

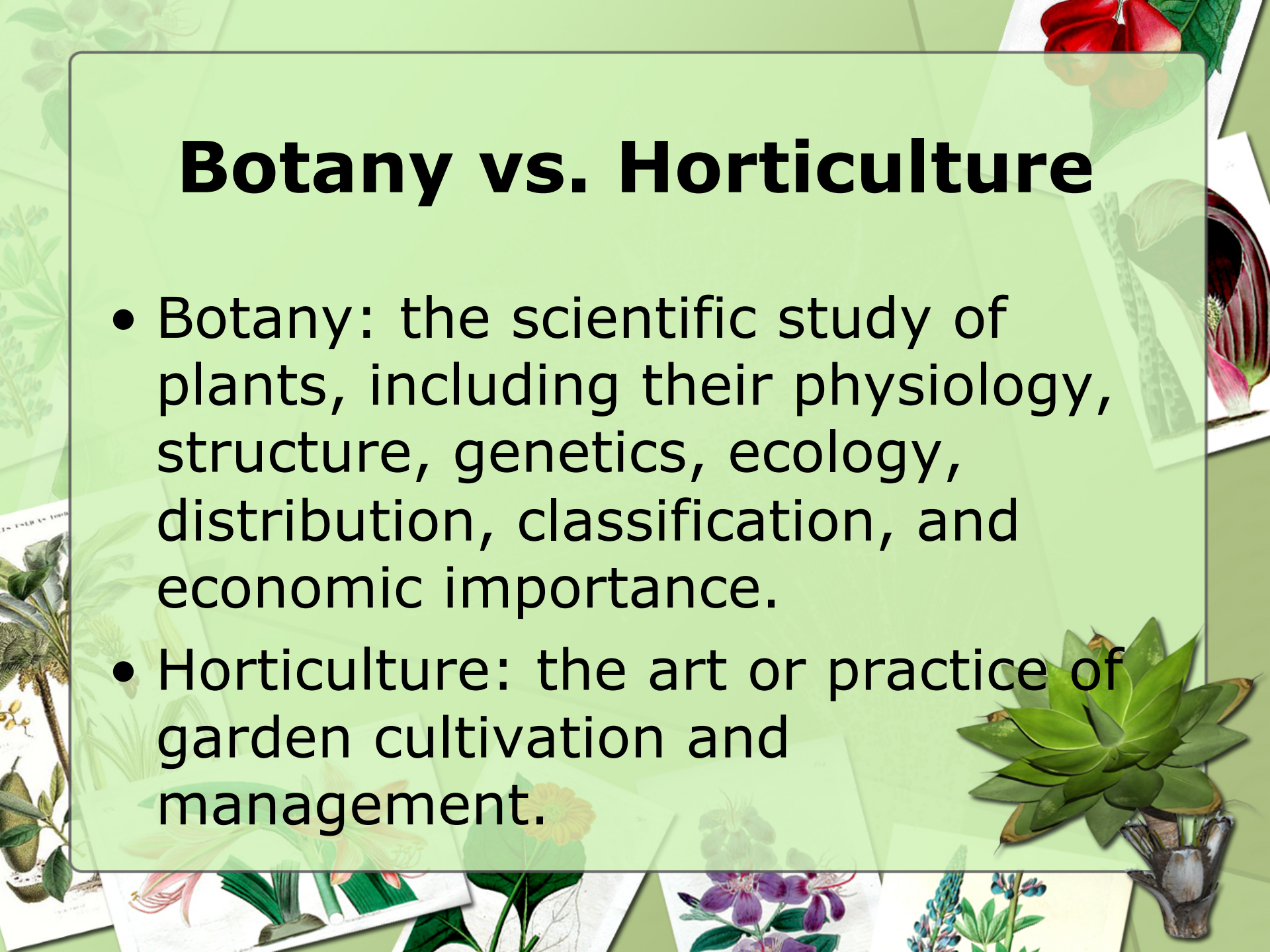
The Great War Project

Plant Classification Basics



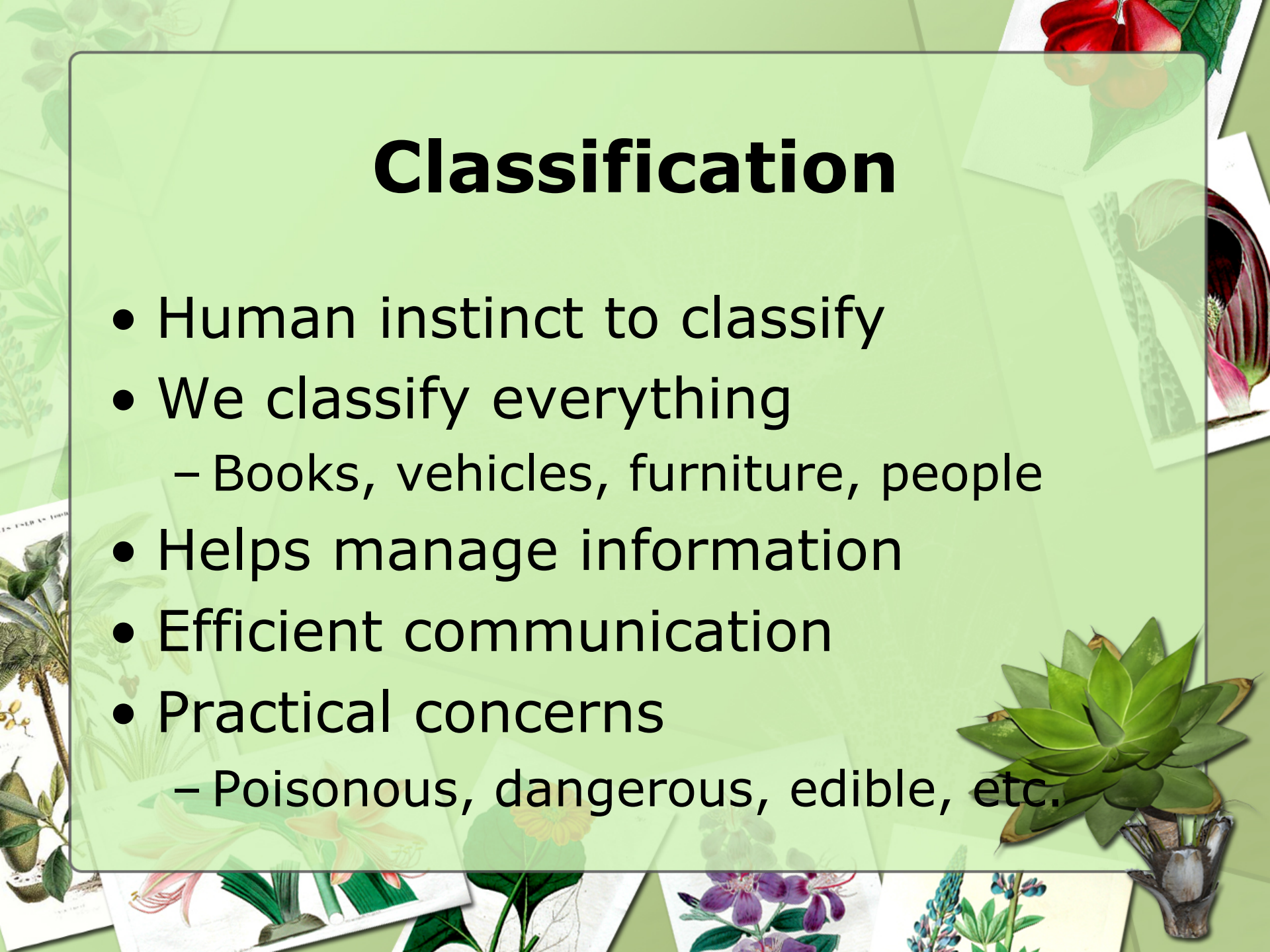
Botany vs. Horticulture

- Botany: the scientific study of plants, including their physiology, structure, genetics, ecology, distribution, classification, and economic importance.
- Horticulture: the art or practice of garden cultivation and management.



