

# Diatom Diversity of Aghanashini Estuary, Uttara Kannada Coast

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## DIATOMS

- Diatoms are a major group of microalgae that belongs to the class “Bacillariophyceae”
- They are distinguished by their ornate cell structure made of hydrated silica and are known as “Algae in Glass houses”
- Diatoms majorly store their energy in the form of lipids or as chrysolaminarin – a complex polysaccharide
- The diatoms are considered to be a potential source of lipids for biodiesel production

## HABITATS

Epipelons



Sediments

Epiphytons



Plants

Epilithons

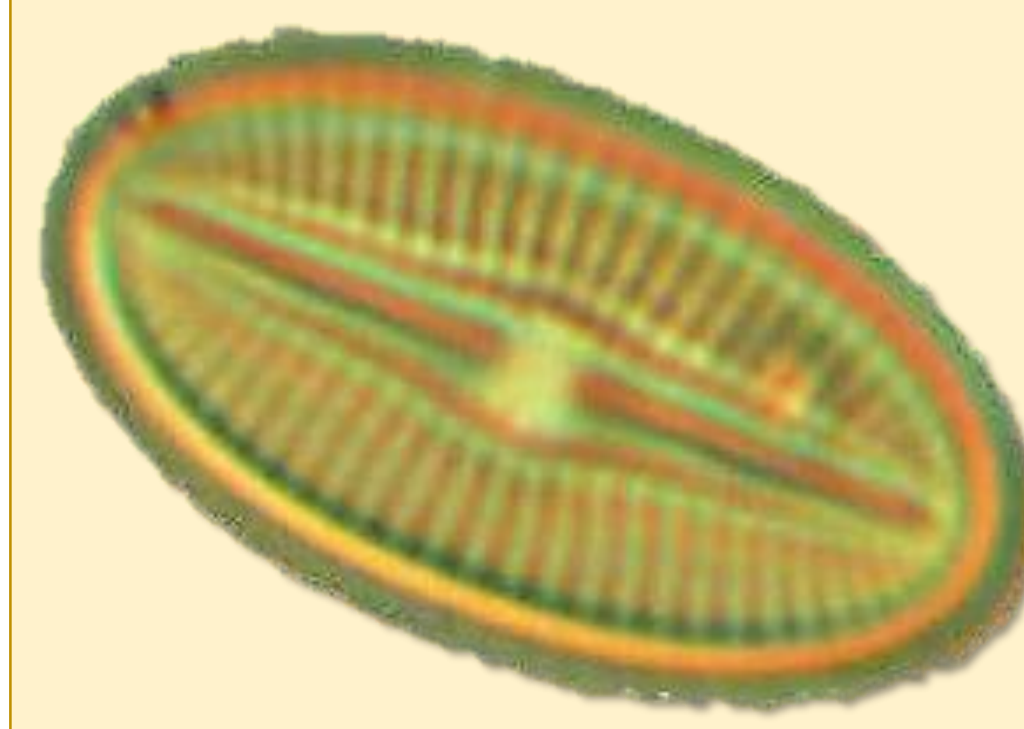


Rocks

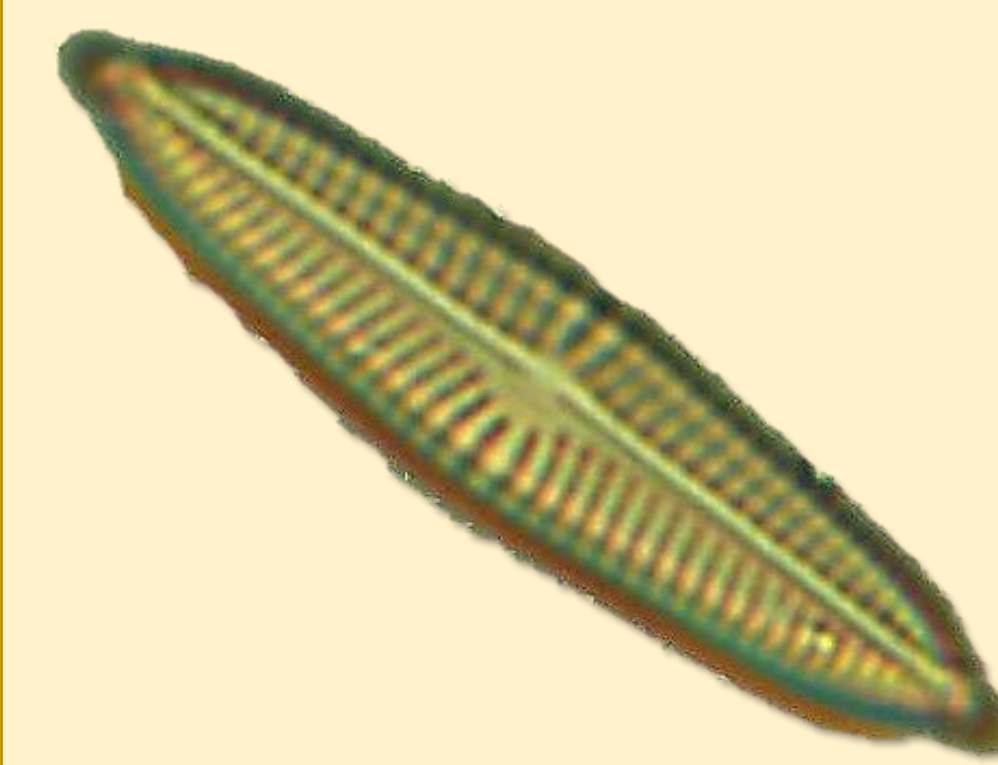
Episammons



Sand



*Diploneis sp*



