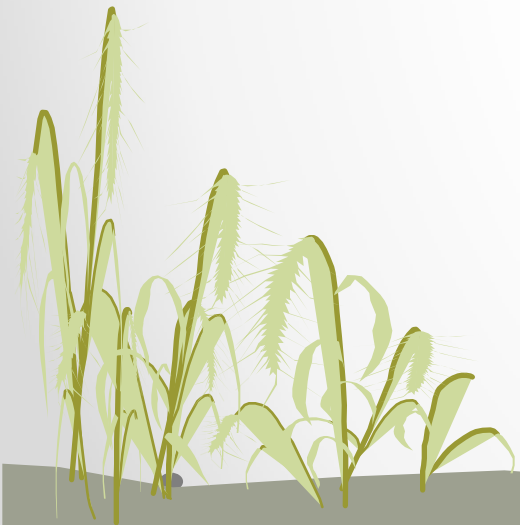
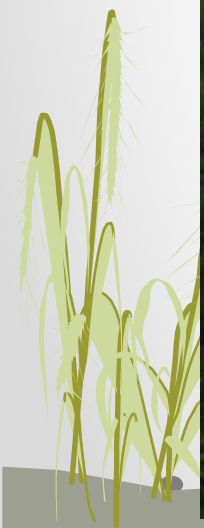


Organisms and the Ecology of FLORA & FAUNA

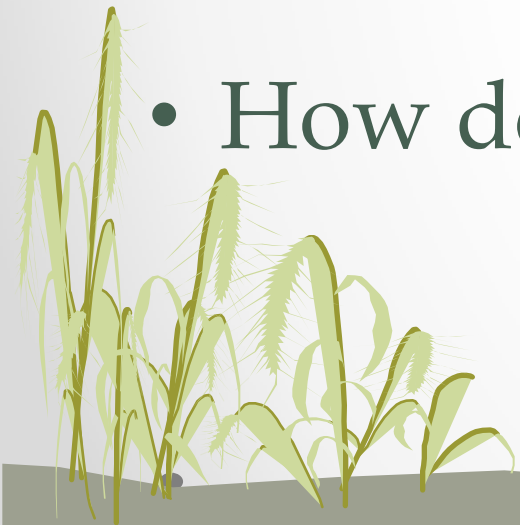
Dr Chris Workman





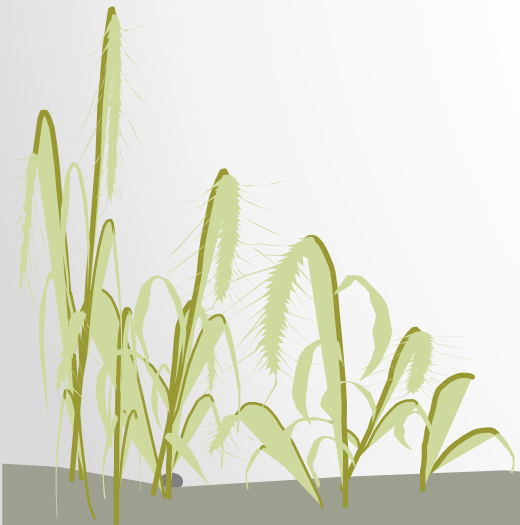
Long term history of the Area

- How did the habitats 'arrive'?
- What habitats does the 'Nature Reserve' want?
- How do we manage the area to develop the area?



The habitats

- Grassland
- Woodland
- Hedges
- Stream / Ponds



How did they get there?

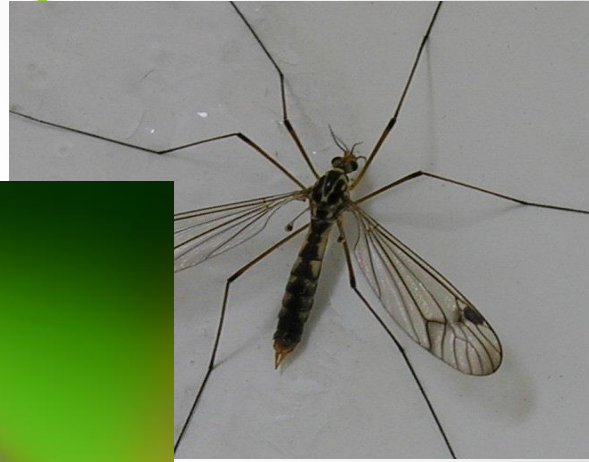
- Succession of plants (animals & microorganisms) over time created ancient woodland
- Clearing of the woods – fire, cutting, grazing, ploughing
- Maintenance since medieval times as grazing.



