

Liparetrus beetles

Other names: Spring beetles (WA)
Scientific name: *Liparetrus* spp.
Order: Coleoptera
Family: Scarabaeidae

Liparetrus species are small beetles endemic to Australia. These beetles cause moderate to severe damage in young plantations. Their distribution is not well known and is sporadic, with factors influencing their swarming behaviour not fully understood.



Compartment with over 50 % of seedlings lost to *L. jenkinsi* attack

Adult beetles are the damaging stage. The beetles feed on leaves, buds and young stem. Swarming of *Liparetrus jenkinsi* in a single afternoon can result in severe defoliation of seedlings, and repeated swarming can result in death of seedlings over considerable areas.

Small whitish eggs and larvae are found in soil and are therefore rarely encountered. Adult *Liparetrus* beetles are relatively small (0.5 – 1.5cm in length) and commonly found in swarms. They are closely related to *Heteronyx* beetles sharing a similar biology and morphology, with however some notable differences. Unlike most *Heteronyx* spp., they are typically active during the day and have comparatively shorter bodies. There is considerable between-species variation in their size and colouration. Most species have sooty black body while the wing covers of many species are in a contrasting colour (golden, brown, or orange). In other species, wing covers are sooty black with metallic sheen or deep purple. Additionally, the wing covers extend to only two-third to three-quarters of the abdomen. The underside of the middle part of the body is commonly densely covered in fine hairs.



Liparetrus jenkinsi
damage to seedling
growing tip

The life cycle of *Liparetrus* species is not well known. Larvae live in soil and feed on fine roots and humus and pupation occurs in chambers in the soil. After adults come out of pupae, they stay in the pupation chambers until rain softens the soil. Thus, mass emergence of adults can be observed after rain. The best known species is *L. jenkinsi*. Adults of this species emerge from soil and feed on seedlings when the ambient temperature is above 21°C (usually in the afternoon) from mid August to late November. It is likely that larvae develop in the soil in remnant vegetation as this is where they are commonly reported to be emerging from. Once adult beetles move into plantations and feed on seedlings, the beetles burrow into the soil underneath the seedlings.

Scarabs



Liparetrus jenkinsi

- October - March
- 5 - 6 mm long
- seedlings and older trees



Liparetrus discipennis

- August - November
- 6 mm long
- leaf chewer



Liparetrus ater

- August - December
- 8 mm long
- seedlings



Liparetrus collessi

- October - March
- 7 - 8 mm long
- 1-3 year-old trees, coppice



Liparetrus convexus

- September
- 6 mm long
- seedlings



Liparetrus ferrugineus

- August - September
- 6 - 7 mm long
- seedlings



Liparetrus laevis

- December - April
- 6 - 8 mm long
- Adult and juvenile leaves



Liparetrus luridipennis

- September - March
- 8 - 10 mm long
- 1-3 year-old trees, seedlings and coppice



Liparetrus occidentalis

- November - May
- 6 - 7 mm long
- 1-3 year-old trees, coppice



Liparetrus rubiperfectus

- December - April
- 7 - 8 mm long
- 1-3 year-old trees



Liparetrus striatus

- November - May
- 6 - 9 mm long
- seedlings, coppice and 1-3 year-old trees



Liparetrus validus

- October - May
- 10 - 11 mm long
- coppice and 1-3 year-old trees