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A Preliminary Herpetofaunal Analysis of the Graham (Pinaleno) Mountain Region, Graham Co., Arizona with Ecological Comments

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The Graham (Pinaleno) Mountains are the northernmost of a series of isolated mountain masses aligned along the eastern order of Arizona. They rise abruptly from the surrounding San Simon, Gila River, and Sulphur Springs-Aravaipa Creek valleys, generally below 4,000 feet, to 10,713 feet (Heald, 1951). Between 15 June and 15 July 1966 and 8–13 July 1967, field parties from the Department of Zoology, Arizona State University, made intensive surveys of the vertebrates of these mountains. Almost 1,200 specimens of amphibians and reptiles were obtained, prepared in the field, and deposited in the Arizona State University (ASU) collection. These specimens, plus those already present in the ASU museum and selected material from Carnegie Museum (CM) form the basis of this study.

Collecting was concentrated on the eastern end of the mountains particularly in Marjilda Canyon (main base camp 4,400 feet) and along Swift Trail Road (Arizona 366), which traverses the higher elevations to near the western end. Snakes were poorly collected. Hoffmeister (1956) presented a description of the terrestrial habitats of the Graham Mountains including many collection sites along Swift Trail and elsewhere. Major sites of collection were selected to represent differing habitats and may be specifically located on U.S. Geological Survey quadrangles: N3245-W10945/15 (Thatcher, Arizona), N3230-W10945/15 (Mt. Graham, Arizona), N3245-W11000/15 (Jackson Mtn., Arizona), N3230-W11000/15 (Sierra Bonita Ranch, Arizona), and N3245-W10930/15 (Safford, Arizona).

Amphibians

Family Ambystomidae:

Ambystoma tigrinum Green, Tiger Salamander. Although not previously reported from the Mt. Graham area, this species most likely is native in the "artesian belt" and in the areas of permanent water of the Sulphur Springs-Aravaipa Valley. However, tiger salamanders are used...
extensively for bait in the warm-water sport fishery of Arizona and introductions from other areas (especially New Mexico and Texas) into newly built tanks are common. Sixty-five specimens were preserved from eight localities in the study area, all between 3,000 and 4,600 feet. One large larva (ASU 7207) was swallowing an adult spadefoot, Scaphiopus couchi, when caught, and another transforming-larva was attempting to swallow a snap-trapped rodent when it was found. The last specimen (ASU 7758) was about 30 yards from water when secured. Some neotenic larvae from the Mt. Graham area surpassed 250 mm in total length.

**Family Pelobatidae:**

*Scaphiopus couchi* Baird, Couch’s Spadefoot. Of the many specimens seen along Swift Trail Road and in Prosopis-Acacia-Opuntia Associations between 3,200 and 4,200 feet in the Marijilda Canyon area, twenty-six were preserved.

*Scaphiopus bombifrons* Cope, Plains Spadefoot. Two specimens of this spadefoot were taken, one at 3,200 feet on the Swift Trail Road (ASU 7165) and the other ca. five miles southwest of the Sierra Bonita Ranch, 4,400 feet (ASU 7803). These records extend the range of the Plains Spadefoot in southeastern Arizona. It previously was known from Cochise County (Walters, 1955; Gehlbach, 1956). North of Mt. Graham, the Plains Spadefoot avoids the high White and Blue Range Mountains, but re-enters the state in the vicinity of the Petrified Forest National Monument (Stebbins, 1966).

*Scaphiopus hammondii* Baird, Western Spadefoot. This species was most abundant of the three pelobatids taken; 30 were preserved from various habitats between 3,000 and 5,500 feet in elevation on all sides of the mountain that were surveyed.

**Family Bufonidae:**

*Bufo alvarius* Girard, Colorado River Toad. Two specimens of *B. alvarius* were collected. ASU 7788 was collected on a *Prosopis* “flat” at 4,200 feet in lower Marijilda Canyon and ASU 7787 6–7 miles S. of Safford on Arizona 366 at 3,200 feet. Mt. Graham is on the northeastern periphery of the range for this large, desert species (Cole, 1963).

