

by jok church

YOU CAN

With **beakman & jax**

Dear Beakman,
Why do worms come
up above ground
after a rain? And
what makes it smell
so bad?

Nicholas Niedermeier
Cincinnati, Ohio

Beakman or Jax
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Questions, name & address
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Dear Nicholas,

Worms do not have lungs, so they do not come up from underground to keep from drowning. Worms get oxygen right through their moist, slimy skin.

Even though worms do not have eyes, they are sensitive to light, and they like darkness.

Worms seem to come up after a rain because they can – it's wet and they need to stay wet to live, and because the sun usually isn't out. They also come up to make more worms. They usually cannot attach to each other underground, and come up topside to meet each other.



Wonderful World of Worms

Mouth

Segment

Clitellum

Setae

Beakman Place

Worms are a lot like tunneling tubes. Dirt goes into their mouths and, as they move through soil, worm castings come out their rear ends. If 500,000 worms live on an acre of land, they'll make about 50 tons of natural fertilizer per year.

A full-grown earthworm has about 125 segments. Each has tiny microscopic hairs called setae (SEE-tee) that help them move through the soil. You can see them in our micrograph.

Each worm is both boy and girl. (!) Above ground, they attach their wide bands to each other to make more worms. The band is called a clitellum (kla-TELL-um).

A cocoon forms over the clitellum. When they return underground, worms back out of it, over their head, leaving a cocoon that will have baby worms inside.

Electron micrograph: Wilfred Bentham

The smell you ask about is probably the waste that bacteria make eating stuff like leaves, grass, wood, just about anything at all. We call that *rot*. Bacteria like things wet, too.

P.S. from Jax: Earthworms are pretty simple animals without bones, lungs, eyes or a lot of the parts that you have. But they beat us in one department. Worms have five hearts. You and I have one.

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