Erasmus+

"“Engaging students in the learning process through innovation”

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Observer Diary

ESTI

Phenological observations

By watching Earth from space in spring time, it's easy to see a „green wave" moving from the south-west part of the Europe to the north-east part of it.

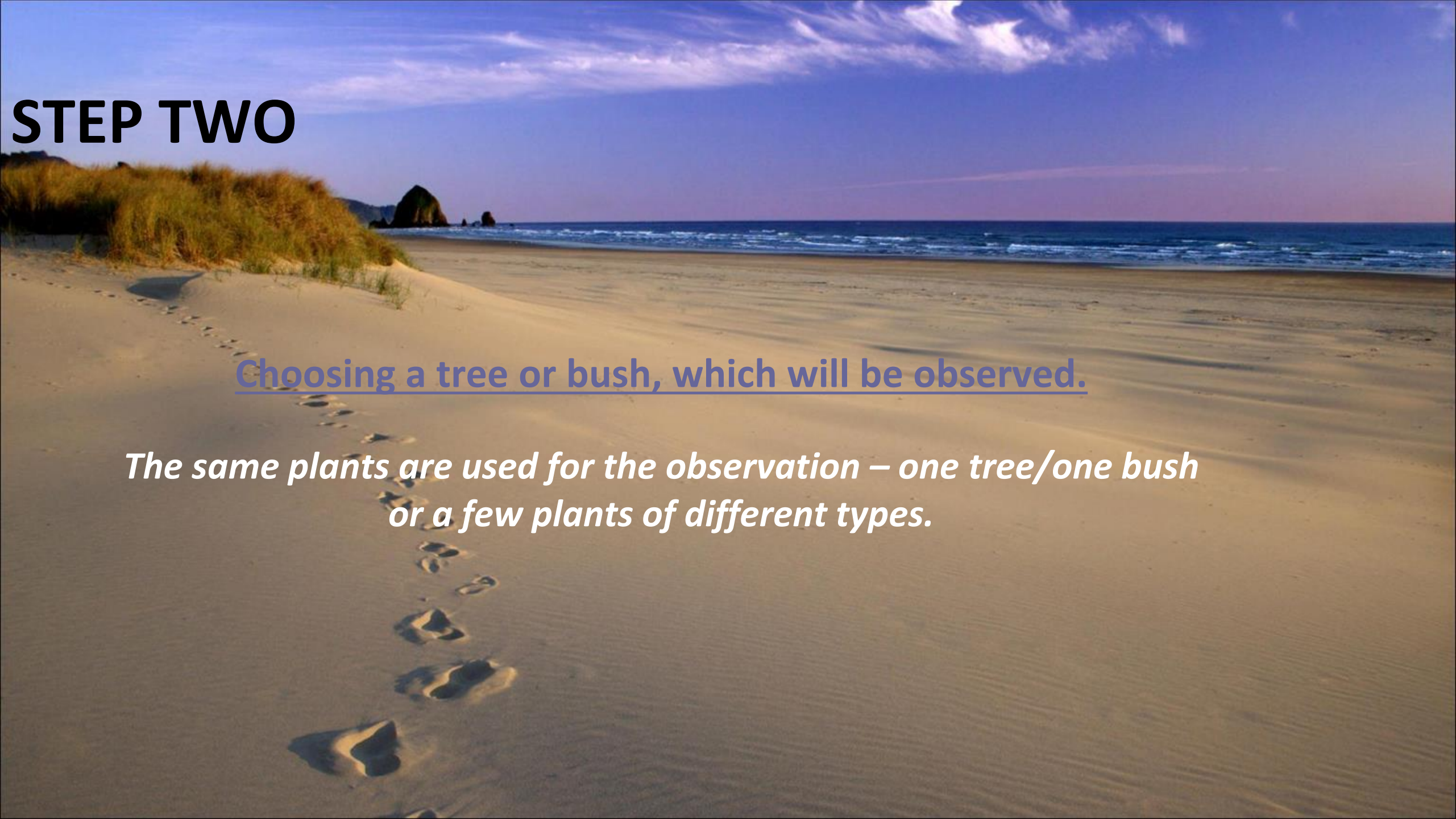
Every year this „wave" starts in some different moment.