*Bufo cognatus* Say, Great Plains Toad. *B. cognatus* was abundant between 3,000 and 4,600 feet but became noticeably less common above 4,000 feet. More than 100 specimens were preserved from 10 localities. Most were obtained on roads, both paved and unpaved, after rainfall.
_Bufo punctatus_ Baird and Girard, Red-spotted Toad. Our 15 Specimens of _B. punctatus_ all were taken on the boulder-strewn bajada on the east end of Mt. Graham or from similar habitats in Marijilda Canyon between 3,500 and 4,500 feet.

_Bufo woodhousei_ Girard, Woodhouse's Toad. Two specimens were obtained. One is a typical _B. w. australis_ Shannon and Lowe, taken five miles south of Safford at 3,200 feet (ASU 7789). The second specimen was caught at 8,500 feet on the south side of Ladybug Saddle (ASU 7164). Based on criteria provided by Shannon and Lowe (1955), the latter specimen seems to be an intergrade, _B. w. woodhousei × australis_. It lacks markings on the sides of the chest, as in _B. w. woodhousei_, but has an incomplete dorsal stripe as in _B. w. australis_. This may indicate that remnant populations of the northern _B. w. woodhousei_ exist on high, isolated mountains within the more southern range of _australis_ and a search for additional material is needed.

**Family Hylidae:**

_Hyla arenicolor_ Cope, Canyon Treefrog. Twenty canyon treefrogs were preserved from 4,200 to 4,500 feet in Marijilda Canyon and from 4,900 feet on lower Noon Creek. This species was observed in Wet Canyon to 6,700 feet and probably occurs all around the mountain base in suitable habitats.

A large population of canyon treefrogs lives in lower Marijilda Canyon. More than 25 individuals may be seen in 100 yards of stream channel. In dry periods, the frogs rested, singly or in groups of two to five, in shallow depressions on stream-side boulders. Often they were in full sun at mid-day. According to Minckley (personal communication), some individuals remained in such positions for more than four hours when air temperatures exceeded 90° F. The frogs called near the creek, beginning about one half hour after sunset and continuing for no more than two hours. After rainfall, the frogs left the stream and called infrequently from _Quercus_ and other trees along the terraces and from within boulder piles as far as 100 yards from water. Calling occurred nightly in June but decreased progressively in July. Larvae were abundant in the creek throughout the period of study. In Aravaipa Canyon, _Hyla arenicolor_ were first observed calling just before sunset on 3 May 1967. They called from isolated back pockets of the stream, spring sources, and floating algae (_Hydrodictyon_) masses. The air temperatures was 16° C. and the water 17° C. On 4 May 1967 they began calling when their side of the canyon became shady and continued until past 1:00 AM when the field party went to sleep. On 30 May 1967 at 9:15 PM they were calling.
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from the stream. Enough rain fell to fill potholes at the margins of the stream 29 July 1967 and the frogs moved from the stream to these and continued calling (David C. Williams, personal communication).

**Family Ranidae:**

*Rana catesbeiana* Shaw, Bullfrog. Bullfrogs are common in ponds throughout the Gila and San Simon Valleys, though only five were preserved. One juvenile was preserved from Marijilda Canyon at 4,200 feet. None were observed in the Sulphur Springs-Aravaipa area.

*Rana pipiens* Schreber, Leopard Frog. This frog is common in all areas of permanent water on all sides of the mountain, but was not taken above 4,600 feet. In Aravaipa Creek *R. pipiens* may be seen year round. The first egg masses were noted 14 January 1967 (David C. Williams, personal communication). Eggs of this frog have been found as early as 10 February in Greenlee Co. (Quaintance, 1935) and 7 February in Cochise Co. (Zweifel, 1968).

**Reptiles**

**Family Kinosternidae:**

*Kinosternon sonoriense* LeConte, Sonoran Mud Turtle. Three specimens were taken—two were crossing the highway five miles south of Safford after a rain and one was taken in a small pool of Marijilda Creek at 4,200 feet.