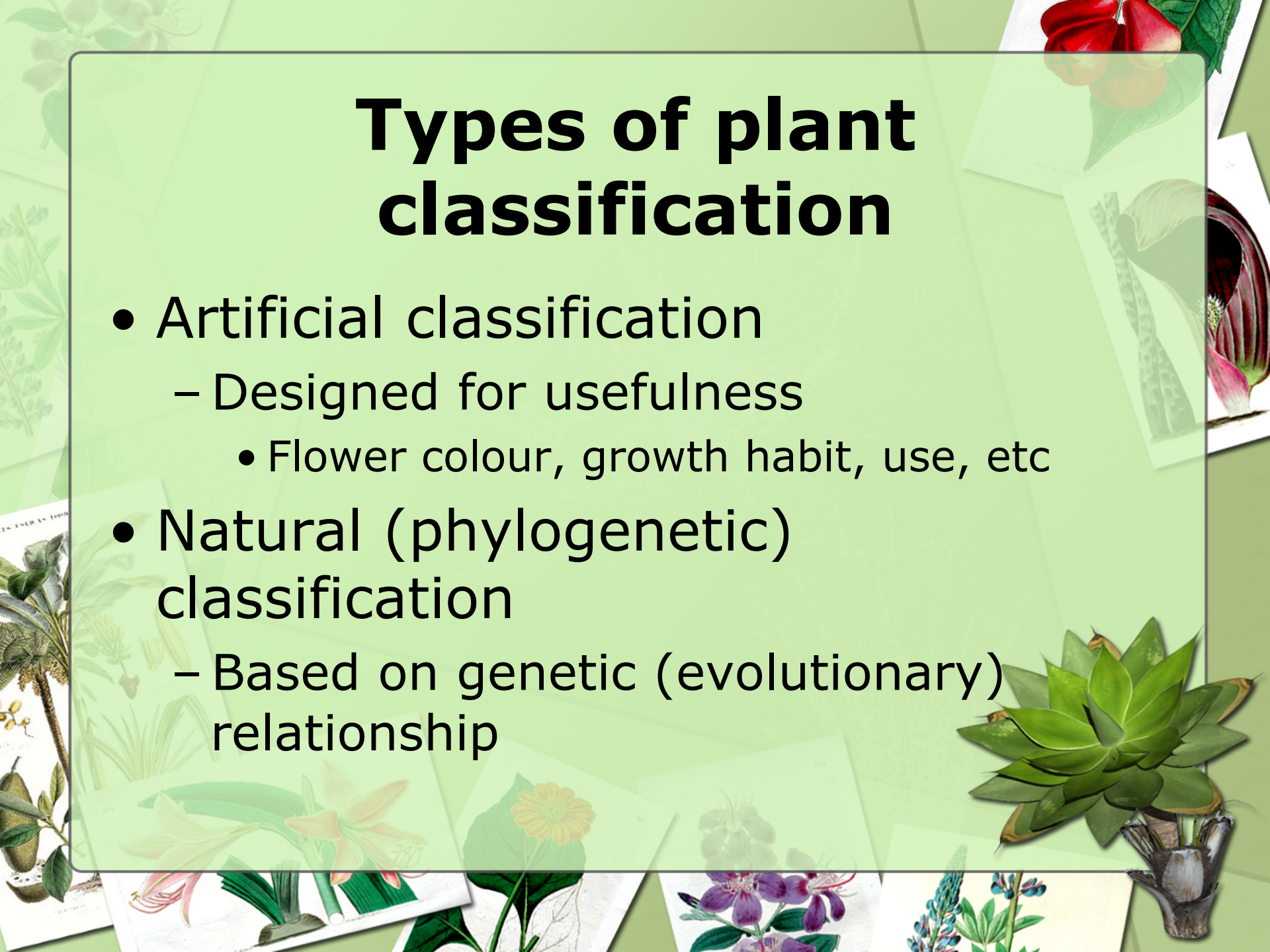
Classification

- Human instinct to classify
- We classify everything
 - Books, vehicles, furniture, people
- Helps manage information
- Efficient communication
- Practical concerns
 - Poisonous, dangerous, edible, etc.



