

**DESCRIPTION OF INVASIVE EXOTIC REPTILE SPECIES
FROM THE LESSER ANTILLES**



Indotyphlops braminus

(Daudin, 1803)

Common name: Brahminy blindsnake,
Flowerpot Snake.

Local name: Typhlops brame, Bootlace Snake,
Khorat Worm Snake, Khorat Blind Snake,
Brahmanen-Wurmschlange, Khorat-
Blindschlange, Culebrilla Ciega.

Order: Squamata, Family: Typhlopidae

Description

Morphology. Small sized non-venomous snake. The body is thin and is silver gray, black or purple in colour. The head is not differentiated from the rest of the body, and the eyes appear as black spots under the ocular scales. The tail has a harmless spur at its tip. The ventral side varies from gray to brown, and the scales are indistinguishable from those of the rest of the body. The scales are small, smooth and shiny, and are arranged in 14 rows along the body (Wallach, 2009).

Standard body size (snout-vent length). 95 to 203 mm (Ota et al., 1991; Wallach, 2009; Das et al., 2016; Leets-Rodriguez et al., 2019).

Sexual dimorphism. No sexual dimorphism (unisexual species) (Ota et al., 1991).

Variations.

Possible confusion with other species. In the Caribbean, confusion is possible with other small endemic snake species, such as *Tetracheilostoma bilineatum* in Martinique, *T. breuili* in Saint Lucia and *T. carlae* in Barbados. These three species are the smallest snakes in the world (Breuil et al., 2009).

Distribution

Native. Asia: Pakistan (Balouch et al., 2016; Rais et al., 2021), Nepal (Bhattarai et al., 2018; Rawat et al., 2020), Bhutan (Das et al., 2016), India (Manhas et al., 2018; Ingle et al., 2019; Ingle, 2020), Sri Lanka, Adaman and Nicobar Islands, Bangladesh (Ahsan et al., 2015), Myanmar, Thailand (Crane et al., 2018), Malaysia (Onn et al., 2009), Singapore, Laos, Cambodia (Grismer et al., 2008; Geissler et al., 2019), Vietnam (Ziegler et al., 2007), China, Hong Kong, Japan, Indonesia, Timor Leste, Philippines (Brown et al., 1996; Venturina et al., 2020).

Introduced. Europe: Madeira, Canarias (Rato et al., 2015), Spain (Zamora-Camacho et al., 2017), Balearic Islands, Italia (Faraone et al., 2019; Paolino et al., 2019), Malta (Vella et al., 2020).

Asia: Saudi Arabia (Burriel-Carranza et al., 2019), Oman (Carranza et al., 2018), United Arab Emirates, Kuwait, Lebanon, Irak, Iran (Rastegar-Pouyani et al., 2008; Afroosheh et al., 2010).

Africa: Libya (Bauer et al., 2017), Egypt (Ibrahim, 2013), Mauritania, Senegal, Ivory Coast, Togo, Benin, Cameroun, Gabon (Pauwels et al., 2004), Central African Republic (Chirio and Ineich, 2006), Democratic Republic of the Congo (Zassi-Boulou et al., 2004), Uganda, Kenya, Somalia, Zimbabwe, Tanzania, Zanzibar, Mozambic, South Africa, Madagascar (Andreone et al., 2003; D’Cruze et al., 2007; Gehring et al., 2010), Comores (Carretero et al., 2005; Hawlitschek et al., 2011), Mayotte, Réunion, Maurice, Rodrigues, Seychelles.

Oceania: New Guinea (Charlton and Nixon, 2020), Solomon Islands, Palaos, Nauru (McKenna et al., 2015), Australia (Parkin et al., 2021), Cocos Island, Christmas Island, New Caledonia (De Pous and Dingemans, 2009), Vanuatu (Ineich, 2009), Fiji, Micronesia, Guam, Polynesia (Ineich et al., 2017).

America: Hawaii, California, Arizona, Texas (Eversole and Daniel, 2020), Louisiana, Massachussets, Connecticut, Georgia, Florida (Krysko et al., 2009; Atkinson and Townsend, 2012; Burke and Lieto, 2019), Mexico (Flores-Cobarrubias et al., 2012; Carbajal-Marquez et al., 2013, 2015; Carbajal-Marquez and Quintero-Diaz, 2016; Banuelos-Alamillo and Carbajal-Marquez, 2016; Gonzales-Sanchez et al., 2017; Lemos-Espinal and Smit, 2020), Guatemala, Belize (Wallach, 2009), Nicaragua (Leets-Rodriguez et al., 2019), El Salvador, Honduras (Wallach, 2009; McCranie, 2015), Colombia.

Caribbean: Bahamas (Powell and Henderson, 2012), Cuba (Borroto-Paez et al., 2012), Cayman Islands (Powell and Henderson, 2012), Turk and Caicos (Powell and Henderson, 2012), Saint Croix (Powell and Henderson, 2012), Anguilla (Powell and Henderson, 2012), Saint Martin (Breuil et al., 2009; Lorvelec et al., 2007), Saint Barthélemy (Lorvelec et al., 2007), Saba (van den Burg, 2021), Saint Kitts (Powell et Henderson, 2012), Saint Eustatius, Montserrat (Snyder et al., 2019), Guadeloupe (Breuil et al., 2009; Powell and Henderson, 2012; Lorvelec et al., 2016), Martinique, Barbade (Powell and Henderson, 2012); Saint Vincent and the Grenadines (Powell and Henderson, 2012).

Uncertain status. Taiwan (Lee et al., 2019)

Biology and ecology

Habitat. *Indotyphlops braminus* can cope with a wide diversity of natural and anthropized habitats. This burrowing snake evolves in loose and moist soil, leaf litter, decaying trunks, under rocks and other debris. The species is occasionally arboreal. *I. braminus* is often found in gardens and flower pots, and plant nurseries are considered the main vector for the dispersion of the species outside its native range (Breuil et al., 2009; Rato et al., 2015; Zamora-Camacho, 2017).

Diet. Insectivore (eggs, larvae et pupae of ants and termites) (Mizuno and Kojima, 2015).

Reproduction. *Indotyphlops braminus* is a parthenogenetic species, meaning that females lay eggs that develop without the need to be fertilised.

Mature females (about 95 mm) lay one to eight eggs (Ota et al. 1991). The laying period varies depending on the locality. In subtropical regions, it occurs at the end of the wet season (Vella et al., 2020).

Behaviour. When threatened (or manipulated), the species defends itself by pushing back the threat with the tip of its tail (harmless), and can release foul-smelling musk produced via two glands at the base of the tail.

Impact and management of introduced populations

Impact. Little is known about the impact of the Brahminy Blindsnake on native ecosystems in introduced regions.

Management. To date, no targeted control measures have been established in the different regions where the species has been introduced.

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