
Tamarisk Leaf Beetle Life Cycle

(*Diorhabda carinulata*)

Below is an outline of the various stages in the Tamarisk Leaf Beetle's life cycle.

STAGE 1: Eggs of the Tamarisk Leaf Beetle

- Female lays 10-20 eggs per day
- Production ranges from 300-500 eggs per female
- Eggs hatch in 7 days



STAGE 2: 1st and 2nd Instar Larval Stages

- 1st instar larvae (lower) lasts 4-7 days, 1-2mm in length
- 2nd instar larvae (upper) lasts 4-6 days, ~4mm in length



STAGE 3: 3rd Instar Larval Stage

- Feeds for 3-7 days
- Then drops or crawls from tree into leaf litter
- Enters inactive pre-pupal stage (3-7 days)
- 5-9mm in length



STAGE 4: Pupal Stage

- 3rd instar forms a pupal case
- Made of loose silk cells and plant debris
- Pupal stage lasts 7-10 days

**STAGE 5:
Adult Leaf Beetle
Active Stage**

- Newly emerged adults feed and mate immediately and are 5-6 mm long and 2.5mm wide
- Active adults move to nearby tamarisk trees to leave food for offspring
- All life stages eat ONLY tamarisk leaves
- Adults secrete pheromones to promote aggregation and mating
- Female lays eggs on tamarisk foliage every day after mature
- Adults live 2-4 weeks after emerging in either late spring or early fall (2 life cycles per year)



**STAGE 6:
Adult Leaf Beetle in Diapause Stage**

- In late fall adults become less active and gorge on tamarisk leaves
- Develop 'antifreeze' body fluid
- Drop to the ground and burrow deep into the leaf litter
- Overwinter in diapause phase (insect version of hibernation in mammals)

Life Cycle Sources:

Bean, D. 2006. Personal Correspondence. Manager of Palisade Insectary & *D. elongata* extraordinaire!

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Hansen, R. *Saltcedar leaf beetle, Diorhabda elongata ssp. Deserticola* (Coleoptera:Chrysomelidae) *Biology and Identification* [Brochure]. (2005). Fort Collins, CO: USDA-APHIS-PPQ-CPHST.

Photo Credits:

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