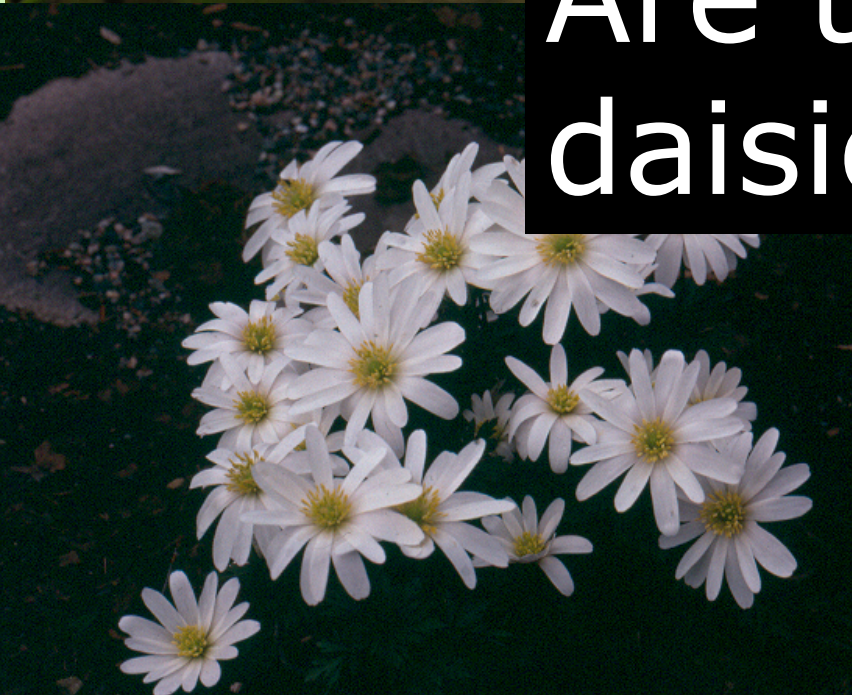
Types of plant classification

- Artificial classification
 - Designed for usefulness
 - Flower colour, growth habit, use, etc
- Natural (phylogenetic) classification
 - Based on genetic (evolutionary) relationship

