

**KARAKTERISTIK DARAH BEBERAPA VARIASI
KERBAU RAWA (*Bubalus bubalis*) TANJUNG SENAI,
KABUPATEN OGAN ILIR, SUMATRA SELATAN**

SKRIPSI

**Diajukan Sebagai Salah Satu Syarat Untuk Memperoleh Gelar Sarjana Sains
Pada Bidang Biologi**



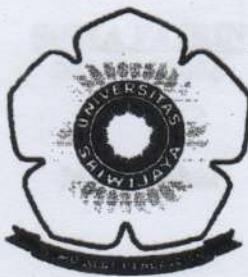
**SISKA FAJRIN
08121004008**

**JURUSAN BIOLOGI
FAKULTAS MATEMATIKA DAN ILMU PENGETAHUAN ALAM
UNIVERSITAS SRIWIJAYA
INDRALAYA
2016**

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LEMBAR PENGESAHAN

KARAKTERISTIK DARAH BEBERAPA VARIASI KERBAU RAWA (*Bubalus bubalis*) TANJUNG SENAI, KABUPATEN OGAN ILIR, SUMATRA SELATAN

SKRIPSI

*Disahkan untuk memenuhi salah satu syarat Memperoleh Gelar Sarjana Sains
Ilmu Biologi Universitas Sriwijaya*

Oleh :

SISKA FAJRIN
08121004008

Mengetahui

Inderalaya, Mei 2016

Pembimbing I

Dr. Yuanita Windusari M.Si.
NIP.196909141998032002

Pembimbing II

Drs. Erwin Nofyan M.Si.
NIP. 195611111986031002



HALAMAN PERSETUJUAN

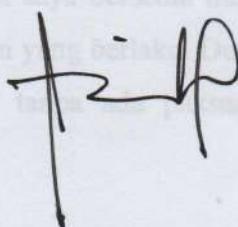
Karya tulis ilmiah berupa Skripsi ini dengan judul "Karakteristik Darah Beberapa Variasi Kerbau Rawa (*Bubalus bubalis*) Tanjung Senai, Kabupaten Ogan Ilir, Sumatra Selatan" telah dipertahankan di hadapan Tim Pengaji Karya Tulis Ilmiah Fakultas Matematika Dan Ilmu Pengetahuan Alam Universitas Sriwijaya pada tanggal 25 April 2016.

Indralaya, Mei 2016

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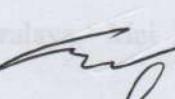
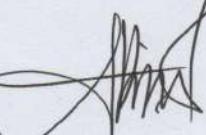
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NIP.196909141998032002

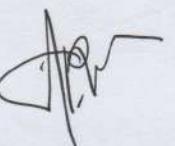
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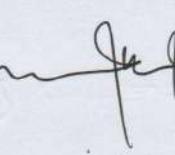
2. Drs. Erwin Nofyan M.Si.
NIP. 195611111986031002

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3. Dr. Arum Setiawan M.Si.
NIP. 197211221998031001

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4. Dra. Syafrina Lamin, M.Si.
NIP. 196211111991022001

()

5. Drs. Sarno, M.Si.
NIP. 196507151992031004

Mengetahui,



Drs. Muhammad Irfan, MT.
NIP. 196409131990031003



Drs. Hanifa Marisa, M.S.
NIP. 196405291991021001

HALAMAN PERNYATAAN INTEGRITAS

Yang bertanda tangan dibawah ini :

Nama : Siska Fajrin

NIM : 08121004008

Judul : Karakteristik Darah Beberapa Variasi Kerbau Rawa (*Bubalus bubalis*)
Tanjung Senai, Kabupaten Ogan Ilir, Sumatra Selatan

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Siska Fajrin
NIM. 08121004008

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Yang bertanda tangan dibawah ini :

Nama : Siska Fajrin

NIM : 08121004008

Judul : Karakteristik Darah Beberapa Variasi Kerbau Rawa (*Bubalus bubalis*)
Tanjung Senai Kabupaten Ogan Ilir, Sumatra Selatan

Memberikan izin kepada Pembimbing dan Universitas Sriwijaya untuk mempublikasikan hasil penelitian saya untuk kepentingan akademik apabila dalam waktu 1 (satu) tahun tidak mempublikasikan karya penelitian saya. Dalam kasus ini saya setuju untuk menempatkan Pembimbing sebagai penulis korespondensi (*Corresponding author*). Demikian, pernyataan ini saya buat dalam keadaan sadar dan tanpa ada paksaan dari siapapun.

