

Коэффициент развития туристских функций Деферта (рассчитанного как отношение числа мест в рекреационных объектах на 100 постоянных жителей) для курорта Нарочь достигает 175, а для всей прибрежной зоны (с учетом частных домовладений) – 40, что соответствует районам и курортным поселениям с развитыми рекреационно-туристскими функциями где этот показатель превышает 100, хотя в поселениях с комплексной хозяйственной структурой может устанавливаться на более низком уровне. Значение коэффициента Шнейдера (рассчитанного как отношение годового числа туристов, приходящихся на 100 постоянных жителей) в Нарочанской зоне составляет 340 чел. и соответствуют районам с развитой туристской функцией.

THE DEVELOPMENT OF DIATOM DATA SET OF RAWAPENING LAKE, INDONESIA TO EXAMINE THE PAST TROPHIC STATUS

T.R. Soeprbowati

РАЗРАБОТКА БАЗЫ ДАННЫХ ДИАТОМОВЫХ ВОДОРΟΣЛЕЙ ОЗЕРА РАВАПЕНИНГ (ИНДОНЕЗИЯ) ДЛЯ ОЦЕНКИ ЕГО ТРОФИЧЕСКОГО СТАТУСА В ПРОШЛОМ

Т.Р. Сепробовати

*Department of Biology FMIPA, Diponegoro University, Semarang, Indonesia,
trsoeprbowati@yahoo.co.id*

The potential use of diatoms as a bioindicator of water quality has been studied in many countries. Recently, much research work has been focused on using diatoms for paleolimnological analysis. However, Indonesia does not have yet a standard method for diatom analysis. The aims of this study were to assess the transfer function and to develop the diatom data set of Rawapening Lake. Transfer function is the model to estimate certain water quality measures from the diatoms present in a sample. Every variable value in this model is weighted to the diatom abundance.

Sediment samples were taken from 4 sites in Rawapening Lake using a hand auger and sliced at every 0,5 cm. The analytical tests performed included the analysis of diatom and Pb²¹⁰ sediment dating. The diatom analysis consisted of 3 steps: (i) digestion process to separate the diatoms from sediment by treatment with 10 % chloride acid followed by 10 % peroxide, (ii) preparation of the isolated diatoms for mounting on microscopic slides, and (iii) identification-enumeration of the collected samples.

The development of data set of the Lake Rawapening diatoms in relation to the water quality parameters was examined with help of the Principle Component Analysis (PCA), followed by Canonical Correspondence Analysis (CCA). Based on the CCA, the composition of diatoms in Lake Rawapening was controlled by phosphate, temperature, and calcium. Phosphate appeared to be the most influential variable. Phosphate was found to contribute 50 % on diatom assemblage, and the remaining variation was determined by other factors.

The diatom data set of Lake Rawapening obtained in this study is the first Indonesian diatom data set that examines the past trophic status. Research has to be continued spatially in various Indonesian lakes, and in time in specific Indonesian lakes to develop the national Indonesia diatom data sets.