*Frustulia sp.*



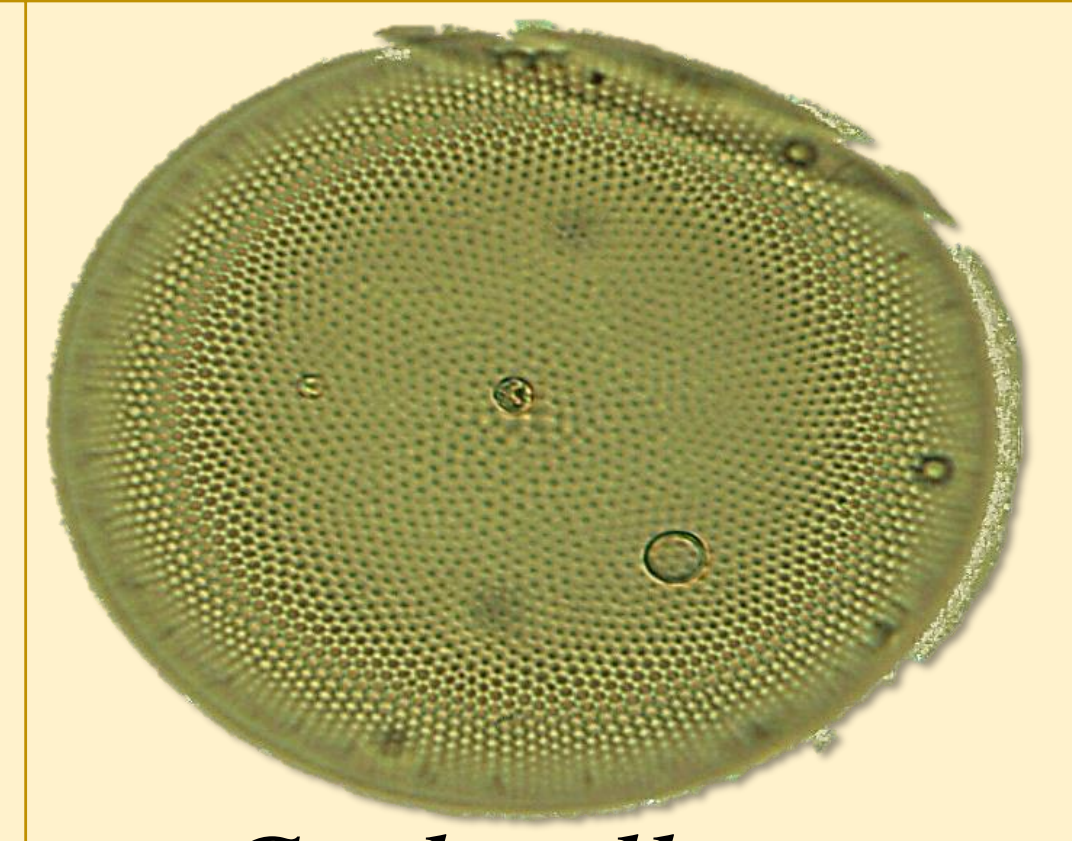
*Coscinodiscus sp.*



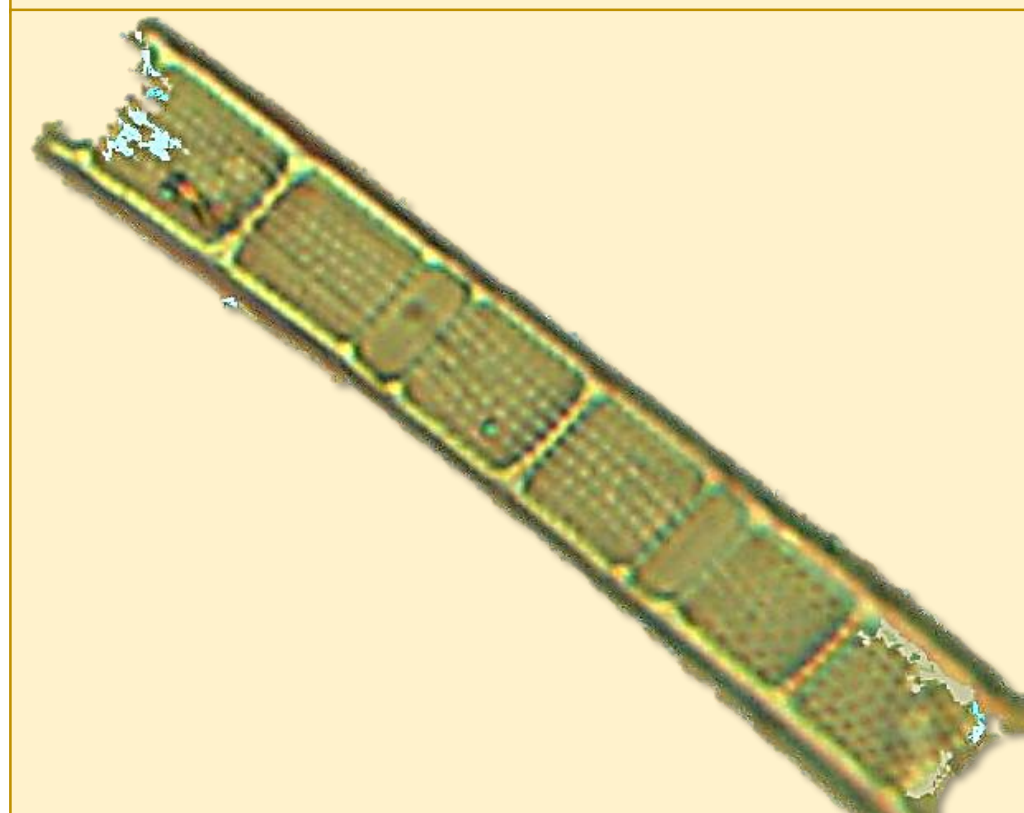
*Surirella tenera*



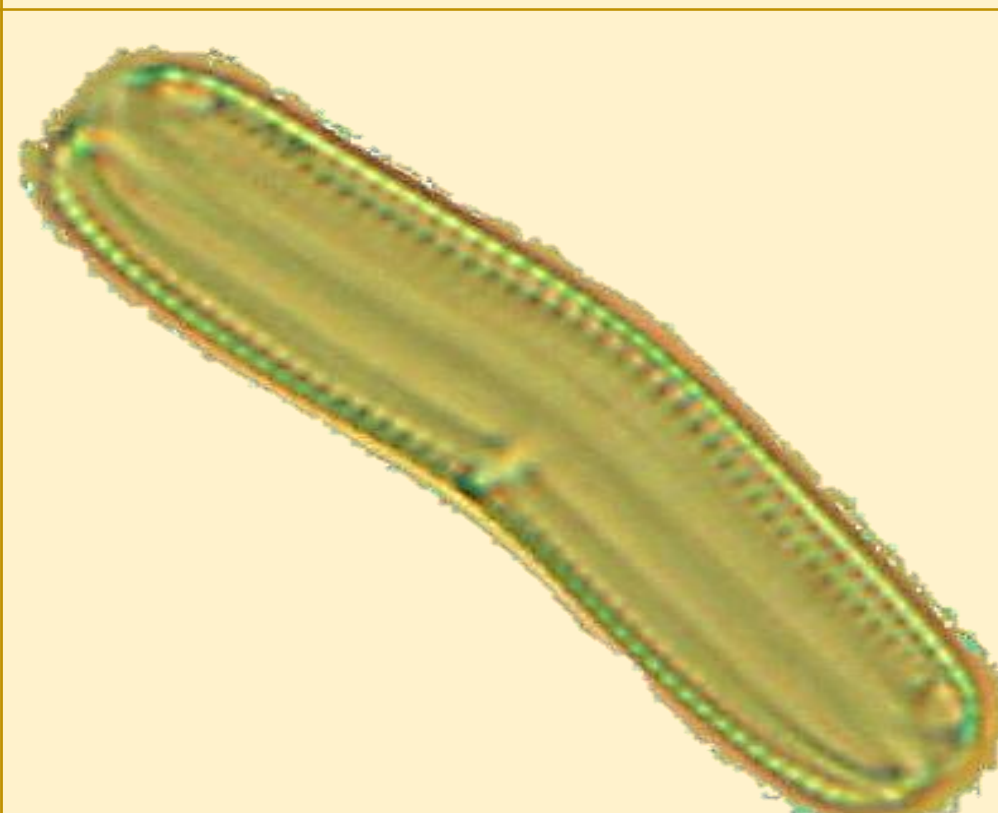
*Surirella striatula*



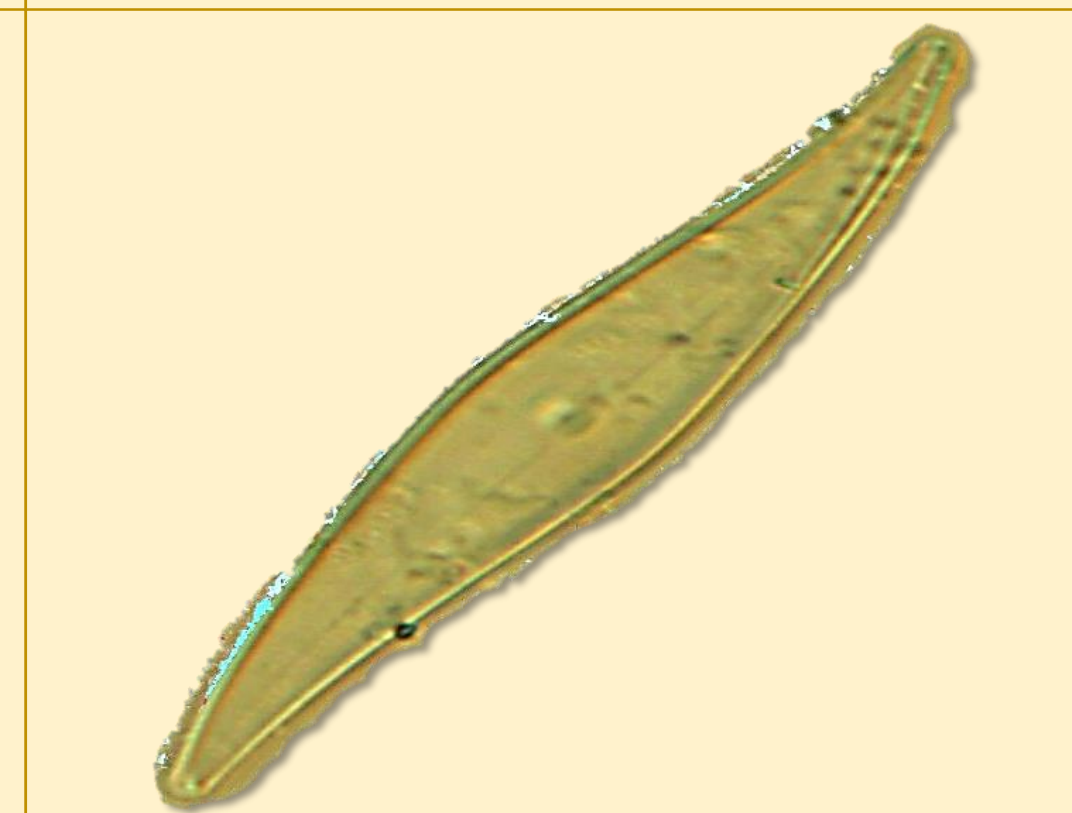
*Cyclotella sp.*



*Aulacoseira sp.*

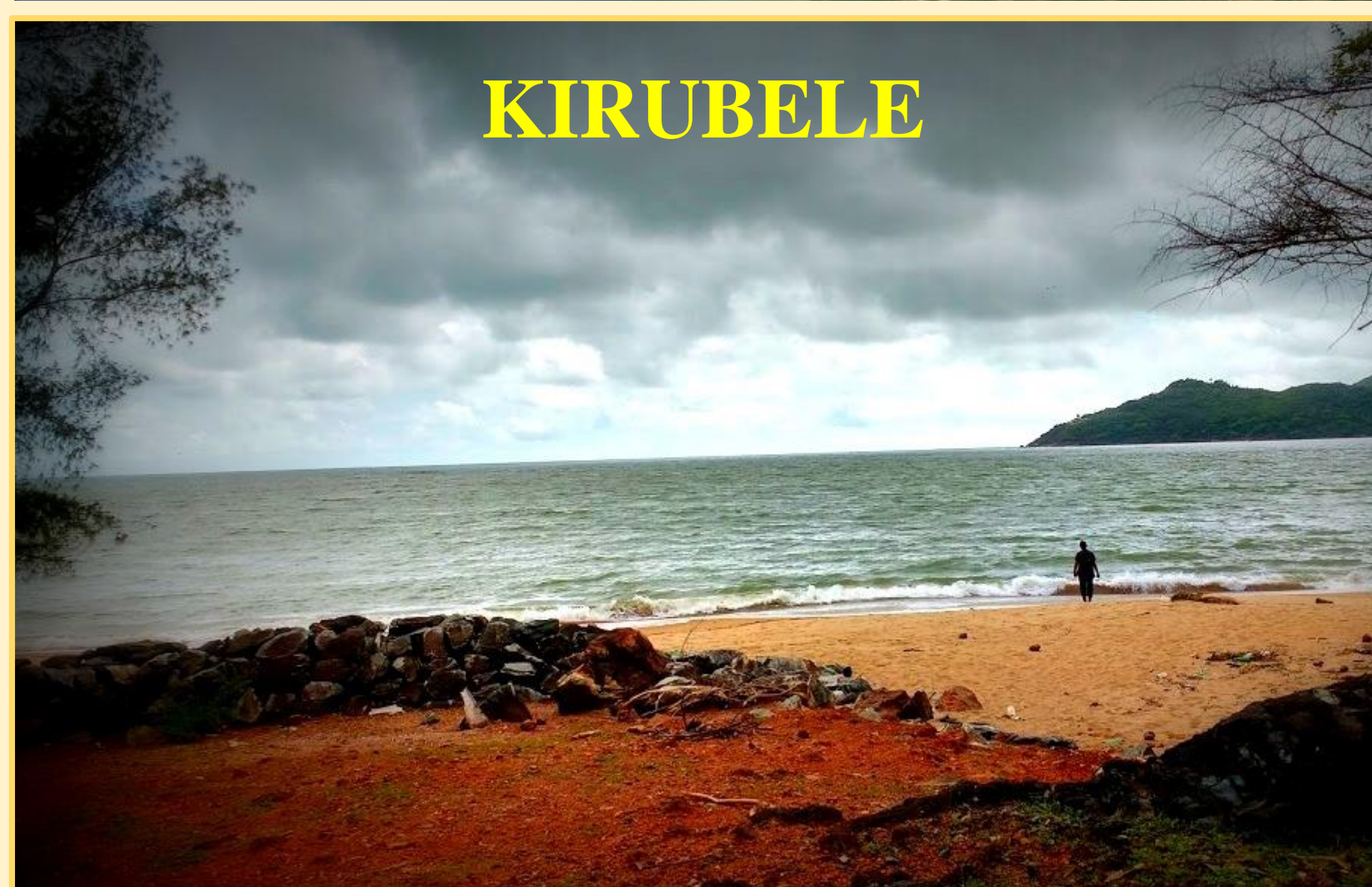


*Achnanthes sp.*

