

Scolecophidian Arboreality Revisited

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Staff from the St. George Island State Park examined the second nest for hatching success in mid-August. This clutch, comprised of 139 unhatched eggs of similar size ranges as the first documented clutch, included 96 yolked eggs (Ogles, pers. comm.). Once again, no eggs appeared to contain embryos. These clutch sizes, although representing only two samples, appear consistent with previous studies which exclude smaller, yolkless eggs from clutch size estimates (Hirth and Ogren 1987; Leslie et al. 1996). Hirth and Ogren (1987) found leatherbacks to lay an average clutch of 81.57 eggs on beaches near Laguna Jalova, Costa Rica.

Poor nest site selection, infertility, embryonic mortality, poaching, predation, and root development have been recognized in the past as reasons for reduced hatching success for leatherback and green sea turtles, *Chelonia mydas* (Leslie et al. 1996; Whitmore and Dutton 1985). Due to the few historical records of leatherbacks in northwest Florida and the characteristics of these two clutches, evidence seems to suggest infertility as the reason for lack of embryonic development and hatching success. The panhandle region of Florida, especially Franklin County, is relatively undeveloped in comparison to other regions of the state. Certainly the possibility exists that leatherback females nested on remote beaches in the past, thus escaping human detection. Further monitoring of local nesting beaches in years to come may provide additional knowledge concerning the nesting density of the leatherback sea turtle and a better estimate of the number of nesting females in northwest Florida.

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Arboreality in scolecophidians was reviewed recently by Gaulke (1995). We compile here records that are hitherto unpublished as well as reports that were omitted in Gaulke's review on arboreality in the Typhlopidae and Leptotyphlopidae.

On 8 March 1994, an adult *Ramphotyphlops braminus* (ZSI 25115) was found under peeling bark, ca. 1.5 m vertically above substrate and ca. 5 m up along a reclining termite-infested dead coconut tree (*Cocos nucifera*) on Car Nicobar (09°10'N; 92°47'E), Bay of Bengal, India. The animal presumably was feeding on worker termites, among which it was found. Data associated with the following museum specimens provide additional evidence for arboreality among scolecophidians: one *Leptotyphlops tenellus* (USNM 286953) from a palm tree in St. George, Trinidad, and another (USNM-field no. 175504), collected from under bark of a tree more than 1 m off ground; *Ramphotyphlops angusticeps* (FMNH 41968), 4 m up in a palm tree, Guadalcanal, Solomon Islands; and *R. depressus* (USNM 121256), found climbing a tree, Manus Island, Bismarck Archipelago, Papua New Guinea (fide letter 170465 by Emil Bogen to the USNM).

There are several other anecdotal literature records of arboreality in scolecophidians that were cited by Gaulke (1995), including *R. angusticeps* at night in fronds of a small palm tree about 4 m above the ground, Guadalcanal, Solomon Islands (McCoy 1980); five *R. suluensis* from 2–3 m in height in a tree at night, Sulu Archipelago, the Philippines (Gaulke 1995, 1996); *R. nigrescens* 5 m up on a she-oak tree (*Casuarina* sp.), Australia (Shine and Webb 1990); and *L. dulcis* 1 m up in a sycamore tree (*Platanus occidentalis*), Waco, Texas, USA (Plsek fide Gehlbach in Vanzolini 1970).

Additional literature records suggesting arboreal activity include one *Leptotyphlops albifrons* ca. 0.5 m up the rough bark of a half dead tree, another coiled around a live bamboo twig in daytime close to the ground, Guyana (Beebe 1946), and a third under the bark of a tree (Mole 1924); *L. dulcis* in nest of screech owl (*Otus asio*), Texas, USA (Gehlbach and Baldrige 1987); *L. macrolepis* ca. 0.6 m up a vertical concrete wall, Colombia (Dunn 1944); *L. macrorhynchus* from thatched roof of a house, Pakistan (Minton 1966); *L. tenellus* ca. 2 m up a tree trunk, Brazil (Vanzolini 1970); *L. tessellatus* in the wall of an old adobe house in Lima, Peru (Schmidt and Walker 1943); *Ramphotyphlops australis* from a dead standing blackboy [burnt yacca grass tree], *Xanthorrhoea* sp., in a dry swamp, Australia (Chapman and Dell 1975); one *R. braminus* ca. 2 m up on a dead mango tree, *Mangifera indica*, Australia (Swanson 1981), and one in an insect hole within a piece of sugarcane (*Sachharum officinalis*) a considerable height above the ground (Annandale 1906); *R. cumingii* from the trunk of a tree that had bored ant tunnels beneath the bark and multiple specimens from root masses of aerial ferns, including the giant tree fern (*Asplenium nidus*), high in forest trees (Taylor 1919, 1922); *Typhlops richardii* 1.5 m up on a papaya tree (*Metopium toxiferum*), Puerto Rico (Tolson and Campbell 1989); and *T. arenarius* 1.5 m up on a large tree, Madagascar (Glaw and Vences 1994). Edgar and Lilley (1993) characterized *R. olivaceus* from