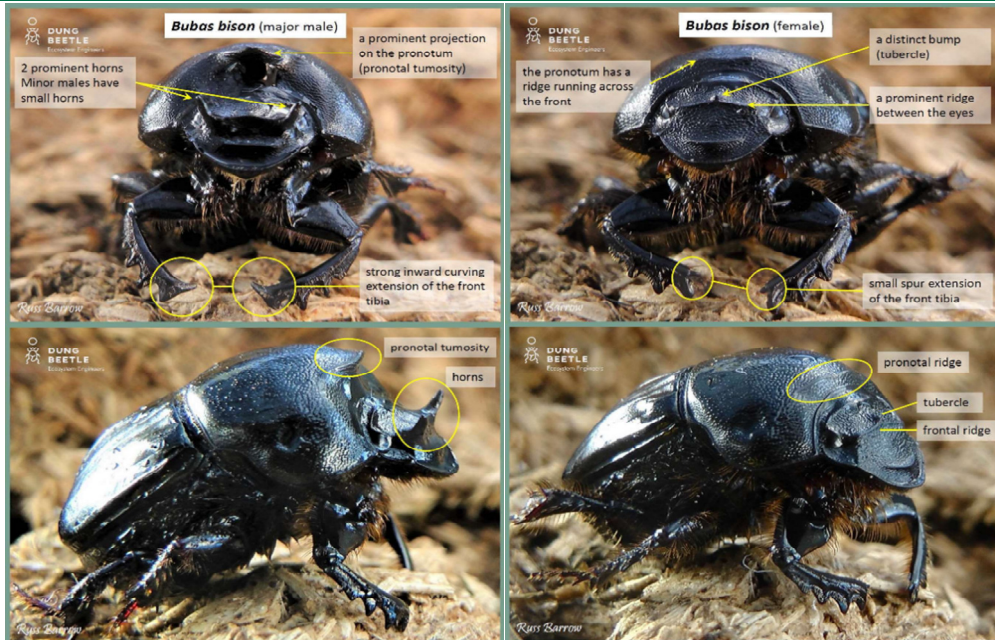


Bubas bison (introduced)



Size: 13–19mm

Colour: Shiny black

Horns: Horn on each side of head and a projection on pronotum (m); ridge on head between eyes and on pronotum (f)

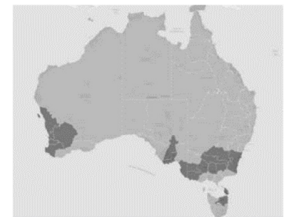
Minor males: Smaller horn on each side of head but not on pronotum

Flight time: Dawn and dusk

Active seasons: Autumn, winter and early spring

Distribution in Australia: Victoria, WA, SA, southern NSW

CMA regions where *B. bison* is known to be present. Source: DBEE



South West Prime Lamb Group (SWPLG) demonstrations: Very small numbers of *B. bison* have been trapped in SWPLG traps around Hamilton and Narrawong over winter. *B. bison* has been used in SWPLG trials where its activity increased soil fertility to depth. Its winter activity and deep tunnelling make it a very desirable species.

Lifecycle: *B. bison* can have a one, two or three-year life cycle. Adults emerge in late autumn. They feed and mate in shallow tunnels (5–10cm deep) beneath dung pads, then lay eggs in brood masses in deep tunnels (25–60 cm deep). During the life of an adult beetle, a series of dung pads are colonised in which up to 50 eggs are deposited before the beetle dies, usually in late spring.

Dung burial: As *B. bison* tunnel into the subsoil, they bury dung deep in the soil profile and bring subsoil to the surface. The deep tunnels allow movement of moisture and plant roots into the subsoil, where beetle activity raises the levels of nutrients and moisture and creates favourable conditions for plant roots.

Preferences and establishment of *B. bison*: Beetles can be introduced as starter colonies, however if they fail to breed successfully, the reason why needs to be determined. Soil type appears to be critical for successful breeding. Beetles prosper in clay and loamy soils but not in deep sand. Waterlogged winter soils can be tolerated by *B. bison* in most circumstances, but irrigation in spring and summer can reduce survival.

Acknowledgements & references:

Photos by Russ Barrow- Dung Beetle Ecosystem Engineer (DBEE) Project www.dungbeetles.com.au

Dung Beetle Ecosystem Engineer website: dungbeetles.com.au/species/bubas-bison