

CHD diagnostic

& CONSULTING SERVICE, INC.



GROUNDWATER MPA
WORKSHOP - 2005

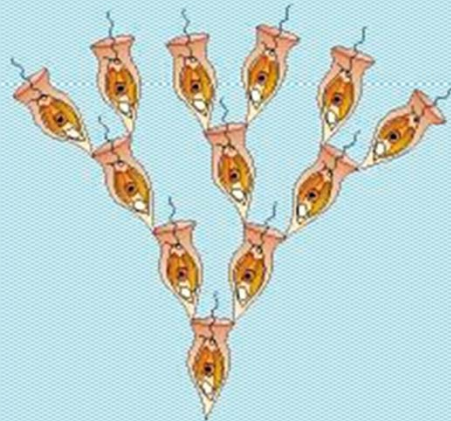
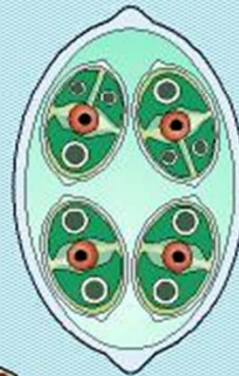
Rhonda Sherman, Laboratory Director

CHDiagnostic & Consulting Service, Inc.
214 SE 19th Street
Loveland, CO 80537

PHONE: (970) 667-9789

FAX: (970) 667-9719

E-MAIL: rsherman@chdiagnostic.com

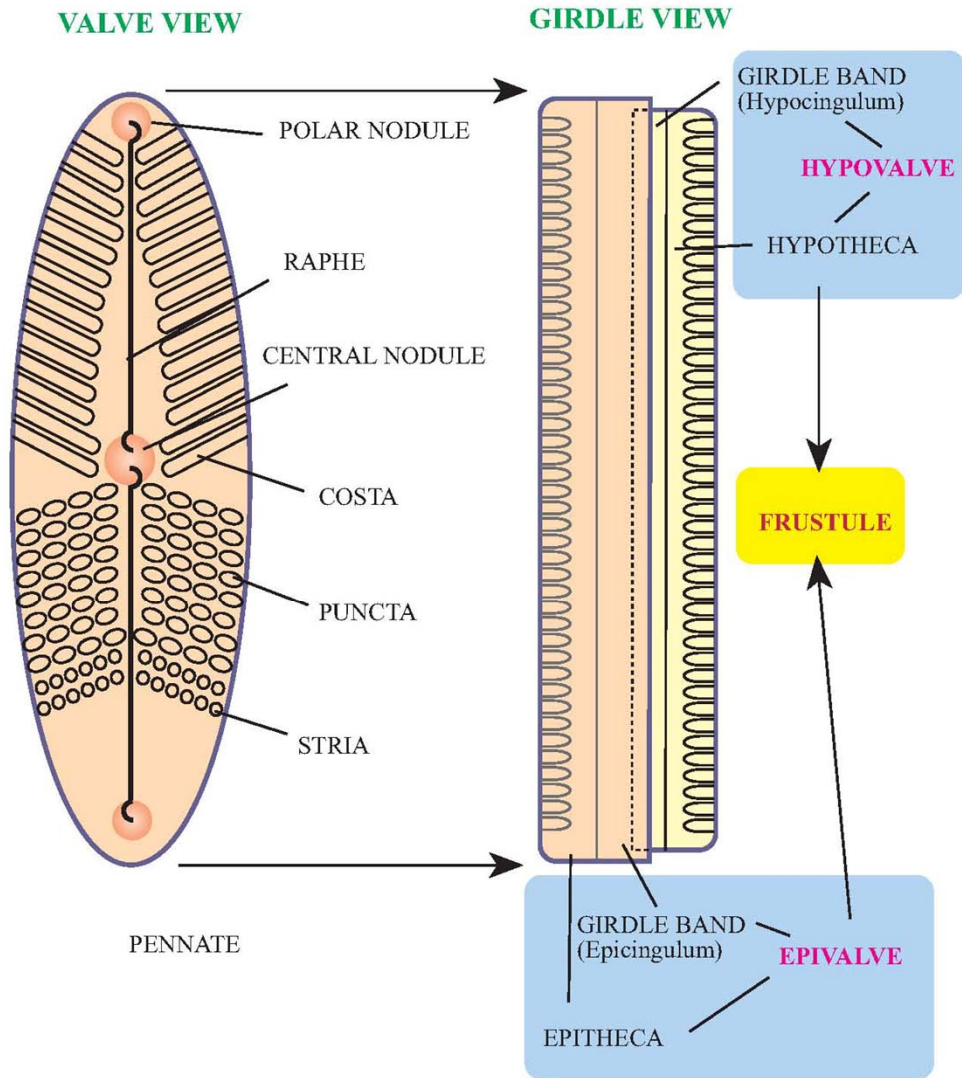


Bacillariophyta (Diatoms)

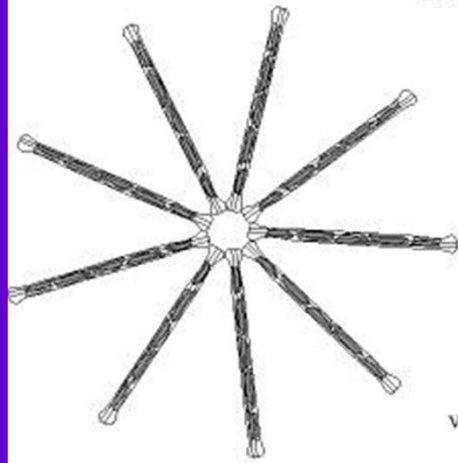
Characteristics

- Abundant in cold nutrient rich waters
- Green to Golden-brown
- Main Accessory Pigment B-carotene
- Silica Frustule
- Centric and Pennate
