

How to easily identify the flowerpot blindsnake, *Indotyphlops braminus* (Daudin, 1803), with proposal of a new genus (Serpentes: Typhlopidae)

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INTRODUCTION

There is a tiny alien stowaway spreading throughout the world, primarily with the inadvertent assistance of mankind, within the soil and root-masses of commercial plants. It is *Indotyphlops braminus* (DAUDIN, 1803), previously known under the generic names *Typhlops*, *Typhlina*, and *Ramphotyphlops*, and commonly referred to as the flowerpot snake or the Brahminy blindsnake. Nearly every place where this snake occurs, regardless of whether it is a native or introduced species, it is the smallest snake to be found, except in its ancestral home (WALLACH, 2009) of southern India and Sri Lanka that also has related species of the *I. pammeces* species group. This little snake measures only 40–65 mm at birth, with the thickness of a pencil lead (1–2 mm), and weighs only 0.1–0.2 g. Adults are usually 100–130 mm in length, 3–4 mm in diameter, and weigh less than 1 g (WALLACH, 2009).

The most similar species morphologically and genetically to *Indotyphlops braminus* are found in the South Asian *Indotyphlops pammeces* species group and the Australopapuan *Anilius polygrammicus* species group (Table 1). The *pammeces* group shares minute body size, 20 scale rows without reduction, the supranasal suture joining the narrow rostral dorsally, and in half the species the infranasal suture contacting the preocular. All species in the group except *I. pammeces* are from Sri Lanka but the most



Indotyphlops braminus from Tenerife, Santa Cruz de Tenerife, Canary Isles, Spain, Botanical Garden El Palmetum, alt. 35m., March 21, 2019.

Photo: Philippe Geniez

similar species to *I. braminus* is *I. pammeces* from India. The only external feature separating the two forms is the infranasal suture, contacting the preocular in *I. braminus* but the second supralabial in *I. pammeces*. However, a comparison of the visceral anatomy of *I. braminus* with the *pammeces* group (Table 2) reveals that *I. braminus* is most similar to *I. malcolmi* and

Table 1	ASR	MSR	PSR	TMD	SC	LOA	L/W	T/LOA	RW/HW	TL/TW	INS	SNS	PO	Locality
INDOTYPHLOPS														
<i>pammeces</i> group														
<i>braminus</i>	20	20	20	261–368	8–15	35–203	30–60	1.5–3.5	0.28–0.38	0.7–2.0	PO	YES	1	Worldwide
<i>lanakaensis</i>	20	20	20	229–261	11–15	67–130	27–35	2.5–4.4	0.32	1.5	PO	YES	1	Northeast Sri Lanka
<i>malcomi</i>	20	20	20	261–308	9–12	81–135	30–32	2.5–4.2	0.35	1.1–1.2	PO	YES	1	Northeast Sri Lanka
<i>pammeces</i>	20	20	20	328–391	11–13	119–195	54–75	1.9–3.1	0.24–0.34	1.3–1.6	2	YES	1–2	East India
<i>tenebrarum</i>	20	20	20	298–339	9–14	65–144	34–72	2.1–3.0	0.29	1.4–2.0	2	YES	1	Sri Lanka
<i>veddae</i>	20	20	20	295–309	13–14	93	60–91	3.0	0.23–0.33	1.4	2	YES	1	Northeast Sri Lanka
<i>violaceus</i>	20	20	20	245–308	10–13	65–135	30–43	2.2–3.1	0.27–0.30	2.0	PO	YES	1	Northeast Sri Lanka
ANILIOS														
<i>polygrammicus</i> group														
<i>erycinus</i>	20	20	20	300–335	13–23	230–350	27–44	2.7–7.7	0.14	1.0–2.5	1	YES	2	New Guinea
<i>ganei</i>	24	24	24	443–460	12–19	237–340	36–47	1.6–3.0	0.16–0.25	?	2	YES	1	West Australia
<i>kimberyensis</i>	22	22	22	425–524	12–20	220–296	30	1.7–2.2	0.33–0.36	?	2	NO	1	Northwest Australia
<i>ligatus</i>	24	24	24	313–452	11–17	111–500	20–40	2.7–5.5	0.22–0.34	1.5	1	NO	2–3	Northeast Australia
<i>micromma</i>	18	18	18	493	15	205	?	2.4	0.49	?	2	YES	3	Northwest Australia
<i>polygrammicus</i>	22 (23)	22	22	345–496	10–23	103–502	32–66	1.9–6.7	0.33–0.48	0.8–3.2	2	NO	2 (3)	Australia-Indonesia
<i>proximus</i>	20	20	20	321–360	10–17	194–750	20–40	1.4–4.1	0.47–0.61	0.9–1.7	1	NO	2–3	Southeast Australia
<i>wiedii</i>	20	20	20	381–469	9–17	153–322	30–80	1.6–4.0	0.50–0.63	1.1–3.0	2	NO	2 (3)	East Australia