Fauna & Flora



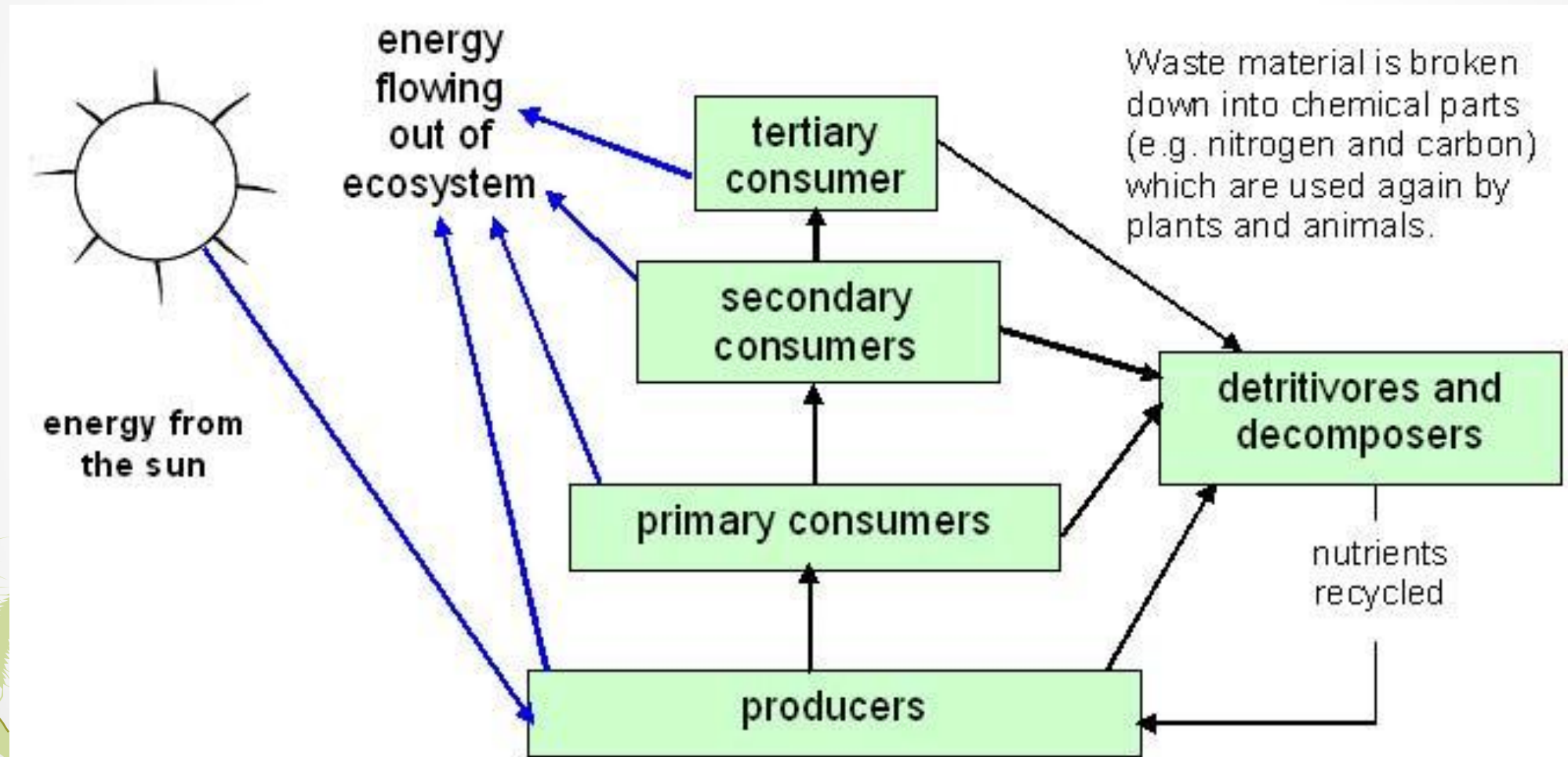
A way of thinking about the plants and animals



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How does the 'ecosystem' work?



