

Dung Beetle Fact Sheet: 3



Digitonthophagus gazella



Size: up to 11 mm

Characteristic features: Two-toned in colour with the front portion dark brown and the back half a lighter brown. Legs have distinctive dark oval patches on their undersides when the beetle is turned over. Larger males (pictured) have a set of straight 'gazelle-like' horns protruding from the back of the head. These are reduced in smaller males making them hard to distinguish from females. Males also have longer, narrow, more curved front legs than females.

Origin: Native to sub-Saharan Africa.

Export Distribution: Australia, USA, Mexico, Caribbean, Brasil, Chile, Hawaii, Polynesia, Melanesia, New Zealand. This species is the world's most widely spread (either accidentally or deliberately) dung beetle used for the burial of pastoral dung and control of dung-breeding pests in countries that lack native pastoral dung beetles.

Expected distribution in New Zealand: Driest regions in the North Island, with possible establishment in dry, sheltered parts of the South Island. *Digitonthophagus gazella* being established in NZ come from the southern-most extension of the species' native distribution. South Africa's province of the Eastern Cape is home to *D. gazella* that are adapted to winter rainfall (< 900mm) making them ideal for those parts of New Zealand that have similar climatic conditions.

Flight Activity: Dusk and Dawn

Seasonal Activity: Late Spring-Summer.

Dung preferences: Fresh firm to semi-liquid cattle dung.

Nesting behaviour: Adults build nesting galleries at the end of burrows approximately 20-25 cm below the dung pat. Galleries are packed with several dung masses or brood balls each with one egg.

Life Cycle: Development from egg-adult takes 6-8 weeks depending on soil temperature. There are at least two generations a year. Fattened mature grubs will overwinter in the dung balls they have been developing in underground. Adults that emerged from the soil in late summer will also overwinter in burrows underground.

Abundance: The number of dung beetles per farm depends on many criteria but most importantly the amount of fresh dung available, and dung quality. Chemical residues from livestock drenches can be detrimental but not critical to dung beetle population growth. Dung beetle friendly drenches are available. An integrated approach using dung beetles and drenches is recommended with an awareness of the side effects chemical residues in drenches can have on of dung beetles. For information on dung beetles, drenches and dung beetle management please refer to the NZ dung beetle project website: <http://dungbeetle.org.nz/>.