

Examples of golden algae and other phyla in the Kingdom Protista of one-celled plants and animals.

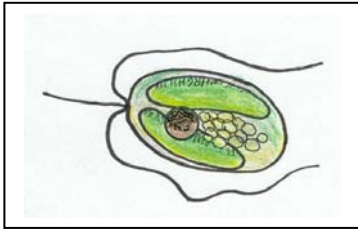
Note that many lower life forms can be difficult to easily classify into related groups. As a result, some authorities have presented slightly different organization schemes for these organisms.

Prepared by Robert G. Howells, Texas Parks and Wildlife Department, Ingram, Texas; November 2003.

GOLDEN ALGAE

Chrysophyta

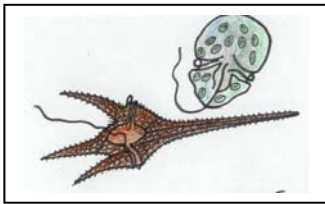
Often occur as tiny single cells, with yellow-green or golden-brown pigments; have two whip-like flagella and a third appendage called a haptonema used for attachment; can produce their own food or prey on other organisms; some produce potent toxins.



DINOFLLAGELLATES

Dinoflagellata

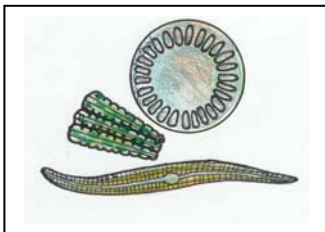
Single cells with both plant and animal traits; some have cell walls and cellulose plates; with two whip-like flagella, one in a central groove and another placed vertically; some produce toxins and cause red tides.



DIATOMS

Bacillariophyta

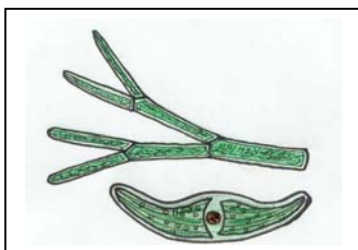
Single-celled algae that produce ornate silicon (glass) cases; contain photosynthetic pigments; source of diatomaceous earth used in filters and cleansers.



GREEN ALGAE

Chlorophyta

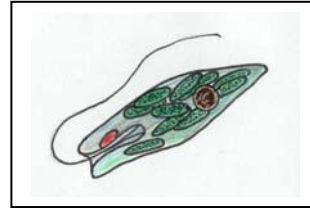
Small single cells to larger colonies; contain chlorophyll; many species with an array of forms; some have flagella.



EUGLENOIDS

Euglenophyta

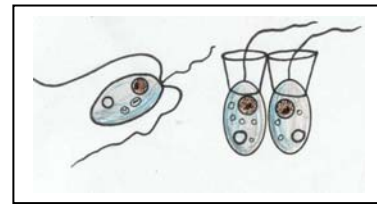
Motile, single cells; contain chlorophyll, but lack cell walls; some have a red eyespot; with one or more flagella.



ZOOFLAGELLATES

Zoomastigophora

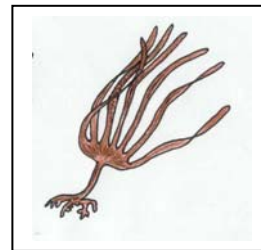
One-celled or colonial animals that are much like euglenoids or Dinoflagellates, but lack photosynthetic chemicals like chlorophyll; with one or more flagella.



BROWN ALGAE

Phaeophyta

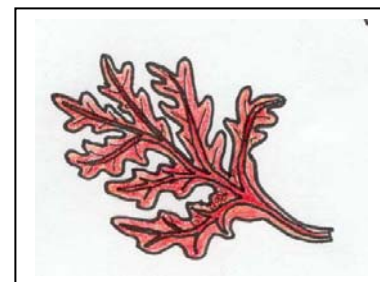
Small cells to very large colonies; typically marine; includes species like kelp and sargassum.



RED ALGAE

Rhodophyta

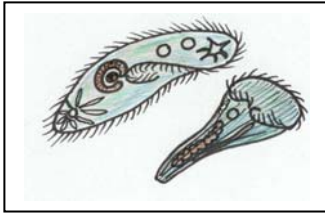
Most form larger, multi-cellular colonies; often marine; contain reddish pigments that mask chlorophyll that is also present.



CILIATED PROTOZOANS

Ciliophora

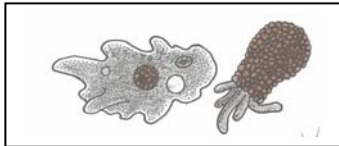
Single-celled or colonial animals; with tiny hair-like cilia for locomotion and food getting; many species and forms.



AMOEBAS

Rhizopoda

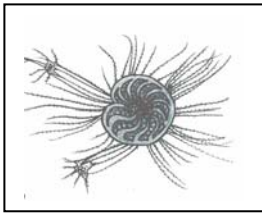
Simple single-celled animals; with short pseudopodia; some continually change shape, others build cases of specific designs for protection.



FORAMS

Foraminifera

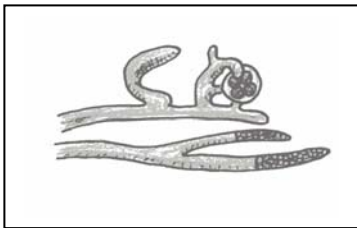
Amoeba-like protozoa with simple or complex, perforated shells that may be ornate; with one or many branched pseudopodia.



WATER FUNGI

Oomycota

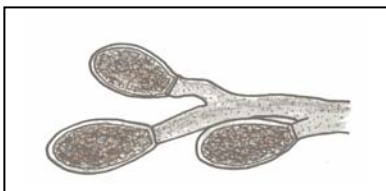
Grow as mold-like filaments, but lack chitin found in the walls of true fungi; with swimming, flagellated sex cells.



LOWER FUNGI

Chytridomycota

Grow as simple fungal strands, but differ from true fungi and molds by having reproductive cells with flagella.



PLASMODIA

Apicomplexa

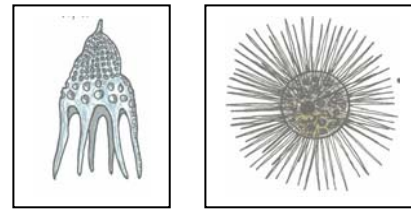
One-celled parasites that include the species that causes malaria in humans; often with complex life cycles.



RADIOLARIANS AND HELIOZOANS

Actinopoda

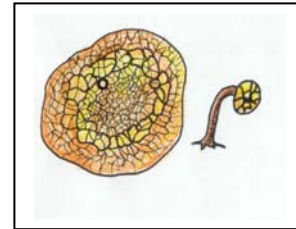
Amoeba-like protozoa with thin, unbranched pseudopodia that are stiff and radiate outward in some species; some with perforated shells of silica or strontium sulfate.



PLASMODIAL SLIME MOLDS

Myxomycota

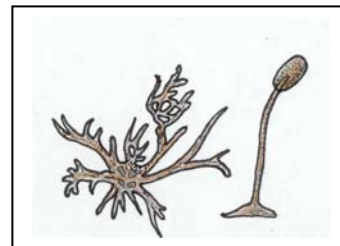
Usually exists as enormous animal-like, single-cells with thousands of nuclei; but can form mushroom like structures called sporangia.



CELLULAR SLIME MOLDS

Acrasiomycota

Usually exist as amoeba-like single cells, but can also aggregate into masses and form mushroom-like sporangia.



NOTE: Blue-green algae (Cyanophyta) are now classified with bacteria because they lack a nuclear membrane.