Agricultural vs Aesthetic

Monoculture – high productivity

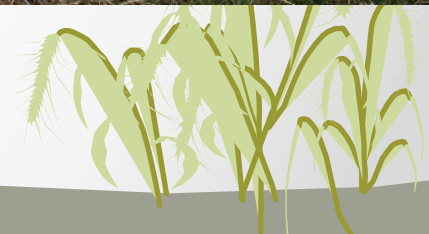
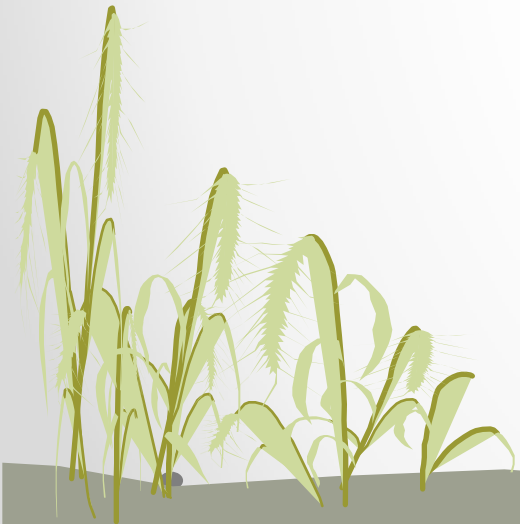


Polyculture – low productivity

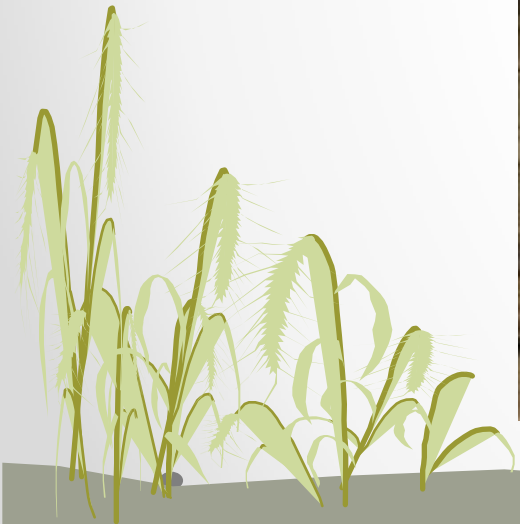


The producers - plants

- Increase diversity
- Lower productivity
- Increase 'detritus'



