

Aggregation behaviour in the common blunt-headed tree snake (*Imantodes cenchoa*)

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The common blunt-headed tree snake (*Imantodes cenchoa*) is a small-medium sized, extremely slender arboreal snake species in the Dipsadidae family. *Imantodes cenchoa* has a wide geographic range in the Americas from southern Mexico to Argentina and individuals are regularly encountered at night time in the Ecuadorean Amazon (Bartlett & Bartlett, 2003). Here I present an observation of aggregation behaviour of this species (presumably for breeding purposes). This behaviour was encountered while out on the night of the 19/07/2018 with a group of students on a visual encounter survey. The survey was taking place on one of the trails in the Sani reserve, North of the river Napo, in Ecuador (GPS coordinates: 0.4389°S, 76.3114°W, 238m a.s.l).

The habitat type of this trail is, for the most part, Tierra firme (unflooded forest). There is, however, Varzea swamp, characterised by regular flooding during times of rain and exhibiting more palmy vegetation, within 50m of the trail down a slope. It was a clear night with a half-moon, wet and humid from rain earlier in the day. At 21:27 a pair of *I. cenchoa* were encountered at the edge of the trail in a small shrub around 1.5 m above the ground. Basic data were collected such as species, GPS, weather and a brief habitat description. At 22:16, while returning along the trail after the survey, there were five individual animals within close proximity of each other (<1 m) in the same area. The group composed of two pairs with one other individual close to one of the pairs (Figs. 1 & 2).

Upon returning alone after the survey, there were now only four snakes in the vicinity. The snakes remained motionless for prolonged

periods before one of the snakes in one of the pairs would move towards the other, while tongue flicking, and gently tap the other snake at midbody with its head (Fig. 2). The two would then quickly move away from each other.

Similar behaviour has been observed in the past whereby a male individual overlooked a male and female mating, and after mating, engaged in pushing and shoving of the other male snake repetitively until one of the interactors left (Dos Santos-Costa & da Costa Prudente, 2005). Communal nesting behavior is another potential explanation for this aggregation behavior as this has been recorded in the goo-eating snake (*Sibynomorphus mikanii*), another Neotropical member of Dipsadidae (Braz & Franco, 2008). There is not a huge amount known about the nesting ecology of *I. cenchoa*, highlighting that there is still much to learn about even the most common species.

The observation lasted for approximately 15 minutes after which time the snakes all moved away to different parts of the trees, perhaps because of my presence, although disturbance was kept to a minimum (red head-torch, remained approximately 3 m from snakes). Despite there being sexual dimorphism in the snout to vent length (SVL) of sexually mature males and females (de Sousa *et al.* 2014; Zug *et al.* 1979), the snakes were not examined closely enough (avoiding interruption of the behaviour) to measure this, so it is unclear if this was a single sex or mixed group. This is the first recorded occurrence of aggregation in *I. cenchoa*, where this crude fighting behaviour was observed among multiple potential pairs (mating was not observed) in close proximity.



Figure 1. One of the pairs of interacting snakes. Red circles show the heads of the snakes.



Figure 2. The other pair of interactors, shortly before the pushing behaviour.

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