

# "Do it with Dung"

FROM THE MOUNTAINS TO THE MURRAY

## NEWSLETTER

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As Autumn begins, many areas are experiencing lower overnight temperatures, and a corresponding drop in summer beetle activity. *O.taurus* and *E.fulvus* have been the most abundant species in higher rainfall areas.

### Around the traps: –

#### *Euoniticellus fulvus*

Site 72	746 fulvus	22/1	Meadow Ck
Site 54	587 fulvus	29/2	Tawonga
Site 44	300 fulvus	2/3	Mitta Mitta
Site 38	200 fulvus	1/2	Berringama
Site 63	94 fulvus	3/2	Cheshunt

#### *Euoniticellus pallipes*

Site 14	42 pallipes	25/1	Byawatha
Site 17	14 pallipes	15/1	Springhurst
Site 19	9 pallipes	27/1	Chiltern Valley
Site 8	8 pallipes	26/1	Corowa
Site 72	5 pallipes	18/2	Meadow Ck

#### *Onitis alexis*

Site 19	19 alexis	11/2	Chiltern Valley
Site 53	14 alexis	15/2	Talgarno
Site 102	13 alexis	25/1	Tallangatta Sth

#### *Onitis aygulus*

Site 19	14 aygulus	11/2	Chiltern Valley
Site 8	5 aygulus	14/1	Corowa

#### *Onthophagus binodis*

Site 105	200 binodis	12/1	Tallangatta Sth
Site 38	175 binodis	2/1	Berringama
Site 14	30 binodis	25/1	Byawatha
Site 37	20 binodis	6/2	Lucyvale

#### *Onthophagus taurus*

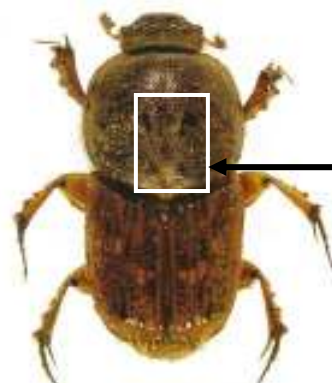
Site 38	1127 taurus	23/1	Berringama
Site 54	900 taurus	26/1	Tawonga
Site 54	519 taurus	29/2	Tawonga
Site 72	464 taurus	22/1	Meadow Ck
Site 45	400 taurus	18/1	Tallangatta Vly
Site 100	320 taurus	20/1	Mitta Mitta
Site 57	288 taurus	12/2	Tawonga
Site 44	240 taurus	2/3	Mitta Mitta
Site 45	237 taurus	31/1	Tallangatta Vly
Site 93	153 taurus	18/2	Bowmans Forest
Site 102	150 taurus	15/2	Tallangatta Sth
Site 84	104 taurus	28/1	Kergunyah

#### *Geotrupes spiniger*

Site 39	3 spiniger	16/1	Lucyvale
Site 105	1 spiniger	12/1	Mitta Mitta
Site 54	1 spiniger	26/1	Tawonga
Site 39	1 spiniger	29/1	Lucyvale
Site 39	1 spiniger	17/2	Lucyvale

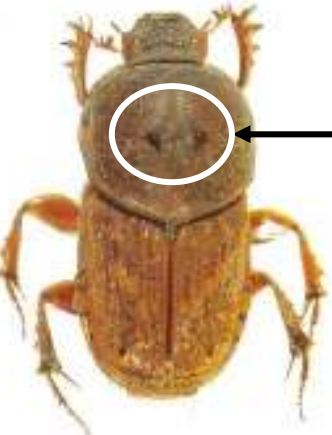
### Spot the difference:

If you're going cross-eyed trying to tell *Euoniticellus* species apart, here are some tips that may make it a little easier! (Beetle Images: CSIRO Entomology)



*Euoniticellus pallipes* has 5 distinctive markings on the midsection

There are five black triangular marks arranged in a similar pattern to a "five" on a dice.