- Girdle vs. Valve view
- Epivalve and hypovalve
- Raphe
- Organic threads
- Auxospores

DIATOM FRUSTULE STRUCTURE



DIATOMS



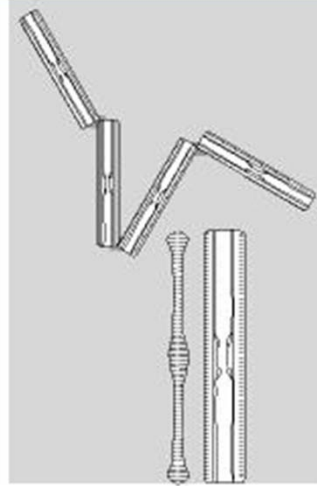
Astenonella formosa



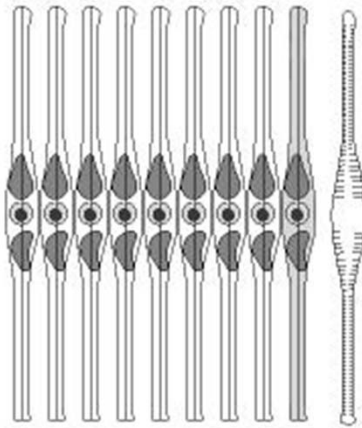
Valve View



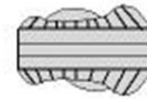
Nitzschia acicularis



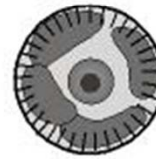
Tabellaria fenestrata



Fragilaria crotonensis



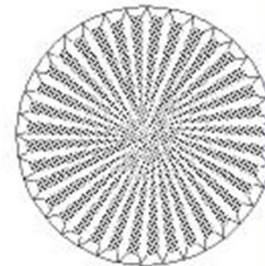
Circle View



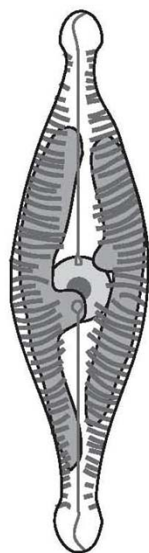
Cyclotella meneghiniana



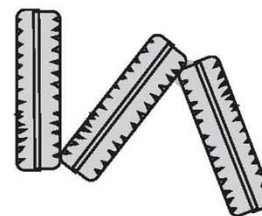
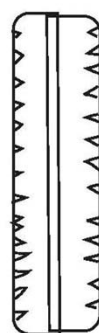
Rhizosolenia eriensis