Table 1. External characters of species similar to *I. braminus*.

ASR = anterior scale rows, MSR = midbody scale rows, PSR = posterior scale rows, TMD = total middorsals, SC = subcaudals, LOA = overall length, L/W = total length/midbody diameter, T/LOA = relative tail length (% LOA), RW/HW = relative rostral width (%), TL/TW = tail length/midtail diameter, INS = infranasal suture, contact (1 = SL1, 2 = SL2, PO = preocular), SNS = supranasal suture contact with rostral, PO = postoculars (rare condition given parenthetically).

I. tenebrarum and most distant from *I. pammeces*. These data show that although the *pammeces* group is very similar to *I. braminus* externally that they are distinctly different species based on the internal anatomy. Previous research has shown that a difference in the mean of more than 2% indicates species differentiation (WALLACH, 1991; WONG, 1994).

CLASSIFICATION

Indotyphlops braminus is a member of the Scolecophidia, a group of ancient snakes that includes dawn blindsnakes (family Anomalepididae from Latin America), wormsnakes and threadsnakes (family Lepotyphlopidae from the New World and Africa), and true blindsnakes (families Gerrhopilidae from South and Southeast Asia and East Indies, Xenotyphlopidae from Madagascar, and Typhlopidae from both the New and Old World). Taxonomically, there are 36 genera of scolecophidian with 481 total species, each family having the following representation: Anomalepididae (4 genera, 20 species), Lepotyphlopidae (12 gen., 153 sp.), Gerrhopilidae (1 gen., 21 sp.), Xenotyphlopidae (1 gen., 1 sp.), and Typhlopidae (18 gen., 286 sp.). They are small in size (Anomalepididae 70–415 mm in length, Lepotyphlopidae 55–400 mm, Gerrhopilidae 75–315 mm, Xenotyphlopidae 170–285 mm, and Typhlopidae 40–950 mm). The midbody

scale rows (MSR) and total middorsal scales (TMD), which are the most important taxonomic characters, vary as follows. Anomalepididae (20–30 MSR, 245–615 TMD), Lepotyphlopidae (14–16 MSR, 155–545 TMD), Gerrhopilidae (16–26 MSR, 190–720 TMD), Xenotyphlopidae (20–22 MSR, 475–545 TMD), and Typhlopidae (16–44 MSR, 195–835 TMD). The total length divided by midbody diameter gives an important length/width ratio: Anomalepididae (20–85), Lepotyphlopidae (15–195), Gerrhopilidae (20–80), Xenotyphlopidae (60–85), and Typhlopidae (15–150) (PYRON & WALLACH, 2014).

IDENTIFICATION

Although *Indotyphlops braminus* resembles other scolecophidians, it has several unique features that can be used to positively identify it and other characters that, taken in combination, can also provide a positive identification. First off, if this exotic species is found in a region that has no other scolecophidians or typhlopids, you can be certain that it is *I. braminus*.

Secondly, the condition of the nasal sutures can separate *I. braminus* from all but five scolecophidian species. In *I. braminus* the inferior or infranasal suture (INS) from the nostril (N) curves downward and contacts the preocular (PO), rather than the first or