*Euoniticellus africanus* has two triangular black marks on the midsection

There has only been one confirmed trapping of this species to date (Corowa shire)



*Euoniticellus fulvus* does not have any clear markings on the mid-section

This is the most commonly trapped species in the higher rainfall parts of the region. It has a light-brown/cream "rim" around the edges of the mid-section

Other *Euoniticellus* species: *E. intermedius*

**Remember: if you're not sure, avoid guessing, please send in some specimens!**

## Dung beetle's secret super-power "Ultimate night vision"

Insect vision has been the source of considerable interest to researchers for some time. Below is a reprint from a Sydney Morning Herald article. The research was based on the optics of *Onitis alexis* (dawn, dusk & night flyer) and *Onitis aygulus* (dawn & dusk flyer).

## Dung beetles could make roads safer

MATT CAMPBELL *January 22, 2010*

The humble dung beetle could help to reduce the road toll, according to researchers from Toyota.

Toyota is developing new night-vision technology that mimics the way in which dung beetles see in the dark. Researchers claim you're twice as likely to be killed driving at night than you are during the day.

New Scientist magazine reports that Toyota's research team is working in tandem with an Australian researcher specialising in insect optics, with the hope of creating better night-driving technologies.

German luxury car makers Mercedes-Benz and BMW already offer night-vision technology based on infrared technology used in fighter jets, but the system is far from perfect.

The article says Toyota is hoping the new technology will allow drivers to see in full colour at night.

So where does the dung beetle come into the equation? A dung beetle's vision has the ability to detect details and motion simultaneously, even in the dark. It can highlight certain objects and movements in the dark, in the same way infrared camera highlights objects based on heat.

Toyota is trying to replicate the dung beetle's complex multi-lens eyes, which are able to simultaneously pick out details while also probing for motion in shadowy areas.

If successful, it could mean that in the future, cars will be able to offer full-colour night vision systems, picking out wildlife at the side of the road and helping drivers to avoid potentially fatal accidents.

In camera terms, the magazine says, "it is the equivalent of setting the best exposure time and pixel size independently for every spot in every frame."

## Peter Denahy at Lucyvale



Peter Denhay entertained the crowds at Lucyvale in January, with no less than three renditions of the "Dung Beetle Song". It was a great evening, with over 80 people in attendance. The Lucyvale Hall Committee did a wonderful job with catering (as always). There was also a chance to get in some dung beetle monitoring results. Many thanks to the Lucyvale Better Beef Group for sponsoring Pete's visit.

## Upcoming Events:

### Mitta Mitta Feedback forum/dinner

To be advised (possibly Mar 23rd or Mar 24th)  
7.00pm  
Eskdale Hotel  
Please RSVP to Belinda by Monday 22<sup>nd</sup> March

### Sustainable Living Film Festival

An opportunity to view the award-winning documentary: "Dirt – The Movie"



**Sunday 28<sup>th</sup> March**  
**2.00pm**

**National Environment  
Centre**

**97 Ettamogah Rd.  
Thurgoona**

**Free entry**

**[www.DirtTheMovie.org](http://www.DirtTheMovie.org)**

There will also be a biochar presentation after the film screening. The event is provided by:

"Transition towns – Albury Wodonga"

For more information and festival guide, go to:

<http://watch.id.au/share/1year/Flyerallmovies.pdf>

## Upcoming monitoring weeks:

Monitoring weeks commence on the 2<sup>nd</sup> and 4<sup>th</sup>  
Sunday of each month:

### Sunday 14<sup>th</sup> March & Sunday 28<sup>th</sup> March

Monitoring weeks are a guide only. All results are welcomed (whatever the date)!

## Next Steering Committee Meeting:

Our next meeting will be on: **Friday 12<sup>th</sup> March**,  
10.00am – 11.30am (followed by lunch)

North East CMA Office,  
Footmark Court, Wodonga  
Please RSVP to Belinda by Wed. 10<sup>th</sup> March



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