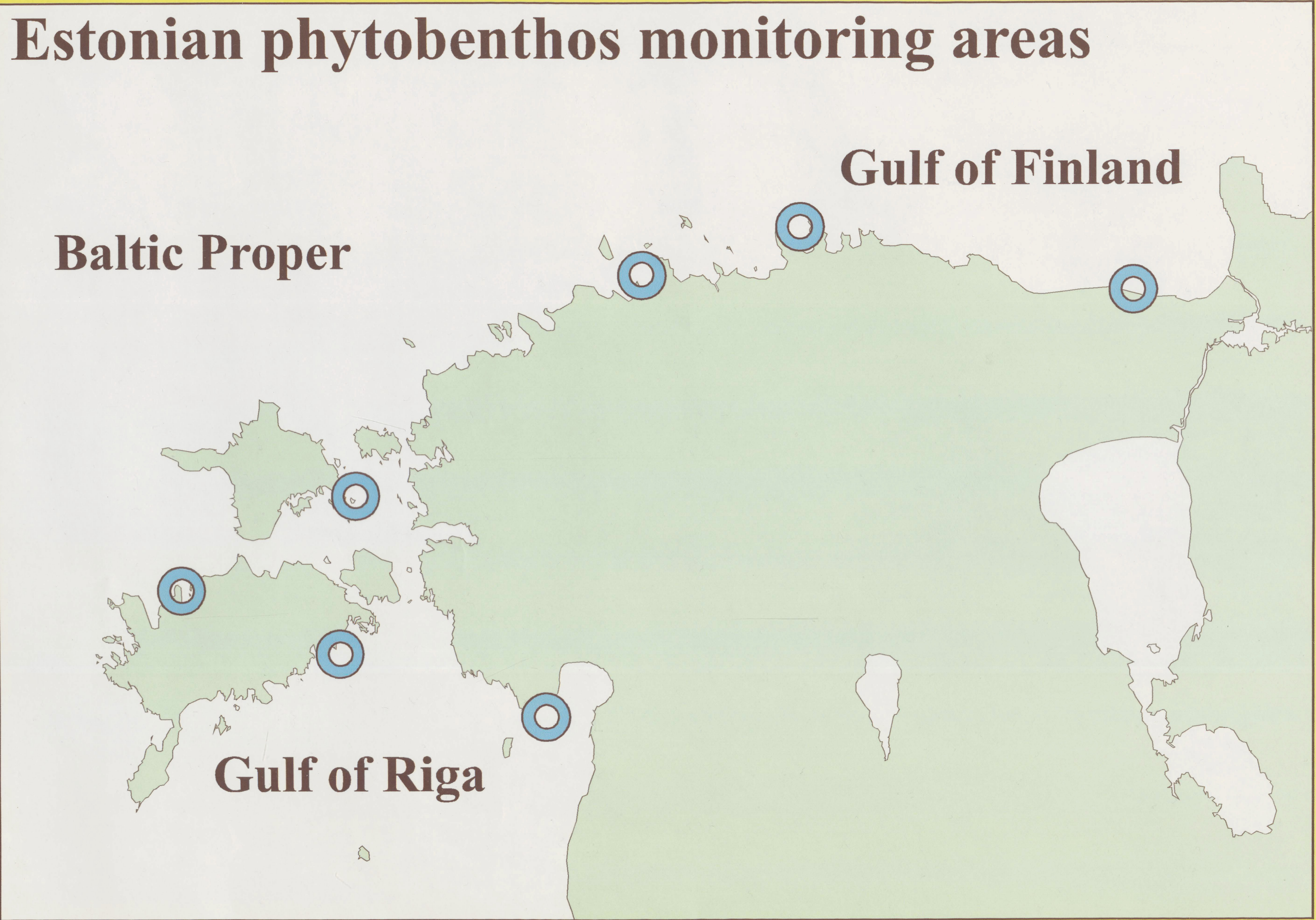