Table 2						
Character	<i>braminus</i> (n=13)	<i>lankaensis</i>	<i>malcolmi</i>	<i>pammeces</i> (n=2)	<i>tenebrarum</i> (n=2)	<i>violaceus</i>
SPT	14.0 (11.4-21.2)	15.9	13.7	11.2 (11.0-11.3)	13.3 (11.7-14.9)	17.5
HMP	31.3(28.8-36.4)	31.3	31.9	27.9 (27.4-28.3)	32.0 (30.7-33.3)	34.1
SHI	33.7 (31.4-39.4)	34.4	34.4	30.0 (29.6-30.4)	34.1 (32.3-35.9)	36.5
RL	25.0 (18.6-32.3)	17.4	22.1	21.8 (16.1-27.4)	24.9 (24.1-25.6)	20.6
RLMP	48.7 (41.6-54.7)	43.1	50.0	42.8 (40.7-44.8)	48.0 (47.7-48.2)	48.4
RLS	10.3 (7-13)	?	?	21	18.5 (17-20)	1
LGBG	9.5 (-1.4-16.2)	4.1	9.2	12.1 (9.6-14.5)	7.0 (4.39.7)	20.6
GBMP	71.6 (58.8-84.1)	56.9	70.8	66.4 (59.1-73.6)	68.1 (65.2-71.0)	79.8
RAMP	81.8 (75.4-87.7)	?	82.6	82.2 (77.8-86.6)	85.3 (83.3-87.2)	?
TK	8.2 (6.2-9.7)	18.4	8.4	8.1 (6.2-10.0)	8.7 (8.2-9.2)	6.4
RKMP	90.5 (88.0-93.8)	82.3	89.9	86.3 (83.0-89.6)	89.6 (87.8-91.3)	87.7
KVG	4.4 (2.3-6.5)	5.6	5.0	8.2 6.0-10.4)	5.0 (2.6-7.4)	6.3
KVI	11.6 (8.5-14.4)	22.1	12.2	15.8 (11.9-19.6)	12.5 (10.8-14.2)	13.5
RC	4.0 (2.4-7.4)	3.6	5.0	3.9 (3.8-3.9)	3.2 (2.8-3.6)	3.2
RCVI	10.7 (7.0-14.3)	12.8	11.8	13.6 (10.7-16.5)	10.0 (9.7-10.3)	9.5
T	31.9 (25.2-38.6)	33.3	33.6	28.9 (28.6-29.1)	33.3 (31.2-35.4)	35.7
NTR	68.4 (52.8-86.8)	58.5	61.1	71.8 (68.9-74.8)	74.2 (73.1-75.2)	63.0
TLgMP	19.0 (17.0-23.5)	21.8	21.4	19.0(18.9-19.1)	20.4 (19.7-21.0)	24.2
TLgF	20.3 (17-24)	16	21	24.5 (24-25)	22.5 (22-23)	15
RLg	17.6 (8.1-28.5)	10.8	12.2	11.0 (8.7-13.2)	15.1 (11.3-18.8)	14.3
PT	51.3 (40.1-59.9)	45.1	46.6	41.0 (39.1-42.8)	49.2 (47.2-51.1)	50.8
HL CL	17.4 (11.8-25.2)	11.8	18.1	14.9 (12.4-17.4)	16.0 (14.4-17.5)	14.3
LK CL	42.6 (35.3-50.7)	42.8	41.4	45.3 (44.4-46.3)	43.2 (40.9-45.4)	41.3
TL CL	30.9 (25.3-38.4)	25.4	32.4	27.2 (24.8-29.5)	30.5 (29.5-31.5)	29.7
HRLg CL	11.1 (6.3-16.8)	8.4	8.6	7.7 (6.5-8.8)	9.6 (8.2-11.0)	9.6
HK CL	60.0 (53.4-65.1)	54.6	59.5	60.2 (56.8-63.7)	59.1 (58.4-59.8)	55.6
TBGB CL	50.8 (34.0-71.2)	36.4	48.7	46.7 (39.8-53.6)	45.8 (42.3-49.2)	56.4
HRG CL	45.7 (35.2-54.6)	39.2	48.1	50.6 (44.3-56.9)	50.8	48.0

Table 2. Visceral characters of the *I. pammeces* group (values as % SVL) .