Humus in the soil

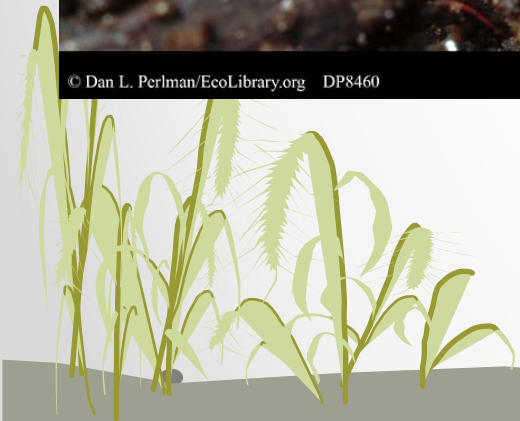


Fertilisers

- Artificial
- Organic



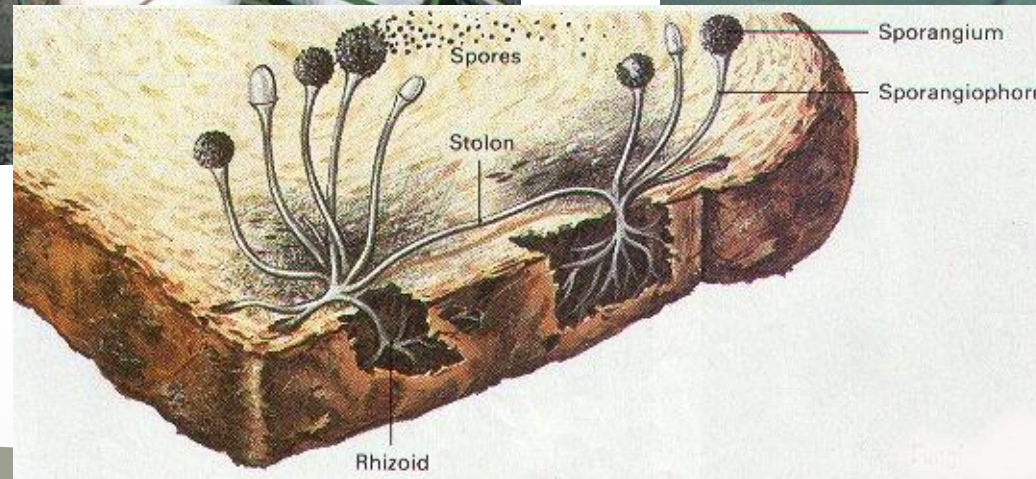
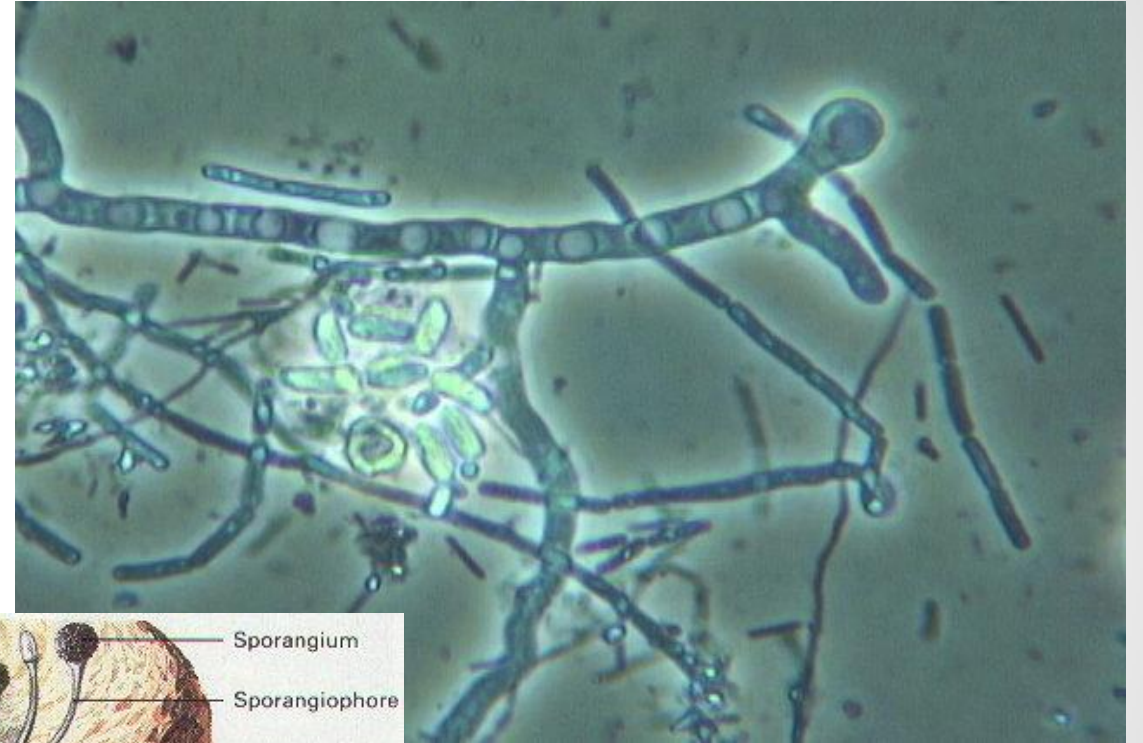
Detritivores