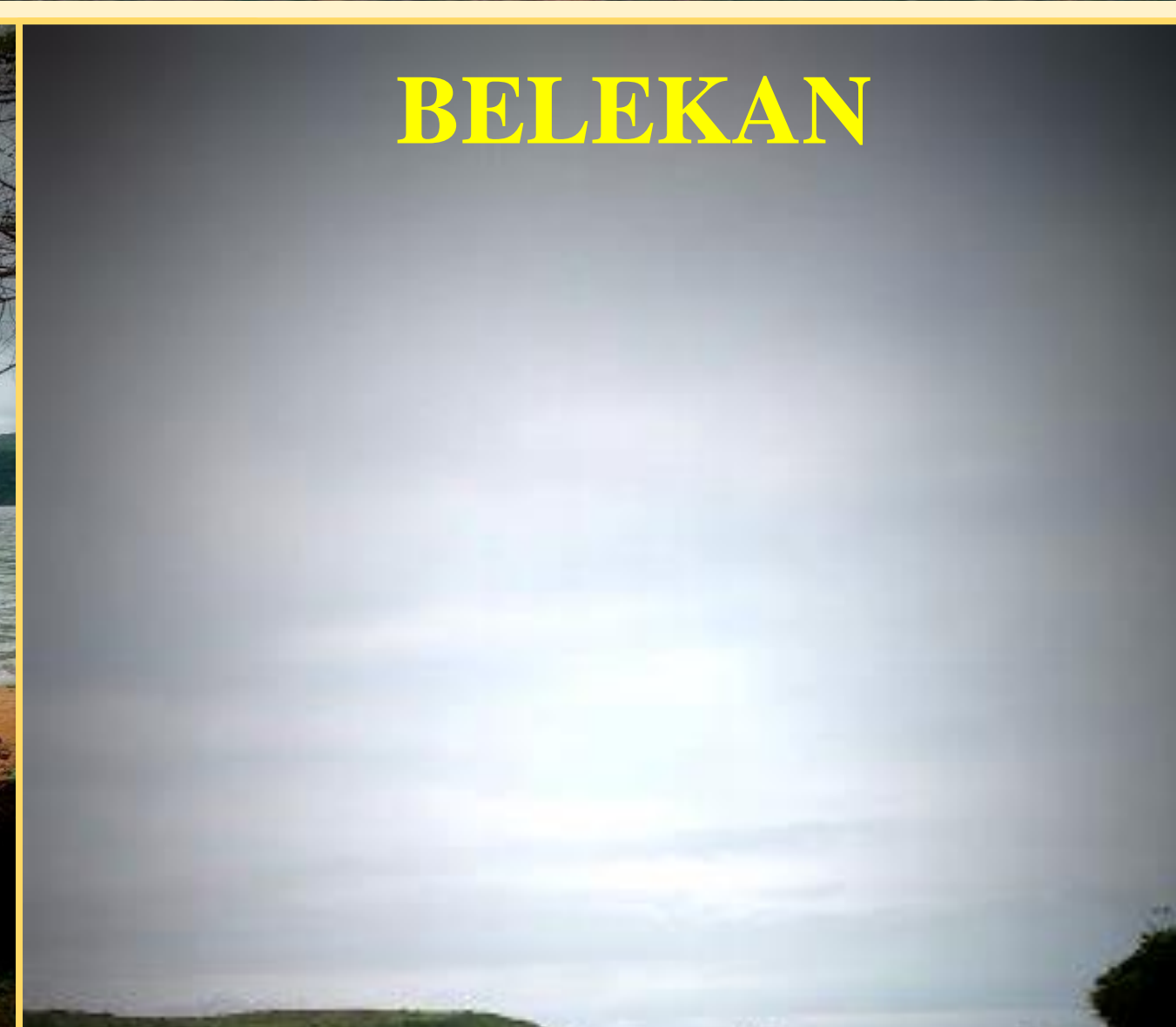


*Pleurosigma sp.*

## STUDY AREA



KIRUBELE



BELEKAN



BARGI



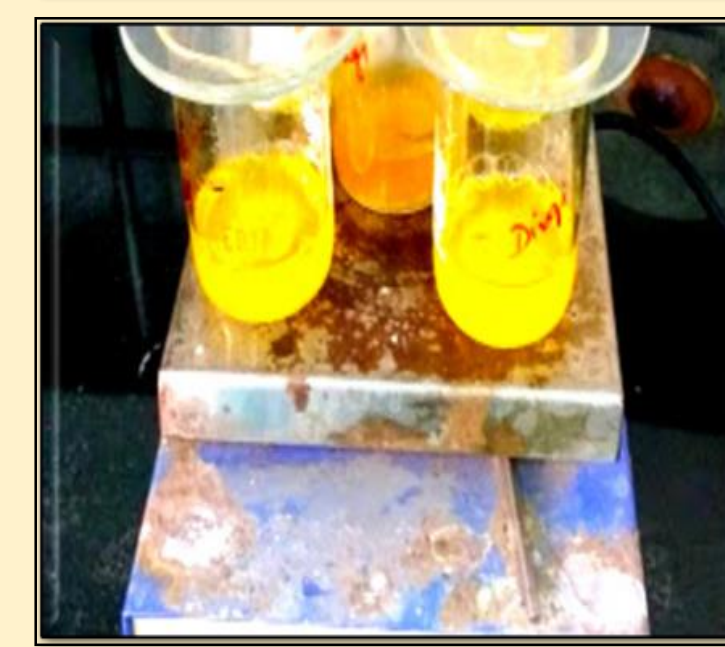
## METHOD

### COLLECTION



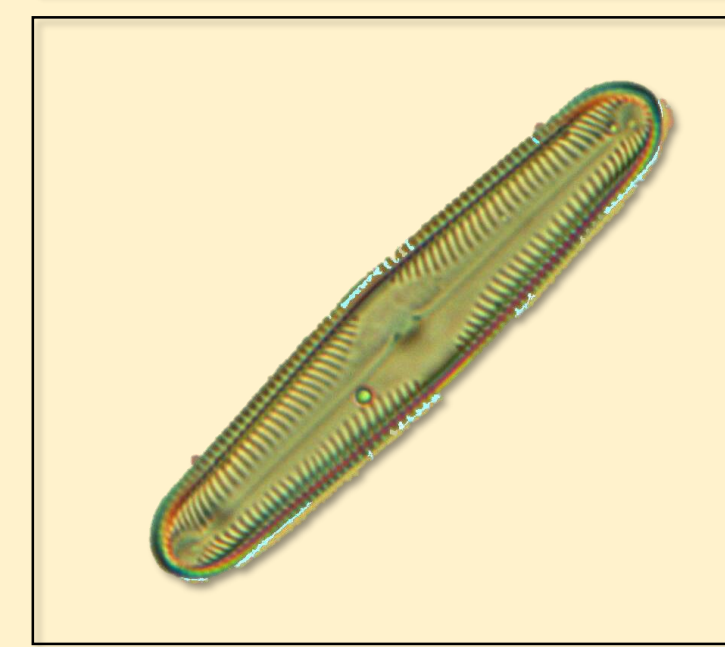
Scraped off from the substrata using a tooth brush

### PROCESSING



Diatoms are processed using KMnO<sub>4</sub> & hot HCl method

