

Biological Diversity
BSCI 10110-1
MWRF 1:10-2:00
Dr. Mark Kershner

Week 10

11/2

Protists

- phylogeny (continued)
 - choanoflagellates
 - unicellular
 - bacterivorous
 - colonial
 - heterotrophic
 - near base of marine foodwebs
 - bacteria → choanoflagellates → krill → baleen whales
 - research associated with global carbon cycles related to choanoflagellates consuming bacteria
- “orphans”
 - Rhizopoda
 - amoeba
 - unicellular
 - heterotrophic
 - locomotion
 - pseudopodia – “false feet”
 - can form anywhere on cell/move in any direction
 - phagocytosis
 - enzymes destroy vacuole – result in digestive products
 - other amoeboid protists
 - Actinopodia – “radiolarians”
 - amoeba body encased in a silica shell
 - unicellular heterotrophs
 - marine habitats
 - associated with water column
 - “krill food”
 - useful in aging geological strata
 - Cliffs of Dover
 - Foraminifera
 - amoeboid protists encased in silica shells
 - shells of polysaccharids
 - used in aging geological strata
 - unicellular heterotrophs
 - marine/freshwater
 - extend their pseudopodia through openings in shell for locomotion/feeding

- slime molds
 - plasmodial slime molds
 - huge, single-celled, multinucleate oozing mass
 - heterotrophic
 - dead plants, bacteria, fungi
 - terrestrial
 - sporangium
 - major reproductive structure
 - bursts, spraying spores
 - exceedingly long-lived
 - used as a major identification tool
 - cellular slime molds
 - unicellular heterotrophs
 - may form colonies
 - associated with work on the evolution of multicellularity
 - move
 - slowly
 - life cycle
 - amoeboid spores → spores come together → aggregate → individual cells (organisms) on different roles as this structure forms → stage → moves → sporangiophore → cells → individual organisms/cells taking on different cells

are taking
slug
differentiated