



The study of carbon storage of prominent plant species in the summer and rainy seasons of BangRak Trang.

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Introduction



Introduction



White Cheesewood
Alstonia scholaris



Indian oak
Barringtonia acutangula



Yang
Dipterocarpus alatus



Sentang
Azadirachta excelsa Jacobs

objective

1. To study the amount of carbon storage of prominent plant species in Bang Rak Subdistrict, Trang Province, during the summer and rainy seasons.
2. To study the growth of prominent plant species in Bang Rak Subdistrict, Trang Province, during the summer and rainy seasons.

Materials and equipments



tape measure

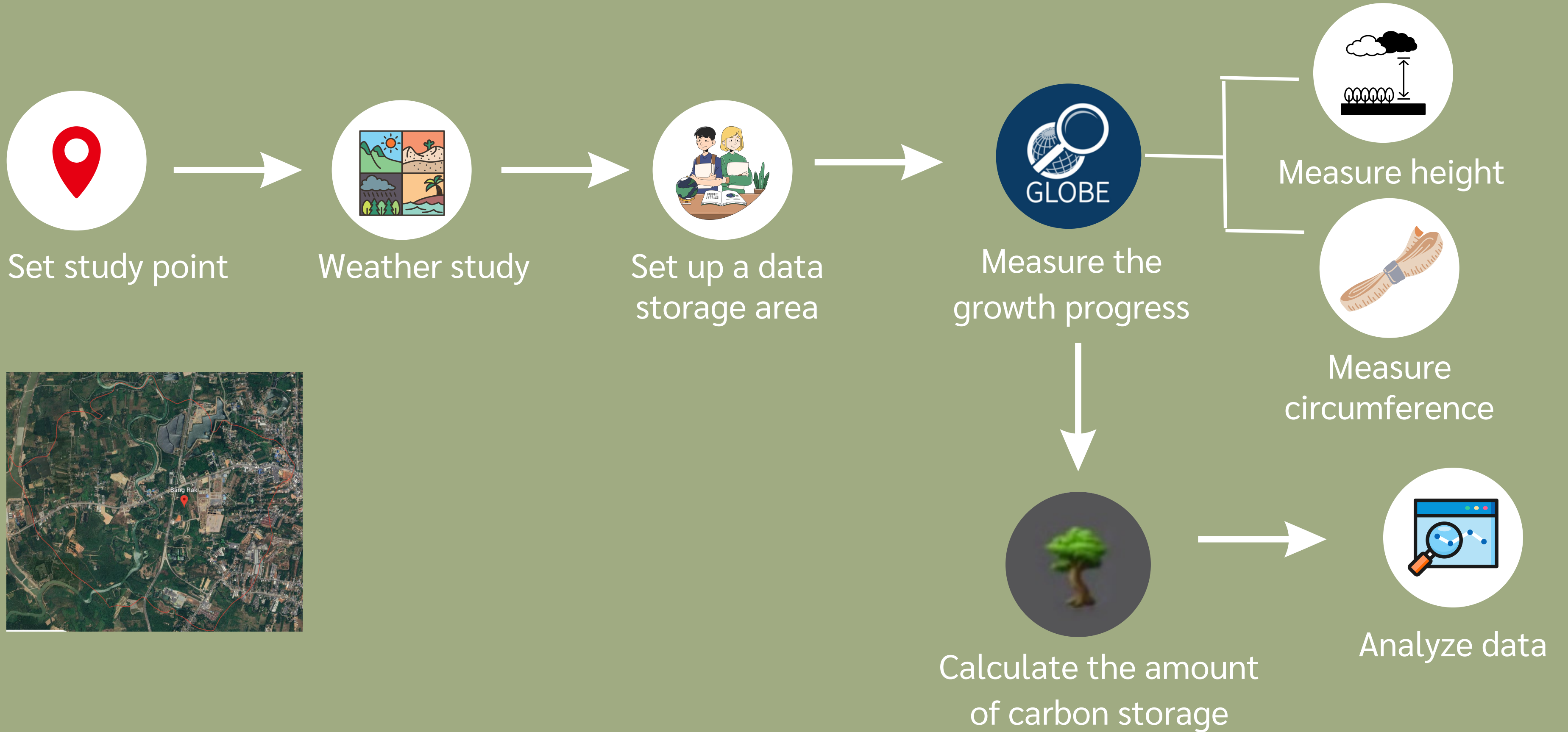


Globe observers application



Carbon Storage application

Methods



Methods

Calculate the amount of carbon storage of prominent plant species In the subdistrict.

