

OCCURRENCE, DISTRIBUTION AND DENSITY OF  
SHOREBIRDS IN SEBERANG TAKIR, KUALA TERENGGANU

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PUSAT PEMBELAJARAN DIGITAL SULTANAH NUR ZAHIRAH

THE OCCURRENCE, DISTRIBUTION AND ABUNDANCE OF SHOREBIRDS  
AT SEBERANG TAKIR, KUALA TERENGGANU

By

Abdul Rahim bin Yusoff

Research Report submitted in partial fulfillment of the requirement for the degree of  
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Department of Marine Science

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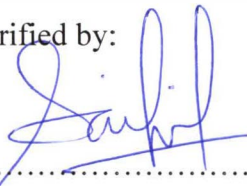
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**DEPARTMENT OF MARINE SCIENCE FACULTY  
OF MARITIME STUDIES AND MARINE SCIENCE  
UNIVERSITI MALAYSIA TERENGGANU**

**DECLARATION AND VERIFICATION REPORT  
FINAL YEAR RESEARCH PROJECT**

It is hereby declared and verified that this research report entitled:  
Occurrence, Distribution and Density of Shorebirds in  
Seberang Takir, Kuala Terengganu  
by Abdul Rahim bin Yusoff, Matric No. UK23408  
have been examined and all errors identified have been corrected. This report is  
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$\chi^2$	Pearson Chi Square
df	degree of freedom
g	gram
cm	centimeter
ha	hectare

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## ABSTRACT

### A STUDY OF OCCURRENCE, DISTRIBUTION AND ABUNDANCE OF SHOREBIRDS AT SEBERANG TAKIR, KUALA TERENGGANU

Shorebirds are birds that are able to adapt and evolve with the environment and make them successfully survive in the ocean area. Shorebirds generally feed at low tide and can be observed on beaches and brackish wetlands. Walk survey was conducted 11 times in September, October, November, 2012 and January, 2013 by using the GPS line transect in Seberang Takir coastline area. A total of 135 observations of shorebirds from seven families with seven different species have been observed during the whole survey which are Paddyfield pipit (*Anthus rufulus*), Greater sand plover (*Charadrius leschenaultii*), Common sandpiper (*Actitis hypoleucos*), Brahminy kite (*Haliastur indus*), White-bellied sea eagle (*Haliaeetus leucogaster*), Common myna (*Acridhothers tristis*), Blue-tailed Bee eater (*Merops philippinus*) and Swiftlet. There is statistically highly significant difference indicates from the walk survey for the whole sampling between the species observed ( $df = 7, p < 0.01, \chi^2 = 323.229$ ). Besides that, the walk survey also shows the distribution of shorebirds between morning and evening session is highly significant different from the most frequent observed species. The occurrence and distribution of shorebirds in the area are affected by the existence of new man modified habitat with the presence of grasslands and water break area. The other factors like pollution and human disturbance also affecting to the shorebird population in and details studies should be conducted to obtain enough scientific data about the occurrence, distribution and abundance of shorebirds in Seberang Takir.

## ABSTRAK

### KEHADIRAN, TABURAN DAN KEPADATAN BURUNG PESISIR LAUT DI SEBERANG TAKIR, KUALA TERENGGANU

Burung pesisir laut merupakan burung yang berovolusi dan beradaptasi dengan persekitaran yang membolehkan mereka hidup di kawasan laut. Kebiasaannya, burung laut mencari makanan di kawasan pasang surut dan boleh diperhatikan di pantai dan paya payau. Tinjauan secara berjalan dijalankan sebanyak 11 kali bermula pada September, November, Disember, 2012 dan January, 2013. Sebanyak 135 pemerhatian telah dibuat daripada tujuh famili dengan lapan spesies berbeza iaitu Cicak bendang (*Anthus rufulus*), Rapang besar (*Charadrius leschenaultii*), Kedidi pasir (*Actitis hypoleucos*), Helang merah (*Haliastur indus*), Helang siput (*Haliaeetus leucogaster*), Tiong gembala kerbau (*Acridhothores tristis*), Beberak ekor biru (*Merops philippinus*) dan layang-layang. Tinjauan menunjukkan perbezaan yang amat ketara sepanjang kajian dijalankan ( $df = 7, p < 0.01, \chi^2 = 323.229$ ). Selain itu, taburan burung pesisir juga laut menunjukkan perbezaan ketara diantara sesi pagi dan petang bagi spesies yang kerap diperhatikan. Kehadiran dan taburan burung pesisir laut dipengaruhi oleh habitat yang telah diubah oleh manusia dengan kehadiran benteng ombak dan padang lapang. Faktor lain seperti pencemaran dan gangguan daripada manusia juga mempengaruhi populasi burung pesisir laut dan kajian jangka panjang dan terperinci diperlukan untuk memperoleh maklumat tentang kehadiran, taburan dan kepadatan burung pesisir laut di Seberang Takir.