Stephanodiscus astreae



Navicula cryptocephala



Diatoma vulgare

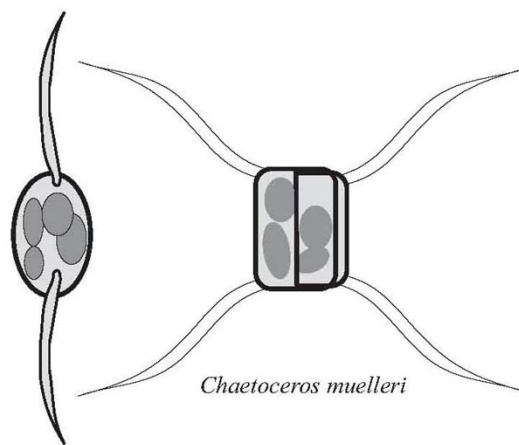


Hanea arcus



Nitzschia palea

Valve View



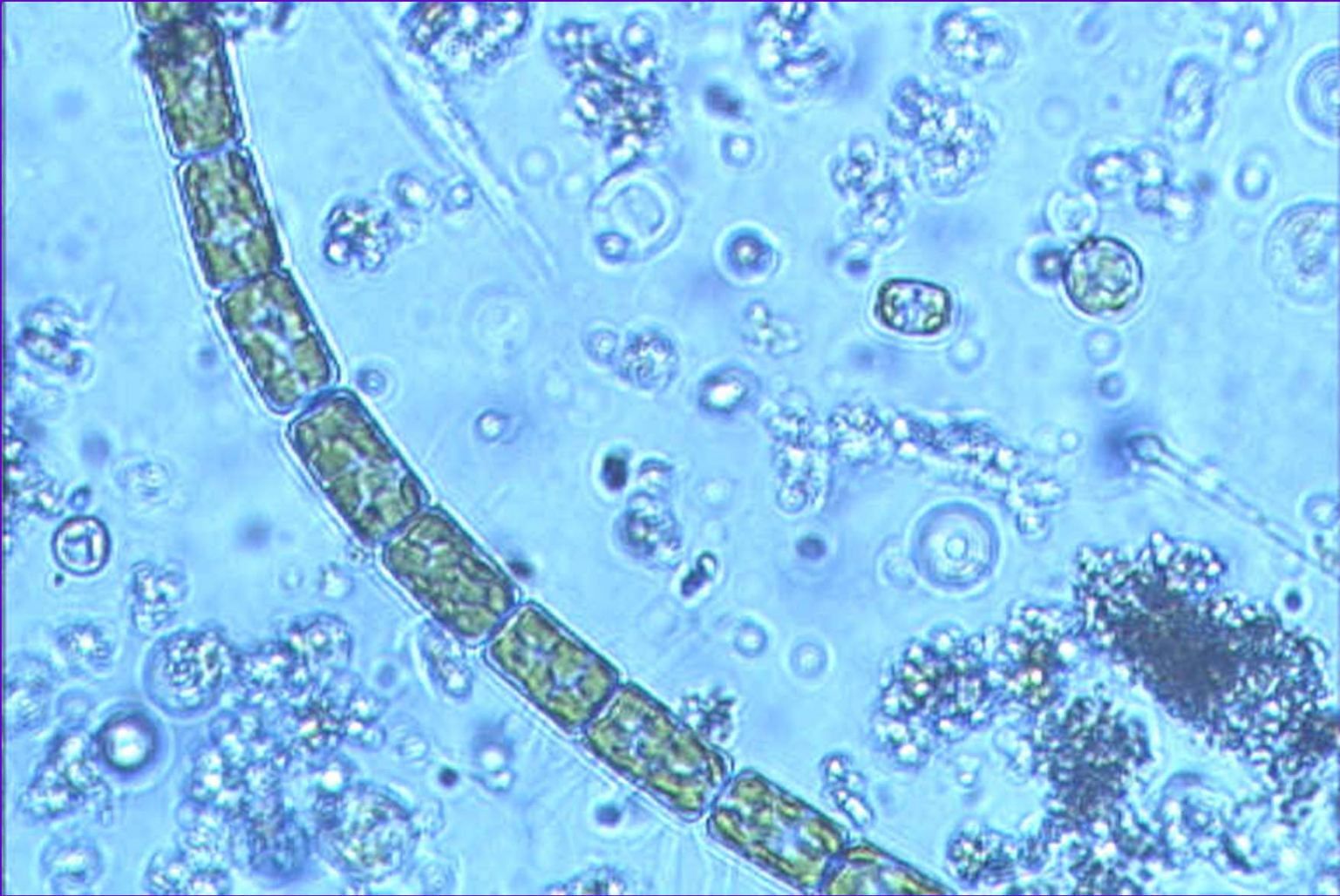
Chaetoceros muelleri