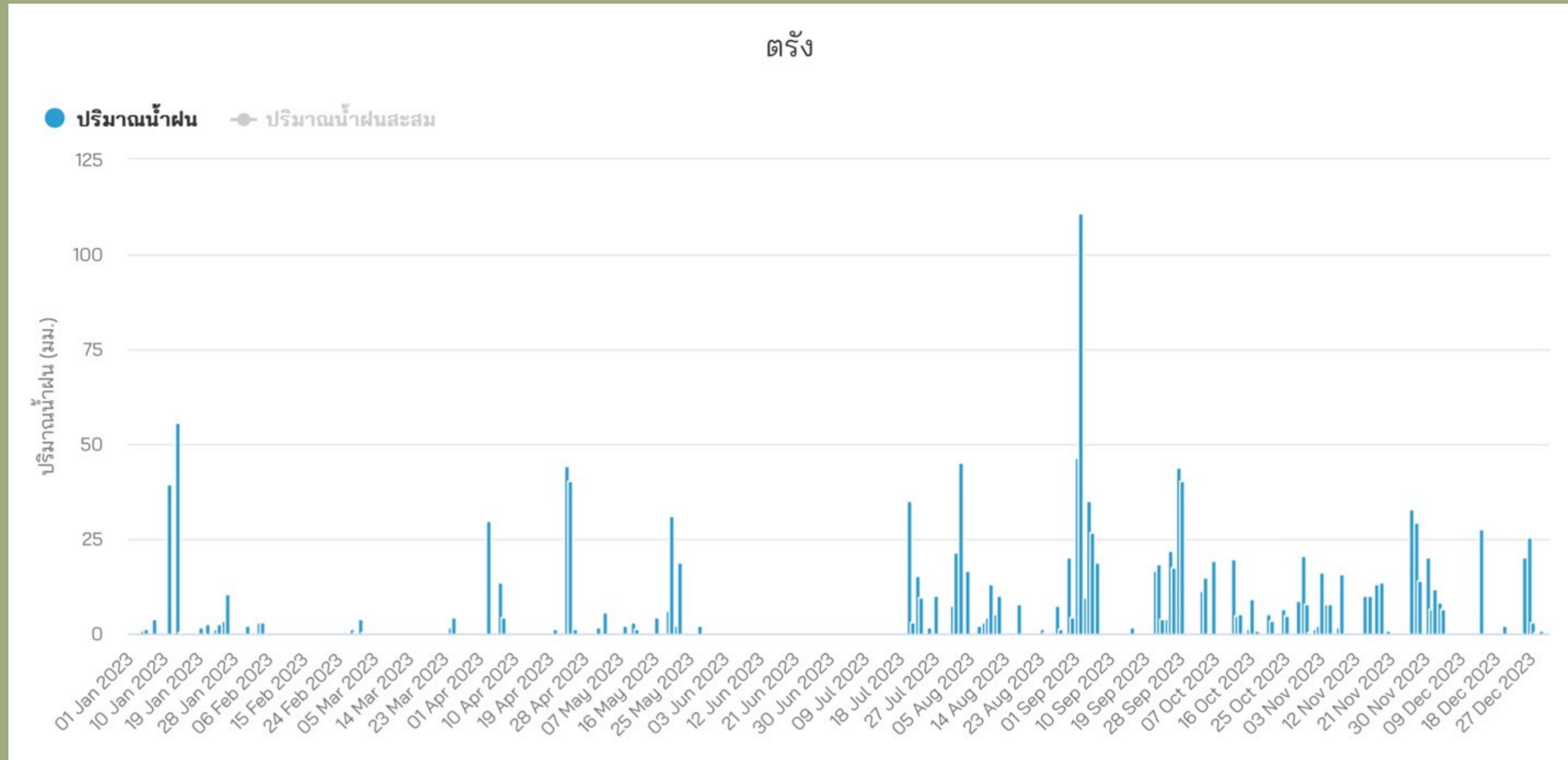
It is calculated from the carbon storage app, which uses height and circumference data of the tree. The principles of allometry equations are used in the calculations.

