

Dung Beetles Discovered at the Snake River Farm.

Specifically, *Aphodius fimetarius*, also known as the red dung beetle. Dung beetles are terrifically important to natural ecosystems.

I have been searching our farm for these beneficial insects for decades.

Samantha discovered them and recorded the video.

She also located a closely related companion species, *Aphodius lividus*.

Aphodius lividus is similar but smaller and has brown wing coverings rather than the brighter red-brown.

Both of these beetles feed on all types of herbivorous dung. Both are major contributors to soil fertility, to soil building, and to carbon sequestration.

On our farm we pasture raise bison, cattle, sheep, hog, and horses. All these animals will contribute to the diet and the habitat of dung beetles.

These insects also certify, in a direct way, that our pastures are totally organic, that our soil is chemical and toxin free. That is especially important to us.

Dung beetles have round bodies, six legs and long flying wings folded under hard, protective covers. Some male dung beetles have strong horns on their heads, too. Found worldwide on every continent except Antarctica, these brilliant bugs live in habitats ranging from hot, dry deserts to lush forests.

They are the only insects that use the Milky Way to navigate and orientate themselves.

Dung beetles are precious when it comes to soil regeneration.

The video shows a beetle rolling a manure ball that is covered with coarse grains of sand.

This view is magnified of course, and bare of vegetation, because the cow pie was dropped on a pasture trail. Our Farm is in the Anoka Sand Plain. This particular spot was sorted for granular size but recent rain, but anyway you look at it this is poor soil, in serious need of binding organic material.

For reference, a rich clay soil would have granular particles that are literally less than a hundredth of this size.

The beetle will roll the manure chunk into a ball, then bury it, and lay eggs in it. When the eggs hatch the larvae will find themselves immersed in their favored food. They will then convert the raw manure into more stable forms of soil carbon. Carbon that can be more readily used by plant roots.

The beetles directly benefit the soil and the herbivores that deposited the manure.



They benefit the soil by increasing the organic matter in the soil. Organic material is the crucial ingredient of soil fertility.

They benefit the animals by reducing the habitat for intestinal worms and biting flies.

They also improve our world directly by sequestering carbon. We do not hear enough about it building topsoil is the practical of storing unlimited amounts of carbon.

The photo shows a bit of cattle manure in lower left, but I added the photo mostly because it shows some pretty heifers.

The heifer on the left is a Herford, with typical white face, reddish body, and color pattern.

The heifer in the center is a Shorthorn with a common Shorthorn color pattern which I called brindle.



The white heifer to the right is a British White, they feature black tinged ears and black muzzles.

The black animals are Angus.

Janelle bought the white heifer cheap because it was injured and lame. If look closely you can see a dark ring low on her left rear leg.

She obviously got wrapped in barb wire at her previous residence. Her hide was cut the bone all the way around including the foot tendon.

Animals with such injuries can heal in our clean and healthy pastures. She is mended now and is starting to gain weight. Her left rear foot is stiff, but she gets around OK.

She will do well and grow fat.

Best regards. Tom