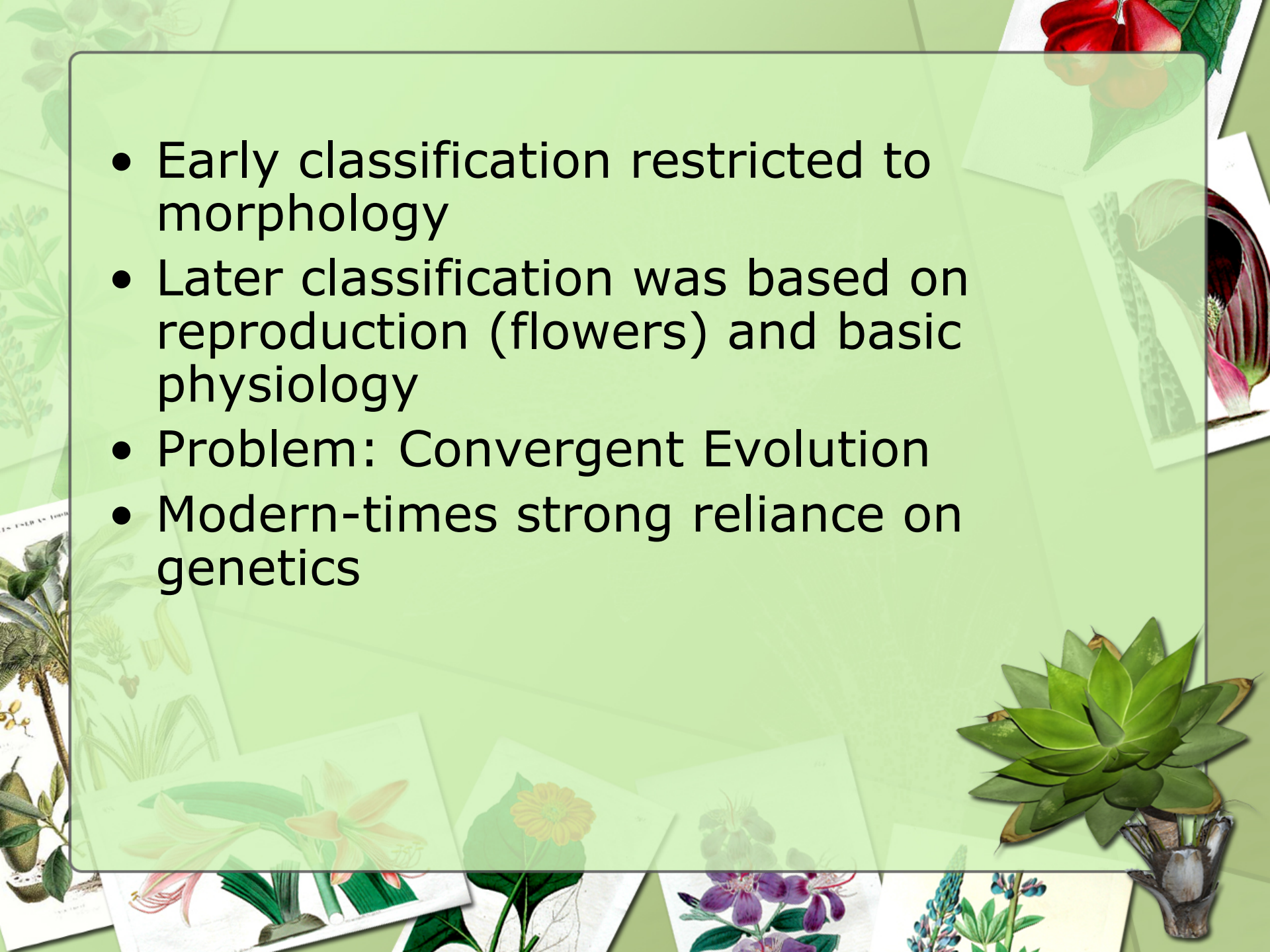




Are these
daisies?



- Early classification restricted to morphology
- Later classification was based on reproduction (flowers) and basic physiology
- Problem: Convergent Evolution
- Modern-times strong reliance on genetics



Cactus???

