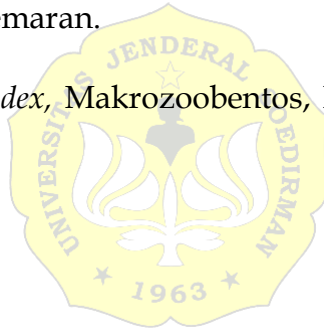


ABSTRAK

Pencemaran di Sungai Pelus disebabkan oleh faktor manusia dan alam. Pencemaran di sungai akan mengganggu keseimbangan ekosistem sungai. Salah satu bioindikator pencemaran yang efektif adalah makrozoobentos. Penelitian ini bertujuan untuk mengukur tingkat pencemaran organik di Sungai Pelus menggunakan *Family Biotic Index* (FBI), karena penelitian terkait di Sungai Pelus masih terbatas. Jenis penelitian ini adalah deskriptif kuantitatif dengan metode *purposive sampling*. Penelitian dilakukan di tiga stasiun, dengan tiga kali pengulangan di setiap titik sampling. Pengambilan makrozoobentos dilakukan menggunakan *surber net*. Parameter kualitas air yang diukur meliputi pH, oksigen terlarut, kecepatan arus, dan suhu. Perhitungan nilai FBI digunakan untuk mengetahui tingkat pencemaran organik di Sungai Pelus. Makrozoobentos yang didapatkan terdiri atas 4 kelas, 12 ordo dengan 17 famili, dengan famili terbanyak yang didapatkan adalah Tubificidae dan Baetidae. Stasiun 1 dan 2 tercemar sedang (FBI=5,06; 5,38), Stasiun 3 tercemar agak berat (FBI=6,2). Indeks keanekaragaman pada ketiga stasiun tergolong sedang ($H' = 2,20; 2,03; 1,85$), indeks dominansi rendah ($D = 0,13; 0,17; 0,17$) dan indeks pemerataan tinggi ($E = 0,78; 0,72; 0,65$). Secara umum, kualitas air menurun seiring meningkatnya pencemaran.

Kata kunci: *Family Biotic Index*, Makrozoobentos, Pencemaran organik, Sungai Pelus.



ABSTRACT

Pollution in the Pelus River is caused by both anthropogenic and natural factors. River pollution can disrupt the balance of the river ecosystem. One effective bioindicator of pollution is macrozoobenthos. This study aims to assess the level of organic pollution in the Pelus River using the Family Biotic Index (FBI), as related research in the river is still limited. This research is descriptive and quantitative in nature, using a purposive sampling method. The study was conducted at three stations, with three replications at each sampling point. Macrozoobenthos were collected using a surber net. Water quality parameters measured included pH, dissolved oxygen, current velocity, and temperature. The FBI was used to determine the level of organic pollution in the Pelus River. The macrozoobenthos found consisted of 4 classes, 12 orders, and 17 families, with Tubificidae and Baetidae being the most dominant families. Stations 1 and 2 were moderately polluted (FBI = 5.06; 5.38), while Station 3 was fairly heavily polluted (FBI = 6.20). The diversity index at the three stations was moderate ($H' = 2.20; 2.03; 1.85$), the dominance index was low ($D = 0.13; 0.17; 0.17$), and the evenness index was high ($E = 0.78; 0.72; 0.65$). In general, water quality declined with increasing levels of pollution.

Keywords: *Family Biotic Index, Macrozoobenthos, Organik pollution, Pelus river.*

