SEAWARD MOVEMENT OF GREEN TURTLE (*Chelonia mydas*) HATCHLINGS AND THEIR PREDATION IN WAN DERAH, KEMAMAN, TERENGGANU

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SEAWARD MOVEMENT OF GREEN TURTLE (*Chelonia mydas*) HATCHLINGS AND THEIR PREDATION IN MA' DAERAH, KERTEH, TERENGGANU

By

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Research Report submitted in partial fulfillment of the
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Adalah ini diakui dan disahkan bahawa laporan penyelidikan bertajuk:

Seaward Movement of Green Turtle (*Chelonia Mydas*) Hatchlings and Their Predation in Ma' Daerah, Kerteh, Terengganu.

oleh **Nattana Simon** No.Matrik: **UK 6054** telah diperiksa dan semua pembetulan yang disarankan telah dilakukan. Laporan ini dikemukakan kepada Jabatan Sains Samudera sebagai memenuhi sebahagian daripada keperluan memperolehi **Ijazah Sarjana Muda Sains - Biologi Marin** Fakulti Sains Dan Teknologi, Kolej Universiti Sains dan Teknologi Malaysia.

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Cheers. -nttn-

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%	-	percentage
km	-	kilometres
m	-	metres
cm	-	centimetres
mm	-	millimeters
N	-	north
Deg	-	degree
Rad	-	radius
N/A	-	not available

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ABSTRAK

Pergerakan anak penyu ke laut lepas dan kadar pemangsaan serta pergerakan mereka di pantai mencari arah laut telah dikaji di Ma' Daerah, Kerteh, Terengganu sepanjang bulan Ogos dan Oktober 2003. Empat stesen telah dipilih, dua di kawasan berbatu dan dua di kawasan berpasir dengan setiap satunya dibezakan melalui jarak dari punca lampu. Anak penyu dilepaskan pada jam 2000, jam 2200, jam 2400, jam 0200 dan jam 0400. Pergerakan anak penyu dikaji melalui dua cara, iaitu mengikut menggunakan bot dan kaedah 'triangulation' dari pantai. Anak penyu dihubungkan dengan pelampung yang membawa lampu kecil dengan tali nilon sepanjang satu meter agar pergerakan mereka dapat dilihat. 60 ekor anak penyu telah digunakan dalam kajian ini. Kesemua anak penyu berjaya bergerak menuju ke laut lepas. Enam ekor anak penyu telah hilang dipercayai dimakan oleh pemangsa dengan lima kejadian berlaku di kawasan berbatu dan satu di kawasan berpasir. Statistik sirkular telah digunakan untuk menentukan min arah pergerakan individu yang menunjukkan 13 ekor anak penyu bergerak ke arah timar laut dan 13 ekor bergerak ke arah Tenggara. Analisis ANOVA Tiga Faktor tanpa replikasi menujukkan bahawa tiada perbezaan signifikan diantara masa pelepasan, jarak dari punca lampu dan saiz bulatan yang berbeza. Faktor utama yang berkemungkinan mempengaruhi pergerakan anak penyu ke laut lepas dan di pantai pada tahap tertentu adalah punca lampu dari kawasan industri minyak berhampiran dan kapal-kapal laut tanpa mengambil kira keadaan cuaca. Kaedah terbaik untuk mengurus anak penyu adalah melepaskan mereka di kawasan berpasir untuk mengurangkan kadar pemangsaan sebaik sahaja mereka keluar dari sarang.

ABSTRACT

Hatchling orientation in seaward movement and predation during seafinding and their beach orientation were investigated in Ma' Daerah, Kerteh, Terengganu in the month of August and October 2003. Four stations were chosen, two in sandy shore and two in rocky shore with all stations differentiated by their distance to the artificial light source. Hatchlings were released at 2000 hours, 2200 hours, 2400 hours, 0200 hours, and 0400 hours. They were tracked using two methods, i.e.; boat tracking to the sea and application of triangulation method from the beach. Hatchlings were attached to a light- bearing float by a one meter nylon fishing string to monitor their movements. 60 hatchlings were used in determining their seaward movement. All hatchlings were able to orientate to the sea. Six hatchlings were lost to predators, with five predation events occuring in rocky areas, one in sandy areas. Circular statistics used to determine individual hatchling mean orientation showed that 13 swam towards northeast and 13 swam towards southeast. ANOVA Three Factor without replicate analysis showed that there were no significant differences between hatchling orientation on the beach with time of release, distance to light source and distance from the surf line. Lighted vessels were possible distracting sources in hatchlings seaward movement and beach orientation at certain extent, regardless of weather conditions. The best practice is to release hatchling as soon as they emerge in sandy shores to reduce predation.