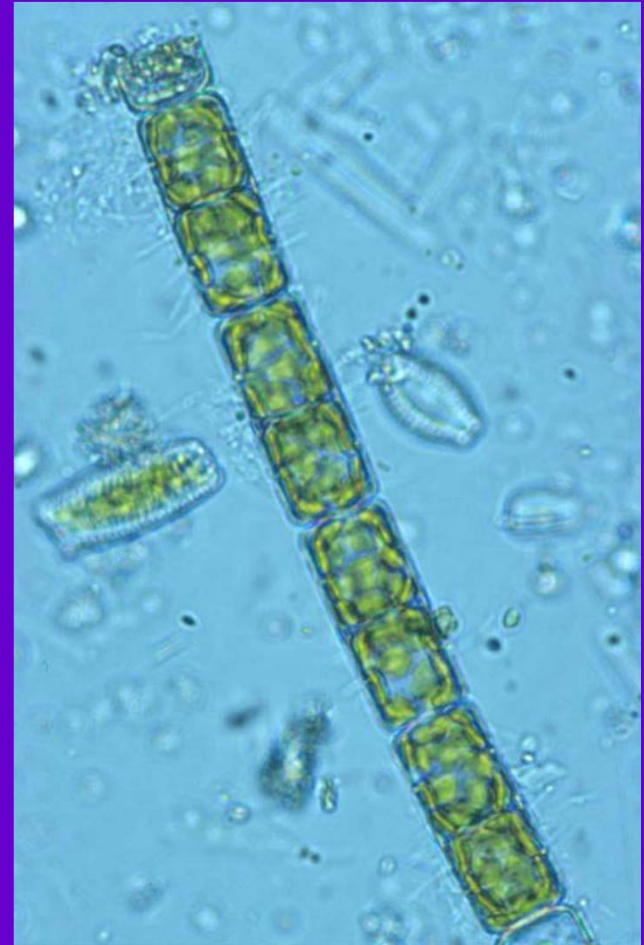
Centrales



Centrales



Centrales: *Melosira*



Centrales: *Melosira*



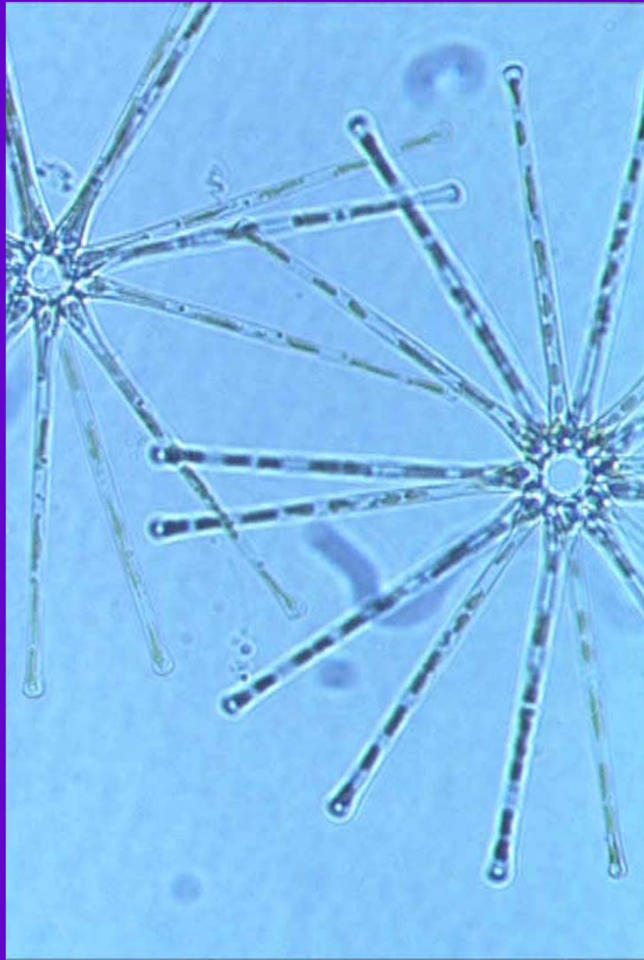
Centrales: *Stephanodiscus*



Centrales: *Rhizosolenia*