GBMP = gall bladder midpoint, HMP =heart midpoint, KVG = kidney-vent gap, KVI = kidney-vent interval, LGBG = liver-gall bladder gap, NTR = number of tracheal rings/10% SVL, PT = posterior tip of right lung, RAMP = right adrenal midpoint, RC = rectal caecum length, RCVI = rectal caecum-vent interval, RKMP = right kidney midpoint, RL = right liver length, RLg = right lung length, RLMP = right liver midpoint, RLS = right liver segments, SHI = snout-heart interval, SPT = sternohyoideus posterior tips, T = trachea length, TK = total kidney (left + right) length, TLgMP = tracheal lung midpoint, TLgF = tracheal lung foramina, HL CL = heart-liver, LK CL = liver-kidney, TL CL = tracheal-liver, HRLg CL = heart-right lung, HK CL = heart-kidney, TBGB CL = trachea/bronchus-gall bladder, HRG CL = heart-right gonad.

second supralabial (SL1 or SL2) as in most other typhlopids, whereas the superior or supranasal suture (SNS) extends upwards and backwards onto the top of the snout and makes contact with the rostral (R) to completely divide the nasal shield (rather than not extending onto dorsum of snout and not contacting the rostral as in most other typhlopids) (Fig. 1). The supranasal suture extends onto the dorsum of the snout and contacts the rostral in only three other species (*Anilius erycinus* of New Guinea, *A. ganei* and *A. ligatus* of western Australia) and the infranasal suture contacts the preocular in only two other species (*Indotyphlops lankaensis* and *I. violaceus* of Sri Lanka).

Among these five problematic species, they differ from *Indotyphlops braminus* in having the following distinctions: *Anilius erycinus* of New Guinea has the INS contacting SL1 (vs. PO), more postoculars (2 vs. 1), a narrower rostral (0.15 vs. 0.30–0.40 head width), and is larger in size (LOA > 230 mm vs. < 200 mm); *A. ganei* of Australia has the INS in contact with SL2 (vs. PO), SNS invisible dorsally (vs. visible), more scale rows (24 vs.

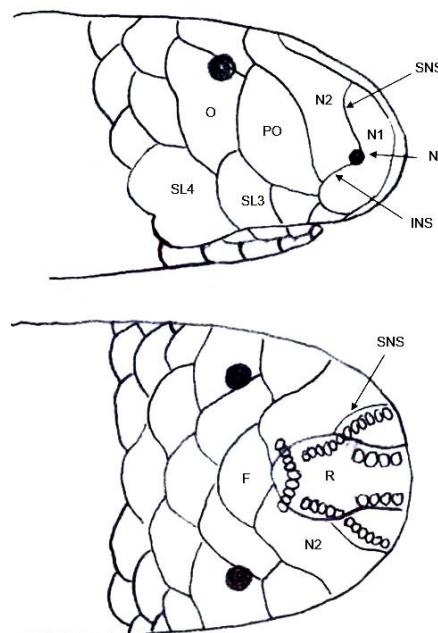


Figure 1: Lateral and dorsal view head *Indotyphlops braminus*.

F = frontal shield, INS = inferior nasal suture, N1 = prenasal or anterior nasal shield, N2 = postnasal or posterior nasal shield, O = ocular shield, PO = preocular shield, R = rostral shield, SL = supralabial shield, SNS = superior nasal suture.

20), more middorsals (> 440 vs. < 310), and a larger body size (> 235 mm vs. < 200 mm); *A. micromma* of Australia has the INS contacting SL 2 (vs. PO), fewer scale rows (18 vs. 20), more middorsals (493 vs. < 370), more postoculars (3 vs. 1), and a broader rostral (0.5 vs. 0.3–0.4 head width); *I. lankaensis* of Sri Lanka has the SNS invisible dorsally (vs. visible), fewer middorsals (< 261 vs. > 261), and a thicker body (L/W < 35 vs. > 30); *I. violaceus* of Sri Lanka has the SNS invisible dorsally (vs. visible). With the exceptions just noted for the above five species, the nasal suture condition of *I. braminus* will differentiate it from all of the other 475 scolecophidian species.

