

Name _____

Exploring the Habitat Preferences of Non-Vascular Plants

Open-Ended Response Answer Key

1. Non-vascular plants in coastal habitats have developed adaptations like waxy coatings and specialized pores to minimize water loss and tolerate salt exposure. Their ability to colonize rocks and sand dunes stabilizes coastal ecosystems and contributes to shoreline protection.
2. Mosses, liverworts, and hornworts exhibit different habitat preferences and adaptations. Mosses thrive in moist environments and can tolerate varying light conditions. Liverworts prefer damp, shaded habitats and have unique reproductive structures, while hornworts are often found in moist soils and have symbiotic relationships with nitrogen-fixing cyanobacteria.
3. Non-vascular plants in urban environments play essential roles in mitigating pollution, regulating microclimates, and supporting urban biodiversity. They absorb airborne pollutants, trap particulate matter, and provide habitat and food for insects and other urban wildlife.
4. Climate change can impact non-vascular plants by altering temperature and precipitation patterns, leading to shifts in their distribution and abundance. Warmer temperatures may favor the growth of certain species, while increased drought and habitat fragmentation could threaten their survival in some regions.

