Another very important and interesting phase of the life history work was the effect of humidity on development, sex and deposition of eggs. The humidities were controlled by aspirating air through saturated salt solutions. The apparatus was set up in a constant temperature room. Mr. C. O. Bare corroborated the writer’s sex determination of the adults. The results are shown in the following Table IV.

**Table IV.—Relation between Humidity and Development of Celery Leaf Tyer.**

<table>
<thead>
<tr>
<th>% Humidity</th>
<th>No. reared</th>
<th>Av. Life Cycle—Days</th>
<th>% Male</th>
<th>% Female</th>
<th>Av. No. eggs per female</th>
</tr>
</thead>
<tbody>
<tr>
<td>100%</td>
<td>17</td>
<td>All died before emerging</td>
<td></td>
<td></td>
<td>144.2</td>
</tr>
<tr>
<td>80%</td>
<td>9</td>
<td>32.8</td>
<td>70.6</td>
<td>29.4</td>
<td>35.0</td>
</tr>
<tr>
<td>45%</td>
<td>9</td>
<td>33.1</td>
<td>44.5</td>
<td>55.5</td>
<td>0.0</td>
</tr>
<tr>
<td>20%</td>
<td>18</td>
<td>34.9</td>
<td>27.8</td>
<td>72.2</td>
<td>0.0</td>
</tr>
<tr>
<td>0%</td>
<td></td>
<td>All died before pupation</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The writer is quite aware that the small number of insects used in the above experiment would tend to minimize the importance of the findings, but since the results were so striking it was thought advisable to at least make a progress report.

**Athena Peleus (Timetes petreus)**

**Ellen Robertson Miller**

In Florida a delightful phase of insect collecting is the fact that one may come upon an unlooked for and occasionally a rare specimen which by rights belongs in a more tropical country.

Such was my experience when on June 8, 1926 I found *Athena peleus* (*Timetes petreus* Cramer) in its larval stage, feeding on a fig leaf in my neighbor’s yard. It was a caterpillar very different from any I had previously seen. Its length was one and one-half inches and its body had the thickness of an old time slate pencil. Its more striking characteristic was a dorsal pattern of three light diamonds having an opalescent quality. They began on the fifth segment and continued over the eleventh. Dull orange-red tubercles each with a stiff black spine were at the anterior and posterior points of the design, and also where the diamonds joined, four in all. The skin at the base of the tubercles had a bluish metallic sheen. This color in a paler shade, was repeated between the diamonds and the darker triangular side areas. These began at the front of the sixth segment. Each
area showed a black line above and below a gray oval that was outlined in iridescent blue. The second and third and fourth segments each bore a dark oval, and there was a pair of black dots on the dorsum of the first, second and third segments.

The bifurcated head was rough and of a dull red tone, a color that extended back over the first four segments and appeared in the prolegs. The long black spinulated antennae seemed to continue as raised lines on the face. The frons was sculptured with parallel grooves and the adfrontales were conspicuous. It was a colorful caterpillar.

I confined the larva with a spray of its food plant in a breeding jar and on June 6 found it contracted to three fourths of an inch, resting on the lid of the jar. The red color was gone from its skin and the entire body appeared iridescent.

June 7 at 8:30 A.M. the larva was hanging by its anal claspers to the silken mat on the lid which it had spun for the purpose. At 9:30 a pale yellow-green pupa emerged.

The chrysalis had a pair of spines at the cephalic end and a branched spine on either side of the thorax with other spines following. Along the dorsum were three rows of black tubercles, the middle row showing correct spines. The chrysalis had a length of three-fourths of an inch.

I was away from home until June 20. Upon returning I found that the butterfly had emerged and died. The specimen was somewhat frayed but Doctor Kahl of the Carnegie Museum, Pittsburg, identified it for me and kindly hunted out what little had been written about the insect. He showed me the figures of the larva and chrysalis made by Cramer which had been drawn and colored by hand in 17....., and also cases of pinned butterflies, one of which had been taken at Miami, Florida.

By one not conversant with the Lepidoptera the butterfly might be mistaken easily for a swallowtail of the subfamily Papilioninae. This because there are tails on each hind wing, not alone the usual elongation of the Papilioes, but there is an additional, shorter one.

Holland pictures the butterfly as on plate XXI of his Butterfly Book, showing the golden-brown upper surface of the wings crossed by dark brown hands. It is very like my specimen. The under surface of both body and wings is light, the latter showing opalescent tones of blue, lavender, green and brown, a very lovely play of color. A dark line edged with blue goes from the body through the wing to the inner tail extension. Possibly a
butterfly clinging with closed wings to a twig simulates a leaf and this mark suggests its midvein.

My specimen when spread measured two and one-half inches from tip to tip of the fore wings. I have never seen the butterfly in the open, and have found but the one larva. The insect belongs to the subfamily Nymphalinae.

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