

Soils: Management and conservation



Copyright Erin Ehler/Keeping It Real: Through the Lens of a Farm Girl
Fact Source: soils.org

Soils: Management and conservation

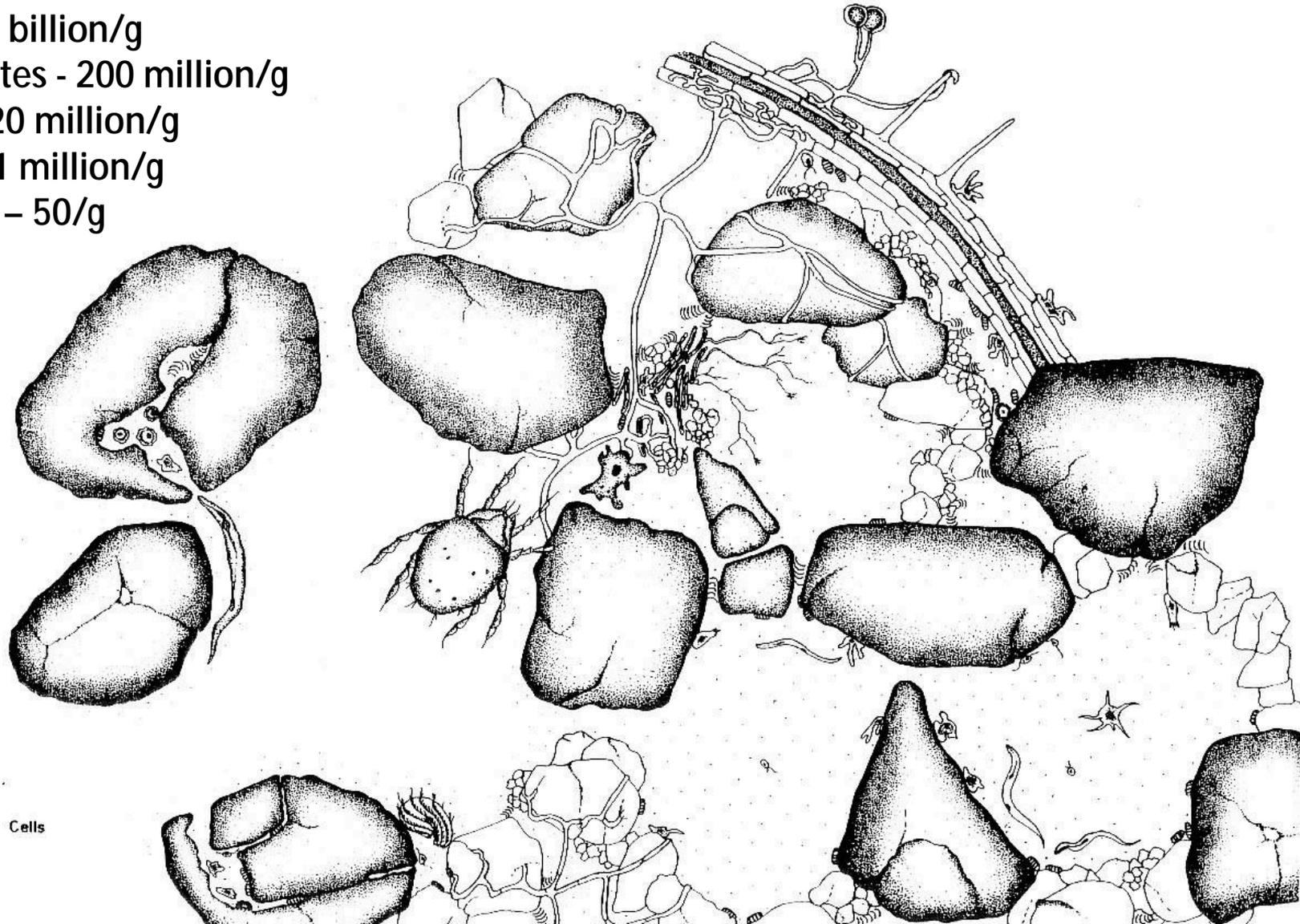
Bacteria – 1 billion/g

Actinomycetes - 200 million/g