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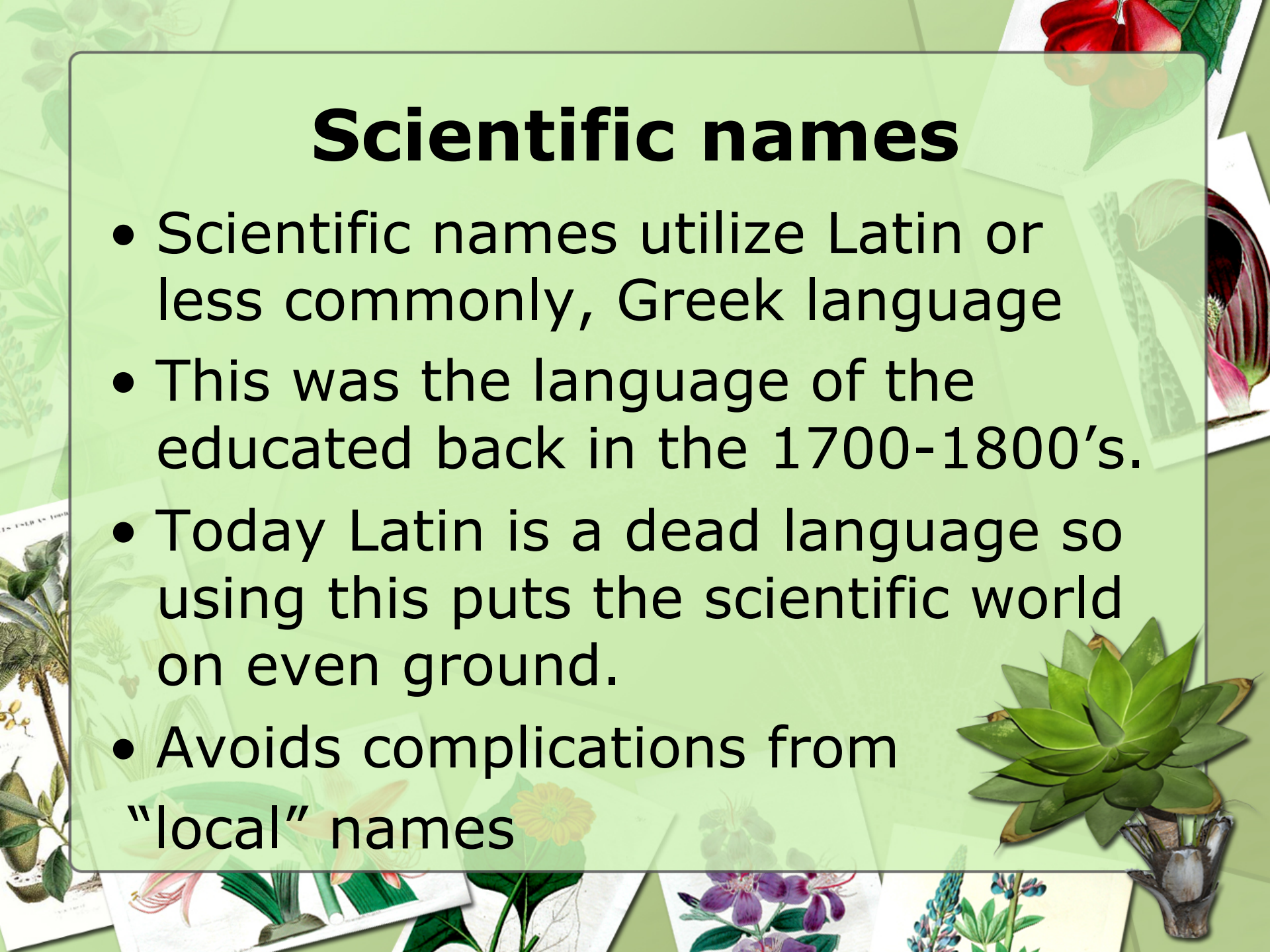