Pennales: Amphora



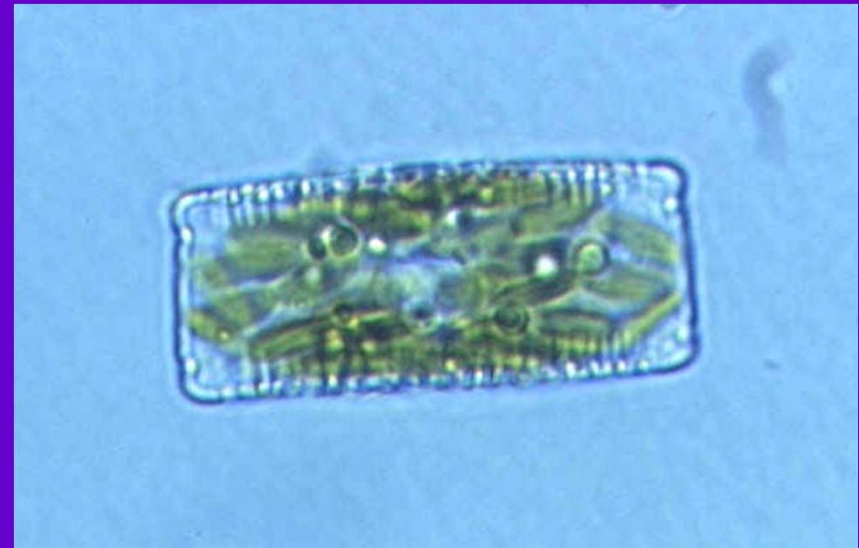
Pennales: *Asterionella*



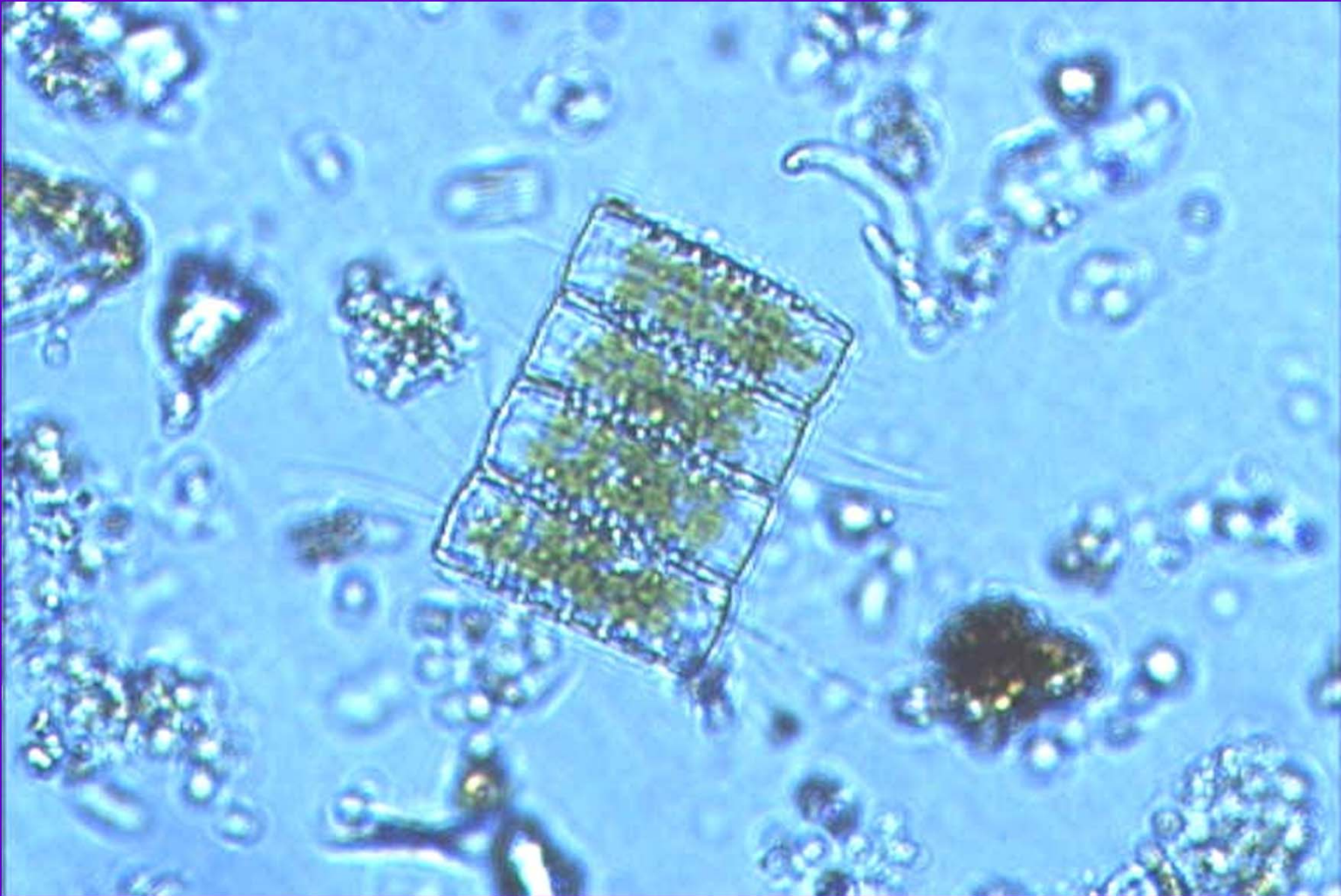
Pennales: *Cocconeis*



Pennales: *Cymbella*



Pennales: *Diatoma*



Pennales: *Diatoma*

