Frequently observed diatoms - underway 20μm sieved samples

**Asteromphalus hookeri**

- Diameter 25-60μm
- Central hyaline area 33-50%
- 6-9 hyaline rays, 1 markedly narrower
- Separating lines straight

**Asteromphalus parvulus**

- Diameter 22-48μm
- Central hyaline area 50-75%
- 6-7 hyaline rays, 1 markedly narrower
- Separating lines broken
**Chaetoceros Hyalochaete**

- Small, delicate forms with thin setae
- No chloroplasts in setae

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**Chaetoceros Resting Spore**
**Chaetoceros adelianus**

- Chain forming
- Pervalvar axis 42-48µm
- Small apertures
- Heavily silicified
- Rectangular in girdle view
- Small central spine
- Setae= long, coarse, spinose, almost perpendicular to valve

**Chaetoceros atlanticus- bulbosum form**

- Solitary or short chains
- Elliptical valves
- Pervalvar axis 10-25µm
- Central spines
- Large apertures
- Setae= bulbous at base, tapering distally, often striated
- Chloroplasts small, distributed into setae
Chaetoceros atlanticus

- Form straight chains
- Rectangular in girdle view
- Pervalvar axis 12-40μm
- Large, rectangular aperture
- Small central spine
- Setae arise from valve surface slightly within margin
- Small chloroplasts often spread into setae

Chaetoceros dichaeta

- Chain forming, often united by parent girdle
- Pervalvar axis 10-40μm
- Central spine
- Apertures large
- Setae extend from well inside valve margin, parallel to cell for ~1 cell length, then bend out ~perpendicular
- Small chloroplasts often spread into setae
Chaetoceros aequatorialis

- Cells solitary
- Rectangular in girdle view, upper valve with central depression
- Pervalvar axis 6.5-9μm
- Setae= long, coarse, spinose, slightly enlarged at emergence from upper valve
- Setae emerge almost perpendicular then curve down
- Upper and lower setae almost parallel

Chaetoceros criophillus

- Cells solitary or chain forming
- ±rectangle in girdle view
- Pervalvar axis 15-55μm
- Upper valve convex
- Setae= long, curved backwards, spinose, arise from near valve margin
- Characteristic notch between setae and lower valve
Chaetoceros peruvianus

- Usually solitary, sometimes short chains
- Rectangular in girdle view
- Small central spine
- Pronounced constriction between valves and girdle
- Pervalvar axis 13-20μm
- Upper valve rounded
- Setae of upper valve emerge from center forming vault-like structure, of lower valve emerge from near margin
- Setae= long, thin, spinose
Cylindrotheca spp.

Dactyliosolen antarctica
Entomoneis sp.
Eucampia antarctica var. antarctica

Eucampia antarctica var. recta
Fragilariopsis curta

Fragilariopsis rhombica/separanda
Fragilariopsis ritscheri

Fragilariopsis sublinearis cf
Guinardia cylindrus

Guinardia tubiformis
**Pseudo-nitzschia**

- ~100μm length
- Slightly sigmoidal shape at ends
- Form long chains

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**Proboscia alata**
**Proboscia truncata**

**Proboscia truncata auxospore**
Proboscia inermis

Rhizosolenia antennata semispina
Thalassiosira oliverana

Thassiosira tumida cf
Thalassiosira spp.

- Resting spores forming?