

**ARIZONA GAME AND FISH DEPARTMENT  
HERITAGE DATA MANAGEMENT SYSTEM**

**Animal Abstract**

**Element Code:** ARADA01023

**Data Sensitivity:** Yes

**CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE**

**NAME:** *Charina trivirgata trivirgata*

**COMMON NAME:** Mexican Rosy Boa

**SYNONYMS:** *Lichanura roseofusca*, *Lichanura trivirgata trivirgata*

**FAMILY:** Serpentes: Boidae

**AUTHOR/PLACE, PUBLICATION:** Cope, Proc. Acad. Nat. Sci. Philadelphia 13, p. 304.  
1861.

**TYPE LOCALITY:** Baja California.

**TYPE SPECIMEN:** Unknown.

**TAXONOMIC UNIQUENESS:** Monotypic genus with 3 subspecies: *trivirgata* and *gracia* occur in Arizona. In addition, *trivirgata* also occurs in western mainland Mexico and Southern Baja, while *gracia* also occurs in Southeast California. The subspecies *roseofusca* occurs on the Southwest California coast, and the subspecies *myriolepis*, which is not currently a valid subspecies (but is often used), occurs in Baja California. The species *trivirgata* was removed from the genus *Lichanura* and placed in the genus *Charina* by Kluge (1993, in NatureServe 2002).

**DESCRIPTION:** A small to medium sized heavy bodied snake, with length from 18-30 inches (46-76 cm). Stebbins (1966), reports total length of 24-44 inches (61-112 cm). Females tend to be longer and heavier bodied than males. Ground-color above light cream, tan, or grayish with (or without per Stebbins 1996) 3 wide very dark brown to black longitudinal stripes. Pale cream or gray color below with sporadic dark brown/black spots and blotches. Dark markings occur around the vent. Males have two small spurs at the base of the tail. Rosy boas have small eyes with vertical pupils, surrounded by small scales on the head. Infralabials 11-12.

**AIDS TO IDENTIFICATION:** At the species level, Rosy boas looks much like their cousins, the Rubber boa (*Charina bottae*). Rosy heads are set off slightly more from their bodies, and the tops of their heads are covered with numerous small scales, rather than the fewer, but much larger, scales of the Rubber boa. Rubber boas have blunt, rounded tails while the Rosy tails are more tapered, ending in a rounded tip. (Kaplan 1995 *in* Herps UK).

**ILLUSTRATIONS:** Color drawing (Stebbins 1966: plate 30)  
Color photo (Behler and King 1979: plates 508-529)  
Color photos (Tom Brennan 2002,

<http://www.reptilesfaz.com/h-l-t-trivirgata.html>.

Color photo (<http://www.vmshep.com/ImagePages/Boids/Mexican.htm>)

**TOTAL RANGE:** Species: Death Valley region, California to tip of Baja California and Guaymas, Sonora; coastal Southern California east to south-central Arizona. *trivirgata*: Maricopa County and Pima County (Organ Pipe Cactus National Monument), Arizona, south to Guaymas, Mexico.

**RANGE WITHIN ARIZONA:** Organ Pipe Cactus National Monument (OPCNM), Pima County, and Maricopa Mountains, Maricopa County. The range extension in the Maricopa Mountains (about 110 km north of the population in OPCNM), was discovered in 2001.

### **SPECIES BIOLOGY AND POPULATION TRENDS**

**BIOLOGY:** A primarily nocturnal (sometimes active at dusk and dawn) and crepuscular, but may be active during the day during cooler months. This generally calm snake is a rock dweller that spends most of the time deep in rock crevices or underground, but sometimes climbing low-lying shrubs. It is slow-moving and apparently long lived with a lifespan of approximately 15-18 years. The anal claw-like spurs near its vent, are attached to bones inside its body, and are vestigial hind legs inherited from their lizard ancestors (Melli 1999).

