

# Diatom Diversity of Aghanashini Estuary, Uttara Kannada Coast

Saranya G<sup>1,2</sup>, Joshi N V<sup>1</sup> and Ramachandra T V<sup>1,2</sup>

<sup>1</sup>Center for Sustainable Technology, <sup>2</sup>Energy and Wetlands Research Group, Centre for Ecological Sciences, Indian Institute of Science, Bangalore 560012, [URL:http://ces.iisc.ernet.in/energy](http://ces.iisc.ernet.in/energy), email: cestvr@ces.iisc.ernet.in



## 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



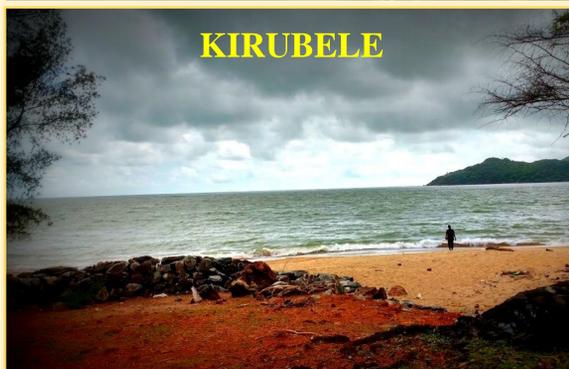
Rocks

Episammons

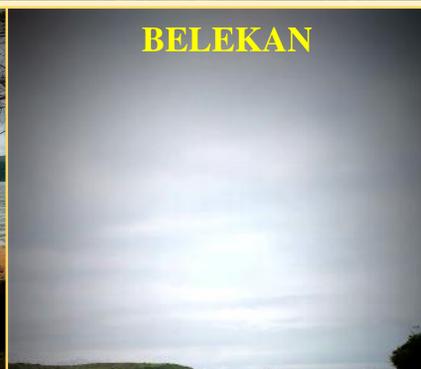


Sand

## STUDY AREA



KIRUBELE



BELEKAN



BARGI



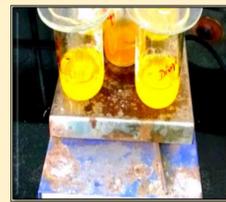
## METHOD

### COLLECTION



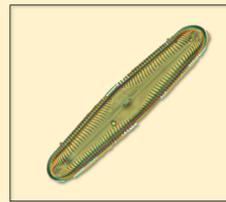
Scraped off from the substrata using a tooth brush

### 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 saphrophila*, *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.,



giz

