

"Do it with Dung"

FROM THE MOUNTAINS TO THE MURRAY

NEWSLETTER

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Project Officer: Belinda Pearce

Phone: 02 6027 5294

email: abanas@bigpond.com

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

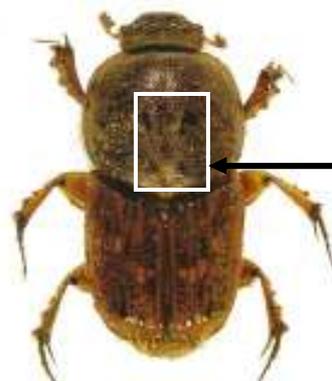
| | | | |
|----------|-------------|------|-----------------|
| Site 38 | 1127 taurus | 23/1 | Berringama |
| Site 54 | 900 taurus | 26/1 | Tawonga |
| Site 54 | 519 taurus | 29/2 | Tawonga |
| Site 72 | 464 taurus | 22/1 | Meadow Ck |
| Site 45 | 400 taurus | 18/1 | Tallangatta Vly |
| Site 100 | 320 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 |

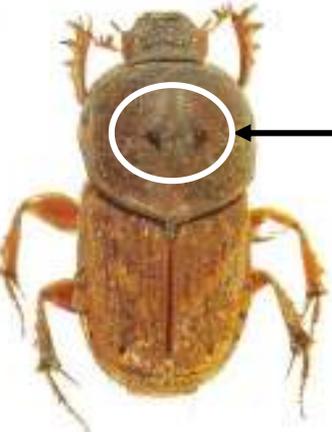
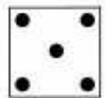
Spot the difference:

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 Denahy 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 22nd March

Sustainable Living Film Festival

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



Sunday 28th March
2.00pm

**National Environment
Centre**

**97 Ettamogah Rd.
Thurgoona**

Free entry

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 2nd and 4th
Sunday of each month:

Sunday 14th March & Sunday 28th 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 12th March**,
10.00am – 11.30am (followed by lunch)

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



The "Do it with Dung – from the Mountains to the Murray" Project is funded by "Caring for our Country", managed by Kiewa Catchment Landcare Groups and supported by Ovens Landcare Network, regional Landcare Groups, DPI and NECMA. The project receives direction from a voluntary steering committee.



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