

THANATOCENOSES OF NON-BITING MIDGES (DIPTERA: CHIRONOMIDAE) IN PALEOCLIMATIC AND ENVIRONMENTAL RESEARCHES

Summary

Water sediments are good indicators of past conditions. Studies on sub-fossil chironomids (Diptera: Chironomidae) have a special significance in the paleolimnology. Geographical distribution of chironomids is closely related to air temperatures changing in high latitudes and altitudes in a long time period. For this reason Chironomids are excellent indicators used as a modern tool in the paleoclimate reconstruction, especially past July mean temperatures. Fossil remains of these midges allow us to reconstruct climatic conditions from the beginning of the Holocene. Among others achievements, they have

contributed to indicating the previously unrecognized cold events and water temperature north-south gradients in east Canada coast during the last deglaciation. The changes in non-biting midges sub-fossil communities that occurred in a relatively short time period (through the last two centuries) are helpful in showing the impact of pollution on water life. Nowadays paleolimnology is a scientific discipline that shows dynamic progress. Increased knowledge about them will provide answers to main questions concerning present climate.