

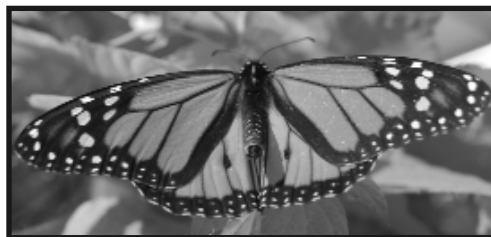
Commensalism

In some symbiotic relationships, one partner benefits, but the other is neither harmed nor helped. For example, hermit crabs use the discarded shells of gastropods, such as marine snails, to protect themselves. This type of symbiotic relationship is called commensalism.

Another example of commensalism is when one organism attaches itself to another for transportation. Tiny mites do this with larger insects and birds. One type of scorpion-like animal conceals itself under the wing of a large beetle and gains the advantage of being dispersed over a wide area. The beetle is unaffected by the presence of the hitchhiker.

Burdock seeds need to be dispersed over a wide area. Their seeds have adapted to this need by evolving velcro-like hooked spines. These spines attach themselves to the fur of a passing animal or the pantleg of a passing human, and are carried to a new place.

Still another type of commensal relationship involves mimicry. The Viceroy butterfly has evolved to look very much like a Monarch butterfly. Why? They ingest and store a substance that is poisonous to vertebrates. This poison makes them bad-tasting, and vertebrates learn to avoid eating them. Because the Viceroy looks so much like a Monarch, vertebrates avoid them, too, even though they are neither bad-tasting nor poisonous.



The Monarch, in the picture at the left, is slightly larger than the Viceroy, shown at the right.

FOCUS QUESTIONS

1. Explain the difference between mutualism and commensalism.

2. Why is the relationship between the Monarch and the Viceroy butterflies a commensal relationship?

ACTIVE READER

1 Identify Underline the sentence that defines commensalism.

2 Recall Who benefits from a commensal relationship?

3 Define Explain mimicry.
