Diatom Diversity in the Coastlines of Dakshin Kannada and Udupi Districts
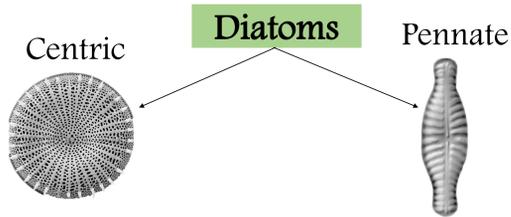
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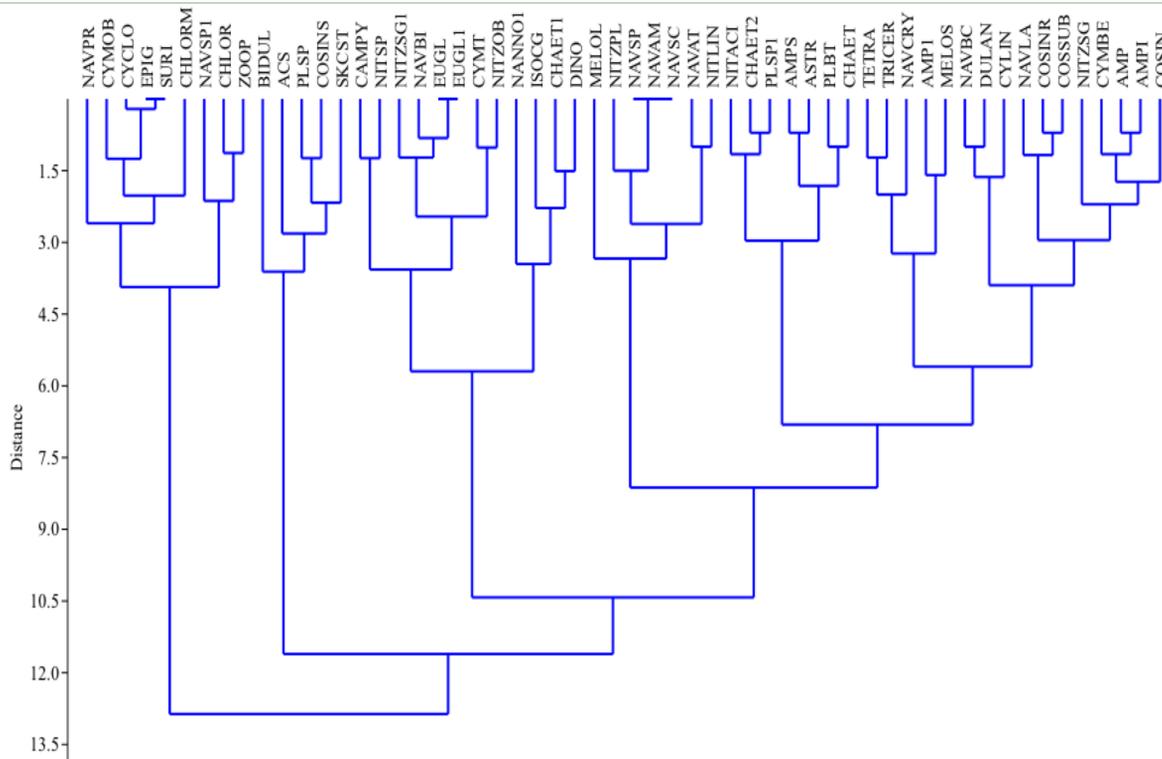email: tvr@iisc.ac.in, gsaranya@iisc.ac.in , phone: 080 22933099
Website: http://wgbis.ces.iisc.ernet.in/energy/, http://wgbis.ces.iisc.ernet.in/biodiversity/

