

Aspects of the social behaviour in the Duvaucel's Gecko (*Hoplodactylus duvaucelii*): Observations of a captive population.

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Recent studies have revealed that lizard social systems may be more complex than previously thought. Besides territoriality and dominance hierarchies, other systems have evolved where species are gregarious, or maintain stable family groups. Furthermore, it has been shown that some species have the ability to discriminate between conspecifics and kin. However, detailed long-term studies looking at the various aspects of social behaviour, particularly in gekkonid lizards, are rare. New Zealand's diverse gekkonid fauna have adapted to a cool climate, in contrast to the largely tropical/ arid living species around the world. New Zealand's geckos are typically slow maturing, long-lived, live bearing and have low reproductive output. Very little is known about the behavioural biology of most New Zealand's lizards. In the current study, we investigate the social behaviours of New Zealand's largest gecko, *Hoplodactylus duvaucelii*. The cryptic and nocturnal habits of this species make observations in the wild extremely difficult. We conduct behavioural observations and experiments on a captive population held at the Massey University Reptile Breeding Facility, Auckland. Our study focuses on social interactions between conspecifics across all seasons (mating, breeding, winter) over a 24 month period. We aim to identify and quantify key behaviours of *H. duvaucelii* that are directly linked to its reproduction biology such as mating and courtship. We also test the ability of conspecific and kin recognition, and examine its grouping behaviour. Here we present preliminary results on (1) diurnal retreat site use and grouping patterns (2) kin recognition between females and their offspring and (3) types of intersexual interactions between familiar and non-familiar conspecifics. The findings of this study will help to clarify the species' underlying social system and contribute to the knowledge of the behavioural biology of the Duvaucel's gecko.