

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

Animal Abstract

Element Code: ARACJ02090

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Aspidoscelis neomexicana* (Lowe and Zweifel, 1952)
COMMON NAME: New Mexico Whiptail, New Mexican Whiptail, Huico de Nuevo México
SYNONYMS: *Cnemidophorus neomexicanus* Lowe and Zweifel, 1952
FAMILY: Teiidae

AUTHOR, PLACE OF PUBLICATION: Lowe and Zweifel, 1952 – Bull. Chicago Acad. Sci., Vol. 9, p. 230.

TYPE LOCALITY: “McDonald Ranch Headquarters, 4800 feet elevation, 8.7 miles west and 22.8 miles south of New Bingham Post Office, Socorro County, New Mexico”.

TYPE SPECIMEN: HT: MVZ 55807 (adult female). Charles H. Lowe, Jr. on 2 August 1947.

TAXONOMIC UNIQUENESS: As Crother et al. reports in their SSAR 2003 update to the 2002 edition, *Cnemidophorus*, as previously circumscribed, is not monophyletic as presented by Reeder et al. (2002, Am. Mus. Novit. 3365: 1-61). Thus they resurrected *Aspidoscelis* for the clade composed of the species native to North America, and the whiptails from South America retain the genus *Cnemidophorus*. The species *A. neomexicana* is 1 of 22 in North America, and 1 of 11 in Arizona. Based on Reeder et al. (2002) genetic work, this species is a diploid parthenogen, derived through hybridization between *A. (tigris) marmorata* (maternal ancestor) and *A. inornata* (Frost and Wright 1988; Cole et al. 1988). It exhibits low clonal diversity (Parker and Selander 1984).

DESCRIPTION: A small, slim lizard up to 8.2 cm (3.25 in) long; Stebbins (2003) reports 6-8.5 cm (2.4-3.35 in). It is brown to black in color with a long brown, blue-tipped, gray-green tail and seven light stripes. This is the only whiptail in Arizona with a wavy mid-dorsal stripe; mid-dorsal stripe forks on the neck. There are spots in the dark areas on the back and upper sides. Often they are pale greenish to bluish below. The superorbital semicircles penetrate deeply toward the snout, usually separating the 3rd and often the 2nd supraocular from the frontal. The postantibrachials are not enlarged. There are 71-85 dorsal granular scales. **Young:** The ground color of the black body contrasts with yellow stripes, and well-defined whitish spots in dark fields on the sides. The tail is greenish to greenish-blue. (Stebbins 2003; Brennan and Holycross 2006).

AIDS TO IDENTIFICATION: *A. neomexicana* can be separated from other striped whiptails by a combination of forward extension of supraorbital semicircles, well-defined

stripes with light spots in dark fields on the sides, wavy mid-dorsal stripe, and a greenish tail. (Stebbins 2003).

ILLUSTRATIONS:

Photo (Cole et al. 1988: Fig. 3)

Color photo (Degenhardt et al. 1996: Plate 67)

Color illustration (Stebbins 2003: Plate 38)

Color photo (Brennan and Holycross 2006: p. 81)

Color photo (Carl S. Lieb, in <http://museum.utep.edu/chih/theland/animals/reptiles/cnne.htm>)

Color photo (George Oliver, Utah Div. Wildl. Res., in

<http://dwr.cdc.nr.utah.gov/rsgis2/search/Display.asp?F1Nm=aspineom>)

Color photo (Scott Bulgrin June 2005, in <http://www.corallus.com/nmhs/photos-sandiabosque.html>)

Color photo (US Fish & Wildlife Service, Bosque del Apache National Wildlife Refuge, in <http://www.fws.gov/southwest/REFUGES/newmex/bosque/newmexicowhiptail.html>)

TOTAL RANGE: Native to areas of New Mexico (valley of the Rio Grande from Española south to the Texas border), western Texas (along the Rio Grande) and probably adjacent Chihuahua, Mexico. Introduced and established at Petrified Forest in eastern Arizona. Reported to be introduced and established in the Salt Lake City metropolitan area in northern Utah, by the Utah Division of Wildlife Resources (accessed 2006).

RANGE WITHIN ARIZONA: Petrified Forest National Park, Apache County, and possible off the park.

SPECIES BIOLOGY AND POPULATION TRENDS

BIOLOGY: This diurnal lizard is alert and fast moving, and usually is most active mid-morning and late afternoon, avoiding the hottest part of the day. It digs its own burrow where it lays its eggs, seeks shelter from the elements (e.g. extreme temperatures, storms, etc.), or hibernates. According to Degenhardt et al. (1996), this species hibernates about 30 cm beneath the surface in narrow burrows, the entrances plugged with dirt (Christiansen, 1969). During hibernation, body temperatures may drop to 10 °C. Lizards emerge from hibernation in April (Christiansen, 1971), with adults active through mid-August, and hatchlings active until early October. Known Predators of this species in New Mexico include *Gambelia wislizenii* (Degenhardt et al. 1996).

REPRODUCTION: This species is parthenogenetic, which means that it is an asexual all-female lineage where hatchlings are clones of the mother. Females lay one or two clutches of 1-4 eggs in the summer (June and July), with eggs hatching in 50-60 days. Eggs are laid in a nest dug in the soil or underground. Eggs are smooth, leathery-shelled, and creamy white in color, about twice as long as wide (Degenhardt et al. 1996). Hatchlings are born with a bright blue tail.

FOOD HABITS: Forages for insects and spiders.

HABITAT: Found on shrubby, sandy floodplains in Plains Grassland. Prefers sandy areas with little vegetation, but can be seen in grasslands, shrublands, and pinyon-juniper wooded uplands. It also can be found in disturbed areas, such as along fence rows within its range. (U Texas, accessed 2006).

ELEVATION: For there total range, they can be found around 3,300 to 6,200 feet (1010-1890 meters).

PLANT COMMUNITY: They can be found in grasslands, shrublands, and pinyon-juniper wooded uplands. On the Petrified Forest, the plant community is Plains Grassland with dominant shrubs consisting of *Artemisia tridentata* (big sagebrush), *Atriplex canescens* (four-wing saltbush), *Ericameria nauseosa* (rubber rabbitbrush), and *Forestiera pubescens* var. *pubescens* (New Mexico olive). Scattered large *Populus* ssp. (cottonwoods) provide habitat in the form of downed limbs and leaf litter. Although *Tamarix* ssp. (Tamarisk) is dense in areas, *A. neomexicana* appears to be less common in these stands. (Persons and Wright 1999).

POPULATION TRENDS: Stable through typical range; unknown in Arizona.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS: None
STATE STATUS: None
OTHER STATUS: None

MANAGEMENT FACTORS: None

PROTECTIVE MEASURES TAKEN: None

SUGGESTED PROJECTS: None

LAND MANAGEMENT/OWNERSHIP: NPS – Petrified Forest National Park.

SOURCES OF FURTHER INFORMATION

REFERENCES:

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

ADDITIONAL INFORMATION:

Origin of Scientific Name (Reeder et al. 2002):

Aspidoscelis – Greek nouns *aspido*, meaning “shield”, and *scelis*, meaning “rib” or “leg”, which refers to the large scales on the legs.

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