

Wallace in the Amazon: Palm Trees & Their Uses

Summary of daily learning objectives

Day	Scientific Concepts	Scientific Practices & Crosscutting Concepts
1. Traveling with Wallace	Geography Natural history	Funding research Planning logistics of field expeditions Collecting & preserving specimens Collaborating with other experts Reading maps and plotting data
2. Observing like a naturalist	Parts of a plant	Observing and describing distinctions Recording visual observations (drawing)
3. Assessing Wallace's description of palm trees	Geographical distribution and habitats	Comparing and assessing data
4. Classifying palms observed by Wallace	Levels of taxonomy and taxonomic criteria	Building simple models
5. Using a dichotomous key to identify palm trees	Plant morphology and nomenclature	Applying existing knowledge to interpret observations
6. Understanding evolutionary phylogeny	Phylogenetic principles	Developing background knowledge
7. Building a phylogenetic matrix	Phylogenetic procedures and plant morphological traits	Using computational methods
8. Constructing a phylogenetic tree of palm trees	Comparison of phylogenetic and traditional taxonomy	Using computational methods Comparing & assessing alternative models