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Individual difference in diving effort of gravid leatherback turtle

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Leatherback turtle is the most pelagic sea turtle and dispersed throughout the oceans of the world. It specially feeds jellyfish at the surface or in the water column. Preferred nesting beaches are in the tropics and French Guiana is the most important site in the Atlantic region. Eckert *et al* (2003) reported gravid female leatherback turtle swim continuously with little or no resting and suggested it feeds actively even during the internesting interval. Such strategy of gravid female is quite the opposite of other sea turtles, which save energy costs as possible without feeding. In order to know diving efforts of gravid female leatherback, we recorded flipper movements with swim depth and swim speed by bio-logging methods in French Guiana in the nesting season of 2000 – 2003. Swimming speeds of leatherback turtle was continuous but she did not always swim continuously. During the descent phase of dive, some individuals stopped flipper movement on the way and made prolonged gliding. Prolonged gliding made bottom time shorter than non-gliding descent travels. It suggests that some dives were just for resting, not for feeding. However, we found some turtles made prolonged gliding and others made continuous flipper movements through internesting. Difference in the internal state of gravid female might affect the decision - making of diving behavior.

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