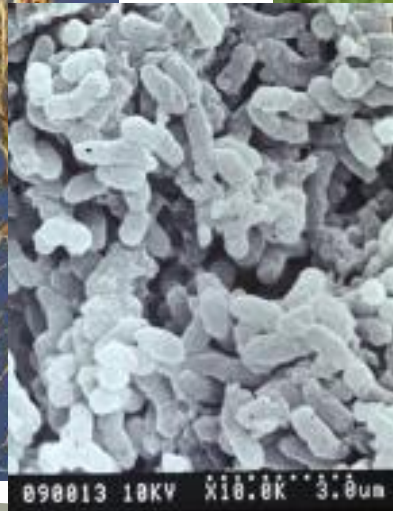
Detritivores



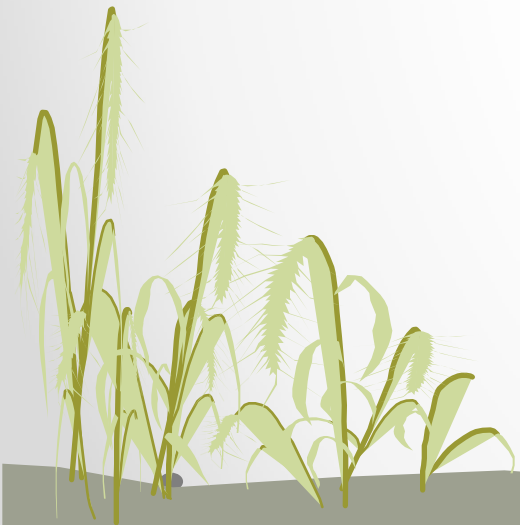
Micro-organisms & decomposition



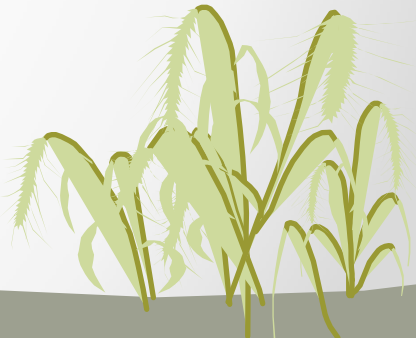
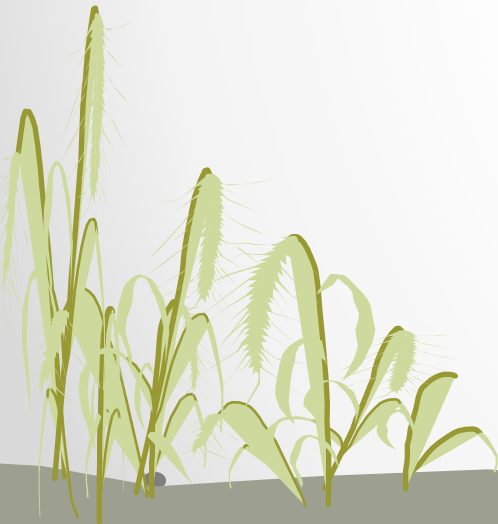
Micro-organisms and decomposition



Invertebrates feeding on 'soil' (humus & fungi)



Feeding on flowers – pollinators?



