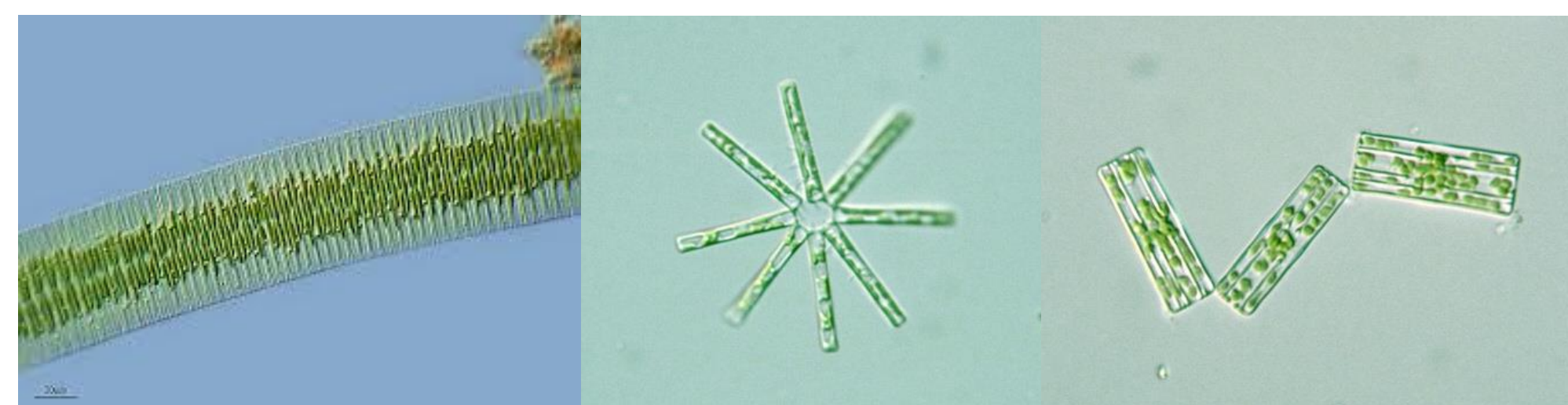


Primary Producers (Phytoplankton) of Seneca Lake

Diatoms



Fragilaria

Asterionella

Tabellaria

Distinguishing Features: Glass casing (silica), visible pigments that give them a green, brown, or yellow coloration

