

MORGAN MULLER, Dept of Zoo Science and Applied Conservation, West Liberty University, West Liberty, WV, 26074. A Behavioral Study on Kin Selection In False Water Cobras, or *Hydrodynastes gigas*.

Recent studies have shown that temperate snake species often exhibit kin selection in novel environments as neonates. This behavior likely occurs because temperate snakes use winter-seasonal dens and brumate, which encourages group living. In contrast, tropical snakes that do not use seasonal dens may be less tolerant of sharing space with others regardless of relationship. To examine this three clutches of neonate False Water Cobras (*Hydrodynastes gigas*) were placed in sibling and nonsibling pairs and housed together in 10-gallon aquaria for four days per trial. Y-mazes were used to test sibling/nonsibling preference. Individuals were placed at the maze entrance, with a sibling on one side and a non-relative on the other. After 45 minutes of scent marking, both stimulus snakes were removed, and the focal snake was allowed to explore. A generalized linear mixed model with a binomial error structure showed that the likelihood of choosing a sibling was lower than expected. A chi-squared test revealed the snakes preferred solitude over being with any other snake, regardless of relatedness. To assess chemosensory preference, a repeated-measures mixed model was used, which found no significant difference in tongue flicks between siblings and non-siblings, with higher tongue flick rates indicating greater interest in the particular group. A one-sample exact binomial test showed no significant side preference during trials. These findings indicate no evidence of kin selection in captive False Water Cobras, suggesting that, unlike some temperate species, they do not seek the company of kin in novel situations.