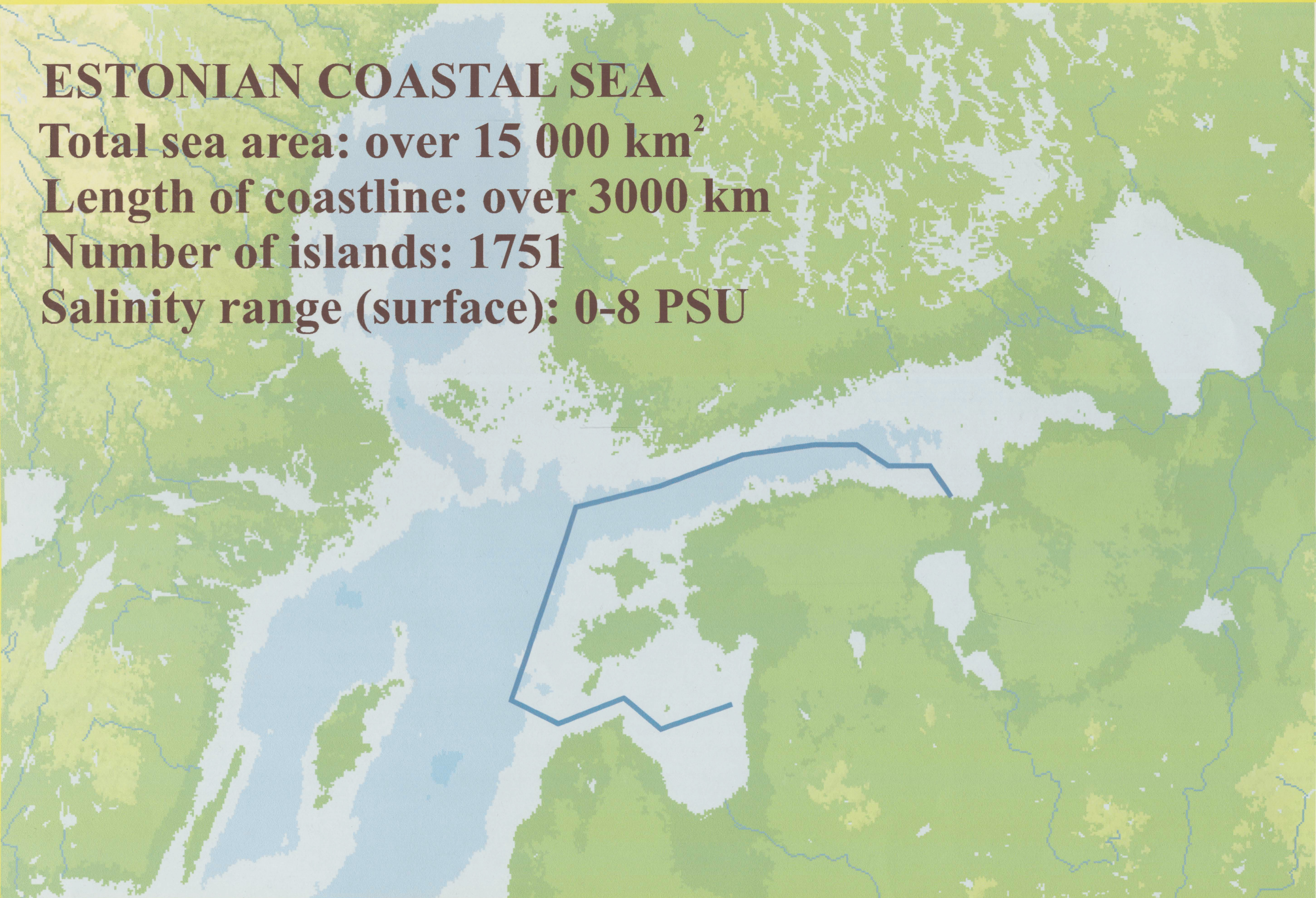