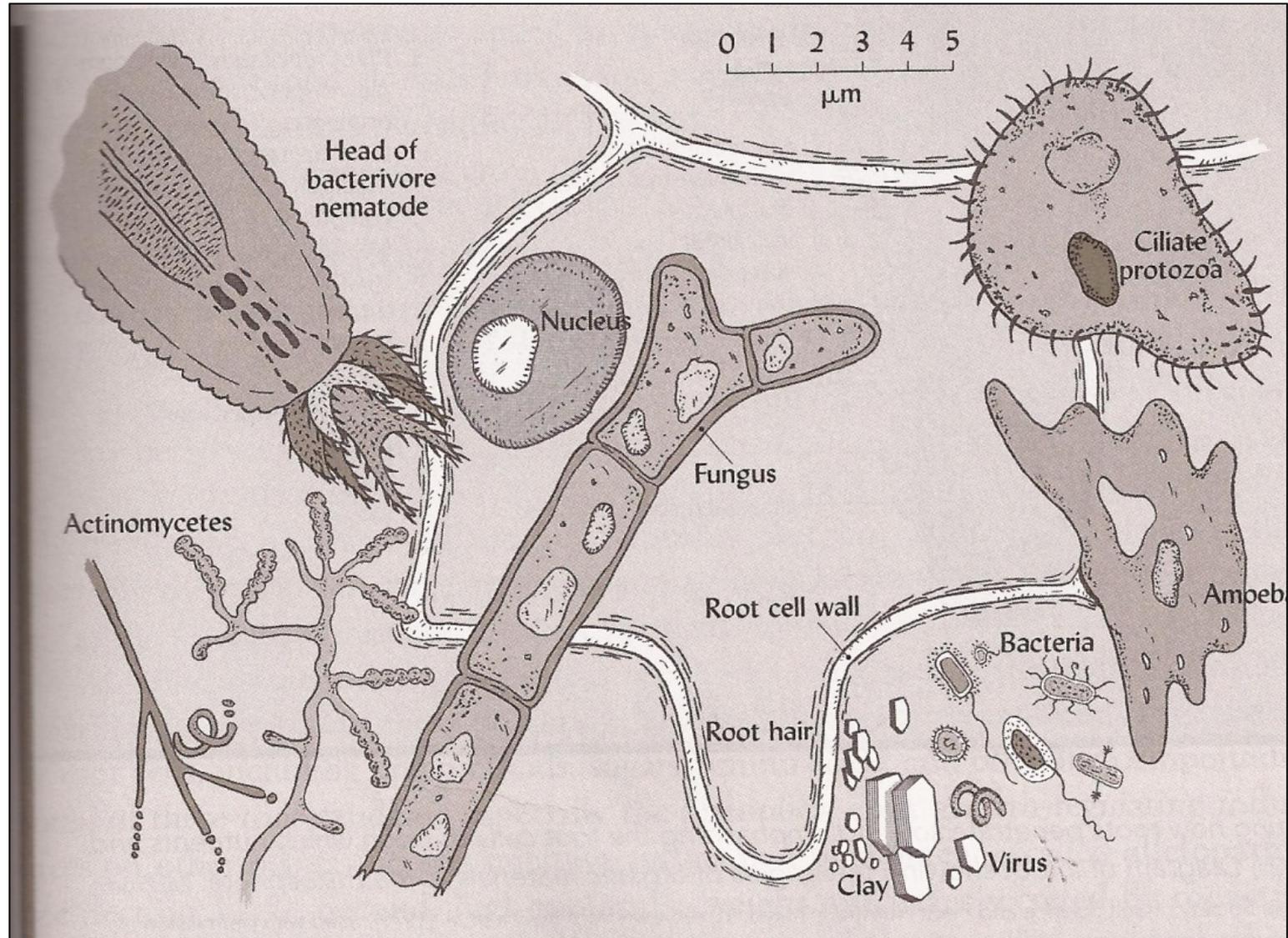
Fungi – 10-20 million/g

Protozoa – 1 million/g

Nematodes – 50/g



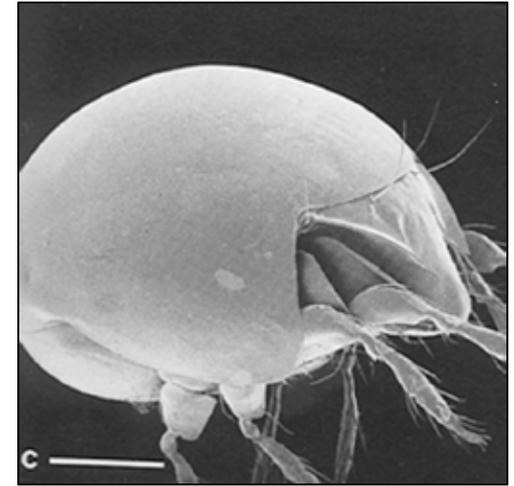
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Survey: Mesofauna and Macrofauna



