

Development of thermoregulation in Hawaiian brown noddies (*Anous stolidus pileatus*)

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Abstract

-I. Oxygen consumption (V_{O2}) and body temperature (T_b) of Hawaiian brown noddies (*Anous stolidus pileatus* [Aves: Laridae]) during late incubation and in the first 24 h after hatching were measured at ambient temperatures (T_a) between 28 and 38°C and between 15 and 43°C, respectively. Evaporative cooling by hatchlings at T_a of 36-43°C was also measured. 2. Throughout the late incubation stages studied, V_{O2} and T_b both varied directly with T_a . In an ectothermic pattern. 3. The hatchlings successfully regulated T_b at T_a between ca. 29 and 43°C. 4. The functional basis of the abrupt increase in thermoregulatory capacity with hatching is discussed.