

REHABILITATION AND SATELLITE-TRACKED RELEASE OF A GREEN TURTLE, *CHELONIA MYDAS*

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In August 2006 an injured Green Turtle, *Chelonia mydas*, was received by the Wildlife Protection Office. It had suffered a severe head trauma and appeared close to death. It was recovered from a beach near Dibba, UAE. The turtle was housed in a temporarily empty fish quarantine unit at the Burj al Arab hotel. Physical characteristics of the unit consist of a circular diameter tank of 3.9m proportions with a fish-based re-circulating life support system consisting of sand filter, foam fractionation, ozone control and ultraviolet sterilization. In addition the temperature was maintained at a steady 26°C. Ambient sea temperature at the time of receipt was 35°C.

An initial course of ceftazidime injections was started (20mg/kg im). Veterinary support throughout the project was provided by the Al Wasl Falcon Hospital. A pronounced secondary infection on the top of the skull and neck occurred when ceftazidime was temporarily unavailable. This infection cleared over a period of 4 weeks when the course was resumed in late September.

The initial injury was so severe that possible blindness was suspected and the turtle showed no interest in self-feeding for three months. Throughout this time the turtle was provided with supportive care by the aquarium team at the Burj al Arab Hotel. Force-feeding was carried out using squid mantles stuffed with macerated vegetable matter. The mantles provided a means of feeding vegetables without the use of a gavage tube. In addition turtle vitamin tablets (Zoolife®) were inserted into the mantles at an inclusion rate of 1 tablet/10kg/week.

In November 2006 the turtle began self-feeding. In December 2006 the turtle was transferred to the final stage pre-release rehabilitation pen situated in the Madinat Jumeirah, Dubai waterways. This waterway is at ambient sea temperature. A lush seagrass bed had developed within the pre-release pen, which provided partial nutrition. In the first month the turtle stopped feeding completely and developed positive buoyancy, and so was transferred back to the warmer quarantine facilities. Ambient sea temperature at the time was 19°C, and was thought to be the primary cause of cessation of feeding. Normal feeding was rapidly resumed in the warmer quarantine tank.

In early summer 2007, when ambient sea temperature reached similar levels to the quarantine, the turtle was successfully moved back to the outside pen. No further treatment or force-feeding was necessary. The weight and blood parameters were monitored throughout the remainder of 2007. In Autumn 2007 we were presented with funding by the Jumeriah Group to purchase a satellite platform. The unit used was a Sirtrack model 0.5 watt KiwiSat 101 PTT, with an estimated operational life of six months. The most common capture method for satellite-tagging turtles is to apply tags to females as they return from beach to sea after egg-laying. Males remain at sea throughout their lives after hatching. Less common are studies of rehabilitation success, in terms of post-release survival. In the summer of 2007, our subject's tail became remarkably more prominent. Although unconfirmed, we conclude that our turtle was most probably a sub-adult male, making it an even less common subject for study. After thoroughly scrubbing the carapace with scourers, a freshwater washdown, and wipe over with alcohol, the Kiwisat unit was bonded to the carapace of the turtle using a standard polyester resin kit combined with woven fiberglass mat. A total of three layers were applied, allowing curing to tack stage between



Fig 1. Initial head injury on 'Dibba' (©Warren Baverstock).

each application. A final coat of antifouling, namely Micron Extra, manufactured by International paints, was applied to the fiberglass area. The Kiwisat unit is fitted with saltwater switch contacts, which preserve battery life by switching the unit on only when the turtle is at the surface and able to transmit. To ensure no interference from the antifouling, the contacts were masked and a one cm exclusion zone left around each contact. The turtle was released on the 16th February, 2008, and at the time of writing we are still receiving transmissions. Release data was a curved Carapace length of 85.4cm and a final weight of 84.6kg. The left flipper bears an Avid microchip, number 096592868. The Sirtrack platform is PTT 55885, ID JN16549. In addition the turtle bears Titanium flipper tags, numbered 74 and 75 in left and right flippers respectively, in the name of Wildlife Protection Office, P.O. Box 27942, Dubai.

Progress of "Dibba" the turtle, named after its recovery site, can be monitored by all via internet link on the Seaturtle.org website at:

http://www.seaturtle.org/tracking/?project_id=55
Group Visits to the turtle rehabilitation unit can be made with prior arrangement by contacting the aquarium team on BAAAquarium@jumeirah.com

The unit attracts over 1200 school visitors annually, thus increasing awareness of the plight of turtles in the Arabian Gulf, and active participation in our project is encouraged.



Fig 2. 'Dibba' fitted with Kiwisat PTT before release (©Sean McKeown).

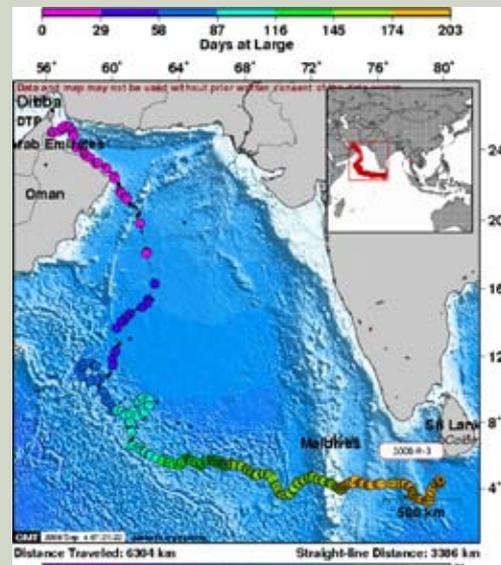


Fig 3. Map showing movements of 'Dibba' to 15/09/08 (©Wildlife Protection Office).