Shredders



Fungal feeder – oribatid mite

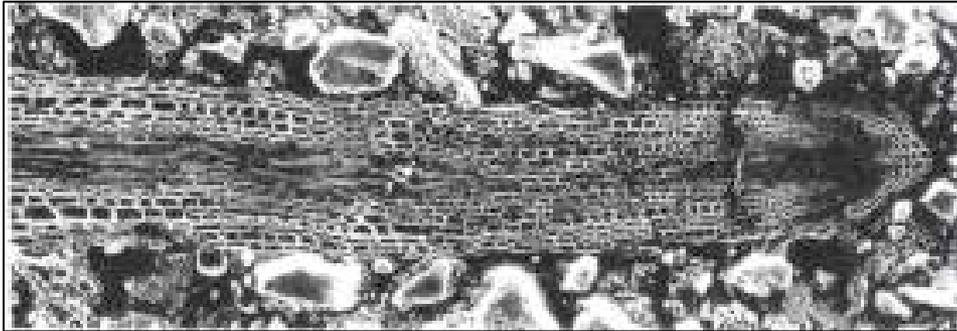


Predators

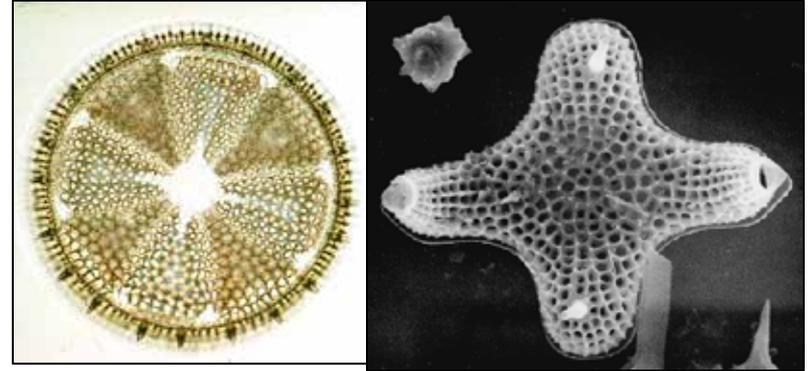


Herbivore

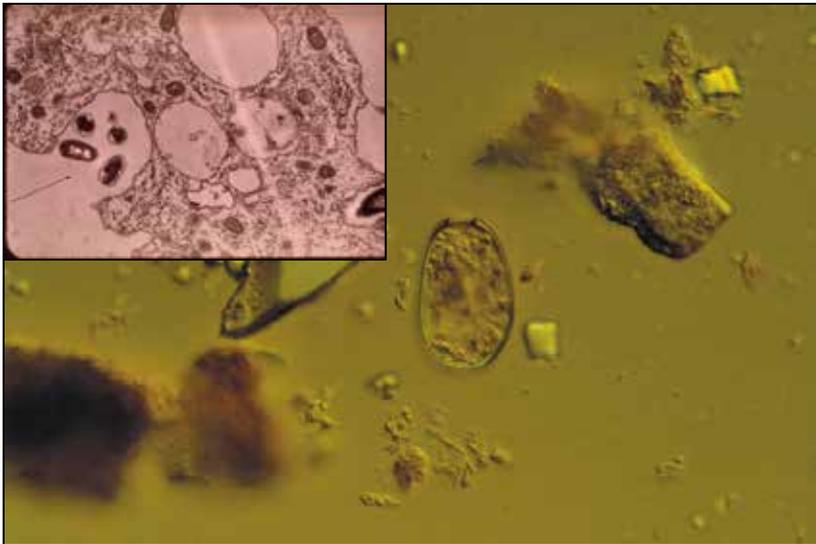
Survey: Soil Flora and Microfauna



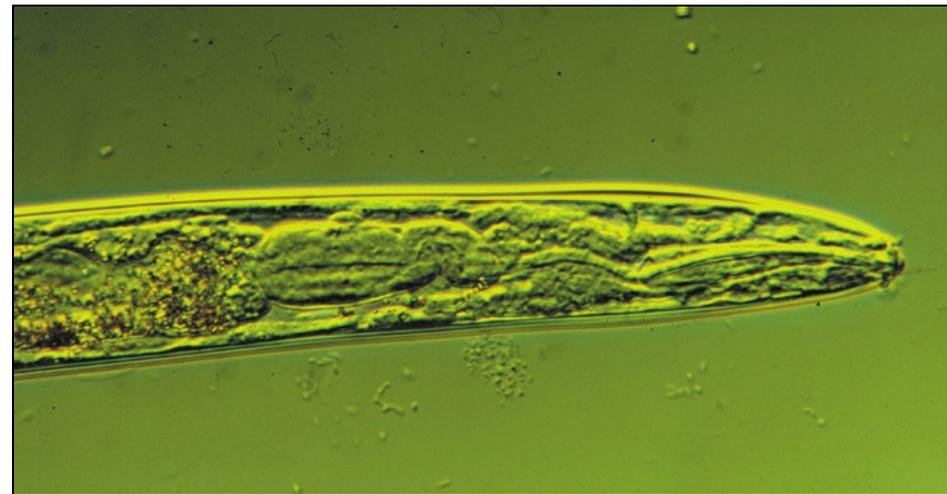
Plant root, Fig 10.10