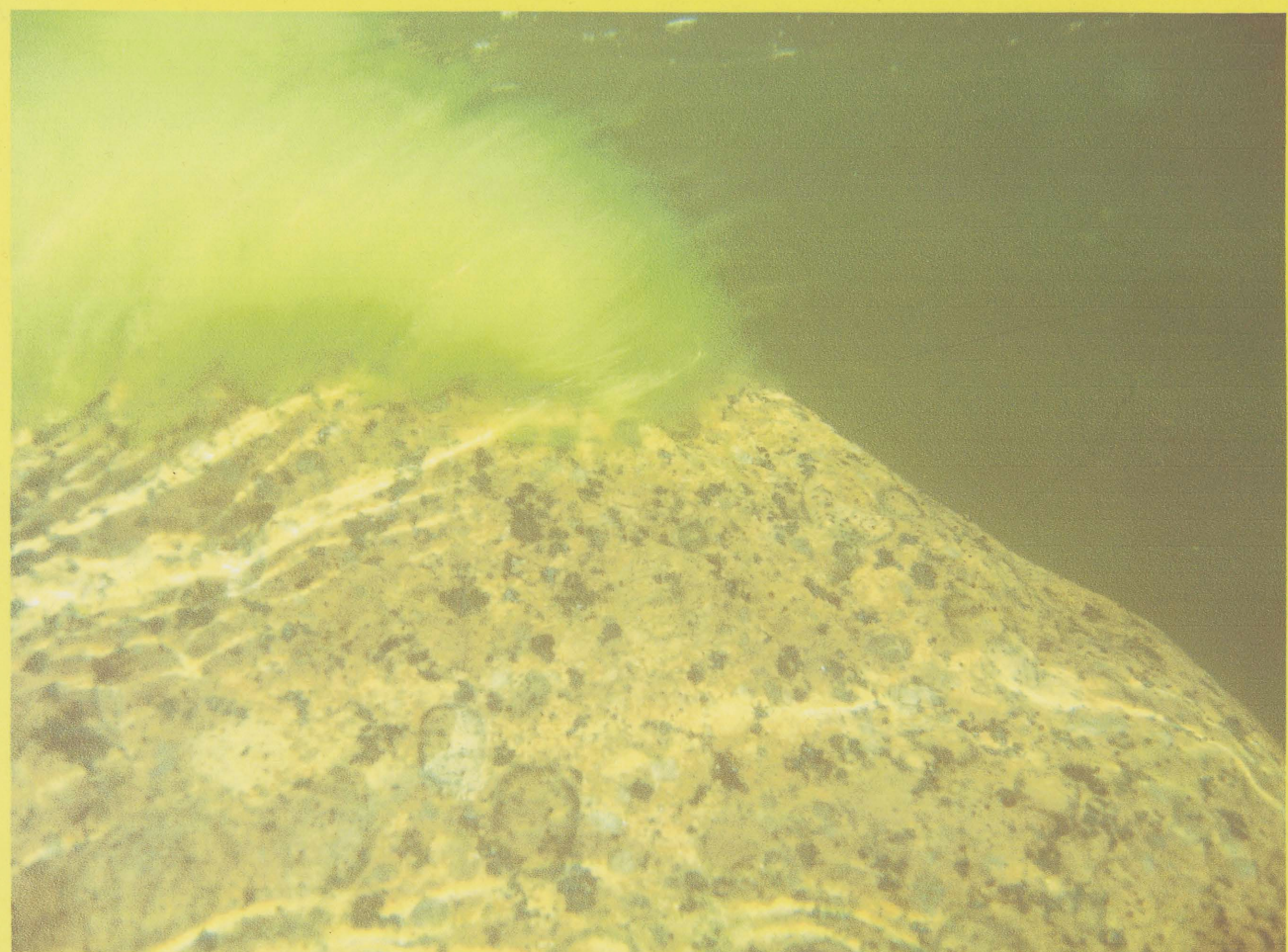
Monitoring of phytobenthos communities in Estonia, NE Baltic Sea