Morphological Shape: Symmetrical, beautiful colonies

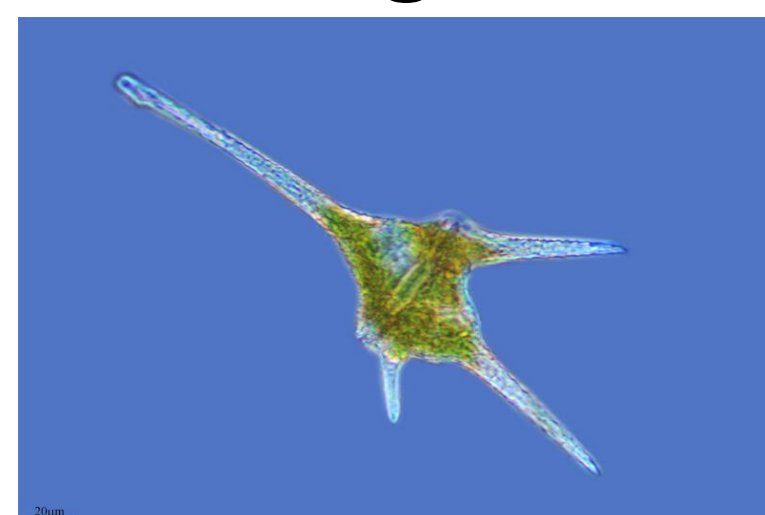
Size: 2-500 microns

Source of Energy: Photosynthesis; absorb nutrients from the water column

Reproduction: Sexual and clonal

Most common during: Fall and Spring

Dinoflagellates



Ceratium

Distinguishing Features: Cellulose casing

Morphological Shape: 2 flagellae: 1 around the middle and 1 behind

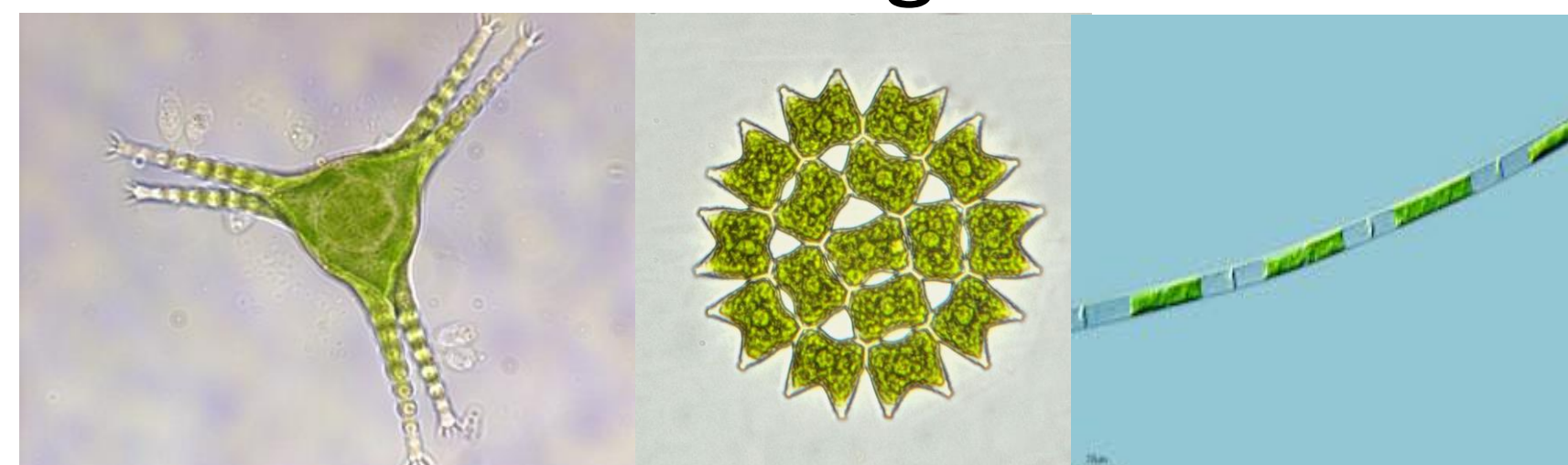
Size: 2-500 microns

Source of Energy: Photosynthesis; absorb nutrients from the water column

Reproduction: Sexual and clonal

Most common during: Summer into Fall

Green Algae



Staurastrum

Pediastrum

Mougeotia

Distinguishing Features: Bright green coloration

Morphological Shape: Both single cell and colonial

Size: 5-1,000 microns

Source of Energy: Photosynthesis; absorb nutrients from the water column

Reproduction: Sexual and clonal

Most common during: Mid-summer

Lookalikes: Fragments of aquatic plants are also green

Cyanobacteria



Trichodesmium

Chroococcus

Myrocytis

Dolichospermum

Distinguishing Features: Bright green coloration

Morphological Shape: Both single cell and colonial

Size: 0.4-50 microns

Source of Energy: Photosynthesis; absorb nutrients from the water column

Reproduction: Sexual and clonal

Most common during: Mid-summer

Lookalikes: Fragments of aquatic plants are also green

For more information and an interactive key, visit <https://mbrown166.wixsite.com/mysite>. Poster compiled by Rachael Best (William Smith '18) with contributions from Meghan Brown, PhD and Barb Halfman.

Consumers (Zooplankton) of Seneca Lake

Copepods



Diaptomus ashlandi

Mesocyclops edax

Copepod larva (Nauplius)

Distinguishing Features: They have a pair of long antennae, a torpedo shaped body, they carry eggs that look like sacks of grapes, and have one tiny eye that's often red.

Size: 1-5mm long

Swimming Behavior: Hop-like motion using antennae

Diet and Feeding: Consume phytoplankton, other zooplankton (rotifers and cladocerans), and other floating material (pollen, detritus, bacteria, larvae) using legs to grasp food.

Reproduction: Sexual; They go through 12 molts: 6 in the nauplii stage and 6 in the copepodid stage

Fun Facts: Males have bent antennae where females have straight ones, cyclopoids carry two egg sacks where calanoids carry one.

Most Common during: Year-round

Cladocerans



Cercopagis

Bosmina longirostris

Daphnia galeata mendotae

Distinguishing Features: They have one obvious eye that is black, can have a spine, are disk shaped, carry their young under their exoskeleton, and often look like they have a beak and hat.

Size: 0.05-4mm long

Swimming Behavior: Slow swimmers, using a twitch-like motion, similar to a flea

Diet and Feeding: Consume phytoplankton, other zooplankton (rotifers, copepod nauplii), and bacteria through filter feeding

Reproduction: Clonal or sexual

Fun Facts: Often called water fleas. If you look, you can see their heartbeat and gut!

Most Common during: Late Spring through late Fall

Rotifers



Asplanchna

Keratella

Polyarthra

Distinguishing Features: They swim in spiral movements, have no visible eye, can have armored plates, and are transparent.

Size: 500-1,000 microns long

Swimming Behavior: Swimming using the rotation of their corona

Diet and Feeding: Consume phytoplankton and other zooplankton through filter feeding

Reproduction: Clonal or sexual

Fun Facts: Sometimes rotifers look like miniature plastic bags under the microscope. This genus is called *Asplanchna*.

Most Common during: Late Spring through late Fall