**Family Emydidae:**

*Terrapene ornata luteola* Smith and Ramsey, Yellow Box Turtle. Four box turtles were preserved—two from the Sierra Bonita Ranch 4,400 feet (ASU 7050, 7051), one from 10 miles east of Klondyke (ASU 7052), and another from 6 miles south-southwest of Sierra Bonita Ranch (ASU 7999). These records extend the known range of this turtle to the north and individuals have been seen one to two miles east of the Graham-Pinal county line, along Aravaipa Creek (Minckley and David C. Williams, personal communication). Williams (1960) records this turtle from 4 miles WNW Stockton Pass, 6 miles NW Bonita, and 1½ miles SW Fort Grant. One specimen (ASU 7999) was caught and killed by a snap-trap baited with peanut butter and oatmeal.

**Family Helodermatidae:**

*Heloderma suspectum suspectum* Cope, Reticulate Gila Monster. One juvenile (ASU 8024) was caught in Marijilda Canyon (4,200 feet) after a brief rain. According to local reports, the species is uncommon in the area.
FAMILY GEKKONIDAE:

Coleonyx variegatus Baird, Banded Gecko. This species was uncommon. All were taken between 4,000 and 4,900 feet on the east end of the Grahams in Prosopis-Acacia habitat. Only one (ASU 8006) is a male, which has eight preanal pores, characteristic of C. v. bogerti Klauber. One female caught in early July was retained alive and laid two eggs on July 20.

FAMILY IGUANIDAE:

Callisaurus draconoides Blainville, Zebra-tailed Lizard. This species was common between 3,200 and 4,200 feet and was once taken at almost 5,000 feet in a sandy area. They were most abundant in broad, sandy washes, along roads, and in open Larrea-Opuntia habitats. None was taken in the Sulphur Springs-Aravaipa Valley. After a heavy rain three individuals were found moribund on the pavement of Swift Trail Road.

Three specimens (ASU 7400, 7403–4) surpass the previous size record of 89.7 mm for C. draconoides (Stebbins, 1966) with the largest measuring 94 mm.

Crotaphytus collaris Say, Collared Lizard. Locally known as the "mountain boomer." Because of this lizard's conspicuous coloration and size, many were observed and 36 preserved. The collared lizard occurred in rocky areas in all areas surveyed from 3,200 to 6,000 feet, and according to local residents, rarely lives as high as 7,000 feet. One male (ASU 7295) equals the size record of 114 mm (Stebbins, 1966).

Crotaphytus wislizeni wislizeni Baird and Girard, Leopard Lizard. Four specimens were taken, all below 4,200 feet in open, sandy habitats. One taken along the road in Marijilda Canyon at mid-day was observed attacking, and attempting to swallow, a large Callisaurus. The Callisaurus was startled by the vehicle. The leopard lizard attacked with a rush from the side, overtook the Callisaurus at about a 45° angle of approach, and seized it by the head. After a brief struggle, the Callisaurus escaped and fled. The Crotaphytus remained on the road, rubbed its face in the sand a number of times, then raised its body and tail high above the sun-heated sand. After perhaps a minute, the Crotaphytus moved to an adjacent boulder from which it was collected.

Holbrookia maculata Girard, Lesser Earless Lizard. Only three specimens were obtained between 4,400 and 4,600 feet in perennial grassland of the Sulphur Springs Valley.

Holbrookia texana secula Peters, Southwestern Earless Lizard. Seventy-eight specimens were taken between 3,100 to 5,100 feet in eleva-
tion. All were in rocky terrain, usually in low Prosopis-Acacia habitat. This species and Callisaurus often were taken within a few feet of each other; however H. texana was on boulders in areas of relatively open, brushy physiognomy; whereas C. draconoides was in sandy, flat habitats. One specimen was observed sharing the same rock as a Urosaurus ornatus (not over five inches apart). Recent studies indicate this lizard may be generically distinct from other Holbrookia and should be reinstated as Cophosaurus (Clarke, 1965).

