

Caterpillar

to

Molting

Caterpillar

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1. A Gulf Fritillary about an hour after it started extruding its head.

2. A Gulf Fritillary at the completion of extruding its head from its head capsule. Note the caterpillar's true eyes are located between the head capsule and the first thoracic segment.

3. A Gulf Fritillary at the beginning of ecdysis. The caterpillar's skin has split behind the head capsule and has retracted past the first pair of true legs.

4. The skin has retracted past the true legs and three pair of prolegs.

5. The caterpillar walks forward freeing itself from its old skin, and rubs its head capsule against the plant to remove it from its mouth parts.

6. A Gulf Fritillary pumps fluid into its spines to grow them to full size within minutes.

Have you ever witnessed a caterpillar-caterpillar molt? The process of shedding of the caterpillar's old skin (cuticle), called *ecdysis*, occurs rapidly, averaging about three minutes. Unless you know how to recognize the events leading up to the shedding of the old skin, you're going to miss these spectacular changes in a butterfly caterpillar's body. These preliminary events, included in the much broader term *molting*, can last several hours. Molting encompasses the entire process, both before and after shedding the skin, including the synthesis of the new skin, partial digestion of the old one plus the subsequent events such as sclerotizing (tanning) of the new skin. Older texts used *molting* and *ecdysis* interchangeably often defining them circularly. You'll find little assistance in non-technical publications that will describe or explain molting



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