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The aim of the monitoring activities is to follow short and long-term changes in phytobenthic and associated zoobenthic communities and in combination with other marine monitoring programmes to help researchers distinguish between natural variability and human induced modifications of coastal ecosystems.



Methods. Semiquantitative (coverage estimations) and quantitative (sampling of biomass) continuous or fragmented line transects using SCUBA diving, photo and video documentation. Methods are based on HELCOM Guidelines.



Monitored parameters

Biotic parameters

- Total coverage
- Coverage and biomass of plant and animal species
- Depth distribution of vegetation
- Depth distribution of individual plant species
- Depth distribution of algal belts
- Proportion of annual and perennial plant species
- Proportion of different taxonomic groups

Abiotic parameters

- Substrate
- Salinity
- Siltation

Analytical methods

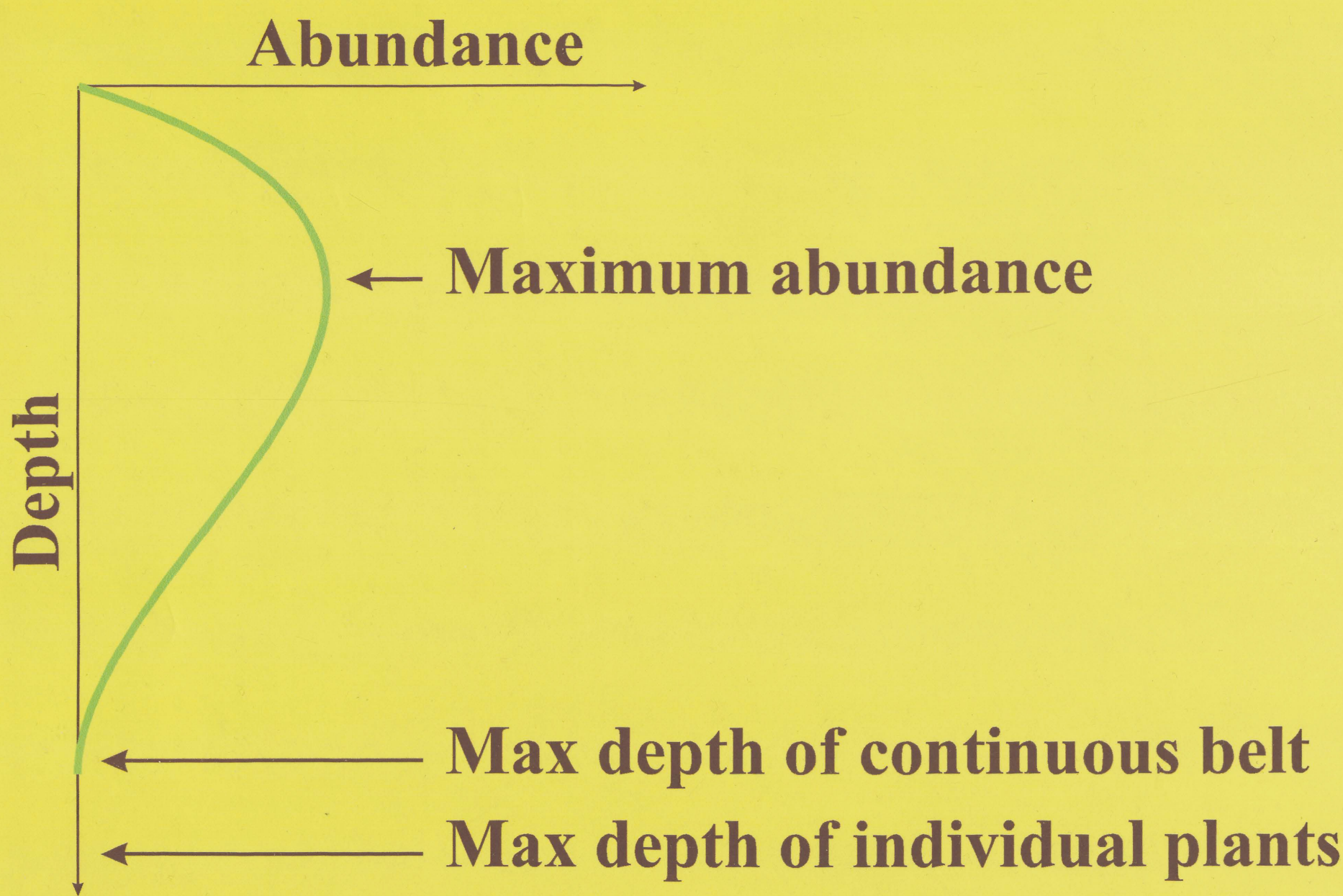
Coverage estimations

- Direct coverage estimations in 2 m wide corridor along the transect (10 % accuracy)
- Coverage is estimated continuously from 0 to 1.5 metre and every second metre at greater depths