Based on a study conducted in the OPCNM by Parizek et al. (1998), the home range of 5 radio-tracked Mexican Rosy Boas, averaged 1.6+/- 0.6 ha. This is smaller than for other vertebrate-eating snake species, especially of similar size. They observed that this species has relatively well-defined, stable home ranges, as opposed to transient, shifting, or varying activity ranges.

Sometimes, the Rosy Boa rolls up into a ball when attacked by a predator, keeping its head in the center. It then releases a foul smelling musk from glands near the base of its tail. Its blunt tail may act to divert a predator from attacking its head, which remains buried in its coils. This habit of coiling around its own head appears to make it difficult for predators, such as birds of prey, to kill or even handle a Rosy Boa. (Melli 1999).

**REPRODUCTION:** The Mexican Rosy Boa bears live young, 6-10 per litter, born in October to November. Rosy boas mate from May to June. Gestation takes approximately 130 days. Newborns are about 12 inches long.

**FOOD HABITS:** A powerful constrictor that eats small mammals, lizards, and birds. When a prey item is in range, the boa strikes out in a single, explosive motion, using its many backward-curved teeth to grab hold of the prey. Quickly wrapping the prey up in the coils of its muscular body, it squeezes until the animal is unable to breathe and succumbs. Prey is then swallowed whole by the snake. They have minimal water requirements, which probably ensures their survival in very dry habitats.

**HABITAT:** In Arizona, usually found on or near rocky mountains or hillsides in desert ranges, where they inhabit the granite rock outcroppings that absorb the sun's rays providing heat and

cover for these nocturnal snakes. Parizek et al. (1998) expected this species to use primarily rocky macro-habitats and rocks as shelters most of the time on the OPCNM, based on historical association with rocky habitats by herpetologists and snake enthusiasts. Instead, they found that they used the relatively rock-free flats (slopes <5%) extensively and that by far the most frequently used shelters were rodent burrows. This was especially observed during the warm season.

**ELEVATION:** Based on records for the OPCNM, elevation ranges from 1,460 – 2,800 ft (445-854 m), (HDMS, AGFD unpublished data accessed 2003).

**PLANT COMMUNITY:** The Mexican Rosy Boa is a native to the arid scrublands, brush lands, and chaparrals of Mexico, Southwest Arizona, and Southern Baja.

**POPULATION TRENDS:** Unknown

### **SPECIES PROTECTION AND CONSERVATION**

**ENDANGERED SPECIES ACT STATUS:** None (USDI, FWS 1996)  
[C2 - Full Species USDI, FWS 1994]

**STATE STATUS:** None

**OTHER STATUS:** Bureau of Land Management Sensitive under full species (USDI, BLM AZ 2000, 2005, 2008)

**MANAGEMENT FACTORS:** Management emphasis for habitat protection at Organ Pipe Cactus National Monument. Threats to this subspecies include limited geographic distribution, vehicle mortality, over collection for the pet trade, and serious habitat destruction due to collecting for the pet trade (Parizek et al. 1998).

**PROTECTIVE MEASURES TAKEN:** It is protected from international trade by CITES.

**SUGGESTED PROJECTS:** Distribution, habitat, population and life history studies.

**LAND MANAGEMENT/OWNERSHIP:** NPS – Organ Pipe Cactus National Monument.

### **SOURCES OF FURTHER INFORMATION**

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**MAJOR KNOWLEDGEABLE INDIVIDUALS:**

- G. Helseth – Phoenix, Arizona.  
S. Hale – Tucson, Arizona.  
Andy Holycross - Arizona State University, Tempe, Arizona.  
Phil Rosen - University of Arizona, Tucson, Arizona.

**ADDITIONAL INFORMATION:**

Rosy boas are technically not “boas.” A “boa” is a snake classified in the Boinae, and includes the rainbow boa, boa constrictor, and anaconda. Rosy boas are classified in the subfamily the Erycinae. Thus, they are considered to be close relatives to the Old World sand boas, the genus *Eryx* and they are called “erycine snakes.”

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