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The features marked with a star (*) are based entirely on material taken straight from standard research (and other Official and Therefore Always Correct) literature. Many of the other articles are genuine, too, but we don't know which ones.



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Where There's More

There's always new improbable — it's not what you expect! — stuff on the **Improbable Research blog** at IMPROBABLE.COM

On the Front Cover

Small animals and small animal cookies. Montage by Nan Swift.



On the Back Cover

Old children's books in which the main characters are small animals.



Some Coming Events

See IMPROBABLE.COM for details of these and other events:

NOTE: The 2020 Ig Nobel EuroTour was scheduled to occur in March and April, but was truncated after the first show, because of the COVID-19 pandemic. The cancelled events will be re-scheduled.

NOTE: Several other events, elsewhere, also will be re-scheduled.

NOTE: Because of the pandemic, the 2020 Ig Nobel Prize ceremony will be done entirely via the internet, rather than in Sanders Theatre. Please check our web site WWW.IMPROBABLE.COM for updates!

September 17, 2020 – 30th First Annual Ig Nobel Prize ceremony

Fall 2020 (Date TBD) – The Ig Informal Lectures

Fall 2020 (Date TBD, pandemic permitting) – Japan

MAR/APR 2021 (pandemic permitting) – Europe



BEETLES RESEARCH: NECROPHILIA, BOUNCING BACK

compiled by Kurt Vial, *Improbable Research* staff

Japanese Beetle Necrophilia Experiment

“Environmental Conditions Affect Sperm Competition Risk in Japanese Beetles (Coleoptera: Scarabaeidae),” Paul V. Switzer, Carissa A. Schoenick, and Patrick C. Enstrom, *Annals of the Entomological Society of America*, vol. 101, no. 6, 2008, pp. 1154-1161. The authors, at Eastern Illinois University, report:

Necrophilia Experiment. To distinguish the role of the male from that of the female in their guarding behavior, we took advantage of the fact that male Japanese beetles will copulate with, and subsequently guard, freshly dead females.

Testing the Self-Righting Abilities of Self-Righting Beetles

“The Reciprocity of Environment and Action in Self-Righting Beetles: The Textures of the Ground and an Object, and the Claws,” Masato Sasaki and Tetsushi Nonaka, *Ecological Psychology*, vol. 28, no. 2, 2016, pp. 78-107. The authors, at the University of Tokyo and Kobe University, perform experiments upturning Japanese rhinoceros beetles (*Allomyrina dichotomus*) in many environments:

1. A trench in the floor,
2. A towel,
3. A fan,
4. A pan mat,
5. A sheet of newspaper,
6. A wooden toothpick,
7. A narrow ribbon,
8. A wide ribbon,
9. A plastic string,
10. A sheet of tissue paper,
11. A T-shirt,
12. A perilla leaf,
13. A sheet of scratch paper,
14. A disposable chopstick, and
15. The lid of a film case.



Carissa Schoenick, co-author of the study “Environmental Conditions Affect Sperm Competition Risk in Japanese Beetles (Coleoptera: Scarabaeidae).” Drawing by Nan Swift.

The Reciprocity of Environment and Action in Self-Righting Beetles: The Textures of the Ground and an Object, and the Claws

Masato Sasaki & Tetsushi Nonaka

[continued >](#)

