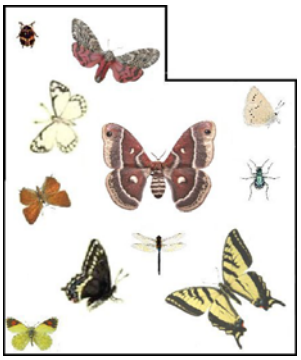

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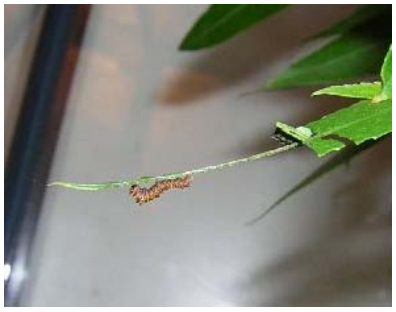
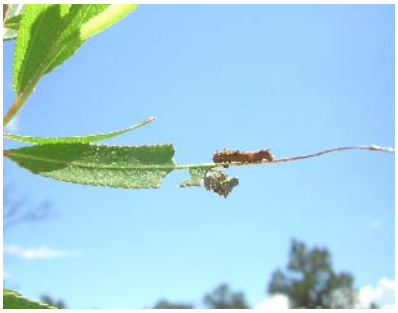
Raising Caterpillars of The Viceroy:

1. Populations of the Viceroy in Northern Utah are spotty at best with a few known locations in Cache, Box Elder, and Utah Counties. Once small population where adults and caterpillars can be found is along the Bear River, east of Corinne where the river travels underneath UT Hwy 13; just west of I-15.
2. Viceroy Caterpillars feed on willows and poplars growing in isolated patches paralleling the river as it weaves its way around the adjacent rural area.
3. Females prefer to oviposit on the tips of leaves. Ova that are obtained either in the field or from caged females can be subject to collapse if not exposed to relatively moderate room temperatures, high humidity, or maintained on the live leaf they were found on.
4. The first instar larva hatches roughly five days after oviposition (lab conditions) and starts constructing a perch by eating away at the leaf tip; excepting the vein. It then extends the vein with silk and dung pellets creating a somewhat conspicuous and unique nest. For some reason young instar larvae also construct and mobilize along the base of the perch a small semi-spherical heap of leaf debris and dung pellets.

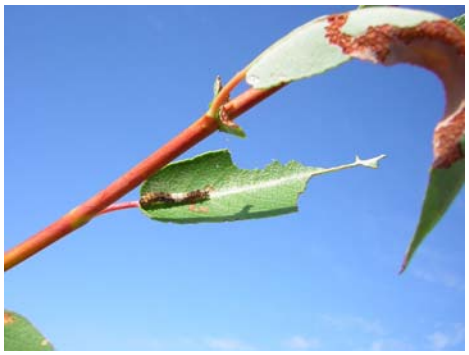




5. A successful lab-rearing strategy of raising admirals requires the placement of an ova or young caterpillar on or near the tip of a healthy leaf; so that it can construct a perch. (See photos above.) Place plant cuttings in bottled water in a terrarium or five gallon bucket in a setup of near 100 percent humidity. This closed terrarium technique is ideal for *Limenitis*; but NOT for many other families of butterflies whose larvae can get sick under humid conditions.
6. After a first instar molts to second instar, a visible saddle appears on the dorsal surface of the larva which is sensitive to photoperiod or daylength. With this saddle, these larvae measure the length of day, and then instinctively decide to either continue feeding until they pupate, and then emerge as an adult soon

thereafter; OR construct a rolled-leaf hibernaculum at third instar and hibernate until the next spring.

7. Those wishing to raise Admirals in the lab and obtain adults immediately should expose all second instar larvae to long hours of daylight (18+ hours) for several days to insure that the larva will not construct a hibernaculum at third instar.

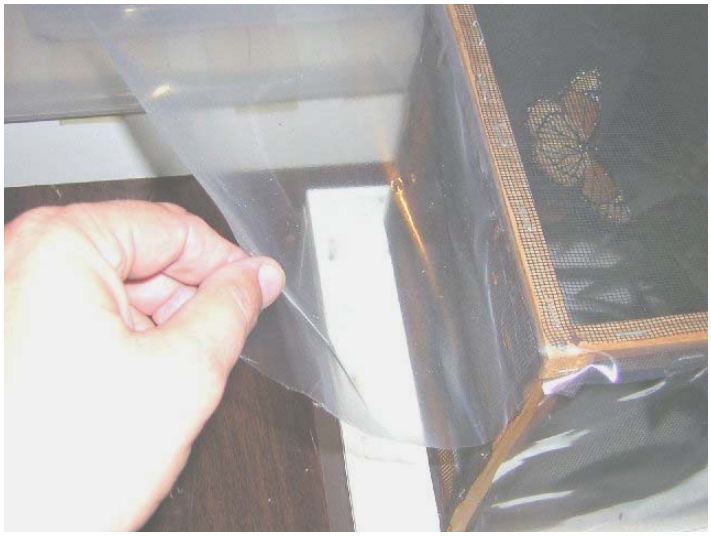


L. archippus third instar larva

L. archippus initiates construction of rolled-leaf hibernaculum on Cottonwood.

8. Most caterpillars that have made it to fourth instar are past the point where they will construct a hibernaculum and will go through to adult without hibernating.
9. Fifth instar caterpillars feed for roughly 5-7 days before pupating. It usually takes a pupa roughly 7-10 days to emerge in the lab depending upon temperature.
10. Lab hostplants (willows, aspens, cottonwoods, etc.) should be replaced roughly every five days. Those wishing to move *Limenitis* caterpillars from older to newer plants should remember that these larvae secure themselves quite stubbornly to the perch or leaf and should be moved with great care. Another option is to cut around the leaf/perch the caterpillar is on and gently place on top of a fresh leaf.
11. Do not attempt to pry the caterpillar away from its leaf if it is set to molt to another instar. Wait for it to molt or cut it away from the older leaf.

Limenitis caterpillar setup with host in bottled water. Glass top keeps terrarium mostly humid.



L. archippus female oviposition setup with host in cage. Plastic around cage keeps setup humid which serves as an enticement for females to lay eggs.