

Name _____

Fluttering Pollinators: The Vital Role of Butterflies in Plant Reproduction

Open-Ended Response Answer Key

1. Pollination is crucial for plant reproduction as it enables the transfer of pollen from the male reproductive organs to the female reproductive organs, leading to fertilization and the production of seeds and fruits. Butterflies contribute to this process by transferring pollen between flowers as they feed on nectar, thereby facilitating cross-pollination and increasing plant diversity.
2. As a butterfly searching for nectar, I might prefer to visit flowers with tubular shapes that accommodate my long proboscis. These flowers would provide easy access to nectar, allowing me to feed efficiently and collect pollen on my body as I move from flower to flower.
3. Declining butterfly populations could have significant consequences for plant diversity and ecosystem stability. Without sufficient pollination services from butterflies, many plant species could struggle to reproduce, leading to declines in plant populations and cascading effects on other organisms that depend on them for food and habitat.
4. Human activities such as habitat destruction and pesticide use can negatively impact the mutualistic relationship between butterflies and flowering plants. Habitat destruction reduces the availability of suitable habitat and food resources for butterflies, while pesticides can harm butterflies directly or indirectly by reducing their prey populations or disrupting their reproductive behavior. To mitigate these effects, conservation efforts.

