## NON MULBERRY SILKWORMS

<table>
<thead>
<tr>
<th>TASAR</th>
<th>MUGA</th>
<th>ERI</th>
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<tbody>
<tr>
<td>WILD</td>
<td>SEMI DOMESTICATED</td>
<td>DOMESTICATED</td>
</tr>
</tbody>
</table>
| Tropical Silkworm  
* A. Mylitta, (India) | * A. assamensis  
* Philosamia ricini |
| Temperate Silkworm  
* A. Proyli, (India)  
* A. Pernyi, (China, USSR)  
* A. Yamamai, Japan |                   |                  |
LIFE CYCLE OF TASAR SILKWORM
Antheraea mylitta life cycle

1. Eggs
2. 5th instar larvae
3. Pupa
4. Cocoons
5. Moth
<table>
<thead>
<tr>
<th>Year</th>
<th>Event 1</th>
<th>Event 2</th>
<th>Event 3</th>
<th>Event 4</th>
<th>Event 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>Dia I Crop</td>
<td>No Dia</td>
<td>Emerge</td>
<td>No Dia</td>
<td>II Crop</td>
</tr>
<tr>
<td></td>
<td>Dia next year</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2013</td>
<td>Cocoons Nov/Dec</td>
<td>May/June</td>
<td>June/July</td>
<td>Sep/Oct</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2012</td>
<td>2013</td>
<td>2013</td>
<td>2013</td>
<td>2013</td>
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</tbody>
</table>

**Life Cycle**

- Adult worm
- Cocoon Stage
- Moulting
- Young worm
- Hatching of worms
- Moth coupling

**Additional Information**

- Duration of life cycle: 40-70 days
- Feeds on: Arjuna and the Asan tree
- Number of life cycles a year: 1, 2 or 3

**Dates**

- 12 September 2013
- 26-28 days (first crop); 42-45 days (second crop)
Oval, dorsoventrally flattened, bilateral symmetry. 3mm X 2.5mm & 10mg. White, light yellow or creamy. Two brownish parallel lines.
Dull brownish yellow with black head, Measures 7 x 1 mm & Weighs 8 mg. Turns green and head becomes brown. Mature larva - 50 grams, 13 x 2.1 cm. Silver shining spots appears
Cocoon - oval, closed and reelable, yellow or grey.
Pupa measures 4.5x2.3 cm and weighs 10.3 grams.
The sexual markings same as in case of mulberry silkworm
Exhibit sexual dimorphism.
The females are bigger (4.5cm) than Males(4.0cm)
Male wing span is about 16 cm.
Female wing span is 18 cm.
LIFE CYCLE OF ERI SILKWORM
MULTIVOLTINE

- Pupae
- Cocoons

14 DAYS

Samia cynthia ricini
life cycle

5th instar larva

Moth

44 (summer)-85 days (winter)

30-35 DAYS
5 instars

Eggs

10 DAYS
350-500 eggs

12 September 2013
Egg: Ovoid & dull white
Measures 1.5 x 1.0 mm and weighs 6 mg
Colour changes to pure yellow by the end of third day. From third instar onwards the colour segregates into yellow, cream, green, blue or white. Mature larvae 7.0 x 1.5 cm and 8 gm
Pupa is $2.8 \times 1.5$ cm in size and weighs $2.6$ gm
Cocoons are elongated, soft, wooly, peduncleless, open mouthed and unreelable.
It measures $4.0 \times 2.5$ cm and weighs $3$ gm

12 September 2013
The male moth is 2.5 cm long while female is 3 cm.
LIFE CYCLE OF MUGA SILKWORM
MULTIVOLTINE

14 (summer)-24 days (winter)

50 (summer)-120 (winter)

24 (summer)-52 days (winter)

3 (summer)-6 days (winter)

5 (summer)-15 days (winter)
Eggs: Oval, dosoventrally flattened, bownish, 2.8x2.5 mm and 9 mg
7 mm and 7 mg

9X2 cm and 15 gm

12 September 2013
The pupa is copper brown measuring 3.2 x 1.8 cm weighs about 5.7 gm.
Cocoon: Is single shelled, light brown, oblong, closed, reelable and slightly flossy with a weak penduncle. It is golden brown or glossy white, measures 5.2 x 2.4 cm and weighs 6.3 gm.
Female moths are longer (3.5cm) than males (3 cm). the wings are brown rarely with a pinkish tinge. Wing span in males is about 13 cm and 15 cm in females.
Acknowledgements to

INTERNET

FOR

PICTURES and PHOTOGRAPHS