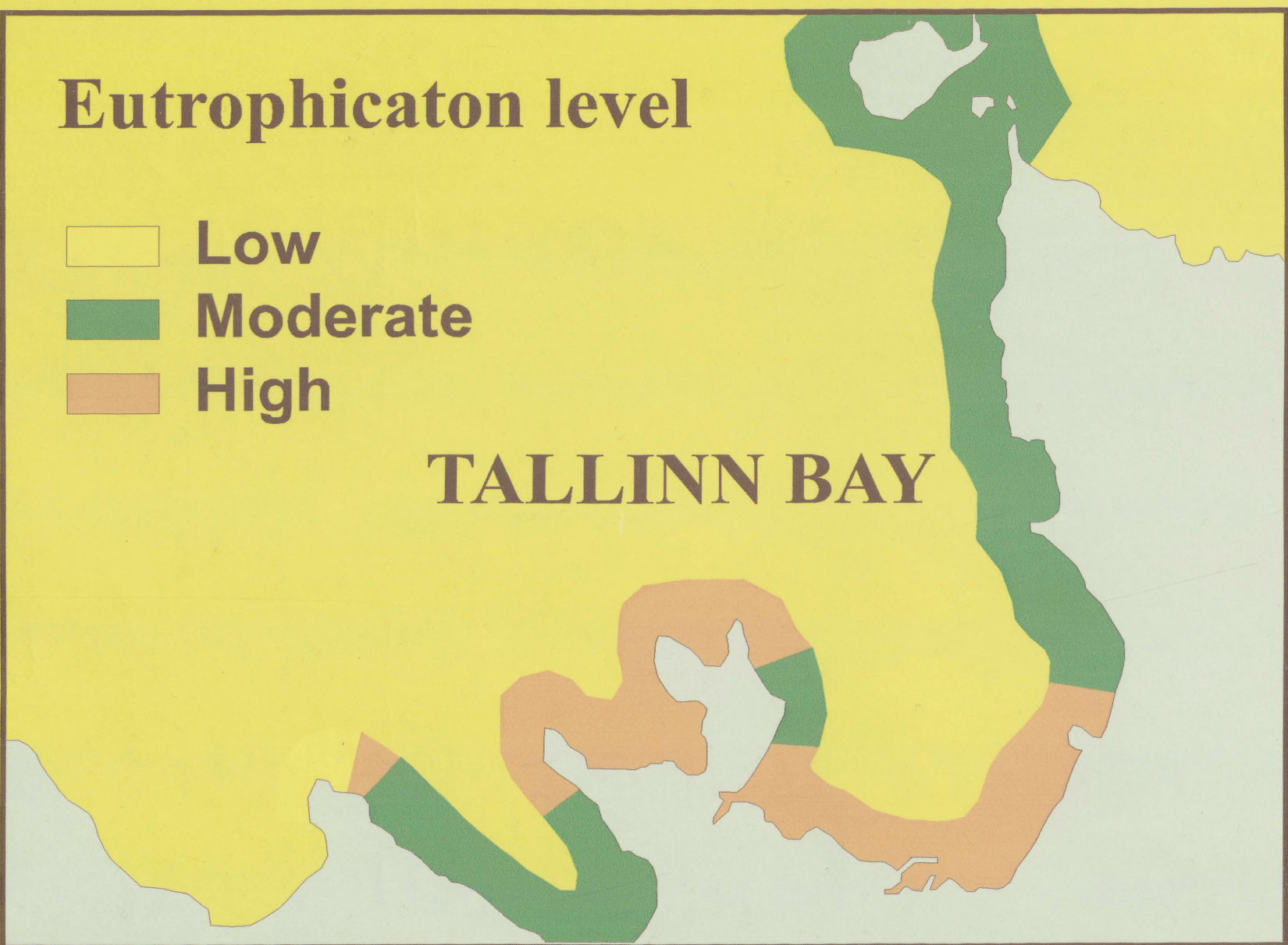
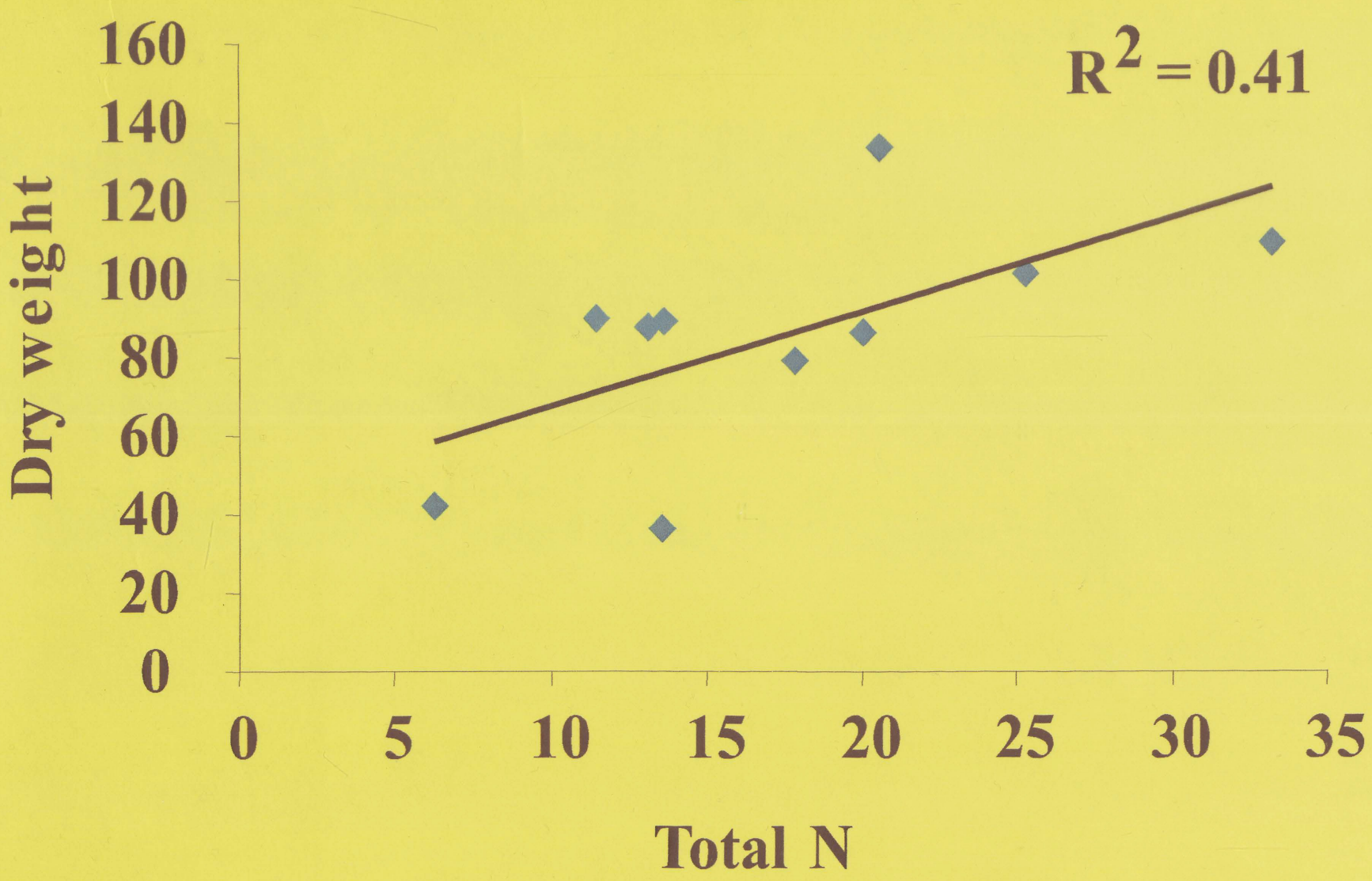
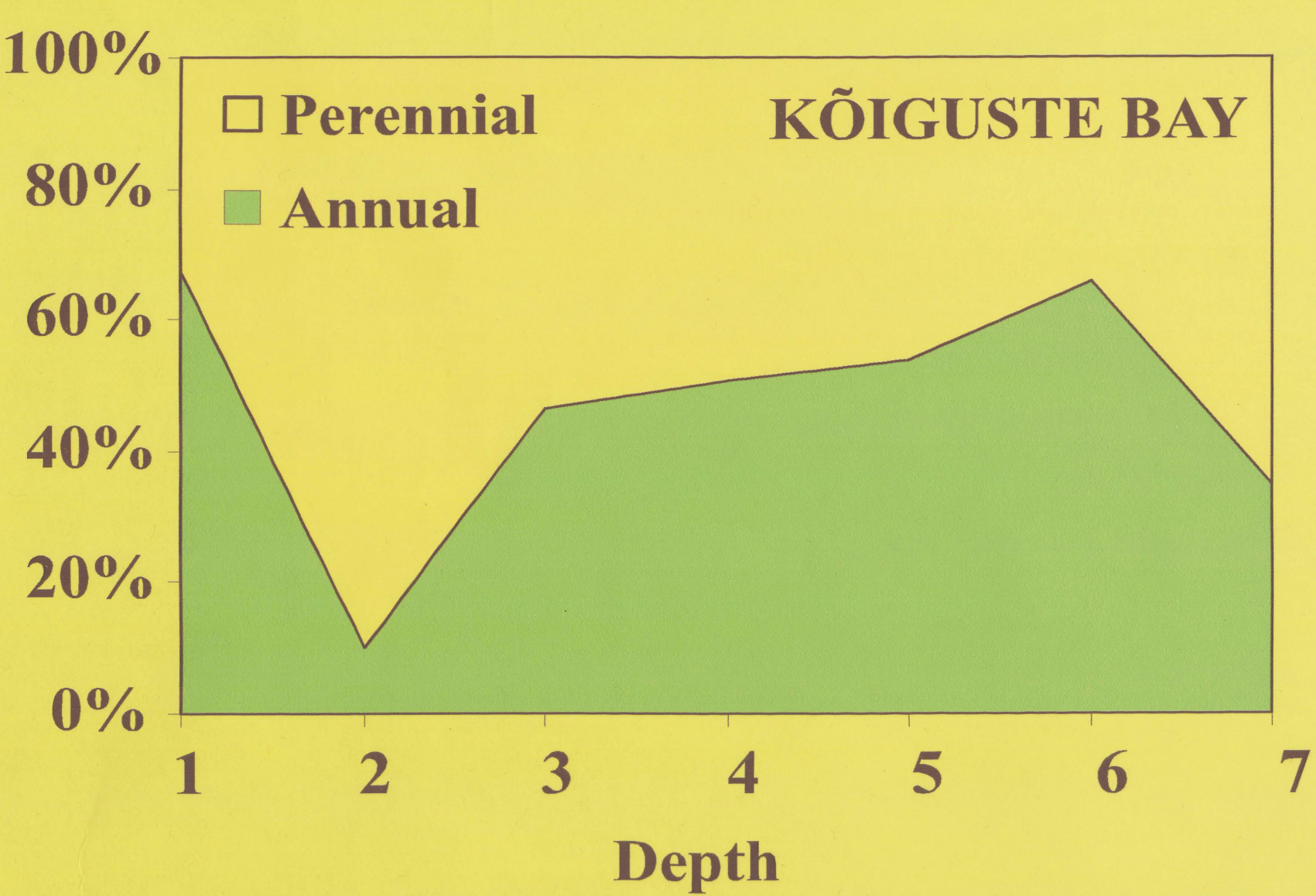
Biomass estimations

- Three replicate frame samples are taken at each depth interval using 20x20 and 50x50 metal frames
- In the laboratory whole sample is sorted to species and dry weight of the species is determined after keeping the sample at 60 °C in 14 days

Monitored depth distribution parameters



Examples of monitoring results



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