



## Is it a sea snake? No, it's a baby leopard

**PROJECT NAME:** Are leopard sharks born zebra-like to mimic banded sea snakes? Using the patterns and sizes of zebra / leopard sharks to understand their ecology.

**PROJECT DATES:** 2009 - ongoing.

**PROJECT LEADER:** Dr Christine Dudgeon. University of Queensland, Brisbane, Australia.

**PROJECT FOCUS:** Leopard sharks (*Stegostoma fasciatum*) are the largest of the egg-laying shark species. As they grow from embryo to adult, they also undergo one of the most dramatic transitions in body markings for any elasmobranch species. The newly hatched juveniles are highly striped (where their other common name 'zebra' shark derives from) and the pattern evolves through the sub-adult stage before stabilising into the adult forms in a variety of spotted patterns (hence the "leopard" name thereafter).

It is suspected that this shift in appearance may be associated with increased survival chances for juvenile leopard sharks, as they possibly mimic banded sea snakes in their striped form. The transition to spots may be associated with outgrowing the model sea snake species but may also be associated with better camouflage in the adult wild environment.

### PROJECT AIMS:

- Follow the transition of body markings with changes in body size of newly hatched juvenile leopard sharks reared in captive aquaria. In particular, if juvenile leopard sharks do mimic captive sea snakes, we expect that the transition from striped to spotted form is associated with outgrowing the model sea snake species.
- Define at what age the adult patterns stabilize and therefore, when it becomes possible to use these patterns for individual identification.
- Understand the impact of temperature on mortality of eggs.



**Left image:** Leopard shark a few days after hatching. **Middle Image:** 2 months old. **Right Image:** 4 months old.  
© Reef HQ Aquarium.

**PROJECT OUTCOMES:** Reef HQ Aquarium will provide data on egg incubation as well as size and photos of patterns of leopard shark juveniles bred and born at the aquarium.