Diatoms, <http://www.ucmp.berkeley.edu/chromista/diatoms/>



Protozoa: amoeba eating bacteria



Root feeding nematode

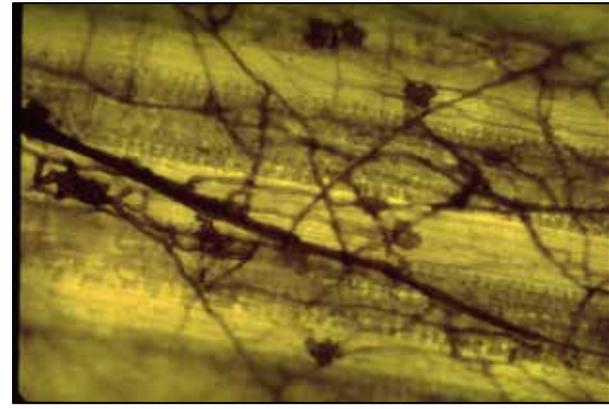
Survey: Soil Micro-organisms



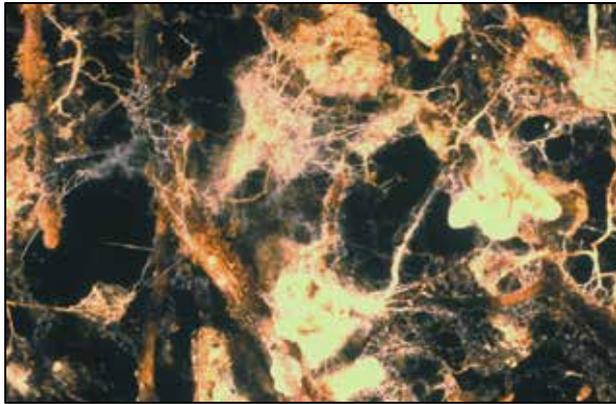
Soil bacteria



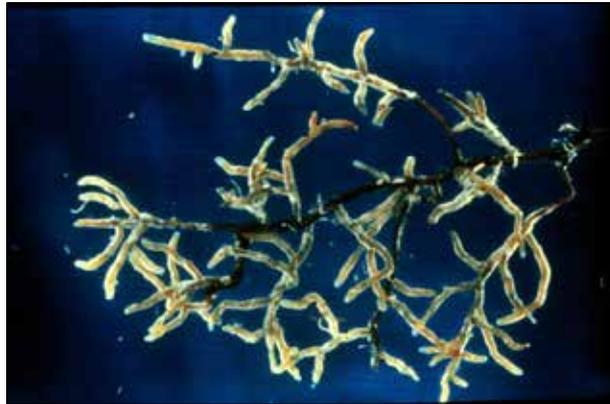