Phrynosoma cornutum (Harlan), Texas Horned Lizard. Three specimens were taken—ASU 7262, 18.6 miles south and 11 miles west of Safford, D-L Ranch 4,000 feet; ASU 7263, 16.4 miles south and 12 miles west of Safford on the Old Ft. Grant Road 4,600 feet; and ASU 8030, 10 miles west of Bonita on Bonita-Klondyke Road 4,200 feet. Texas horned lizards have been recorded from Cochise County (Williams and Chrapliwy, 1958) but are not previously known from Graham County, Arizona.

Phrynosoma douglassi bernardesi Girard, Mountain Short-horned Lizard. A single specimen (ASU 7264) was caught at the Arcadia Campground near Swift Trail Road at 6,700 feet.

Phrynosoma modestum Girard, Round-tailed Horned Lizard. This species is common in lower Marijilda Canyon, 4,000 to 4,400 feet; four of 17 were preserved from 3,100 to 4,200 feet. The species was taken only on the east end of the mountain, all but one in Prosopis-Acacia habitat. The lone exception was in a Larrea desert at 3,100 feet.

Phrynosoma solare Gray, Regal Horned Lizard. At least 20 individuals of this species were observed and three preserved between the narrow elevational range of 4,000 to 4,200 feet.

Sceloporus clarki clarki Baird and Girard, Sonora Spiny Lizard. This lizard was abundant in areas of large boulders and substantial stands of Quercus at lower elevations; 83 specimens were preserved from elevations of 3,100 to 6,100 feet. It was rare below 4,200 feet.

Sceloporus magister bimaculosus Phelan and Brattstrom, Twin-spotted Spiny Lizard. This spiny lizard did not range as high on Mt. Graham as did S. c. clarki, but was found in similar habitats at lower elevations. S. magister utilized boulders more than S. clarki. The range of S. m. bimaculosus, as reported in the literature, is confusing. In describing this subspecies Phelan and Brattstrom (1955) recorded it in extreme southwestern Arizona (obviously a typographical error) and then showed
its distribution in eastern Arizona under the name *S. m. maculosus.* Stebbins (1966) maps it in southeastern Arizona.

*Sceloporus jarrovi jarrovi* Cope, Yarrow's Spiny Lizard. Eighty-four specimens were caught from 5,100 feet on Noon Creek (ASU 7523) to the highest elevations on the Grahams. Lowe (1964) records this species from 4,800 feet to as high as 10,700 feet (Mt. Graham). Its greatest abundance was between 7,000 and 9,000 feet. Several specimens were caught in snap-traps baited with peanut butter and oatmeal, presumably attracted by the ants which were feasting on the bait. The species lives primarily on rocksides and large boulder out-croppings and only rarely on trees or other substrates. This population is currently under intensive study by Thomas Burns and C. K. Brown of Arizona State University.

*Sceloporus undulatus tristichus* Cope, Southern Plateau Lizard. Seven specimens were obtained from between 4,000 and 5,000 feet on the eastern and southern sides of the mountain. All were taken from areas of low, stunted, thick-trunked *Prosopis* and all were on or adjacent to such trees.

*Urosaurus ornatus* Latreille, Tree Lizard. This is undoubtedly the most abundant lizard below 5,000 feet in the Grahams. One hundred and eleven specimens were preserved from all areas studied and this represents a small fraction of the individuals seen. Maximum abundance occurs in groves of *Quercus* and other large trees between 4,000 and 5,000 feet, but the lizard also lives on rock exposures and boulders as low as 3,000 feet. Large numbers lived in the Marijilda base camp and territorial males were observed in physical conflict on three occasions. One such encounter lasted for more than 25 minutes.

*Uta stansburiana* Baird and Girard, Side-blotched Lizard. This species was extremely rare in the lower Marijilda Canyon and elsewhere around the Grahams. Only 11 specimens were taken despite a specific search for the species. It was found in Marijilda Canyon only at a sandy road crossing, ca. 4,000 feet, where it lives in rocky terrain in a treeless camping area.