INTRODUCTION

- Diatoms are bio-indicators of water quality in limnological studies.
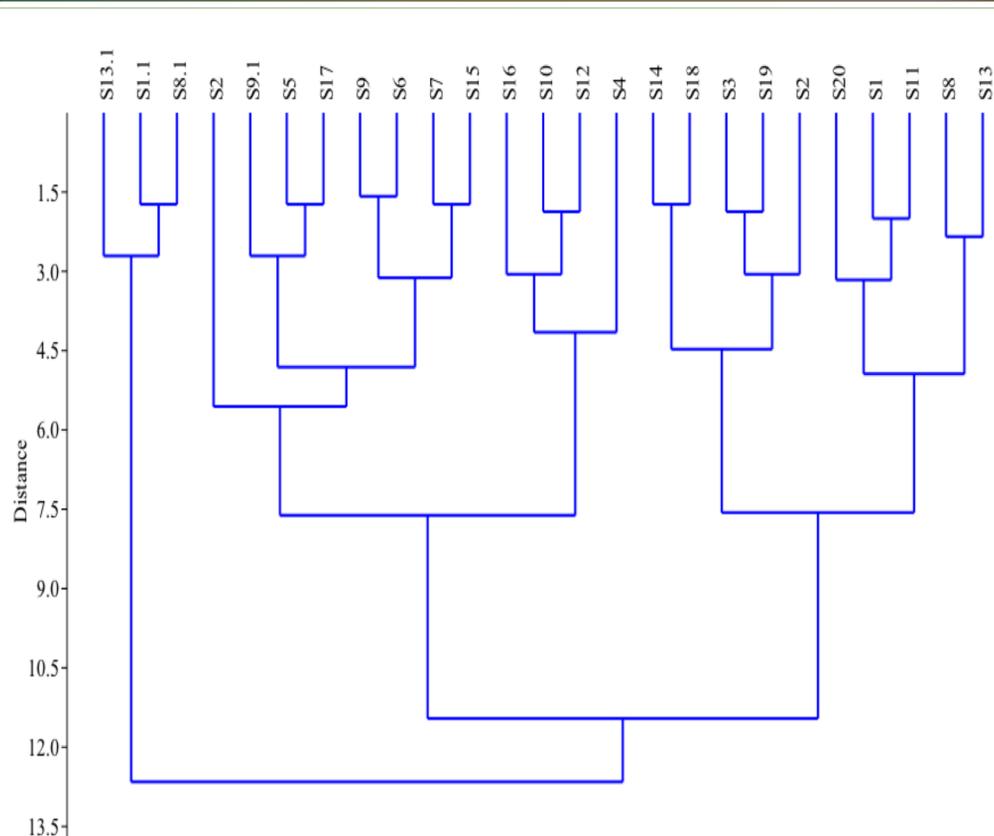
Centric — Diatoms — Pennate

- In the present work, an effort was taken to map the marine planktonic and benthic diatom diversity in two districts of central west coast.

STUDY AREA

MATERIALS & METHODS
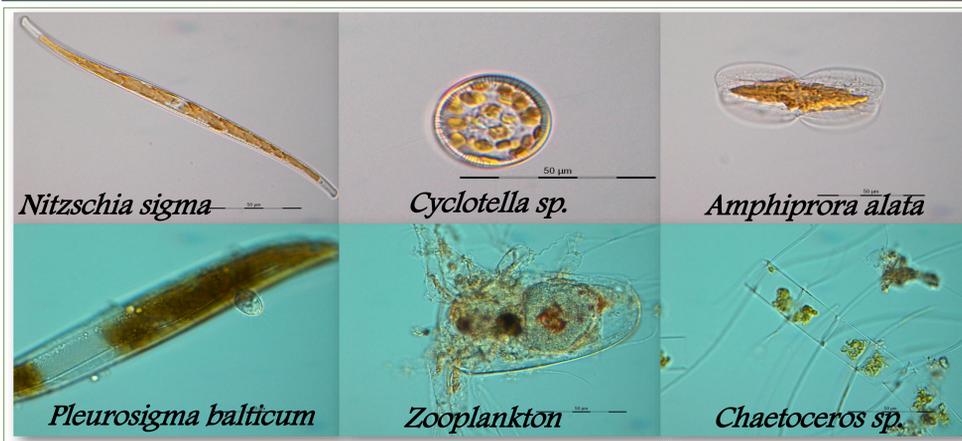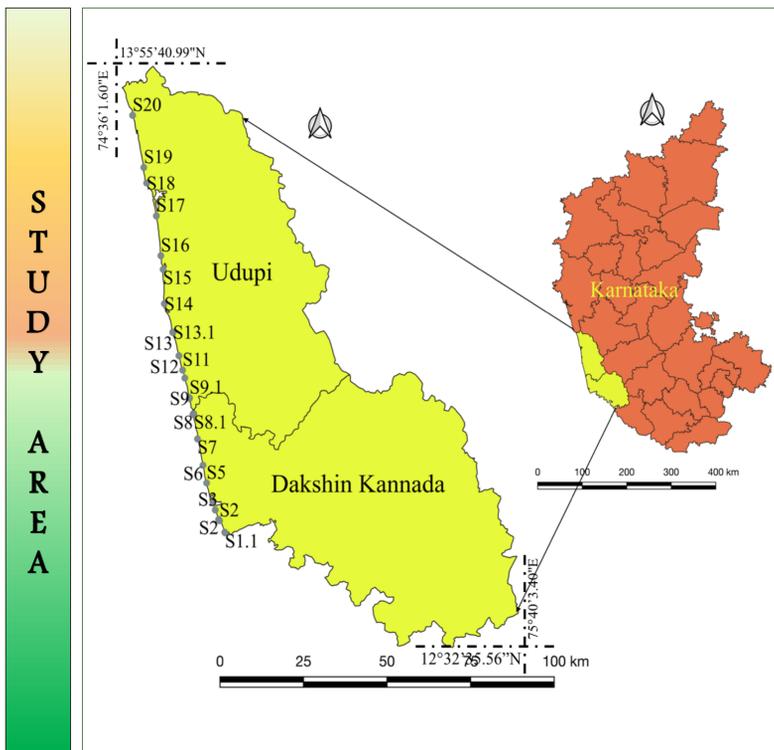
- Planktonic diatom sampling was carried out using a plankton net 20 µm mesh size, fitted to a collection silo of 1 litre capacity .
- Benthic diatoms were collected using a spatula by scrapping available hard surfaces at each stations.