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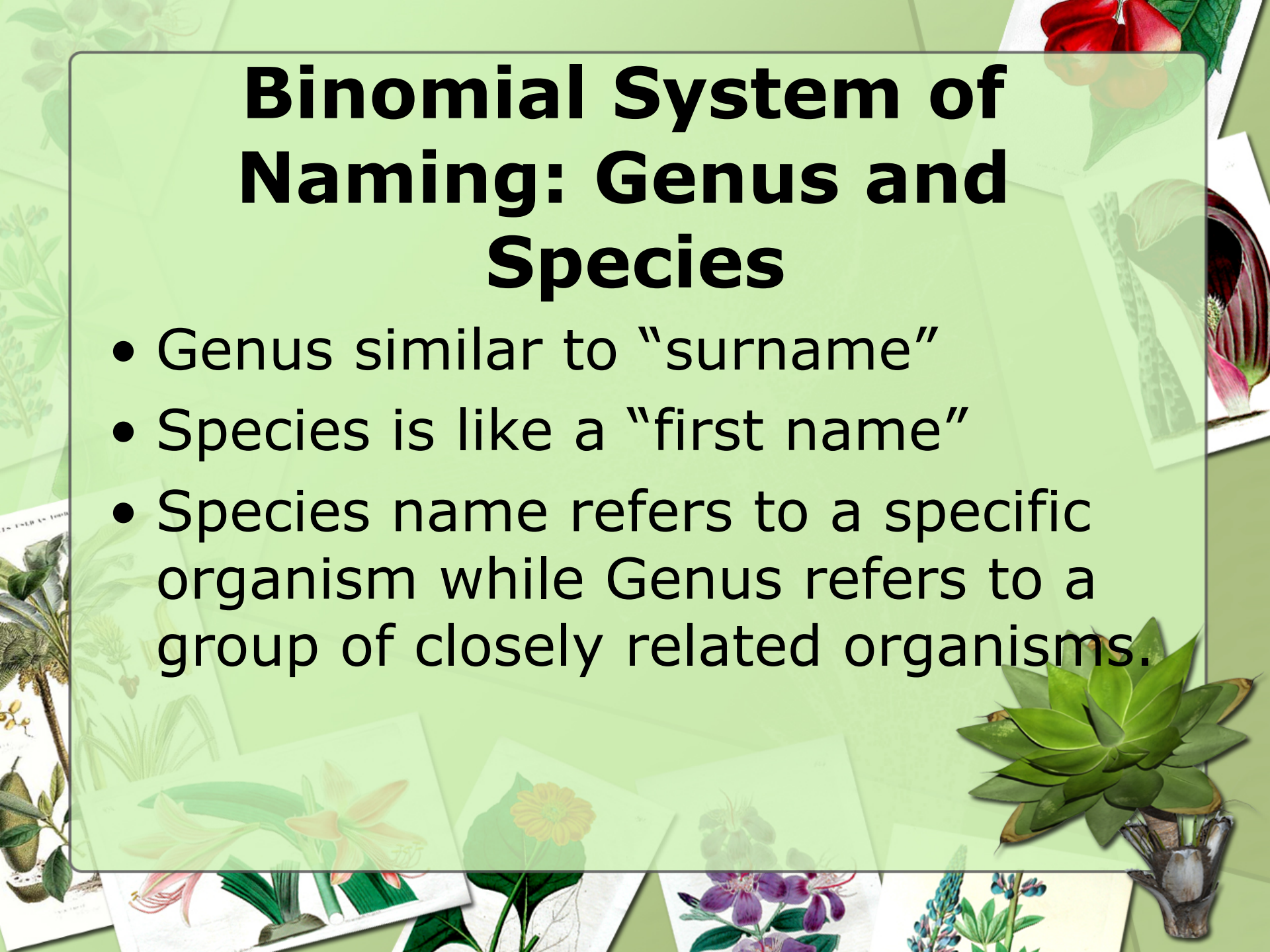
Scientific names

- Scientific names utilize Latin or less commonly, Greek language
- This was the language of the educated back in the 1700-1800's.
- Today Latin is a dead language so using this puts the scientific world on even ground.
- Avoids complications from "local" names