Plant sap suckers



Herbivores

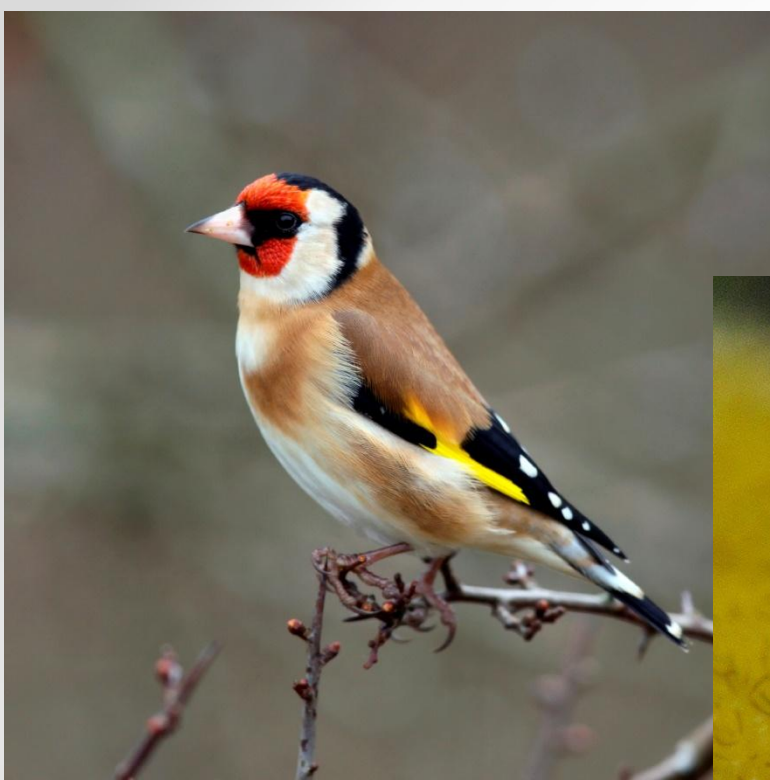


© A Dale

Herbivores



Seed eaters



Carnivores - Predators



Carnivores



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Insectivores



Large predators



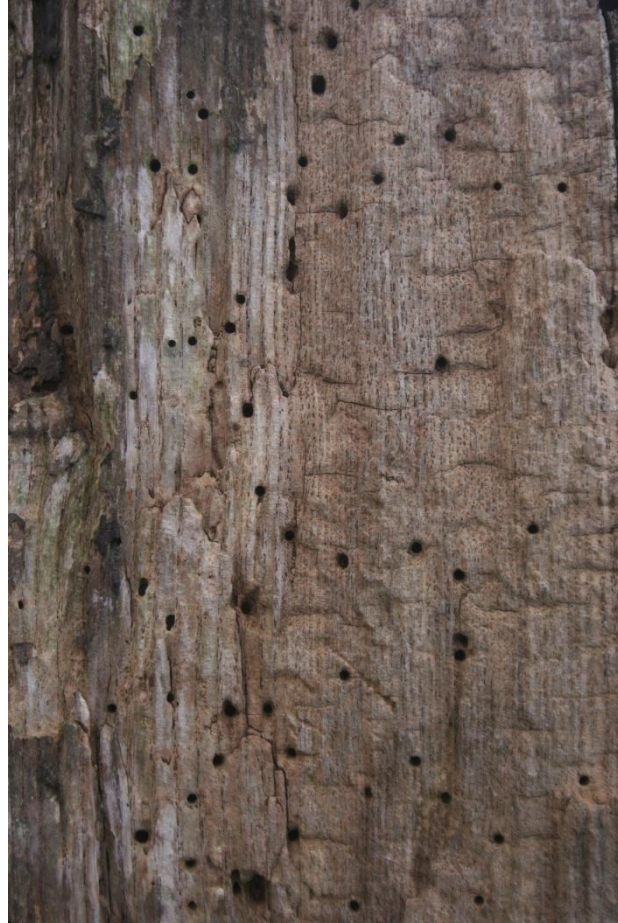
Habitat diversity = Species diversity



Woodland systems



Woodland habitats



Woodboring insects



Aquatic systems