Thirdly, the head of *I. braminus* exhibits prominent and distinct subcutaneous sebaceous glands arranged in rows beneath each head shield (also present in the *I. pammeces* species group). These gland lines run parallel to and along the margins of the anterior head shields. A unique situation involves the gland lines of the prenasal or anterior nasal (N1) shield and the median rostral (R) shield. As the gland line on the lower or anterior rostral (ARL) ascends towards the top of the snout it is interrupted by the supranasal gland line (SNL) on the prenasal (N1) shield, which is confluent with the



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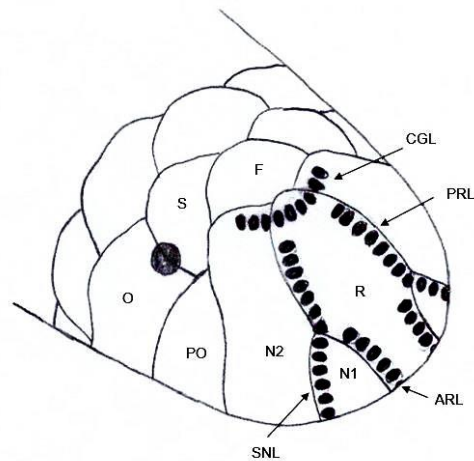


Figure 2: Fronto-dorsal view head *Indotyphlops braminus*.

ARL = anterior rostral gland line, CGL = convex gland line, F = frontal shield, N₁ = prenasal or anterior nasal shield, N₂ = postnasal or posterior nasal shield, O = ocular shield, PO = preocular shield, PRL = posterior rostral gland line, R = rostral shield, S = supraocular shield, SNL = supranasal gland line.

gland line along the posterior rostral (PRL). A close inspection of the head will clearly reveal this condition and it is unique among all scolecophidians. This one feature will positively identify *I. braminus*. Another unusual gland line feature, also visible without the aid of a microscope, is that the posterior rostral (R) and supranasal (N₂) shields have a bow-like gland line (CGL) that is convex rather than concave and parallel to the posterior rostral border. This unique feature on the top of the head just anterior to the level of the eyes is distinct and easily visible. These two features, 1) a continuous line of whitish glands extending along the nasal suture (SNL) and posterior rostral (PRL), and 2) a convexly curved gland line (CGL) across the posterior rostral (R) and supranasal (N₂) shields, will positively identify *I. braminus* in an examination or photographs (figs. 1–2).

Fourthly, in spite of the fact that the colour in *I. braminus* ranges from jet black through all shades of brown to tan and pink, it has a lighter colored snout with a white chin, cloacal region, and tail tip.

The Gerrhopilidae (solely *Gerrhopilus*) from Southeast Asia and the East Indies differ from *I. braminus* in the SIP (T-II or T-V vs. T-III) (WALLACH, 1993), showing conspicuous cephalic glands (under center of shields vs. along sutures), subocular shield (usually present vs. absent), and INS in contact with



Indotyphlops braminus from Tenerife, Santa Cruz de Tenerife, Canary Isles, Spain, Botanical Garden El Palmetum, alt. 35m., March 21, 2019.

Photo: Philippe Geniez

The Anomalepididae mainly inhabit South America with only three species (each in a different genus) entering Central America. *Anomalepis mexicanus* from Honduras to Panama differs from *I. braminus* in having three enlarged dorsal head shields (two

SL2/3 (except *G. tindalli* with PO contact as in *braminus* but differing also with only 18 scale rows).

The Xenotyphlopidae (solely *Xenotyphlops grandidieri*) of Madagascar can be separated from *I. braminus* by middorsals (> 475 vs. < 370), rostral (> 0.75 vs. < 0.4 head width), INS contact (SL2 vs. PO), postoculars (2–3 vs. 1), SIP (T-0 vs. T-III), length/width ratio (60–85 vs. 30–60), and scale pigmentation (pink vs. brown/black).

The Leptotyphlopidae of Africa and the Americas can easily be distinguished from *I. braminus* by scale rows (14, rarely 16 vs. 20), eye (large distinct eye vs. small faint spot), ocular shield (forming border of upper lip vs. separated from upper lip by supralabials), cloacal shields (single large shield vs. multiple scales), tail length (2.1–20.0% vs. 1.5–3.5% LOA), and tail termination (rounded with minute spine vs. conical with large spine).



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Photo: Philippe Geniez

prefrontals and one frontal). *Helminthophis frontalis* from Costa Rica differs from *I. braminus* in midbody scale rows (22 vs. 20), middorsals (> 575 vs. < 370), and SIP (A-VI vs. T-III). *Liotyphlops albirostris* from Panama is separable from *I. braminus* by middorsals (367–520 vs. 261–368), rostral width (0.5–0.6 vs. 0.3–0.4 head width), and SIP (A-VI vs. T-III).