Bacteria on fungi



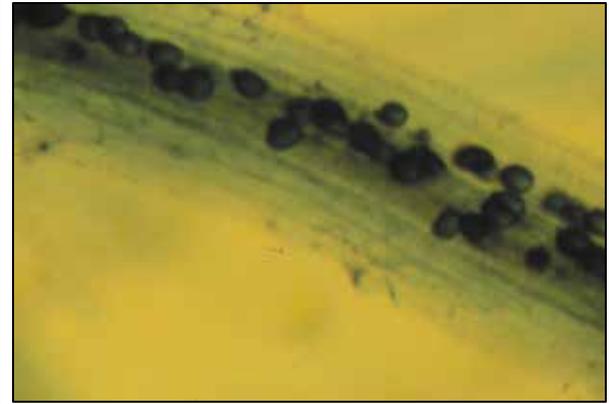
Fungi decomposing leaf tissue



Mycorrhizal bodies and hyphae



Ectomycorrhizae



Vesicles

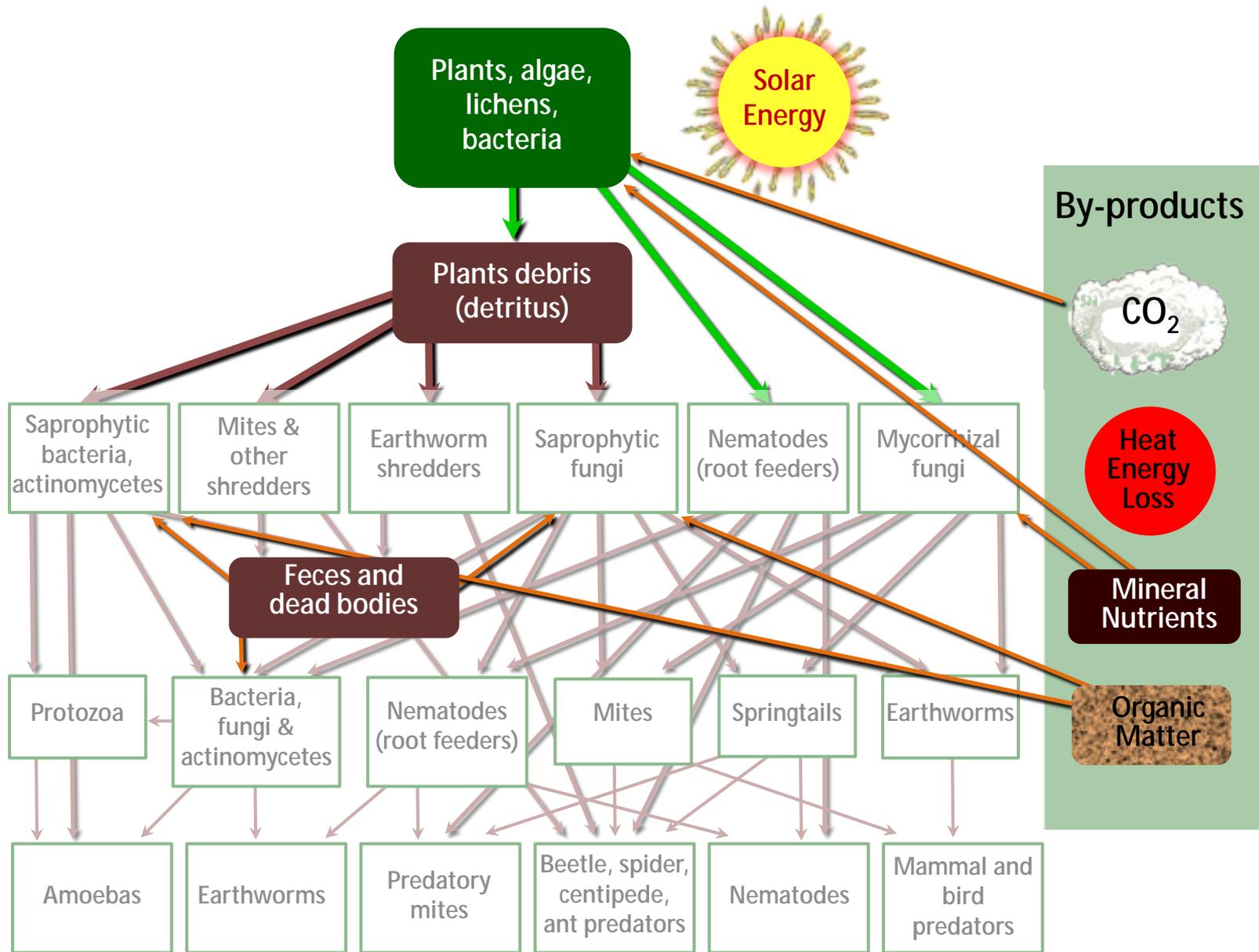
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Primary Producers