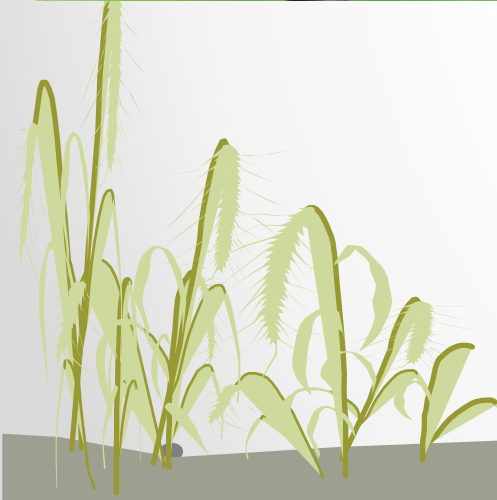
Aquatic systems



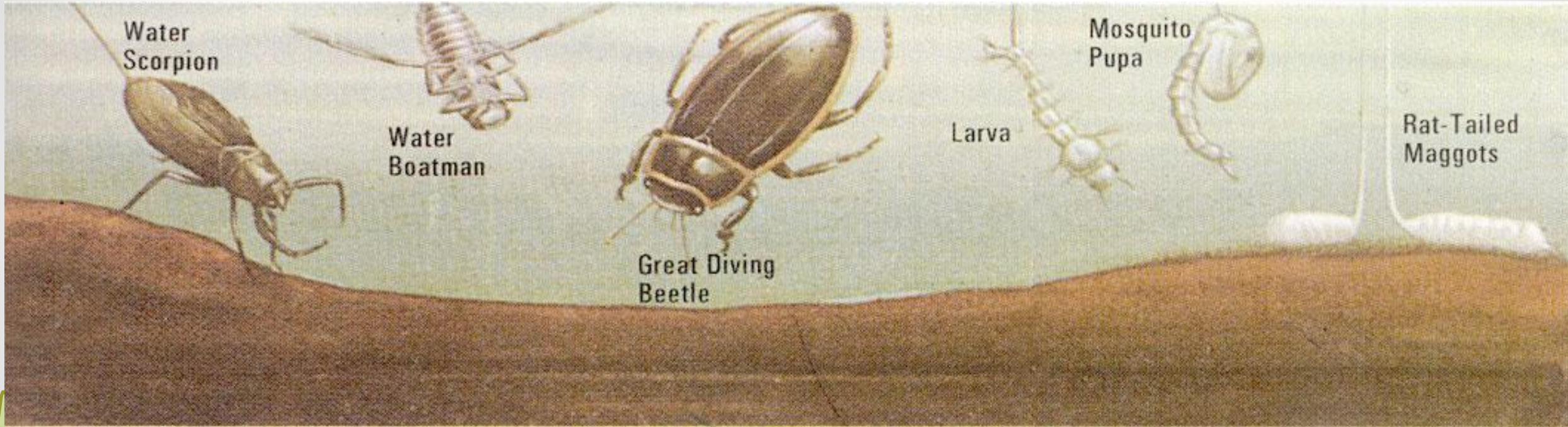
Aquatic systems- evidence of microbes



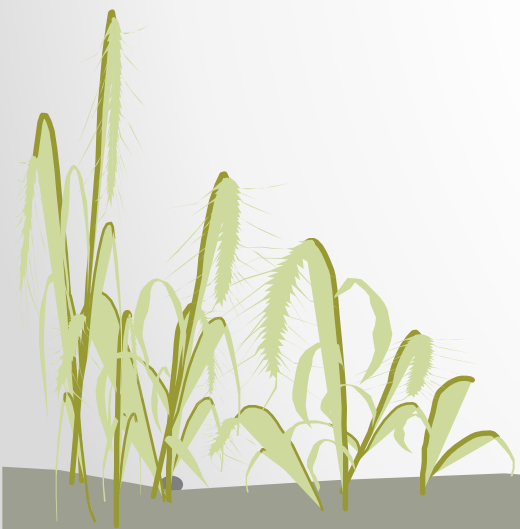
Aquatic systems



Pond life

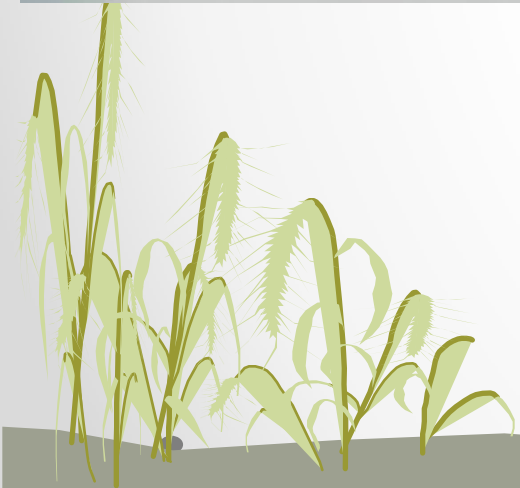


Pondlife – aerial life



Non – biting midges

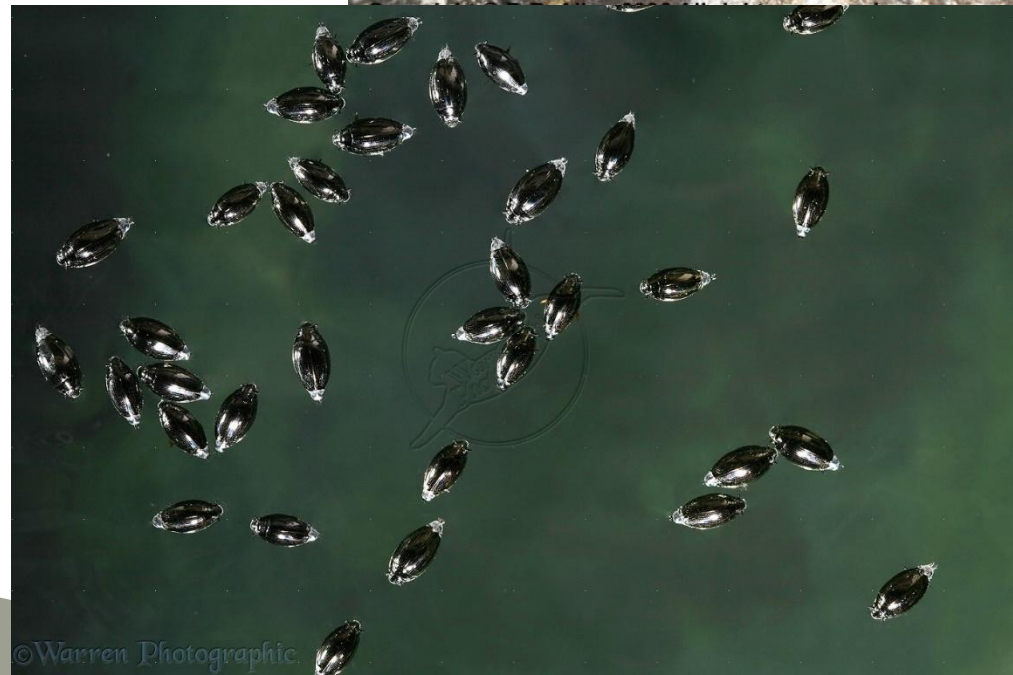
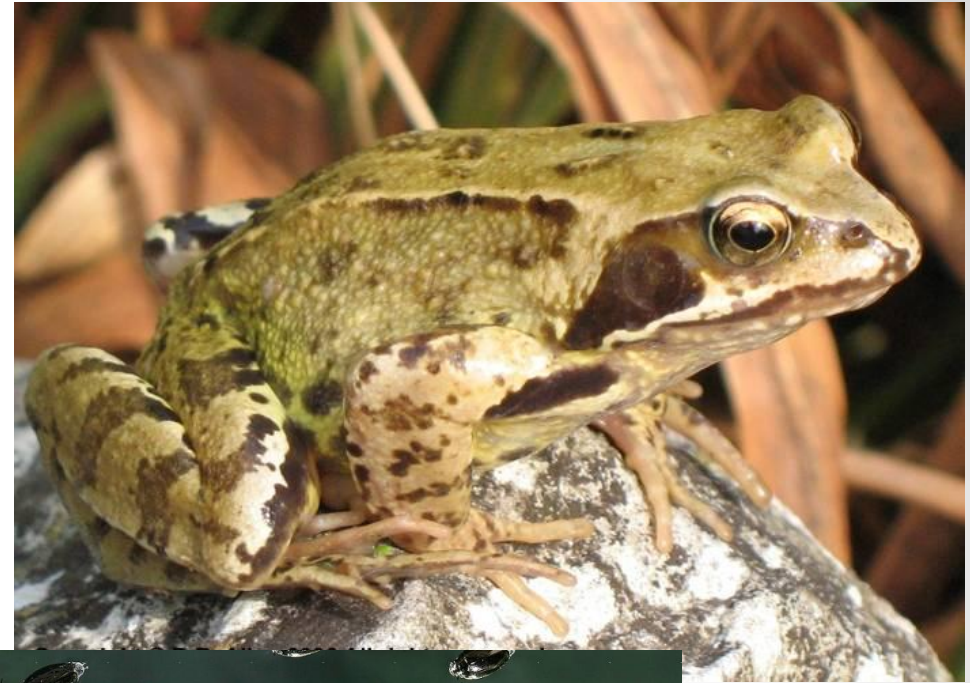
Chironomidae



Biting midges – (no see ums) Ceratopogonidae



Pond life



Concluding statements

- Create the conditions and specific plants will thrive
- If a specific animal species is to be encouraged - make sure the food source is there
- A diversity of habitats produces greater animal/plant species list
- Continuous corridors of safe habitat allows population movement and gene flow. - Prevents small populations and genetic inbreeding.



Thank you