DISTRIBUTION

Our knowledge of the geographic distribution of *I. braminus* was limited to fewer than 40 countries in the 19th Century (1803–1900) but the 20th Century (1900–1999) saw that number double to 81 and in just the past 20 years (2000–2020) it has been found in another 40 countries for a current total of 118 countries or island entities (WALLACH, 2020). It occurs on more than 540 islands worldwide and ranges in elevation from sea level to more than 3000 m.

BIOLOGY

The coloration is usually some shade of brown or black with the snout and venter being a slightly lighter shade. The chin, cloaca region, and tail tip are white. In desert regions the colour is generally lighter, from tan to pink. The tongue is white.

They are not often seen on the surface in the daytime except after rains or floods, when they come up to breathe air. They are normally found when digging in the garden, raking leaves, excavating earth, or turning

stones. This snake may be mistaken for an earthworm upon superficial inspection. However, a closer examination will easily determine that it is a snake as it is covered with shiny, hard scales, lacks segmentation, has a forked tongue, a pair of dark eyespots, wiggles rapidly like a snake on smooth surfaces (like the bathroom floor where it is frequently found), and disappears into loose soil very quickly.



Indotyphlops braminus, from Hooliongapar Gibbon Sanctuary, Assam State, NE India, 130 m., 15 March 2009.

Photo: Indraneil Das

They all superficially resemble one another in comparison with other snakes and are fossorial or subterranean, active nocturnally, and feed exclusively upon ants and termites, preferably their eggs, nymphs, pupae, and larvae. Females lay an average of 3 eggs (range = 1–8) throughout the year in tropical regions (at least three times/year in the Seychelles) and only once every year or every other year in colder climates or higher elevations (NUSSBAUM, 1980; OTA et al., 1991).

DOCUMENTATION

The reason why it is important to document every observation, photograph, or collection of *I. braminus* is that it is the one and only snake species that is parthenogenetic. Out of 3600 known snake species only *I. braminus* is an obligate parthenogen, a unisexual, all-female species with a triple complement of chromosomes that can only reproduce by cloning itself (WYNN et al., 1987). Therefore, every single female *I. braminus* has the potential to found a new colony, and when someone finds a specimen it is most likely already established as a resident. Often the

I. braminus that are discovered in and around homes are juveniles, which mean that the adult is alive and reproducing itself already. Only if you caught the first importation of the species (and it was the only individual involved) could you be certain that you prevented its establishment in your location.

I urge every person, whether a layman or professional herpetologist, to document in some form or another every known occurrence of *I. braminus* that he/she encounters. Because of its secretive, nocturnal, and fossorial nature, it is normally difficult to find, and when it does appear it is by happenstance or some fluke incident. *Indotyphlops braminus* most assuredly occurs in numerous areas (some countries, islands, and other regions) of which we yet have no knowledge.

TAXONOMY

In addition to its triploid, parthenogenetic nature, which is unique among snakes, the unusual position of *Indotyphlops braminus* is indicated by the following characters, which are rare among typhlopids:

- 1) presence of paired parietals (HAAS, 1930; MOOKERJEE & DAS, 1932; MAHENDRA, 1936),
- 2) presence of a weak neural ridge on the axis (LIST, 1958),
- 3) lack of participation of the basioccipital in the occipital condyle, a condition also known only in *R. flaviventer* (LIST, 1966; GREER, 1997),
- 4) single median ventral foramen in vertebrae (MAHENDRA, 1935, 1936; LIST, 1966),
- 5) marrow spaces lacking within walls of vertebra except for a synapophysial marrow space (SOOD, 1948),
- 6) at least ventrally, point contact of the diamond-shaped ventral scales with their neighbors; the cycloid scales of other typhlopids have rounded margins that broadly overlap their neighbours (STORR, 1981),
- 7) fourth supralabial larger than size of other three supralabials combined and presenting a caudal notch (fig. 1), indicating presumed fusion of fourth supralabial with adjacent scale(s)—at least a postocular and costal scale (WALLACH, pers. obs.),
- 8) disposition of the cutaneous glands beneath the head shields, which are confined to the sutures between the shields along the