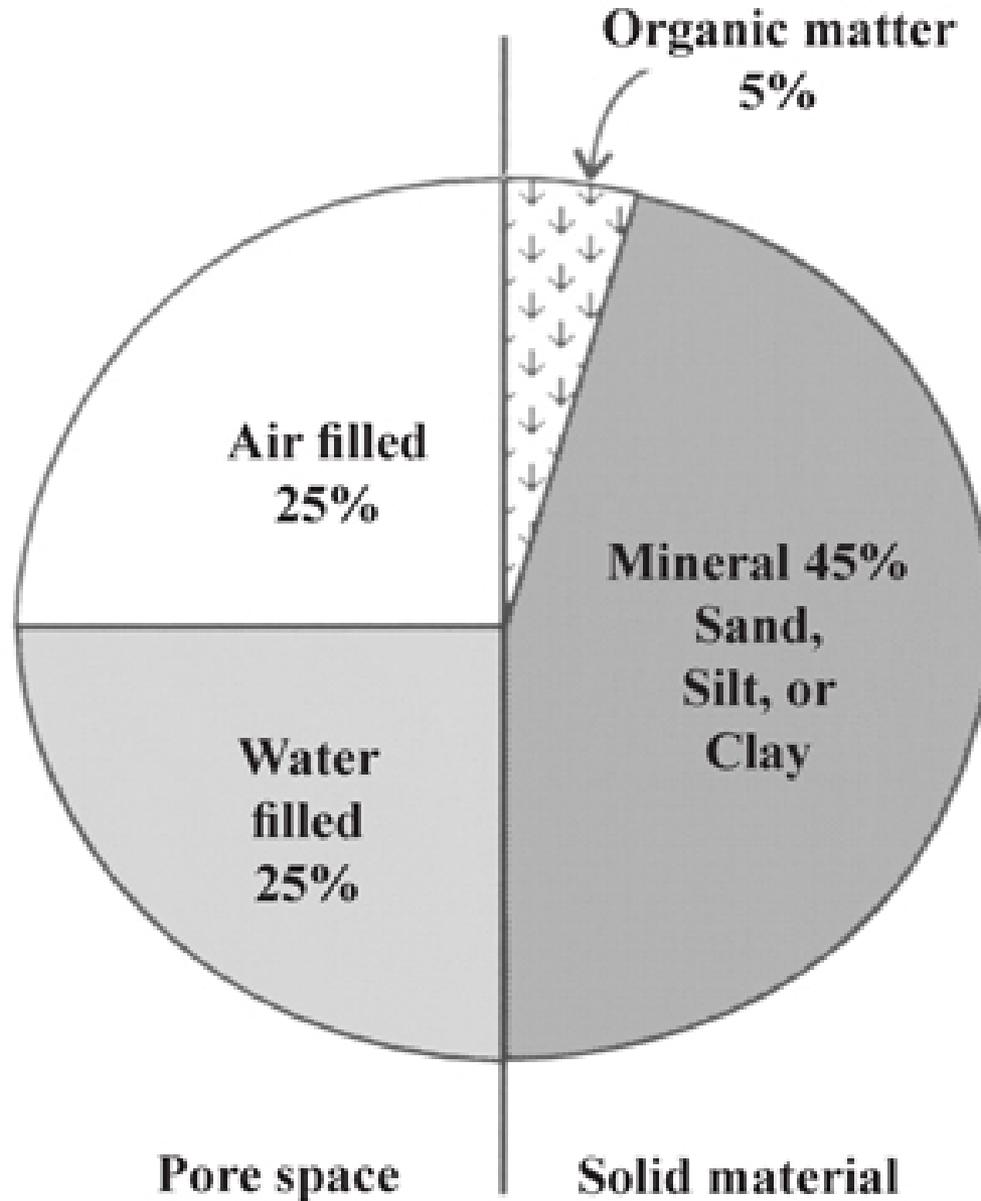
Primary Consumers

Secondary Consumers

High Level Consumers



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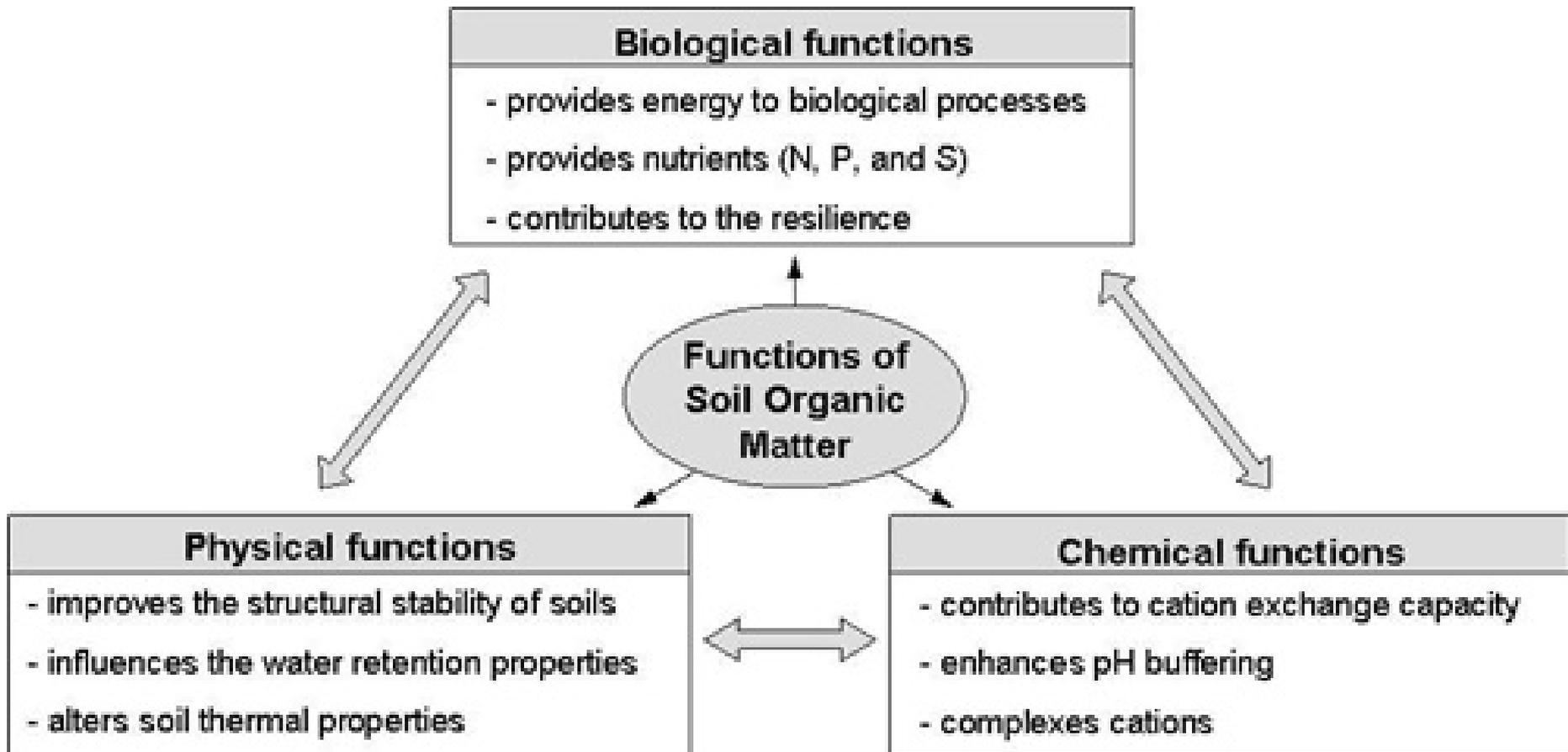