Inderalaya, Mei 2016

Siska Fajrin
NIM. 08121004008

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RINGKASAN

KARAKTERISTIK DARAH BEBERAPA VARIASI KERBAU RAWA (*Bubalus bubalis*) TANJUNG SENAI, KABUPATEN OGAN ILIR, SUMATRA SELATAN

Karya tulis ilmiah berupa Skripsi, April 2016

Siska Fajrin; Dibimbing oleh Yuanita Windusari dan Erwin Nofyan

X +, 60 Halaman, 7 Tabel, 9 Gambar, 5 Lampiran

RINGKASAN

Secara geografis Kabupaten Ogan Ilir terletak di antara $30^{\circ}2'$ - $3^{\circ}48'$ Lintang Selatan dan diantara $104^{\circ}20'$ - $104^{\circ}48'$ Bujur Timur, luas wilayahnya adalah 2.666,07 Km². Wilayah daratan Kabupaten Ogan Ilir mencapai 65 % serta wilayah berair dan rawa-rawa sekitar 35 %. Pengamatan karakteristik darah beberapa variasi kerbau rawa (*Bubalus Bubalis*) Tanjung Senai, Kabupaten Ogan Ilir, Sumatra Selatan dilaksanakan pada bulan November 2015 sampai bulan Februari 2016 di Laboratorium Fisiologi Hewan, Jurusan Biologi Fakultas Matematika dan Ilmu Pengetahuan Alam, Universitas Sriwijaya, dengan tujuan untuk mengetahui morfologi eritrosit, morfologi leukosit darah dari kedua varian kerbau rawa sesuai dengan gander setiap varian kerbau, jumlah eritrosit, jumlah leukosit darah dari kedua varian kerbau rawa sesuai dengan gander setiap kerbau. Penelitian ini dilakukan dengan metode kamar hitung untuk menghitung jumlah sel darah, dan metode two slide untuk mengamati morfologi sel darah. Hasil menunjukkan jumlah eritrosit pada kerbau rawa hitam jenis kelamin jantan sebanyak $10.16 \times 10^6/\text{mm}^3$, pada jenis kelamin betina jumlah eritrosit sebanyak $10.11 \times 10^6/\text{mm}^3$. Sedangkan untuk kerbau rawa Lampung hanya ditemukan jenis kelamin betina saja dengan jumlah eritrosit $9.35 \times 10^6/\text{mm}^3$ dan jumlah leukosit pada kerbau rawa hitam jenis kelamin jantan sebanyak $27 \times 10^3/\text{mm}^3$, pada jenis kelamin betina jumlah leukosit sebanyak $26.2 \times 10^3/\text{mm}^3$. Sedangkan untuk kerbau rawa Lampung hanya ditemukan jenis kelamin betina saja dengan jumlah eritrosit $25 \times 10^3/\text{mm}^3$, serta morfologi sel darah yang didapat yaitu eritrosit, neutrofil, basofil, eosinofil, limfosit, dan monosit. Hasil karakteristik yang sama juga ditemukan pada darah dari varian kerbau rawa Pampangan Berdasarkan hasil penelitian didapat kesimpulan (1) Morfologi eritrosit berbagai variasi kerbau rawa Tanjung Senai yang diamati dalam preparat apusan darah memiliki bentuk bikonkaf dengan diameter 7,5 μm . (2) Morfologi leukosit kerbau rawa Tanjung Senai jenis granulosit yaitu neutrofil, sesuai dengan variasi dan jenis kelamin untuk jantan dan betina keduanya memiliki bentuk segmen. (3) Jumlah eritrosit tertinggi dimiliki kerbau rawa variasi hitam dengan jenis kelamin jantan sebanyak $10.16 \times 10^6/\text{mm}^3$, diikuti variasi hitam dengan jenis kelamin betina sebanyak $10.11 \times 10^6/\text{mm}^3$, dan jumlah terendah pada kerbau rawa variasi

Lampung dengan jenis kelamin betina sebanyak $9.35 \times 10^6 / \text{mm}^3$. (4) Jumlah leukosit tertinggi dimiliki kerbau rawa variasi hitam dengan jenis kelamin jantan sebanyak $27 \times 10^3 / \text{mm}^3$, diikuti variasi hitam dengan jenis kelamin betina sebanyak $26.2 \times 10^3 / \text{mm}^3$, dan jumlah terendah pada kerbau rawa variasi Lampung dengan jenis kelamin betina sebanyak $25 \times 10^3 / \text{mm}^3$.

Kata Kunci : kerbau rawa, eritrosit, leukosit.
Kepustakaan : 51 (1980-2015).