Observer Diary

STEP ONE

Choosing a right place for phenological research

This kind of place for plants phenology research should be located in terrain easily accessible, that it could be visited by students, at least twice a week. Chosen place should be described from land form and climatic conditions perspective.



STEP TWO

Choosing a tree or bush, which will be observed.

The same plants are used for the observation – one tree/one bush or a few plants of different types.

STEP THREE

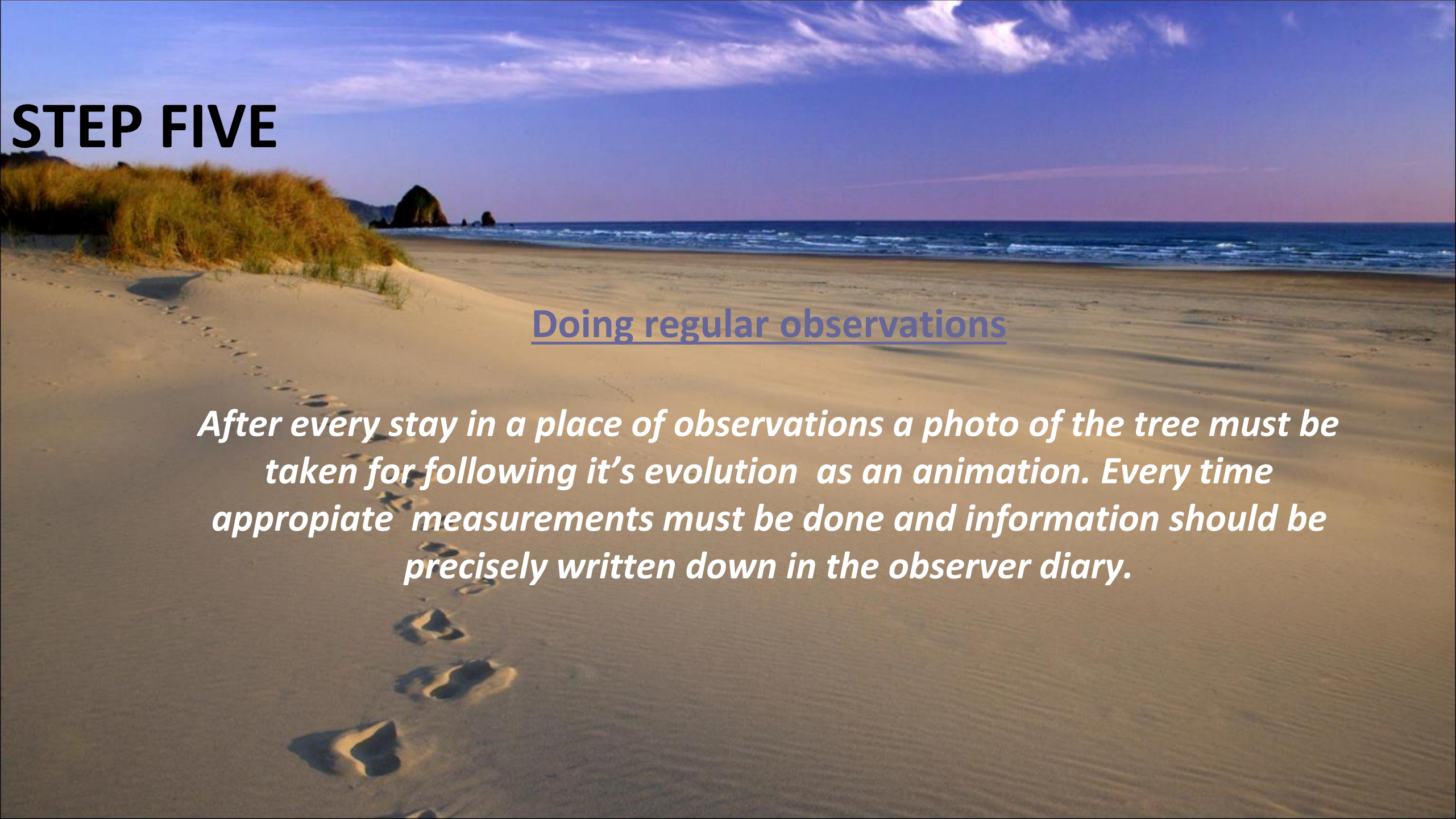
Chosen plant description.

