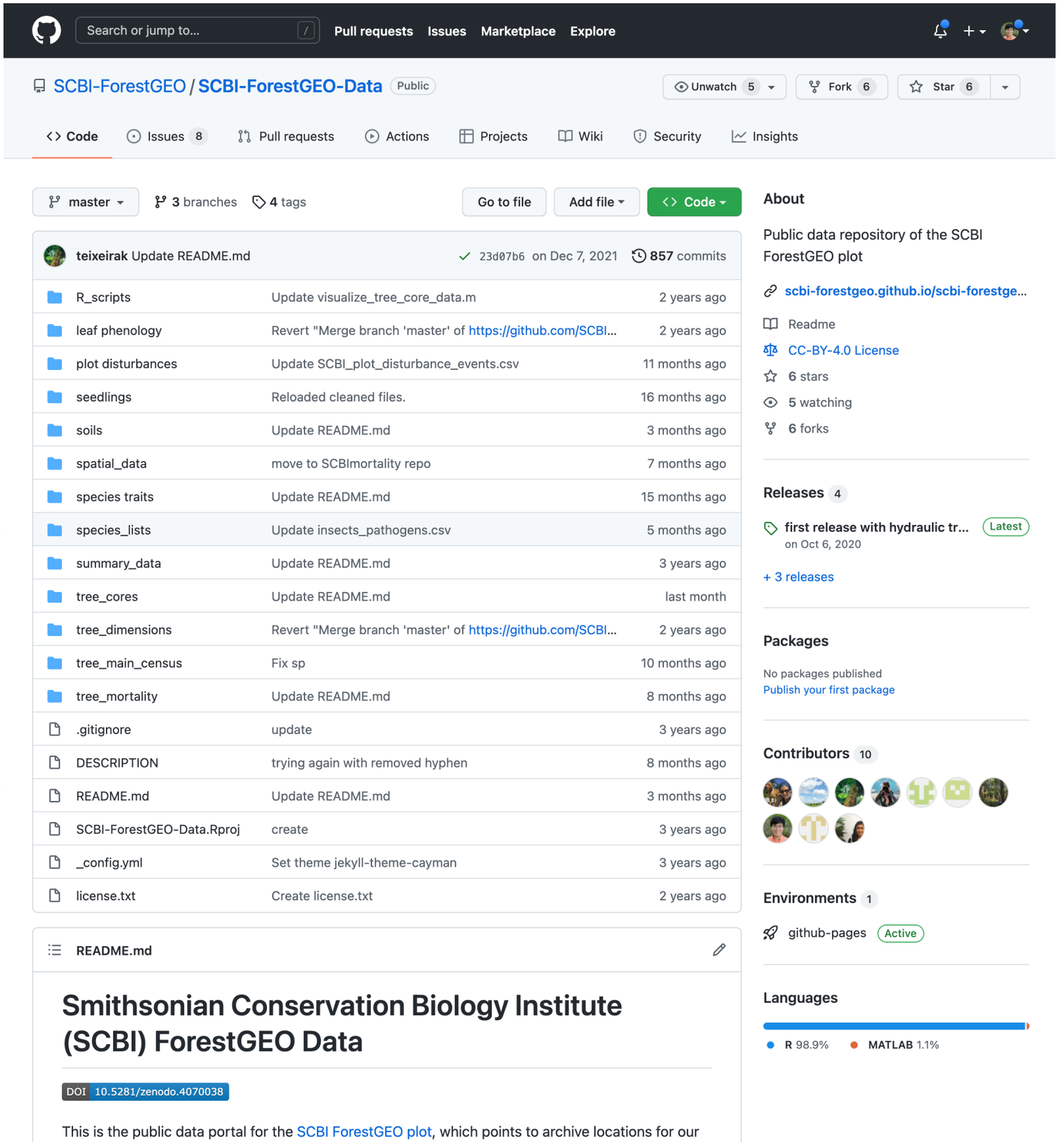


25.6 ha = 35.85 soccer fields

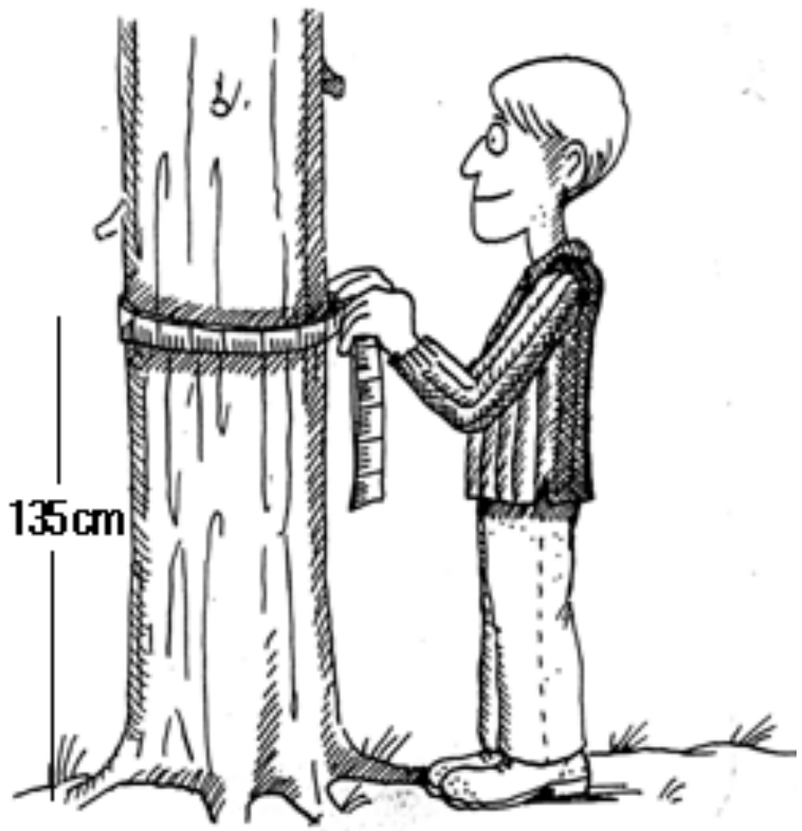
Tag 082422

Data on GitHub



Diameter at Breast Height (dbh)

After species & location, one of the most informative variables about a tree is dbh



Tree Diameter Data Sources

	Data source	Measurement	Cost	Sources of Error?
	**Census via tape**	Diameter	Cheap	Large variation in dbh technique
	**Tree coring**	Ring width increment	Expensive	Standardized, cores are dried, no bark effects
	**Intraannual dendroband (every 2 weeks)**	Diameter (baseline + gap size)	High setup, rapid follow-up	Climate induced variation in bark & device (-'ve growth)
	**Biannual dendroband (start & end of year)**	Diameter (baseline + gap size)	High setup, rapid follow-up	

Dendroband measures are highly precise

Dendrometer band measurements