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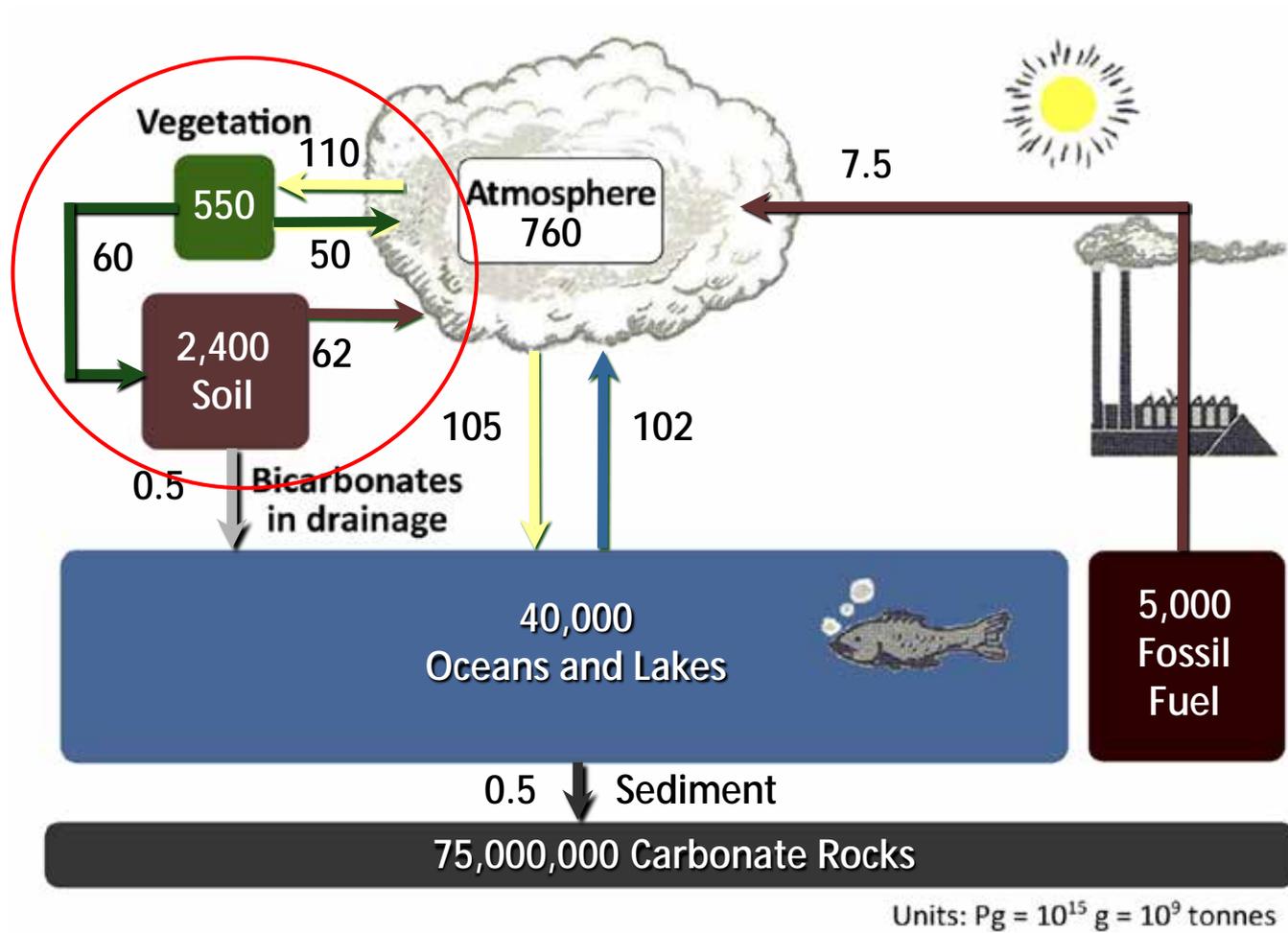
<http://www.mauifarmersunionunited.org/humus-of-and-for-the-earth/>