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Photo: Philippe Geniez

anterior borders of each scale (figs. 1–2, TAYLOR, 1962; MCDOWELL, 1974),
 9) extension of supranasal suture dorsally and posteriorly onto dorsum of snout to contact rostral - as in members of the *I. pammeces* species group and *Anilius erycinus*, *A. gabei* and *A. micromma* (figs. 1–2, MCDOWELL, 1974; STORR et al., 2002),
 10) confluence of supranasal gland line with the caudal portion of the rostral line on top of the head, rather than with the cranial portion of the rostral line (figs. 1–2, MCDOWELL, 1974),
 11) infranasal suture in contact with preocular rather than a supralabial, and containing a small gland that is not a striated pit (fig. 1, MCDOWELL, 1974),
 12) more than 1100 cephalic sense organs with sunk-in papillae in epidermis of the head (AOTA, 1940; LANDMANN, 1976),
 13) dermal melanophores beneath epidermis but no epidermal melanophores present (MORI, 1989),
 14) external nostril with a nearly circular shape with horizontal and transverse nasal passage (fig. 1), other Typhlopidae (except *Gerrhopilus ater* species group) having the nostril elongated and nasal passage oblique (MCDOWELL, 1974; WALLACH, pers. obs.),
 15) small gland in the sulcus immediately behind the eye and above the temporalis anterior muscle (FRASER, 1937),
 16) tongue with a pair of long, pointed lateral tongue papillae near its bifurcation (MCDOWELL, 1974),

17) multicameral tracheal lung with avascular air cells (also present in *I. pammeces* species group) (WALLACH, 1998),
 18) unicameral right lung (WALLACH, 1998),
 19) large pedunculate rectal caecum (MCDOWELL, 1974), and
 20) karyotype = triploid chromosome set with $3n=42$, $NF=78$, 21 macrochromosomes + 21 microchromosomes (WYNN et al., 1987; MATSUBARA et al., 2019).

The parthenogenetic nature alone of *I. braminus* warrants recognition of this species as a new genus that is separate from its most closely related snakes of the *Indotyphlops pammeces* species group (WALLACH & PAUWELS, 2004). Since it forms a terminal taxon within the *Indotyphlops* clade (HEDGES et al., 2014; FIGUEROA et al., 2016), I propose that it be placed in a new genus as below.

Reptilia Laurenti, 1768: 19
 Serpentes Linnaeus, 1758: 214
 Scolecophidia Duméril & Bibron, 1844: 71
 Typhlopidae Merrem, 1820: 10
 Asiatyphlopinae Hedges et al., 2014: 31-32
 Asiatyphlopini tribe nov.

Virgotyphlops gen. nov.

Type species: *Eryx braminus* DAUDIN, 1803: 279.

Content: *Virgotyphlops braminus* (DAUDIN, 1803) by monotypy.

Eymology: derived from the Greek *virgo*, meaning virgin birth, and *typhlops*, meaning blind.

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SUMMARY

Indotyphlops braminus, the flowerpot snake, is rapidly expanding its range around the world via introduction by way of the commercial plant trade. It can readily be recognized from other scolecophidians (blindsnakes and wormsnakes) merely from a photograph. Through various social media platforms the

spread of this invasive serpent can be tracked in real time. Several key characters are discussed by which the species can be identified with certainty. As the sole obligate parthenogenetic snake in existence, and a terminal member/taxon of the *Indotyphlops albifrons-pammeces* clade, a new genus is established to recognize its condition.

SAMENVATTING

Indotyphlops braminus, de Bloempotslang, is aan een snelle uitbreiding van haar verspreidingsgebied bezig. Dat geschiedt voornamelijk door de internationale commerciële

handel in opgepotte tuin- en kamerplanten. De soort is gemakkelijk van andere Scoleophidia (Worm- en Draadslangen) te onderscheiden, zelfs al vanaf een foto (denk hierbij aan sociale media). Twintig in de tekst opgesomde kenmerken geven definitief uitsluitend. Experts kunnen dan de nieuwere verspreiding ongeveer op de voet volgen. Deze soort is de enige parthenogenetische slang die we kennen. Daarom wordt in dit artikel een nieuw eindtaxon benoemd in het *Indotyphlops albifrons-pammeces* cladon (groep): *Virgotyphlops* gen. nov.

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