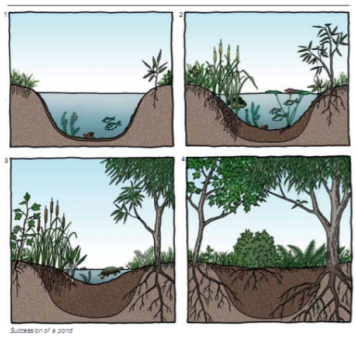
Open packets to page 211: Reflecting on what you've done



A. You have observed your pond past and present, with and without magnification. Describe changes.

Examples:

- Water has evaporated
- Mold or algae has grown over the top
- Increase in Lemna Fronds
- Bad smell
- Increase in microorganisms

B. Are the new organisms really new to the pond environment? Where do you think they came from?

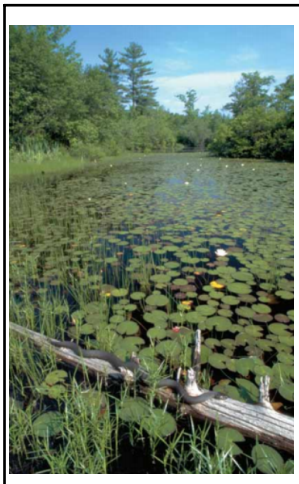
Most of them were present in the form of cysts. The warm, wet environment caused the tough cyst walls to disintegrate and they were revived.

C. Why do you think rice grains were added to the ponds?

The rice provided a source of nutrition for the organisms in the pond.

D. Do the changes in your pond give you a clue as to why real ponds eventually fill in?

- Increase in *Lemna* - vegetation eventually takes over
- Waste from microorganisms fills in bottom
- Evaporation of water decreases pond level



E. What stage of the pond does the picture represent?

Seems to be towards the end of the second stage

F. What factors do you think might have influenced the average daily increase in the number of lemna fronds?

amount of light, temperature, pollutants, available oxygen

G. If *Lemna* reproduced to cover the entire top of your pond, or a real pond, what effects do you think this might have?

- Block sun from reaching microorganisms
- microorganisms who make their own food (chloroplasts) might die
- Slows the growth of algae in the pond (algae can be harmful)