BEETLES RESEARCH: NECROPHILIA, BOUNCING BACK

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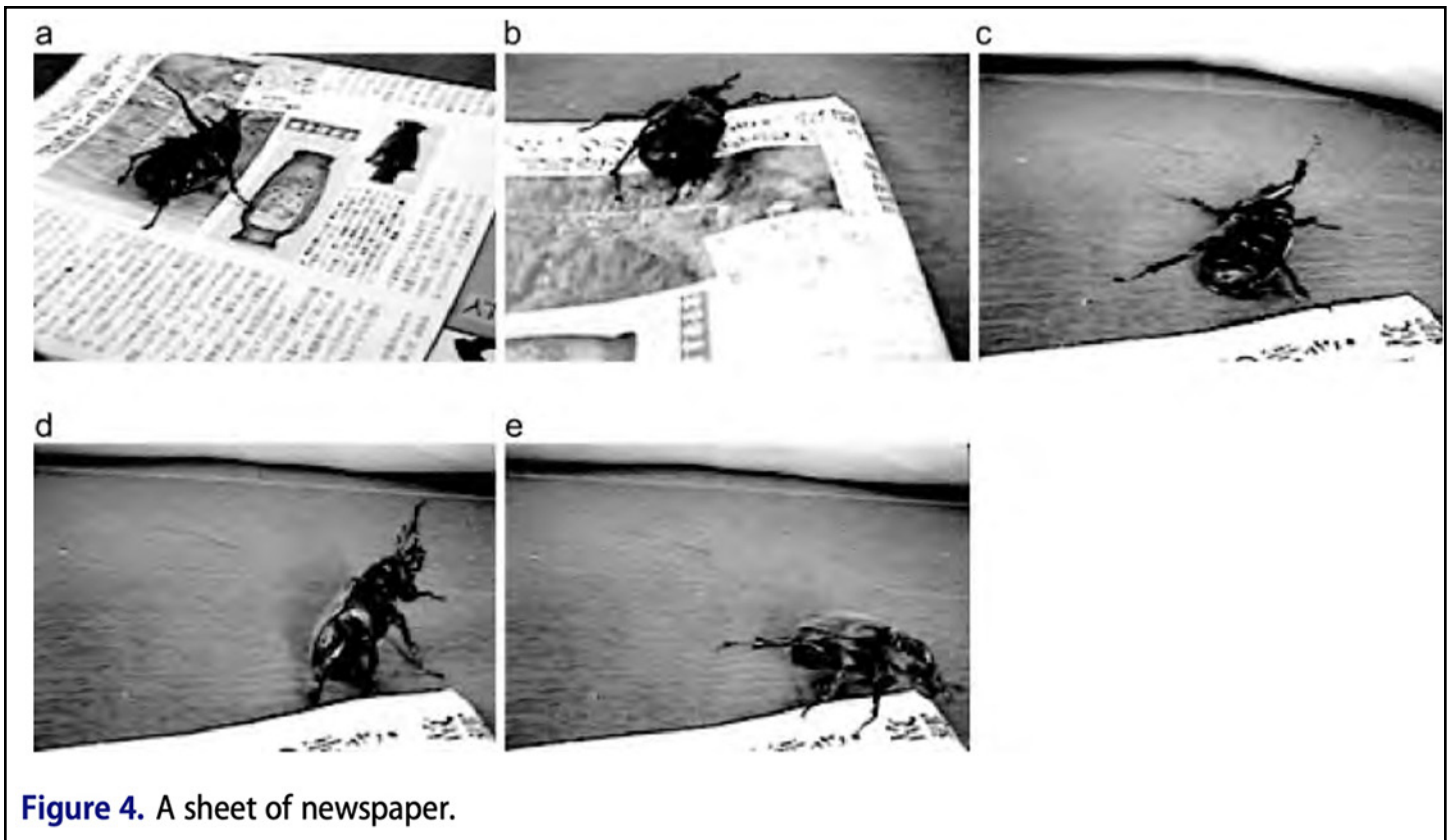


Figure 4. A sheet of newspaper.

Detail from the study “The Reciprocity of Environment and Action in Self-Righting Beetles: The Textures of the Ground and an Object, and the Claws.”

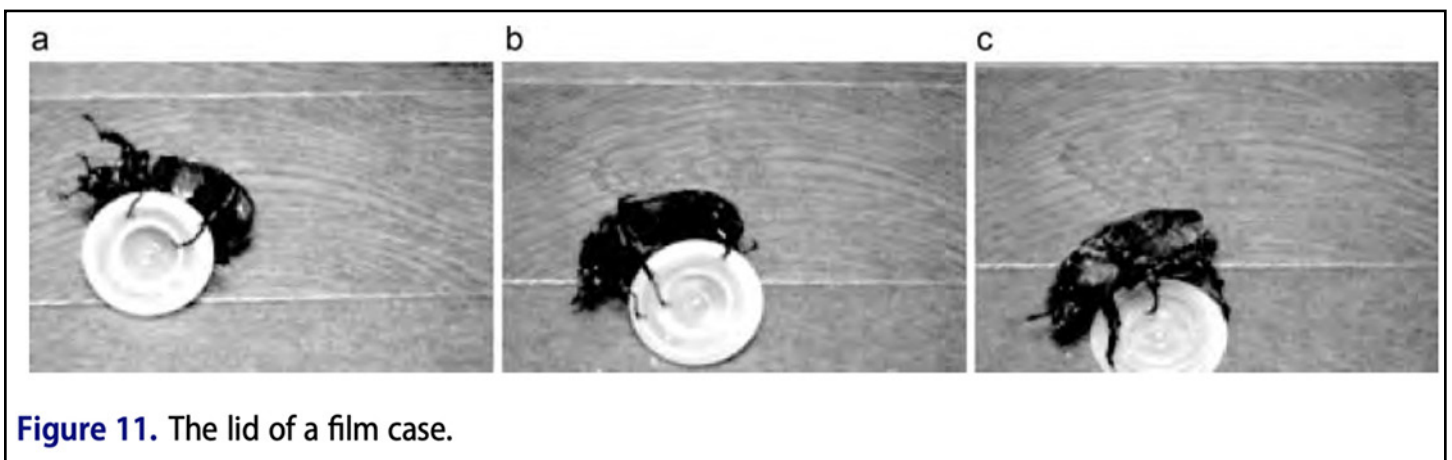


Figure 11. The lid of a film case.

Further detail from the study “The Reciprocity of Environment and Action in Self-Righting Beetles: The Textures of the Ground and an Object, and the Claws.”