

## DIATOMS – ORGANISMS THAT HAVE BEEN SUCCESSFUL

### S u m m a r y

Diatoms (Diatomae, Bacillariophyceae) constitute the most abundant and most diverse group of algae. In science, nature and human activity they fulfill an exceptional function ensuing from their specific structure, physiology and ecology. They occur in all water environments or those whose habitats are constantly humid. Diatoms are primary organic matter producers in waters, hence they constitute a basis of the food chain in seas, oceans and inland waters. Due to their high lipid and protein contents they are highly energetic food of invertebrate animals. They are sensitive to physical and chemical changes of the environment,

consequently, they are perfect biological indicators of changes occurring in water bodies, including those connected with acidity, eutrophication (trophic state), pollution (saprobity) and climate. After their death, permanent, siliceous frustules of diatoms fall onto the bottom, where they form diatom sediments called diatomite, whose thickness may reach 100 meters. Diatomite is an exceptionally valuable raw material used in food, chemistry and building construction industries. The age of diatoms is estimated at about 400 million years.