**Family Scincidae:**

*Eumeces obsoletus* Baird and Girard, Great Plains Skink. All eight specimens of this secretive form were near water at the eastern end of the mountain. Numerous others were seen in Marijilda Canyon but their proclivity for deep beds of fallen leaves on loosely piled, streamside rubble, made collection difficult. Williams (1960) reports specimens from Noon Creek, Stockton Pass, and Angle Ranch.
FAMILY TEIIDAE:

*Cnemidophorus exsanguis* Lowe, Spotted Whiptail. This whiptail, which usually inhabits evergreen woodlands in southeastern Arizona, was taken only between 4,000 and 5,000 feet on Mt. Graham. At the lowest elevations it was most commonly found along drainage channels, as previously noted by Lowe (1956), and only rarely on the first (lowest) stream terraces. At higher elevations, the lizard was generally dispersed in more open areas near *Quercus, Juniperus* or other shrubby vegetation. The species was found only on the east and north sides of the Graham; 33 specimens were obtained.

*Cnemidophorus tigris gracilis* Baird and Girard, Southern Whiptail. This is the most abundant whiptail at lower elevations on the east and north sides of the mountain. *C. t. gracilis* lives in more xeric habitats than other whiptails in the Graham Mountains. This lizard is remarkably abundant in the area. On three occasions in late June, 1966, 75, 96, and 117 individuals were counted in a measured mile of secondary road between 4,000 and 4,200 feet in Marijilda Canyon (between 9:30 and 10:30 AM). *C. t. gracilis* was less abundant on Larrea desert and other low-land habitats below 3,200 feet, but was likewise rare above ca. 4,400 feet; our highest record was 4,600 feet in Deadman Canyon. Its greatest abundance was in relatively open *Prosopis-Acacia-Opuntia* desert, similar to that described by Echternacht (1967) in the Santa Rita Mountains of Arizona. In such areas the lizard tended to move at the periphery of clumps of shrubs. According to Minckley (personal communication) the activity cycle of this lizard, on the basis of field observation, is similar to that described by Echternacht (*op. cit.*) in the Santa Rita Mountains further south and west of Mt. Graham. The name *gracilis* is used here instead of *aethiops* following Zweifel (1966).

*Cnemidophorus uniparen* Wright and Lowe, Desert-grassland Whiptail. The habitat segregation between this species and *C. exsanguis* is yet unknown. They were taken in similar “riparian” habitats along streams and washes. This form was taken, along with *C. exsanguis* and/or *C. t. gracilis* in Marijilda Canyon, Wet Canyon, and on the “flats” of the San Simon Valley, and was present—allopatric to the other species—on the south side of the mountain. It ranged from 3,200 to 5,000 feet above sea level.

FAMILY ANGUlDAE:

*Gerthonotus kingi* Gray, Arizona Alligator Lizards. One specimen (ASU 8021) was caught near Wet Canyon picnic area, 6,050 feet.
FAMILY COLUBRIDAE: Colubrids

*Arizona elegans noctivaga* Klauber, Arizona Glossy Snake. Two specimens (CM 48662, 48679) were collected on Swift Trail Road, 1.5–3.1 miles west of Swift Trail Junction (Arizona 366-U.S. 666).

*Heterodon nasicus* kennerlyi Kennicott, Mexican Hognose Snake. One specimen (ASU 7029), collected at the Sierra Bonita Ranch, 4,400 feet, is a new size record for this subspecies, with a total length of 664 mm and a tail length of 75 mm. Previous references to maximum size are 610 mm (Brown, 1901), 610 mm (Fowlie, 1965), and 622 mm (Wright and Wright, 1957). The snake also represents a county record, although *H. n. kennerlyi* is well known further south in the Sulphur Springs Valley in Cochise County. This is the smallest of the subspecies of *nasicus*. The species attains the length of 895 mm (Bowers, 1967).

*Hypsiglena ochrorhyncha* Cope, Spotted Night Snake. We follow Dixon (1963) for the use of the specific name. One specimen (ASU 7007) was collected by Minkley and Lytle at Snow Flat Campground, 8,750 feet in a moist, grass-sedge meadow at 11:00 AM. This is very unusual behavior and habitat for this secretive, typically nocturnal snake. Also, the elevation at which it was collected is far higher than previous altitudinal records of 6,400 feet (Lowe, 1964) and 7,000 feet (Stebbins, 1966).