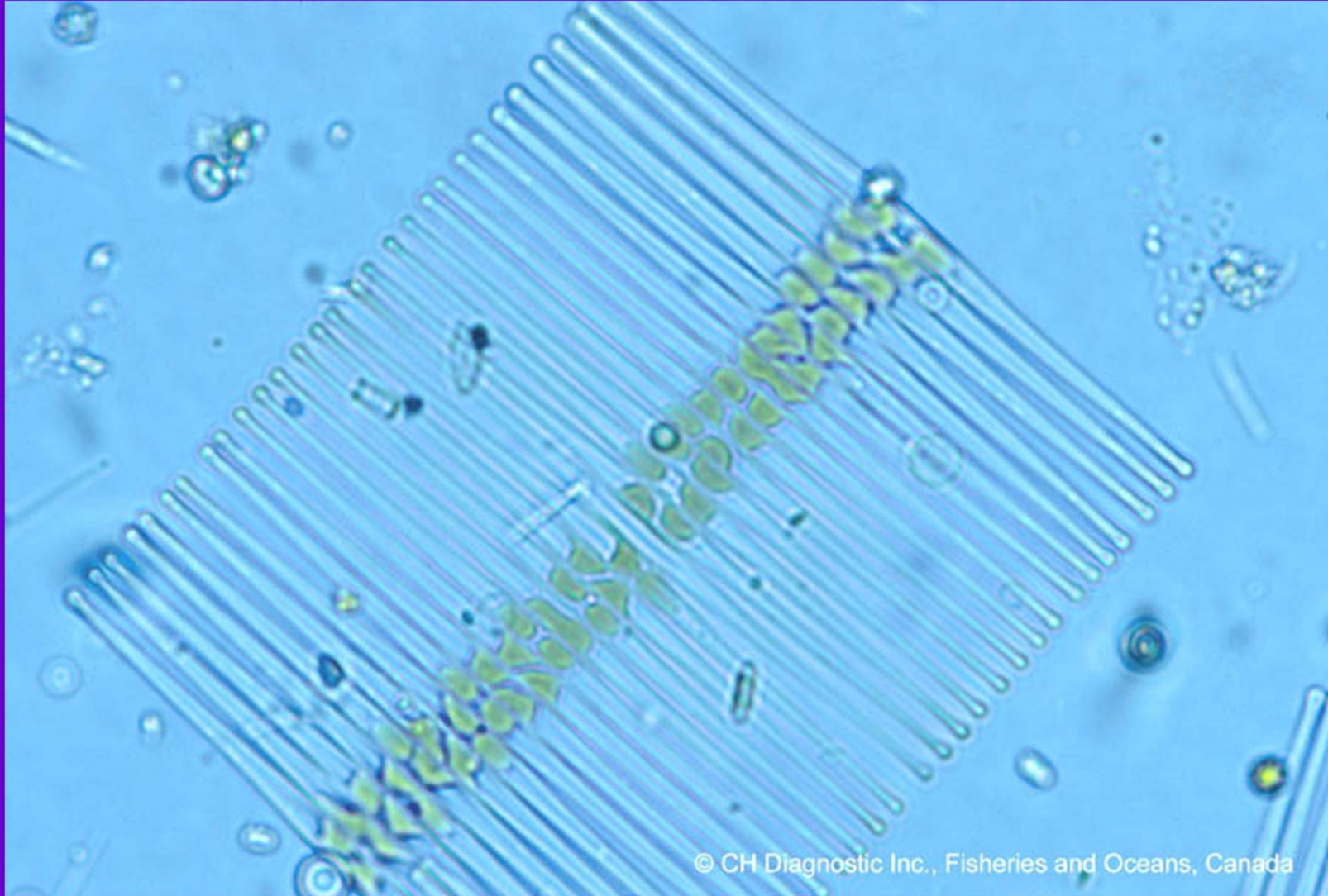


Pennales: *Didymosphenia*



© CH Diagnostic Inc., Fisheries and Oceans, Canada

Pennales: *Didymosphenia*

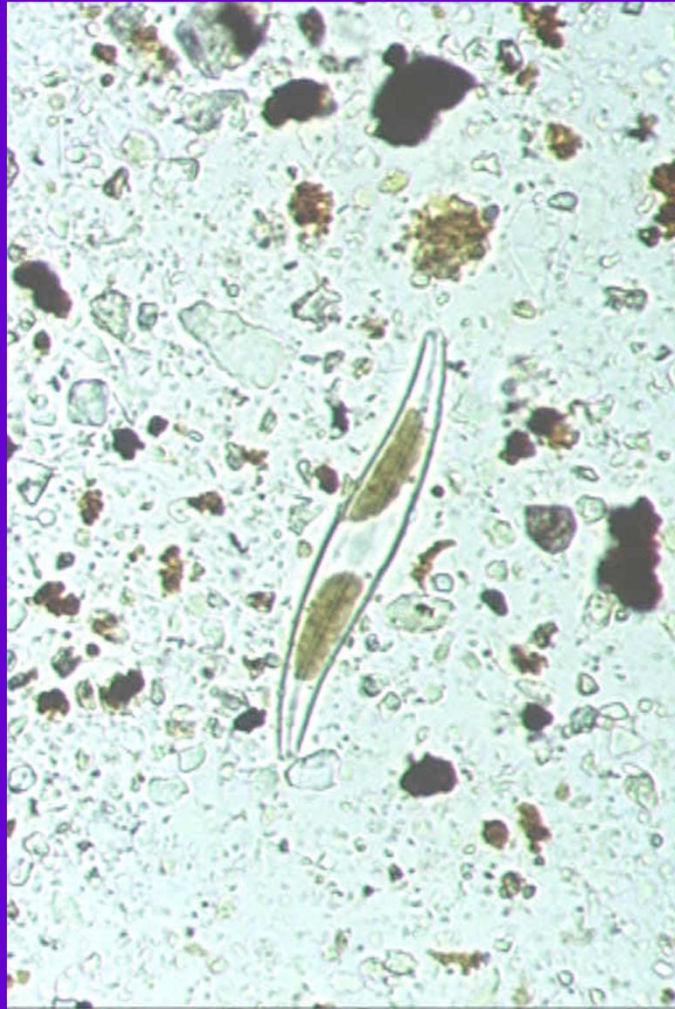


© CH Diagnostic Inc., Fisheries and Oceans, Canada

