

INTISARI

PERBEDAAN PROFIL GAMBARAN DARAH IKAN LELE DUMBO (*Clarias gariepinus*) BERDASARKAN KETINGGIAN TEMPAT DI WILAYAH DAERAH ISTIMEWA YOGYAKARTA

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Pemeliharaan ikan pada kondisi lingkungan yang berbeda dapat mempengaruhi suhu, derajat keasaman (pH), konsentrasi oksigen terlarut dalam air (DO), kandungan nitrit dan nitrat di dalam air. Tujuan dari penelitian ini adalah untuk mengetahui perbedaan gambaran hematologi ikan lele dumbo (*Clarias gariepinus*) yang dibudidayakan pada dua tempat ketinggian daerah yang berbeda.

Ikan sejumlah 50 ekor ikan lele dumbo (*Clarias gariepinus*). Pengambilan sampel darah dilakukan di Kabupaten Sleman (dataran tinggi 500 mdpl) dan Kabupaten Bantul (dataran rendah 100 mdpl) pada bulan Agustus-November. Sampel darah diambil melalui vena kaudalis menggunakan *sputit* 3 ml. Antikoagulan yang digunakan adalah Na sitrat perbandingan 1:9. Pemeriksaan darah meliputi total eritrosit, *Packed Cell Volume* (PCV), hemoglobin (Hb), *Mean Corpuscular Volume* (MCV), *Mean Corpuscular Hemoglobin* (MCH), *Mean Corpuscular Hemoglobin Concentration* (MCHC), total leukosit, diferensial leukosit (neutrofil, eosinofil, basofil, limfosit dan monosit), total protein plasma (TPP) dan fibrinogen. Pengujian air dilakukan di Balai Kesehatan Dinas Kesehatan Kota Yogyakarta. Data dianalisis dengan menggunakan *Statistical Product and Service Solution* (SPSS).

Hasil penelitian menunjukkan perbedaan signifikan ($p < 0,05$) profil hematologi yaitu ikan yang berada di daerah Sleman kadar PCV $33 \pm 4,77\%$; Hb $8,44 \pm 1,31$ g/dL; MCV $138,33 \pm 25,05$ fL; MCH $37,99 \pm 15,78$ pg; MCHC $26,00 \pm 5,01$ g/dL dan di daerah Bantul kadar PCV $39,72 \pm 4,85\%$; Hb $12,01 \pm 2,07$ g/dL; MCV $175,76 \pm 67,66$ fL; MCH $53,13 \pm 19,96$ pg; MCHC $30,53 \pm 5,50$ g/dL. Sehingga dapat disimpulkan bahwa terdapat perbedaan gambaran darah pada ikan lele dumbo (*Clarias gariepinus*) yang dibudidayakan di dataran rendah dan dataran tinggi.

Kata Kunci : *Clarias gariepinus*, ketinggian tempat, hematologi.

ABSTRACT

THE DIFFERENCES OF HEMATOLOGICAL PROFILE AFRICAN CATFISH (*Clarias gariepinus*) BASED ON ALTITUDE PLACE IN THE REGION OF YOGYAKARTA

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Fish cultivation in the different area may affect the temperature, acidity (pH), the concentration of dissolved oxygen in water (DO), content of nitrites and nitrates in the water. The purpose of this study was to determine the hematological profile of african catfish (*Clarias gariepinus*) were cultivated in two heights different areas.

The african catfish (*Clarias gariepinus*) used are 50. Blood sampling performed in Sleman (highland 500 masl) and Bantul (lowland 100 masl) start from August to November. Blood samples were taken through a vein kaudalis using a 3 ml syringe. Anticoagulant used is Na citrate ratio of 1: 9. Blood tests include total erythrocytes, Packed Cell Volume (PCV), hemoglobin (Hb), mean corpuscular volume (MCV), mean corpuscular hemoglobin (MCH), Mean Corpuscular Hemoglobin Concentration (MCHC), total leukocytes, differential leukocytes (neutrophils, eosinophils, basophils, lymphocytes and monocytes), total plasma protein (TPP) and fibrinogen. Water testing done at the Health Center City Health Office Yogyakarta. Data were analyzed using Statistical Product and Service Solution (SPSS).

The results showed significant differences ($p < 0.05$) hematological profile, fish that are in the area of Sleman levels of PCV 33 ± 4.77 %; Hb 8.44 ± 1.31 g/dL; MCV 138.33 ± 25.05 fL; MCH 37.99 ± 15.78 pg; MCHC 26.00 ± 5.01 g/dL and in Bantul PCV levels of 39.72 ± 4.85 %; Hb 12.01 ± 2.07 g/dL; MCV 175.76 ± 67.66 fL; MCH 53.13 ± 19.96 pg; MCHC 30.53 ± 5.50 g/dL. It can be concluded that there are differences between fish hematology profile of African catfish (*Clarias gariepinus*) were cultivated in the lowlands and highlands .

Keywords: *Clarias gariepinus*, altitude, hematologic