This study was conducted at the Laboratory of Animal Physiology, Department of Biology, Faculty of Mathematics and Natural Sciences, University of Sriwijaya, Palembang. The swamp buffalo is a cattle species that is geographically situated between $3^{\circ}32' - 3^{\circ}45'$ south latitude and between $103^{\circ}30' - 103^{\circ}45'$ east longitude area in 2656.07 km^2 . Ogan Ilir land area is 85% mountainous, 10% water body, and swamps about 3.5%. Observation of the swamp buffalo blood several varieties of the swamp buffalo (*Bubalus arnee*) were found. Ogan Ilir, South Sumatra was conducted in November 2015 until January 2016 in the Laboratory of Animal Physiology, Department of Biology, Faculty of Mathematics and Natural Sciences, University of Sriwijaya, with the aim to look out erythrocytes morphology, morphology of blood leukocytes from the variants of the swamp buffalo in accordance with the gender and variant. Results, the number of erythrocytes, leukocytes of both variants swamp buffalo is different with any gender. This study was conducted using a counting room method to count the number of blood cells, and two-slide method for observing the morphology of blood cells. The results show the number of erythrocytes in the black swamp buffalo male sex as much as $10.16 \times 10^6 / \text{mm}^3$, the female sex as much as the number of erythrocytes $10.11 \times 10^6 / \text{mm}^3$. As for the swamp buffalo Lampung found only female sex with the number of about $9.35 \times 10^6 / \text{mm}^3$ the number of leukocytes in the black swamp buffalo male sex as much as $27 \times 10^3 / \text{mm}^3$, the female gender leukocyte count as much as $26.2 \times 10^3 / \text{mm}^3$. As for the swamp buffalo Lampung found only female sex with the number of leukocyte $25 \times 10^3 / \text{mm}^3$, and morphology of blood cells obtained are erythrocytes, leukocytes, eosinophils, basophils, neutrophils, lymphocytes, and monocytes. The results of the same characteristics are also found in the blood of swamp buffalo (Banteng Serui). Based on the results of the study could be concluded (1) Morphology of erythrocytes variations swamp buffalo (Banteng Serui) observed in blood smear preparations have a biconcave shape with a diameter 7-8 μm. (2) Morphology leukocytes swamp buffalo (Banteng Serui) types of granulocytes are neutrophils, in accordance with the variation and gender for males and females both have the form of segments. (3) The number of erythrocytes highest swamp buffalo

SUMMARY

SOME VARIATION CHARACTERISTICS OF BLOOD SWAMP BUFFALOS (*Bubalus bubalis*) TANJUNG SENAI, OGAN ILIR DISTRICT, SOUTH SUMATRA

Scientific paper in the form of thesis, April 2016

Siska Fajrin; Supervised by Yuanita Windusari and Erwin Nofyan

X +, 60 pages, 7 tables, 9 pictures, 5 attachments

SUMMARY

Ogan Ilir geographically situated between $30^{\circ}2'$ - $3^{\circ}48'$ south latitude and between $104^{\circ}20'$ - $104^{\circ}48'$ east longitude area is 2666.07 km^2 . Ogan Ilir land area to 65% as well as watery region and swamps about 35%. Observation of the characteristics blood several variations of the swamp buffalo (*Bubalus bubalis*) Tanjung Senai, Ogan Ilir, South Sumatra was conducted in November 2015 until February 2015 in the Laboratory of Animal Physiology, Department of Biology, Faculty of Mathematics and Natural Sciences, University of Sriwijaya, with the aim to find out erythrocyte morphology, morphology of blood leukocytes from two variants of the swamp buffalo in accordance with the gender each variant buffalo, the number of erythrocytes, leukocytes of both variants swamp buffalo in accordance with any gender. This study was conducted using a counting room method to count the number of blood cells, and two slide method for observing the morphology of blood cells. The results show the number of erythrocytes in the black swamp buffalo male sex as much as $10.16 \times 10^6 / \text{mm}^3$, the female sex as much as the number of erythrocytes $10.11 \times 10^6 / \text{mm}^3$. As for the swamp buffalo Lampung found only female sex only with the number of eritosit $9.35 \times 10^6 / \text{mm}^3$ dan the number of leukocytes in the black swamp buffalo male sex as much as $27 \times 10^3 / \text{mm}^3$, the female gender leukocyte count as much as $26.2 \times 10^3 / \text{mm}^3$. As for the swamp buffalo Lampung found only female sex only with the number of eritosit $25 \times 10^3 / \text{mm}^3$, and morphology of blood cells obtained are erythrocytes, neutrophils, basophils, eosinophils, lymphocytes, and monocytes. The results of the same characteristics are also found in the blood of swamp buffalo Pampangan variants. Based on the results of the study could be concluded (1) Morphology of erythrocytes variations swamp buffalo Tanjung Senai observed in blood smear preparations have a biconcave shape with a diameter $7.5\mu\text{m}$. (2) Morphology leukocytes swamp buffalo Tanjung Senai types of granulocytes are neutrophils, in accordance with the variation and gender for males and females both have the form of segments. (3) The number of erythrocytes highest swamp buffalo

variations of black with the gender as much as $10.16 \times 10^6 / \text{mm}^3$, followed variations of black gander as $10.11 \times 10^6 / \text{mm}^3$, and the lowest number in the swamp buffalo variation Lampung gander as much as $9.35 \times 10^6 / \text{mm}^3$. (4) The number of leukocytes highest swamp buffalo variations of black with the male sex as much as $27 \times 10^3 / \text{mm}^3$, followed variations of black-sex females as much as $26.2 \times 10^3 / \text{mm}^3$, and the lowest number in the swamp buffalo variation Lampung with sex female at $25 \times 10^3 / \text{mm}^3$.

Keywords : buffalos swamp, erythrocytes, leukocytes.

Bibliography : 51 (1980-2015).

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