

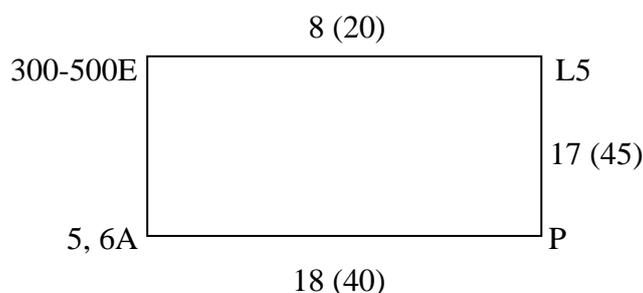
## Life cycle of eri silkworm

The species *Philosamia ricini* is the only cultivated Eri silkworm in the world. It is a multivoltine silkworm with 5-6 broods a year. The cocoons are non-reelable and therefore spun into yarn. Eri culture is an integral part of tradition and culture of Assam and other North Eastern States of India.

Stages	(Summer) Minimum days	(Winter) Maximum days
Egg stage	9	18
Larval stage	17	45
Spinning stage	3	6
Pupal stage	13	22
Moth stage	4	6
Total	46	97

### I. Moth:

Both male and female have brown (chocolate), black or green coloured wings with white crescent markings and woolly white abdomen. The male is smaller than the female bearing bushy antennae, and narrower abdomen. Adult moths emerge from morning to mid-day, males emerging earlier than the female. After an hour or two of emergence, mating occurs and continues up to evening. The males are then separated but can be used for 2-3 more mating. For the seed crop, the males are used only once for mating. The moth is multivoltine producing 5-6 generations. Like muga worms eri worms also have a variable duration of life history-about 46 days in summer and 97 days in winter. The male moth is 2.5 cm long while female is 3 cm.



### II. Egg:

The moth deposits 300-500 eggs in clusters. Incubation period last for 7-10 days. Eggs are ovoid and dull white in colour. It measures 1.5 x 1.0 mm and weighs 6 mg.

### III. Larva

The larvae are green in colour with a brown head. The colour of the larvae changes to pure yellow by the end of third day. From third instar onwards the colour segregates into yellow, cream, green, blue or white. Body bears small tubercles having short hairs. The fully mature larvae are about 80 mm long and 8 gm in weight. After maturation, the worms will start spinning cocoon. Cocoon spinning takes 3 days in summer and 6 days in winter. Larval period varies between 17-25 days, thereafter, it pupates anywhere.

#### **IV. Pupa**

Pupa is 2.8 x 1.5 cm in size and weighs 2.6 gm. Cocoons are elongated, soft, woolly, peduncle less, open mouthed and unreelable. It measures 4.0 x 2.5 cm and weigh 3 gm.