“SOM is a key indicator of soil health because it plays a role in a number of key functions.”

Dr. Jeff Baldock, CSIRO Land and Water

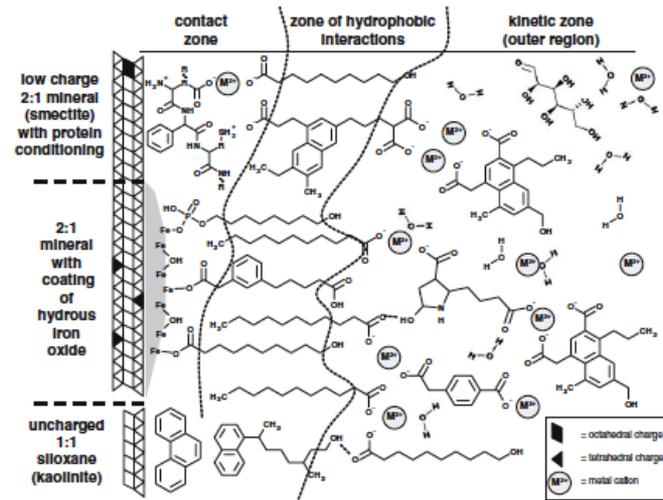


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Soil properties



Climate



Management



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Source: Iowa State University Extension



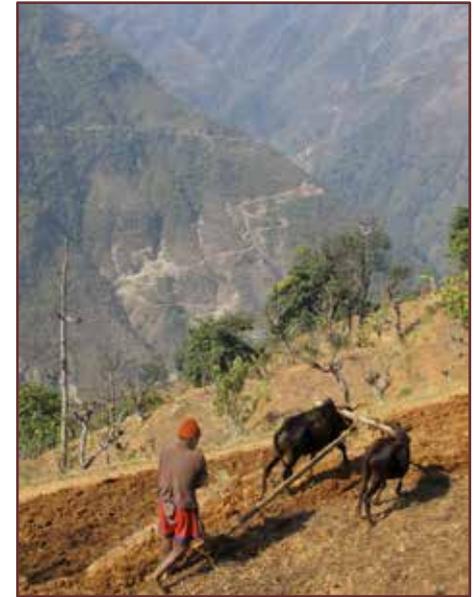
Soil Organic Matter in Temperate Agroecosystems

*Long-Term Experiments
in North America*



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