## Parthenium biocontrol

# Listronotus setosipennis



Adult Listronotus weevil (5 mm)



Eggs covered in frass (black dots)



Listronotus larva in root







### Listronotus setosipennis, a stem-boring weevil

#### Origin

- Occurs naturally in Argentina and Brazil.
- The weevil was field released between 1982 and 1985.

#### **Biology**

- Adult weevils are nocturnal and feed on leaves and flowers.
- Females lay eggs singly into flowers and flower buds and cover them with frass (black spot).
- Hatched larvae feed on the flower before boring through the flower stalk and into the stem.
- Mature larva leave the stem and move to the root crown to feed.
- Larva pupate in the soil inside fibrous capsules and adult emergence is triggered by rainfall.
- From egg to adult takes about seven weeks.

#### Australian distribution

- Widespread in central and north Queensland (grey shading).
- Recently introduced to south and southeast Queensland.
- Localised establishment in North Burnett, Lockyer Valley and Somerset regions (blue shading).

#### Potential impact

- Adult feeding causes damage to flowers and leaves (albeit minor).
- Larva feeding causes death of the flower stalk and hollowing of the stem.
- Larval feeding has the ability to kill of prevent further development of parthenium seedlings and rosettes.

#### **Collection and redistribution**

- Best collected as larva from infested parthenium plants.
- Larva are C-shaped and white.
- Collect stems and roots into paper bags for redistribution.
- Release onto young growing parthenium.