The kind and type of plant must be defined by using a key or guide for marking plants. Also what surrounds it should be descriped, what type of plants grow in it's nearby.

STEP FOUR

Choosing right branch for observation.

On every plant big and healthy branch should be chosen growing at the south side of a plant. If branch from the lower level was chosen for the research, it should grow at the rim of group of trees or bushes, because branches growing inside might have a different microclimate conditions because of shading. A branch from must be marked with tape or any different durable material, and needed informations must be marked with a felt-tip pen (second name, name of group, school)

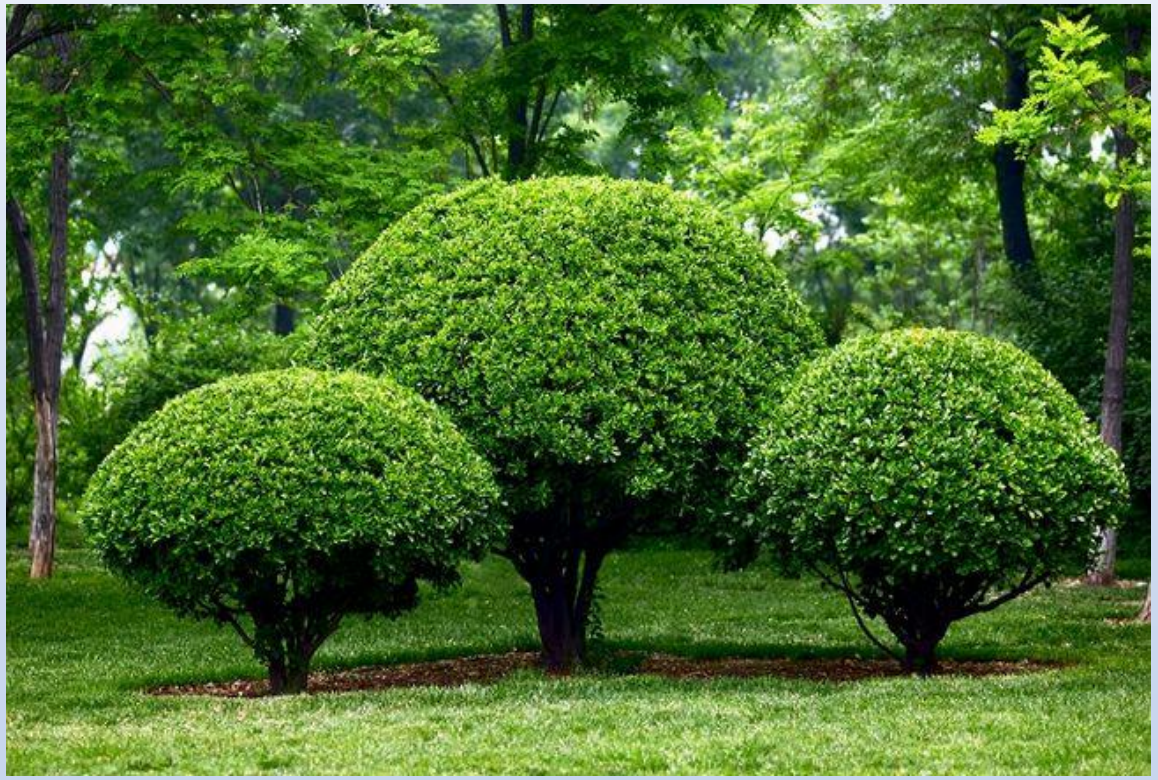


STEP FIVE

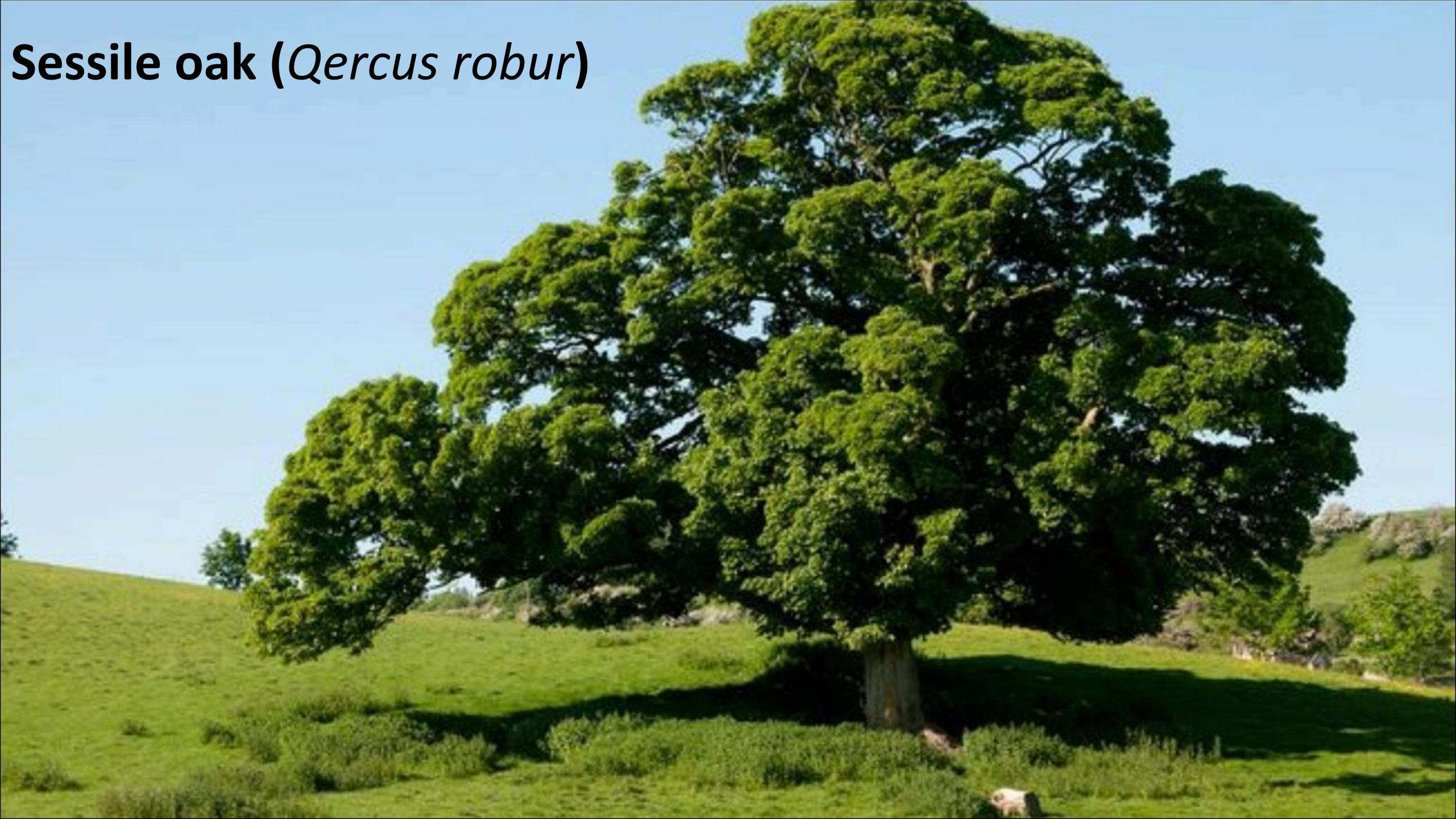
Doing regular observations

After every stay in a place of observations a photo of the tree must be taken for following it's evolution as an animation. Every time appropiate measurements must be done and information should be precisely written down in the observer diary.

Doing phenological research we can focus on the regular observations of a few types of trees and bushes, which occure all around Europe:



Sessile oak (*Qercus robur*)



Common hazel (*Corylus avellana*)

Warty birch (*Betula pendula*)


Ordinary beech(*Fagus sylvatica*)

Small-leaved lime (*Tilia cordata*)

Common cherry tree(*Prunus cerasus*)


At the spring time we observe how leave evolve
from buds and how fast they grow.
Then we observe flowers and fruit evolution, and
in the autumn we focus on the observation
of the leaves colour changes.

Biblography:

- Google Graphics

THANK YOU FOR ATTENTION!

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