**Supplementary methods**

**Hatchling collection**

All hatchery hatchlings emerged naturally and two healthy individuals from the 1st emergence event were randomly selected. Hatchlings from *in-situ* nests either emerged naturally (during 1st emergence events) or nests were dug a few cm when active crab predation was observed and two healthy hatchlings were randomly selected. Hatchlings were transported in a coolbox to indoor facilities where they were weighed using digital scales (±0.1 g) and straight line carapace length and width measured using digital calipers (±0.01 cm). Two hatchlings from a single nest were then immediately (c. 1 hour after emergence) placed in one of two swimming arenas for laboratory studies of swimming behavior. Hatchlings used for acoustic tracking were kept overnight in a light proof cooler and tracking commenced the following morning, or due to weather/hatchling availability, during the subsequent day on three occasions. All hatchlings used in laboratory studies came from nests in the south.

**Acoustic tracking**

The tags were glued to the plastron of hatchlings 1 hour prior to release (figure 1b). Hatchlings were first placed into a container of sea water which confirmed no obvious impacts on swimming behavior. Regular visual contact with the turtle was maintained during early tracking attempts (when hatchlings were < 5m from the boat) and whilst hatchlings crossed shallow reef areas where predators were abundant. On three occasions, hatchlings were momentarily removed from shallow reef areas when predatory fish approached the hatchlings. Tracking re-commenced from the same position after predators had been scared off by revving the boat engine. The boat engine was also revved to scare off predatory fish travelling towards the vicinity of hatchlings. During the first couple of tracking attempts, a swimmer followed 2 m behind hatchlings for the first 1-2 hours whilst experience using the directional hydrophone was gained. Whilst sea conditions/boat access was more favourable from the relatively sheltered northwestern beach, nesting activities are concentrated (> 70% of nesting activity in Boa Vista) in the south/east of the island. Consequently, in order to co-ordinate periods of hatchling availability with suitable tracking conditions 5 hatchlings originating from nests in the south were translocated to and tracked from the northwest nesting beach. When sea conditions were favourable we were able to track four hatchlings from nests in the south from this respective location. Nesting activity in the northwestern beaches is low (< 1% of nesting activity in Boa Vista), consequently only two hatchlings originating from nests in the northwest were available during the tracking period and these were both tracked from this respective location.

**Laboratory observations of the swimming frenzy**

To best replicate natural light conditions, the two adjacent arenas were identically aligned in front of a large glass wall. This ensured hatchlings experienced natural light associated with the daily time at sunset/sunrise and cyclical changes in moon phase throughout the ~ 6 week long study period experiment. Time at sunrise ranged from 06:20 to 06:27 hours and sunset time ranged from 18:29 to 18:00 hours.A ceiling fan centered over the tanks was left on at all times and air and water temperatures were monitored regularly. Air and water temperature remained relatively stable, between 27-30 degrees throughout the experiment, however towards the end of the last experimental trial, air and water temperatures dropped to 25 degrees with the onset of cooler weather conditions. Sea water was replaced at the end of each experiment and from day 3 onwards, hatchlings were fed small pieces of shrimp at random times of the day. During feeding, hatchling swimming activity was briefly interrupted, however within a couple of minutes hatchlings resumed their pre-feeding swimming activities. Due to the logistics of releasing hatchlings and getting replacement hatchlings/sea-water, a total of six hatchlings were kept in indoor swimming arenas for four 24 hour periods (from hereafter referred to as “days”), four hatchlings were kept for three days, two hatchlings were kept for each of seven, six and five (total N=16 hatchlings). System integrity was regularly checked; however logger data was corrupt/un-usable during day one for both hatchlings used during the third experimental run.