$$W_s = 0.0396D^2H^{0.9326}$$

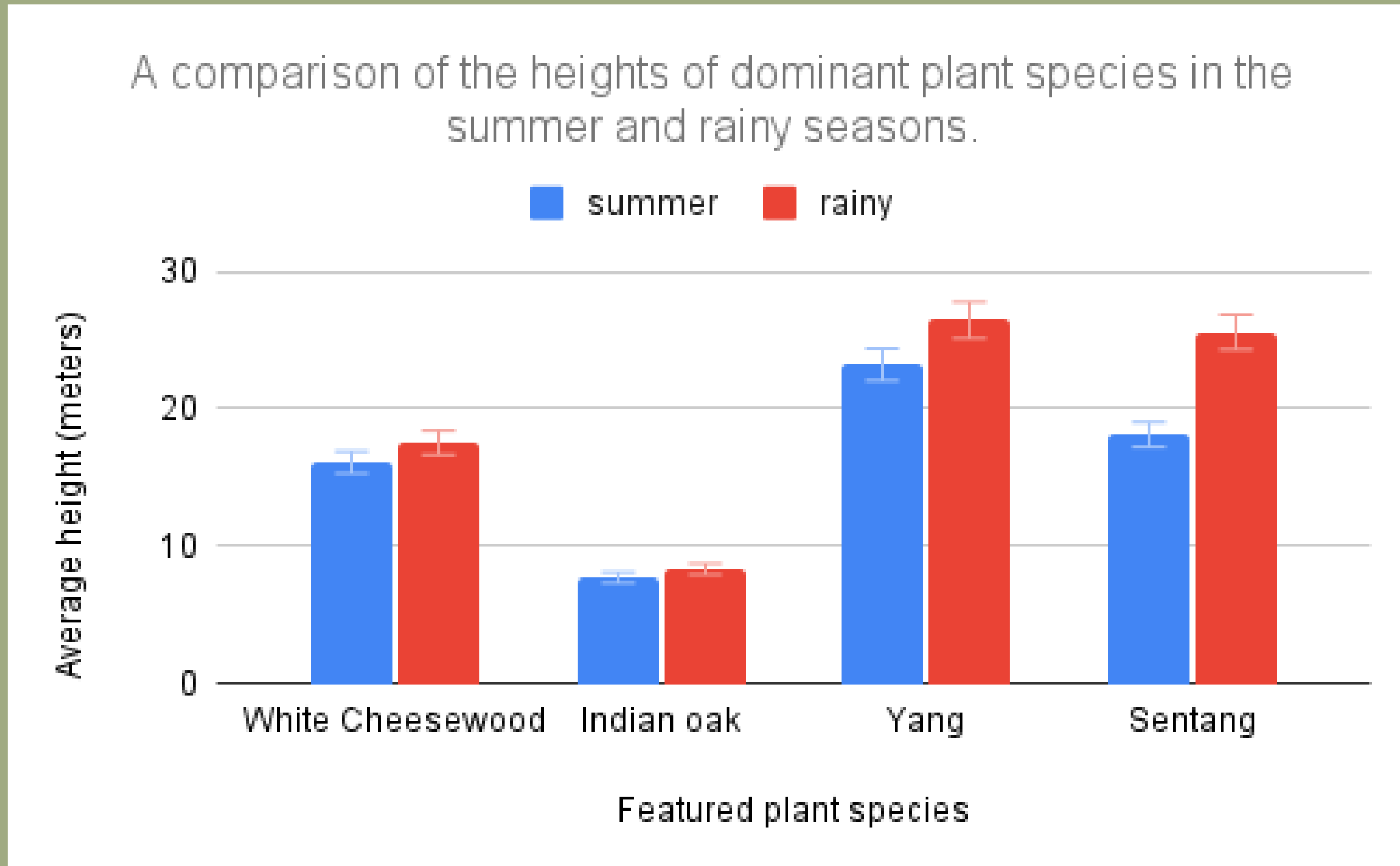
$$W_b = 0.00348D^2H^{1.0270}$$

$$W_1 = \left(\frac{28.0}{W_s + W_b} + 0.025 \right)^{-1}$$

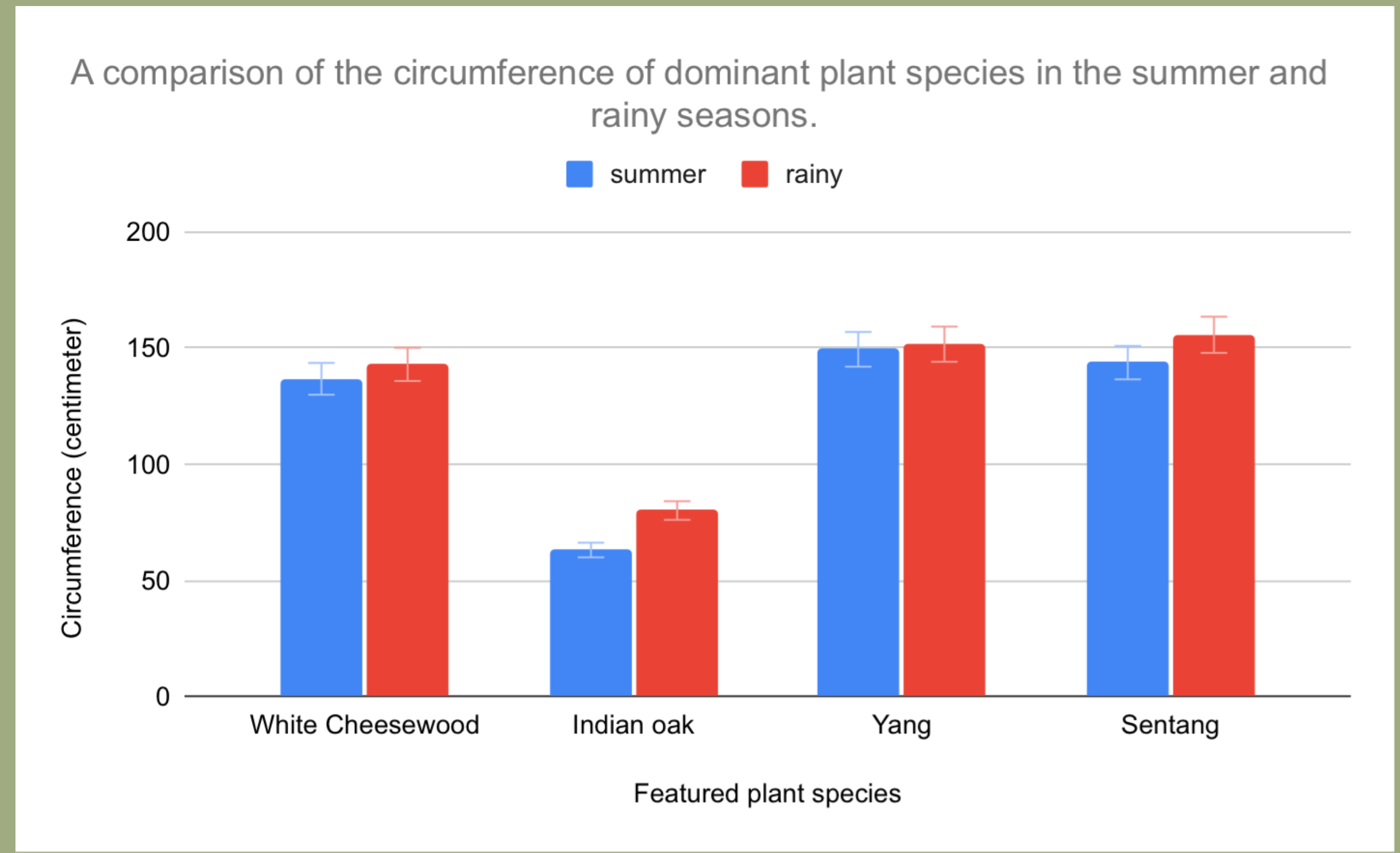
Results : Rainfall information



Results : the study of tree heights in summer and rainy season

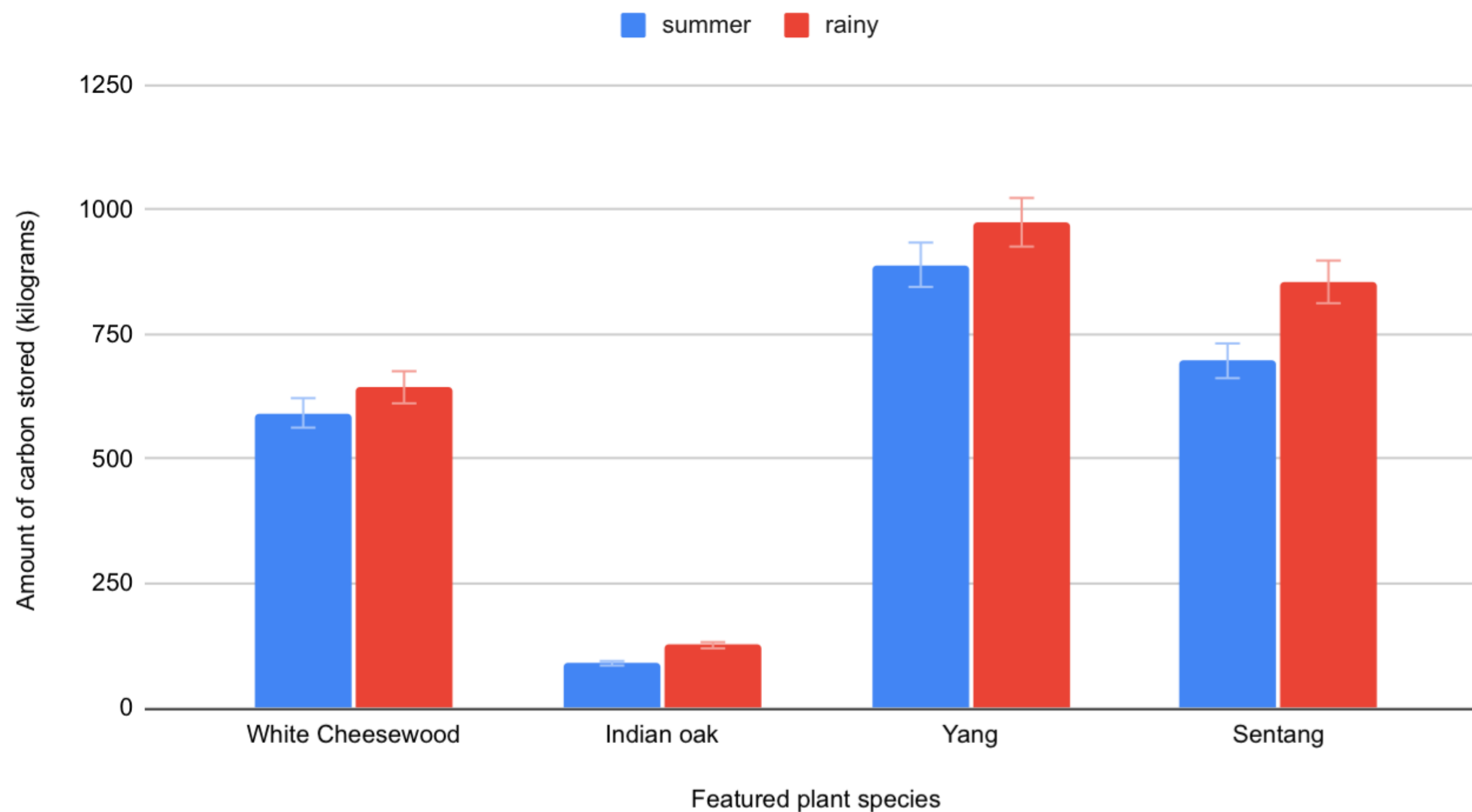


Results : the study of tree circumference in summer and rainy season



Results : the study of tree carbon storage in summer and rainy season

A comparison of the carbon storage of the dominant plant species in the summer and rainy seasons.



Conclusion

- ▶ The amount of carbon storage of each prominent plant species in the subdistrict. Summer and rainy season The average has increased. and there is a statistical significant difference The prominent plant species with the highest average amount of carbon storage is the Yang Na tree. The prominent plant species with the largest increase in carbon during the rainy season is the Chiknam tree, which increased by 40.19 percent.
- ▶ Growth (height, girth) of each dominant plant species in the school. Summer and rainy season The average has increased. and there is a statistical significant difference The prominent plant species with the greatest increase in average height during the rainy season is the artificial neem tree. And the outstanding plant species with the greatest increase in average circumference during the rainy season is the Chiknam tree.

References

Office of Science for Land Development. 2004. Soil Sample Analysis Manual
Water, fertilizer, plants, soil amendments and analysis for verification Product standards, volume 1.
Department of Land Development. 184 pages.

Allison, L.E. 1965.Organic Carbon. In Methods of soil analysis, part 2 no. 9 pp 1367-1378. Amer. Soc. Agron. Madison, Wisconsin

Walkley, A. and I. A. Black, 1947 . Chromic acid titration method for determination of soil organic matter. Soil. Sci. Amer. Proc. 63:257.



Thank you