Binomial System of Naming: Genus and Species

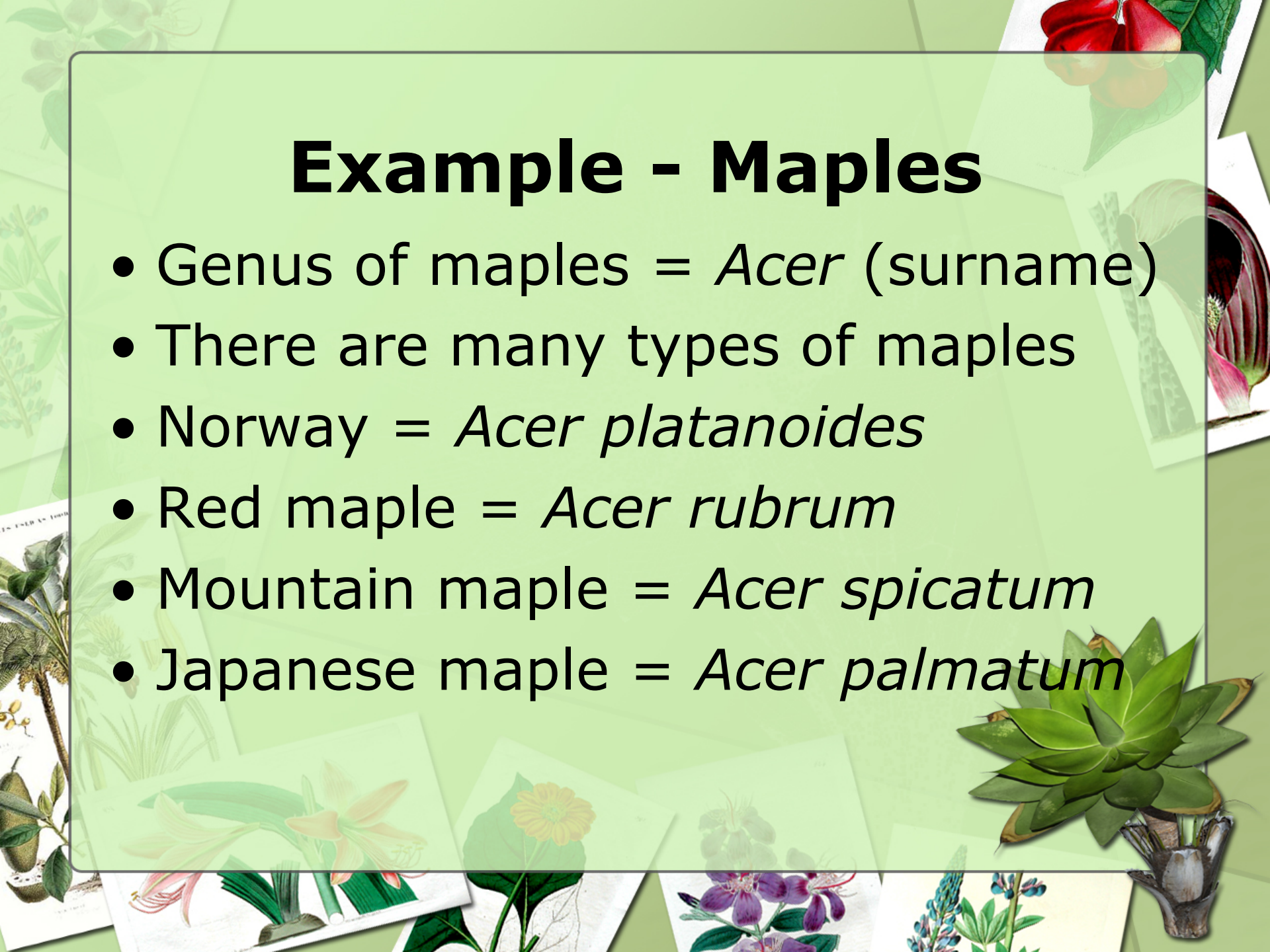
- Genus similar to “surname”
- Species is like a “first name”
- Species name refers to a specific organism while Genus refers to a group of closely related organisms.





Example - Maples

- Genus of maples = *Acer* (surname)
- There are many types of maples
- Norway = *Acer platanoides*
- Red maple = *Acer rubrum*
- Mountain maple = *Acer spicatum*
- Japanese maple = *Acer palmatum*





Anemone blanda



Caltha palustris



Lilium formosanum



Pulsatilla alpina

MUN Botanical Garden

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