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## Reproductive biology of the banded guitarfish, *Zapteryx exasperata*, from the Gulf of California, México

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The banded guitarfish, *Zapteryx exasperata*, is a common species in the artisanal elasmobranch fisheries in the Gulf of California. Fishery-derived specimens were examined to determine critical aspects of the reproductive biology of this poorly known group of rays. Two functional testes and ovaries were found in males and females respectively. Median size at maturity ( $L_{50\%}$ ) for males was 64 cm total length (TL) and for females 69 cm TL. Average length of gravid females was  $78.8 \pm 3.8$  cm TL. Histological analysis showed no evidence of sperm storage in the oviducal gland. Gestation was estimated to occur over a five to six month period (February to July) and was concurrent with vitellogenesis. Mean uterine fecundity was estimated as 7 (range 2–13, s.d. = 3). The sex ratio of embryos was 1:1. The reproductive cycle for *Zapteryx exasperata* from the Gulf of California was estimated of one year long with parturition, ovulation and copulation occurring during the summer months. Differences in the reproductive cycle of *Z. exasperata* between the Gulf of California and the west coast of Baja California were found and could have implications in the future management plans for this fishery in the Gulf of California.

Palabras clave: Reproductive cycle, Rhinobatidae, size at maturity, fisheries management.

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