

TURTLE TALK

First in a series of articles about sea turtles written by Jeanne Mortimer, this new regular feature of the SIF Newsletter will highlight different aspects of the natural history and conservation of the marine turtles of Aldabra.

More Effective Turtle Monitoring at Aldabra

Sea turtles have been monitored sporadically at Aldabra since the late 1960s. But, during the past five years, the programme has become much more intensive and better coordinated. This is a product of the *Turtle & Tortoise Conservation Project (EMPS Project J1)* initiated in 1995 and funded by the Global Environment Facility (GEF)

and the Government of Seychelles. Success has been possible only through the efforts of the hard-working research staff based on Aldabra.

Monitoring procedures were formally published in a 47-page booklet entitled "Turtle Monitoring at Aldabra". It provides step-by-step instructions on how to collect data and explains why each type of data is collected. Turtle monitoring is integrated into the Rangers' monthly visits to each of the Aldabra field camps and includes the following activities:

Beach Surveys to Count Turtle Tracks. Our goal is to survey every nesting beach at least once per month. Certain "index beaches" are visited more often — ideally at least four times per month. These include Settlement Beach and the 24 beaches of west Grand Terre located just south of West Channels. In all, there are some 55 turtle beaches at Aldabra.

Regular beach surveys enable us to answer the following questions:

(Cont. P 2)



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(Cont. from P 1)

How many turtles of each species nest at Aldabra each year?
Is the nesting population increasing, decreasing or stable over time?
Do nestings numbers fluctuate from year to year?
When is the peak nesting season at Aldabra? We know that green turtles nest all year round in Seychelles; but which months are most important?
Which beaches do the turtles prefer, and why?

Tagging Nesting Turtles. Hundreds of female green turtles have been tagged at night on the beaches of Aldabra. When tagged turtles are encountered at a later date — either at Aldabra or elsewhere — we can piece together information about their life history. We now have records of more than 2000 encounters with tagged turtles. These data will enable us to answer many of the following questions:

With what precision do the turtles return to the same part of the atoll during repeated nesting attempts?

Do Aldabra turtles ever nest on other islands in the Seychelles, or in other countries outside Seychelles?

What are the migratory patterns of the nesting turtles? We know that Aldabra doesn't have enough feeding habitat to support the nesting population. So, where are their feeding grounds?

How many times does each female lay eggs during the nesting season?

How many days separate turtle nesting emergences?

For how many months during the year does a nesting female remain in the vicinity of Aldabra?

Rescue of Stranded Turtles. Regular visits to all the nesting beaches enable Rangers to rescue turtles that accidentally get trapped in the champignon during their nesting emergences.

Ecology, Migrations, and Growth Rates of Lagoon Turtles. Studies of the immature green and hawksbill turtles foraging inside the lagoon at Aldabra have been underway since 1986. These turtles can be captured tagged, measured, and released, and then recaptured at a later date. Among the questions being addressed are:

What is the population structure of turtles living in the lagoon? (How many turtles are there? How big are they? What is their sex ratio?)

What habitats do they occupy and what are they eating?

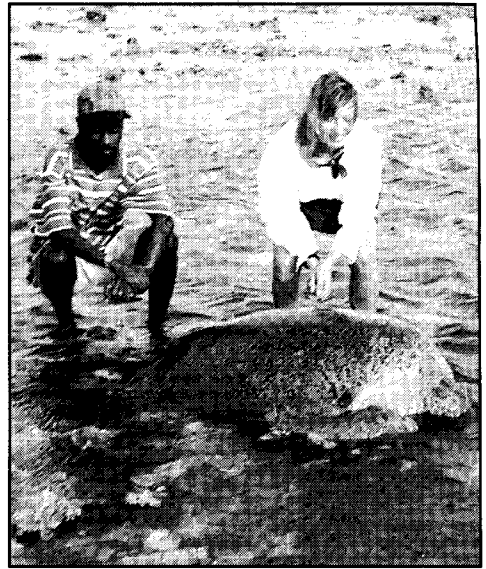
Do they travel much within the lagoon?

On what beaches were they born?

How fast do they grow?

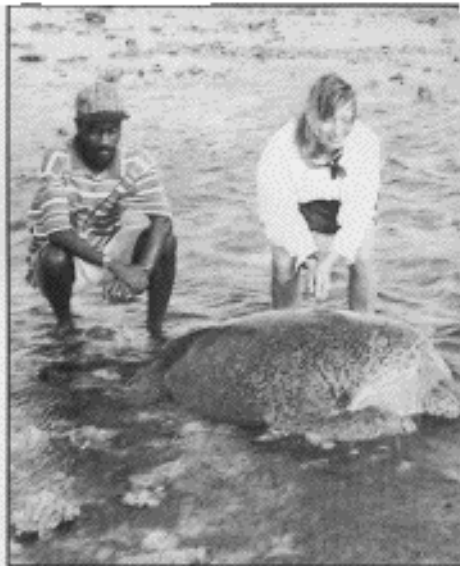
Where will they go to breed when they become adult?

We are now in the process of analysing data gathered during the past five years and comparing our results to data collected in previous seasons. Our findings will eventually be presented in scientific publications as well as in upcoming issues of the *SIF Newsletter*. Collection of such an extensive database on turtles has only been possible thanks to the hard work and combined efforts of many people. Among them are the Rangers (Marinette Assary, Brian Betsy, Tony Jupiter, Murielle Pierre, the late Walter Rosalie, France Sophola, and Louis Desnousse), Wardens (Mike Betts, Patrick Bijoux, John Collie, Ron Pimm, Gordon Smith, Jim Stevenson, Ian Sterling, Atterville Cedras, and Victorin Laboudallon), Conservation and Research Officers (David Augeri, Susan Barclay, Roselle Chapman, Anna Lilyevik, Susan Pierce, and Wendy Seabrook), Field Workers (the late Harry Charles, Antonio "Mazarin" Constance, Maxime Delcy, Bernard Leggae, Roch "Pti France" Lozaïque), and scientists (Lindsay Chong Seng, Jack Frazier, T.S.H. Gibson, Clive Hambler, Keith Hambler, Harold Hirth, and Rosie Woodroffe) all who have contributed to the collection of turtle data at Aldabra during the past three decades.



Ranger Tony Jupite and Ms Mortimer tag a green turtle stranded on the reef at low tide





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