*Lampropeltis getulus yumenisis* Blanchard, Yuma Kingsnake. One specimen (ASU 7765) was collected, DOR, five miles west of Safford on U.S. 666, 3,000 feet. Only the midpart of the specimen could be saved. Two other specimens ASU 3224 (60-445) and ASU 2152 (ASC58-515) taken near Safford are in the ASU collection. Fowlie (1965) shows specimens of *L. g. splendidia* to the north and south of this approximate area; however, all of our specimens had the characteristics of *L. g. yumenesis*.

*Lampropeltis pyromelana pyromelana* Cope, Arizona Mountain Kingsnake. Two specimens, ASU 7016 and ASU 2211 (ASC58-574), were taken in the Graham Mountains. One specimen (ASU 7016) was from Arcadia Campground, 6,700 feet. According to Tanner (1953), these specimens fit the description of *L. p. pyromelana* in having 10 lower labials and more than 43 white rings but ASU 7016 has more than 50% of the white body rings complete across the belly (27 of 47). ASU 2211 has 33 of 67 body rings crossing the belly and 15 tail rings. Fowlie (1965) recorded a high of 61 body and 15 tail rings for this species. A sight record of this snake was also made on the Twilight Canyon Road at 8,200 feet (Tom Burns, personal communication).
Masticophis flagellum piceus Cope, Red Racer. One specimen (ASU 7006) was collected from the Sierra Bonita Ranch, 4,400 feet, in open grass Prosopis desert.

Masticophis bilineatus bilineatus Jan, Sonora Whipsnake. Eight specimens of this whipsnake were preserved of perhaps 20 seen. They ranged from 4,000 to 5,000 feet in brushy areas and five of the animals were in trees when observed. One specimen (ASU 7017) was collected while swallowing a mouse (Peromyscus sp.) which was being used as bait for carnivores. Many such baits had disappeared from this particular set in the preceding days.

Pituophis melanoleucus affinis Hallowell, Sonora Gopher Snake. Thirteen specimens of this common snake were obtained at widespread localities. Others were observed.

Rhinocheilus lecontei lecontei Baird and Girard, Western Long-nosed Snake. Two specimens were taken. One (ASU 7756) was caught in Marijilda Canyon, 4,200 feet; the other near Safford.

Salvadora hexalepis Cope, Western Patch-nosed Snake. Schmidt (1940) states that S. b. hexalepis has a divided loreal and one upper labial in contact with the eye; whereas, S. b. deserticola Schmidt has a single loreal and two upper labials in contact with the eye. All six Graham specimens, taken on the east end of the mountain, have a divided loreal (ASU 8033 is divided only on the right); but the number of upper labials entering the orbit varies as follows: ASU 8032 0/0, ASU 7009 0/1, ASU 7000 1/1, ASU 7010 1/1, ASU 7008 1/2, and ASU 8033 2/2. This may indicate an area of intergradation between populations of S. b. hexalepis and S. b. deserticola. Duellman (1955) recorded S. b. hexalepis from Aravaipa Creek.

Tantilla planiceps atriceps (Gunther), Mexican Black-headed Snake. A single specimen (CM 49011) was found dead at Marijilda Base Camp 4,400 feet. Although in poor condition, it was identified by Dr. C. J. McCoy as Tantilla atriceps i.e., T. p. atriceps following Tanner (1966).

Thamnophis cyrtopsis cyrtopsis Kennicott, Western Black-necked Garter Snake. Thirty-four specimens were taken from between 4,000 and 8,750 feet in elevation. Stebbins (1966) states that this species ranges from sea level to above 8,000 feet. One specimen (ASU 7004) was taken at Snow Flat Campground, 8,750 feet, and is the only one that has a melanistic pattern.
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*Thamnophis marcius nigrolateris* (Brown), Checkered Garter Snake. One specimen (CM 48741) was taken on U.S. 666 one mile south of the Arizona 366 junction.

**Family Crotalidae: Pit Vipers**

*Crotalus atrox* Baird and Girard, Western Diamondback Rattlesnake. All seven specimens that were preserved have a pink coloration, which Gloyd (1937) reported in three specimens from southeast Arizona and southwest New Mexico. A number of other individuals were seen and all were below 4,600 feet in elevation.

