

ISOLATION AND IDENTIFICATION OF BACTERIA IN NASAL
CAVITY OF WILD BIRDS AND VILLAGE CHICKENS IN
MENGABANG TELIPOT, TERENGGANU

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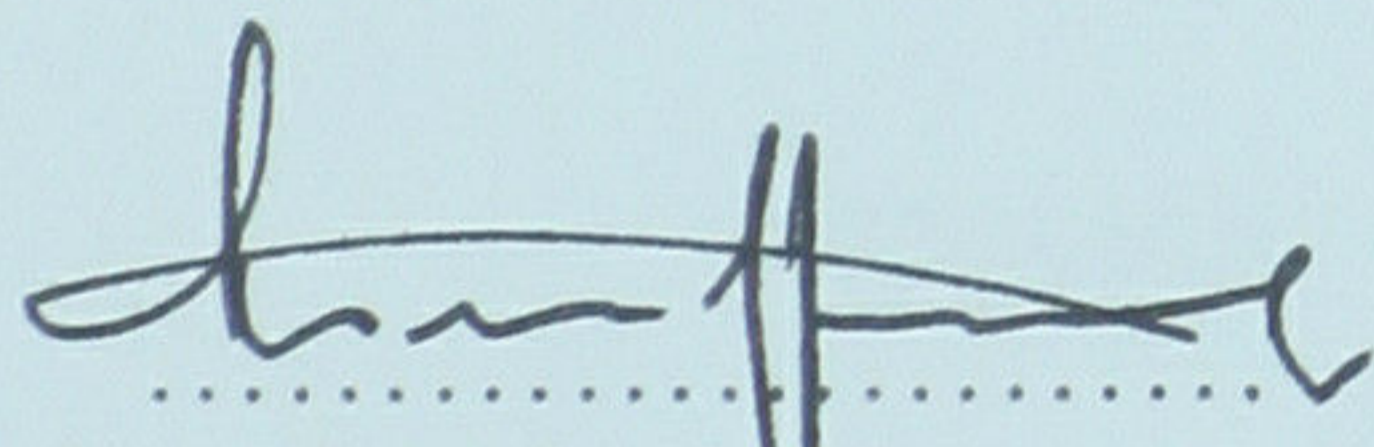
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PENGESAHAN DAN KELULUSAN LAPORAN

PENYELIDIKAN ILMIAH TAHUN AKHIR

Adalah ini diakui dan disahkan bahawa laporan penyelidikan ilmiah tahun akhir bertajuk Isolation and Identification of bacteria in nasal cavity of wild birds and village chicken in Mengabang Telipot, Terengganu oleh Priathartsiny A/P Balkrishna, no matrik UK 4433 telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Biologi sebagai memenuhi sebahagian daripada keperluan memperolehi ijazah Sarjana Muda Sains – Sains Biologi, Fakulti Sains dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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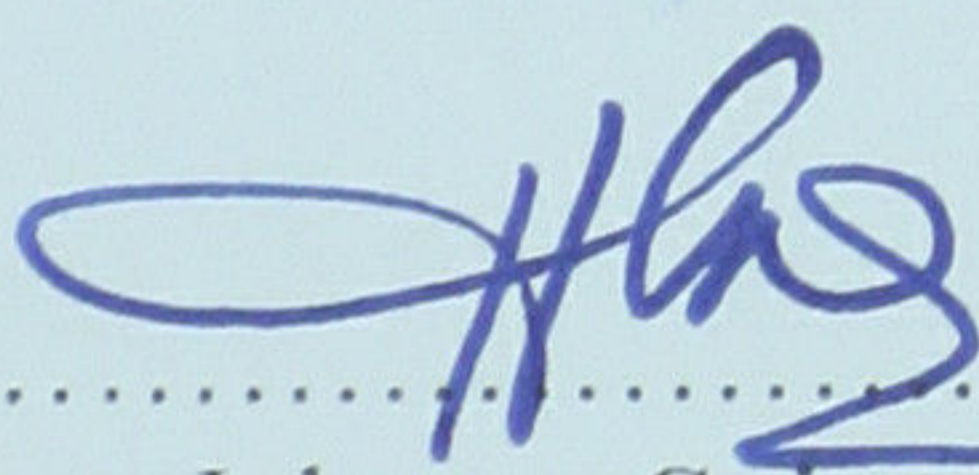
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“MICROBIOLOGY IS A CULTURAL AFFAIR”

“KEEP THE FAITH, ALWAYS FOREVER”

Abstrak

Pemencilan dan pengenalpastian bakteria dalam kaviti nasal burung-burung liar dan ayam kampung telah dijalankan di Mengabang Telipot, Terengganu. Swab nasal telah dikumpulkan dengan swab yang steril dan selepas itu dicalitkan di atas agar darah untuk pengenalpastian. Bakteria major yang dipencilkan dari burung-burung liar adalah *Staphylococcus* (56.7%), *Chryseomonas luteola* (50%) dan *Pseudomonas aeruginosa* (43.4%). Di dalam ayam kampung, bakteria yang paling prevalen adalah *Aeromonas hydrophila* (53.3%), *Staphylococcus sp.* (40%) dan *Micrococcus sp.* (40%). Oleh kerana *Aeromonas hydrophila*, *Pasteurella spp.*, *Pseudomonas aeruginosa* dan *Staphylococcus sp.* adalah bakteria yang patogenik kepada burung dan manusia, bakteria ini boleh bertindak sebagai agen zoonoses. Oleh yang demikian, penemuan ini mencadangkan bahawa kaviti nasal burung-burung liar dan ayam kampung boleh membawa bakteria yang boleh bersifat patogen oportunistik dan juga menjadi punca kepada zoonoses. Kajian ini juga menunjukkan burung-burung liar dan ayam kampung boleh menjadi pembawa kepada agen-agen zoonoses.

Abstract

Isolation and identification of bacteria in the nasal cavity of wild birds and village chicken was carried out in Mengabang Telipot, Terengganu. Nasal swabs were collected with sterile swabs and then streaked on blood agar for identification. The major bacteria isolated from wild birds were *Staphylococcus* (56.7%), *Chryseomonas luteola* (50%) and *Pseudomonas aeruginosa* (43.4%). In chickens, the most common bacteria isolated were *Aeromonas hydrophila* (53.3%), *Staphylococcus sp.* (40%) and *Micrococcus sp.* (40%). As *Aeromonas hydrophila*, *Pasteurella spp.*, *Pseudomonas aeruginosa* and *Staphylococcus sp.* are common bacteria that are pathogenic to birds and human, these bacterial species can act as a zoonoses agent. Thus, these findings suggest that the nasal cavity of healthy wild birds and village chickens can harbor bacteria which can behave as opportunistic pathogens and also be causative to zoonoses. The study also shows that wild birds and village chickens serve as reservoirs to these zoonotic agents.