

Identifying the eight common introduced dung beetle species in Queensland

The characteristics of the three main body segments:

- the head (at the front)
 - the thorax (at the middle)
 - the abdomen (at the rear)
- are described and illustrated in this section. (See figure 5.)

Characteristics on the legs also are used to identify some species, especially:

- the femur, the large segment closest to the body on all legs
- the tibia, which is joined to the femur and bears teeth on one edge and claws at the end.

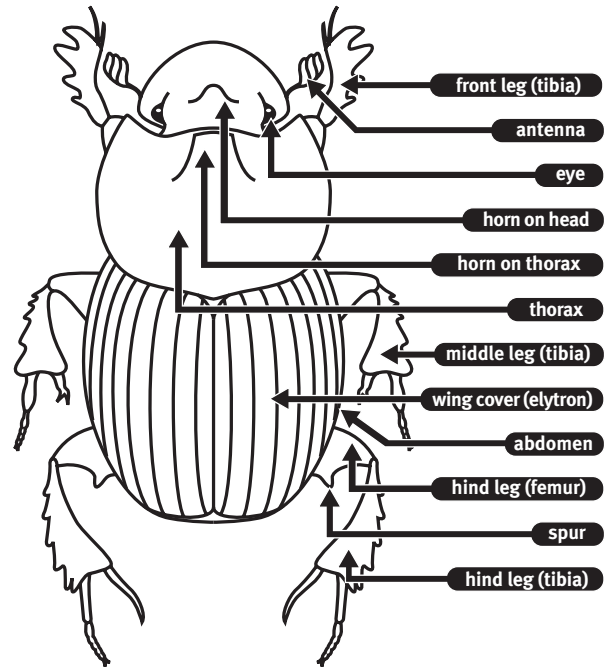
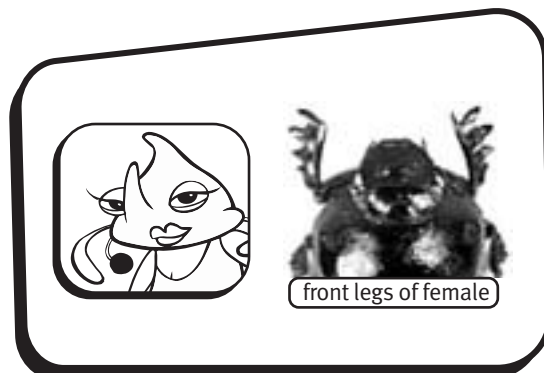
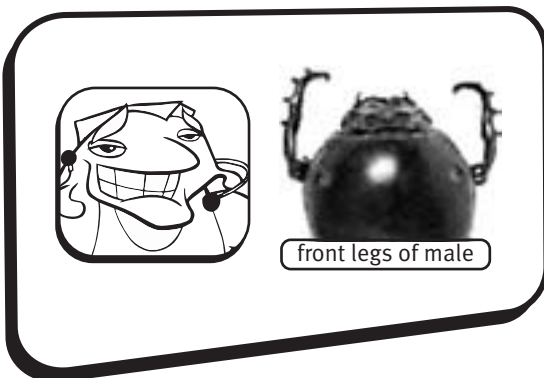


Figure 5: Body parts (Source: Queensland Dung Beetle Project Training Notes 2002)



Males and females

While the male and female of each species are usually quite similar, sometimes there are differences, and these have been noted. The terms ‘major’ and ‘minor’ are used respectively in referring to larger or smaller members of each sex within a species.

Males of tunnelling species—the majority of introduced beetles—generally have thinner tibiae than females do. The ends are slightly curved inwards and have smaller tibial teeth, more widely spaced than in females.

Females have shorter, stouter front tibiae, with the teeth well-developed for digging. The teeth may be worn or missing from hard work, or the tibiae even reduced to stumps.

These tibial differences are not present in the ball-rollers.

Tunnelling species



Onitis viridulus | dusk/dawn flier

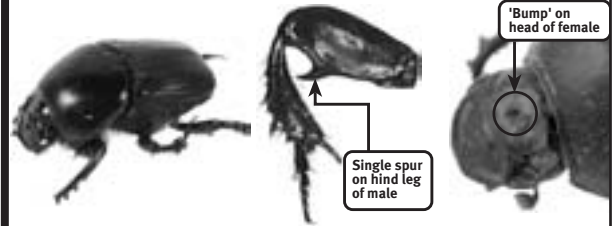


- large (1.5–2.5 cm length)
- uniform dark metallic green or black on the thorax and wing covers
- males have a broad, thin, unequal double spur on the rear edge of the hind leg

1



Onitis alexis | dusk/dawn flier



- large (1.5–2 cm length)
- thorax with green or red hue and light brown wing covers, giving a two-tone effect
- males have a sharp, hooked spur, resembling a rose thorn, on the rear edge of the hind leg
- females have a small 'bump' at the rear of the head

2



Onthophagus gazella | (dusk/dawn flier)

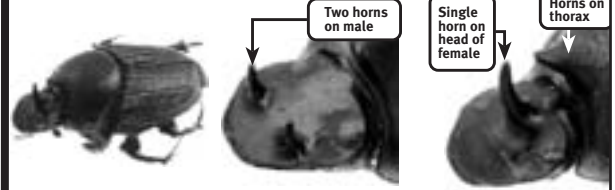


- medium-sized
- brown wing covers, often with small pale patches near the front and rear, and a darker brown thorax, giving a two-tone effect
- body shape is rounded (when viewed from above)
- males have a pair of horns at the back of the head, which are better developed in major males; females look similar, but are without horns

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Onthophagus sagittarius | dusk/dawn flier

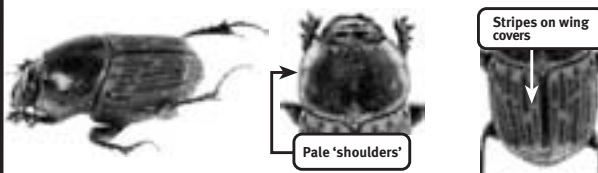


- small to medium-sized
- thorax and wing covers are uniformly bronze–brown (i.e. not two-tone)
- deeper through the body than *O. gazella* (when viewed from the side)
- males have two small horns near the front of the head
- females have one large horn on the head and one on the thorax (much reduced in minor specimens)

4



Liatongus militaris | day flier

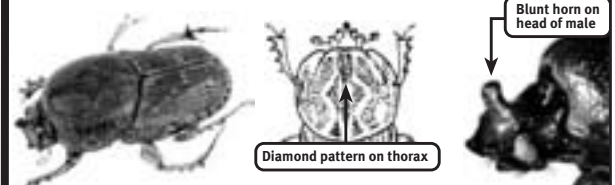


- small, narrow and elongated
- dark brown or black, with pale patches on sides and 'shoulders' of thorax
- wing covers have broken black stripes running lengthwise
- major males have a small pointed horn on the head

5



Euoniticellus intermedius | day flier



- small and narrow
- yellow–brown or straw-coloured with a faint diamond-shaped pattern on thorax
- males have a blunt horn on the head
- females are without horns
- undersides of legs are uniformly pale yellow

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