Pennales: *Fragilaria*



Pennales: *Fragilaria*



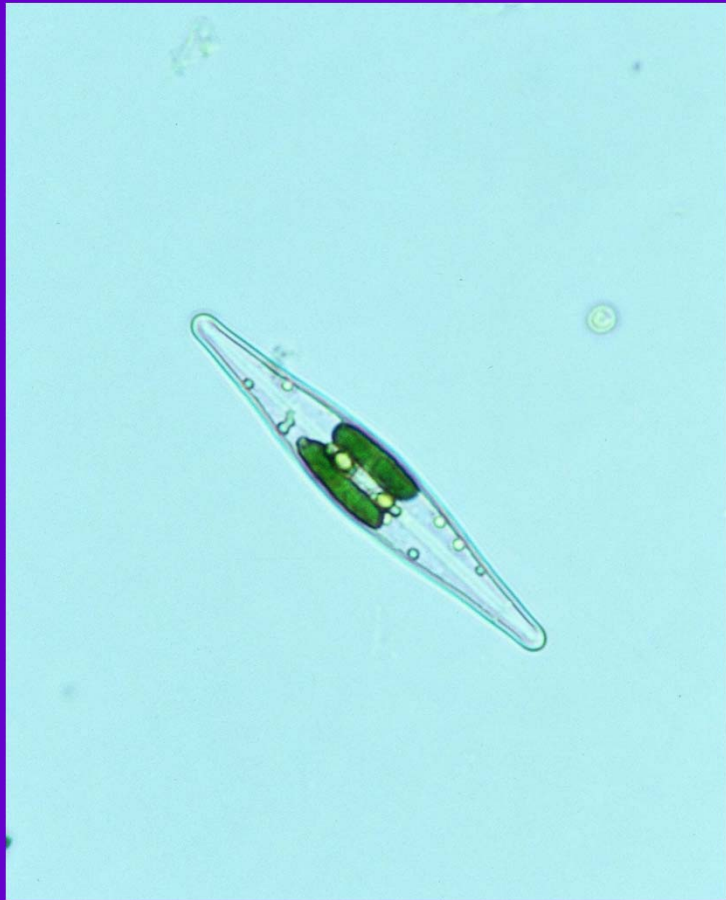
Pennales: *Gyrosigma*



Pennales: *Hannaea*



Pennales: *Meridian*



Pennales: *Navicula*



Pennales: *Nitzschia*



Pennales: *Pinnularia*



Pennales: *Surirella*



Pennales: *Synedra*



Pennales: *Synedra*



Pennales: *Synedra*



© CH Diagnostic Inc., Fisheries and Oceans, Canada

Pennales: *Tabellaria*



Pennales: *Tabellaria*