Oxybelis aeneus (Brown Vine Snake)

Family: Colubridae (Typical Snakes)
Order: Squamata (Lizards and Snakes)
Class: Reptilia (Reptiles)

Fig.1. Brown vine snake, *Oxybelis aeneus*.

[http://www.discoverlife.org/20/q?search=Oxybelis+aeneus. downloaded 23 February 2015]

TRAITS. *Oxybelis aeneus* is a species of snake that has a variation of colour from grey to brown, with an underside that is yellow. It is very slender and long (Fig. 1), reaching 1.9m total length. It possess a prominent snout with length twice the diameter of its eye, in which the shape of the pupils is round. There is a furrow running from each side of the head from the eye to the snout. The tail has a pointed tip, it is also thin, long and slender (Savage, 2002). The brown vine snake has short rear fangs and produces a mild venom, but this species is not thought to be dangerous to humans, bites producing only an itching sensation (Wikipedia, 2015).

DISTRIBUTION. *Oxybelis aeneus* is distributed from southern Texas and Arizona through Venezuela, Mexico, Colombia, Belize, Honduras and Guyana to Brazil (Grant and Lewis, 2010) (Fig. 2). It is native to both Trinidad and Tobago.

HABITAT AND ACTIVITY. *O. aeneus* are arboreal in nature and reside in trees and bushes in open areas exposed to the sunshine. They favour dry, mixed deciduous forested areas. Plants such as mimosa are associated with *O. aeneus* since the prey anoles (*Anolis* lizards) are frequently found in such plants (Henderson, 1974). *O. aeneus* can usually be encountered in vegetation of 0.3-1.8m in height.

FOOD AND FEEDING. The organisms which *O. aeneus* prey upon are most often lizards and frogs, but include small rodents and birds. The most prominent lizards that are fed upon are the anoles (Fig. 3). There is documentation of an *O. aeneus* attempting to kill a *Basiliscus plumifrons* lizard in Costa Rica. The lizard was held in its jaw for 4-5 minutes before it was swallowed, but the *O. aeneus* had difficulty in swallowing the lizard because of its large size so it was released (Grant and Lewis, 2010).

POPULATION ECOLOGY: They are abundant where conditions are favourable to them (Kennedy, 1965). They are often seen by themselves in the cover of bushes and shrubs. They are not common in temperate areas and where winter is frequent they retreat to the trunks of hollow trees and cracks in rocks (Lawler et al., 1994.) Seasonal activity of *O. aeneus* varies with the availability of food, their reproductive ability and environmental conditions. They are rarely seen in seasons of extreme rainfall and low temperatures (Bezerra et al., 2011).

REPRODUCTION. Eggs are found in leaf litter undisturbed on hilly slopes of a forest. Hatching of eggs occurs in August and September in Arizona, with clutches from 3-8 (Lawler et al., 1994).

BEHAVIOUR. *O. aeneus* has relatively acute vision and are diurnal, it sometimes heads towards its perch before or after darkness has fallen. An S-shapes coil is seen when this species is restrained and a dark blue black lining is seen when it opens its mouth which may cause fright to predators (Fig. 4). Those found on the ground occasionally vibrate their tails which might be a warning sound (Henderson, 1974). *O. aeneus* shows stalking behaviour when hunting for their prey the anoles since their movement is not anticipated by the anoles (Fleishman, 1985). When capturing its prey it uses the mild venom found in its teeth to subdue their movement. *O. aeneus* showed behavioural aspects when captured such as the anterior body and head sways in a rhythmic pendulous movement. During intervals there was no movement, it lay motionless and returned to it rhythmic swaying as before. The tongue protruded from the mouth even as it lay motionless (Kennedy, 1965).

APPLIED ECOLOGY. *O.aeneus* are often confused with venomous snakes due to their colour and the blue lining in the mouth. Therefore misidentification has caused humans to kill this species. However most damage is caused by road kills and loss of forest vegetation. Little information is published about the conservation and harvesting of this species. The IUCN does mention *O. aeneus* in its documentation.

REFERENCES

Bezerra,Castiele H, Diva M.Borges-Nojosa, Paulo C.M.D.Mesquita and Daniel C. Passos.2011. "Activity Patterns of the Brown Vine Snake Oxybelis aeneus (Wagler,1824) (Serpentes, Colubridae) in the Brazilian semiarid." Animal Biology, Vol 62:289-299.

Fleishman,Leo J.1985. "Cryptic Movement in the Vine Snake Oxybelis Aeneus." Copeia, Vol. 1985: 242-245.

Grant,Paul B.C, and Todd R. Lewis.2010. "Predation attempt by Oxybelis aeneus (Wagler) (Mexican Vine Snake) on Basiliscus plumifrons (Cope)." Acta Herpetologica 5: 19-22.

Henderson, Robert W. 1974. "Aspects of the Ecology of the Neotropical Vine Snake, Oxybelis Aeneus (Wagler)." Herpetologica, Vol 30: 19-24.

Kennedy,J.P.1965. "Notes on the Habitat and Behavior of a Snake, Oxybelis aeneus Wagler in Veracruz." The Southwestern Naturalists, Vol.10:136-139.

Lawler, Howard, Charles H.Lowe and Thomas R. Van Devender. 1994. "Factors Influencing the Distribution of the Neotropical Vine Snake (Oxybelis aeneus) in Arizona and Sonora, Mexico." Herpetological Natural History Vol 2(1): 25-42.

Savage,Jay M. 2002. The Amphibians and Reptiles of Costa Rica: A Herpetofauna Between Two Continents, Between Two Seas. Chicago: University of Chicago Press.

Wikipedia (2015). Oxybelis aeneus. http://en.wikipedia.org/wiki/Oxybelis_aeneus

Author: Alsandria Alvada
Posted online: 2015

Fig. 2. Map showing the distribution of the brown vine snake.

[http://www.reptile-stamps.de/html/oxybelis., downloaded 28 March 2015]

Fig. 3. Brown vine snake feeding on an *Anolis* lizard.

[http://www.titicanopytour.com/#!Brown-Vine-Snake/c1zfk/159C4DAC-5FA6-42B9-A5B5-BB512D6EF21A, downloaded 27 March 2015]

Fig. 4. Brown vine snake showing defensive behaviour.

[http://www.fieldherpforum.com/forum/viewtopic.php?f=2&t=9539&view=previous, downloaded 28 March 2015]