### IDENTIFICATION



Identification is done following the key of Henry Van Heurck (1896)

### ENUMERATION



Enumeration is done using Olympus BX51 microscope by counting 400 values per slide

### Epipelons

*Achnanthes longipes*, *Amphora sp.*, *Aulacoseira spp.*, *Coscinodiscus subtilis*, *Cyclotella meghiniana*, *Cymbella sp.*, *Diploneis subovalis*, *Encyonema prostratum*, *Frustulia crassinervia*, *Gomphonema sp.*, *Melosira sp.*, *Navicula spp.*, *Nitzschia spp.*, *Pinnularia saprophila*, *Pleurosigma sp.*, *Stauroneis acuta*, *Stephanodiscus hantzchianus*, *Surirella spp.*, *Synedra ulna*,

### Epilithons

*Achnanthes longipes*, *Amphora sp.*, *Coscinodiscus subtilis*, *Cyclotella meghiniana*, *Cymbella sp.*, *Fragilaria brevistriata*, *Melosira sp.*, *Navicula spp.*, *Nitzschia spp.*, *Surirella spp.*, *Synedra sp.*,

### Epiphytons

*Achnanthes tumescens*, *Amphora sp.*, *Coscinodiscus radiatus*, *Cyclotella meghiniana*, *Diploneis subovalis*, *Melosira spp.*, *Navicula sp.*, *Nitzschia sp.*, *Pleurosigma sp.*,

### Episammons

*Coscinodiscus radiatus*, *Cyclotella sp.*, *Diploneis subovalis*, *Navicula sp.*,