Diatoms	Nature of Substrata
Epilithons	Stones, Rocks (Cobbles, Boulders)
Epipelons	Sediments
Epiphytons	Other macrophytes and Plants
Episammons	Sand

- The collected diatoms were analyzed using Olympus BX-51 fluorescence microscope.
- The diatoms were identified using standard diatom keys.

SPECIES BASED CLUSTERING

STATION BASED CLUSTERING

Achnanthes sp.	ACS
Amphiprora sp.	AMP
Amphiprora sp.	AMPI
Amphora salina	AMPS
Amphora sp.	AMP1
Asterionella sp.	ASTR
Bidulphia sp.	BIDUL
Camphylodiscus sp.	CAMPY
Chaetoceros gracilis	CHAET
Chaetoceros sp.	CHAET1
Chaetoceros sp. I	CHAET2
Chlorella sp.	CHLOR
Chlorophycean members	CHLORM
Coscinodiscus radiatus	COSIN
Coscinodiscus radiatus1	COSINR
Coscinodiscus sp.	COSINS
Coscinodiscus subtilis	COSSUB
Cyclotella sp.	CYCLO
Cylindrotheca fusiformis	CYLIN
Cymbella cymbiformis	CYMBE
Cymbella obtusa	CYMOB
Cymbella tumida	CYMT
Dinoflagellate	DINO
Dulaniella salina	DULAN
Epithema gibberula	EPIG
Euglena sp.	EUGL
Euglena sp.1	EUGL1
Isochrysis galbana	ISOCG
Melosira lineatus	MELOL
Melosira sp.1	MELOS
Nanochloropsis oculata	NANNO1
Navicula amphisbaena	NAVAM
Navicula atomoides	NAVAT
Navicula bacillum	NAVBC
Navicula bicephala	NAVBI
Navicula cryptocephala	NAVCRY
Navicula lanceolata	NAVLA
Navicula mutica	NAVPR
Navicula permagna	NAVSC
Navicula scutelloids	NAVSP
Navicula sp.	NAVSP1
Nitzschia acicularis	NITACI
Nitzschia linearis	NITLIN
Nitzschia obtusa	NITZOB
Nitzschia palea	NITZPL
Nitzschia sigma	NITZSG
Nitzschia sigma	NITZSG1
Nitzschia sp.	NITSP
Plerosigma balticum	PLBT
Pleurosigma sp.	PLSP
Pleurosima sp.	PLSP1
Skeletonema costatum	SKCST
Surirella sp.	SURI
Tetraselmus sp.	TETRA
Triceratium sp.	TRICER
Zooplankton	ZOOP

SPECIES COMPOSITION

Nitzschia sigma — Cyclotella sp. — Amphiprora alata
Pleurosigma balticum — Zooplankton — Chaetoceros sp.