*Crotalus molossus molossus* Baird and Girard, Northern Black-tailed Rattlesnake. Only six specimens were seen and all were preserved. They ranged from 4,150 to ca. 6,700 feet, but are reported by local residents to range above 9,000 feet. Although this species was previously recorded from the Grahams by Gloyd (1940) and Hoffmeister (1956), Fowlie did not acknowledge its presence. Two specimens were collected crossing Arizona 266, elevation 4,300 to 4,500 feet, 3:08 and 3:55 AM, 4 August 1967.

*Crotalus pricei pricei* Van Denburgh, Twin-spotted Rattlesnake. Four specimens from between 8,500 to 9,750 feet were preserved. One other specimen from the Grahams is in the ASU collection. Four additional *C. pricei* were observed "basking" between 11:00 AM to 1:00 PM, elevation 7,400 to 9,500 feet, from 5 July to 5 November 1967. The Graham Mountains is one of the five ranges in the U.S. (all in Arizona) where *C. pricei* is known to occur. The others are the Dos Cabezas, Santa Rita, Huachuca, and Chiricahua Mountains (Stebbins, 1966). Van Denburgh (1922) mentioned the possibility of this snake occurring in the Catalina Mountains but this has not been verified.

Dr. D. W. Taylor noted that a malacologist and apparent amateur herpetologist, J. H. Ferriss (1918) had recorded a Price's Rattlesnake from the Peloncillo Range along the eastern border of Arizona. It was taken on a "rock slide on the right side of the toll road, six miles south of Coronado," Graham County (Pilsbry and Ferriss, 1918). According to Barnes (1935) and 1921 Arizona G.L.O. Map, Coronado was then in Greenlee County rather than Graham County. This would extend the range for *C. p. pricei* about 38 miles northeastward and would also constitute a new county record.

The deposition of the snake is unfortunately unknown to the authors. The elevation at which it was collected is approximately 5,000 feet, which is over 1,000 feet below previous elevational records for this...
species. Because of this extremely low elevation, there is a possibility that the snake was misidentified for the Arizona Black Rattlesnake, *C. viridis cerberus*, which is well known from both this area and elevation.

However since Mr. Ferriss’ identification of “one of the rare Price’s rattlers” may have been correct, a more extensive herpetological investigation of the Peloncillo Mountains is in order.

*Crotalus scutulatus scutulatus* Kennicott, Mojave Rattlesnake. Four Mojave rattlesnakes were preserved. The elevation range was from 3,500 to 4,600 feet. One specimen was collected crossing Arizona 666 at 4:10 AM.

*Crotalus viridis cerberus* Coues, Arizona Black Rattlesnake. Four specimens were preserved. Klauber (1956) mentions this snake’s ability to change color. This is most striking in the Mt. Graham population, with the ground color varying from black to a light greyish-tan in a short period of time (Dr. W. L. Minckley, personal communication). The species ranges from 4,400 to 6,200 feet in our collecting but is reliably reported from Heliograph and High Peaks by U. S. Forest Service Personnel. Williams (1960) records specimens from Marijilda Canyon campground, Noon Creek campground, and 2 miles south of Maverick Mountain.

**Family Elapidae:**

*Micruroides euryxanthus* (Kennicott). One specimen (ASU 4295) was taken near Ft. Grant ca. 4,750 feet and another was sighted by Arthur Stacey 5 July 1967 near a cattleguard on Swift’s Trail ca. 3,900 feet (C. K. Brown, personal communication).

**Comments**

Species not collected but known to be present in the Graham Mountains or vicinity include *Bufo debilis*, *Trionyx spiniferus*, *Ficimia cana*, *Salvadora grahamiae*, *Thamnophis elegans*, *T. eques*, and *Trimorphodon lambda* (Fowlie, 1965), (Stebbins, 1966).

**Summary**

The herpetofauna of the Graham Mountain area of Arizona is rich and varied. Approximately 1,200 specimens representing 11 species of amphibians and 43 species of reptiles were collected and studied. The known ranges of *Scaphiopus bombifrons*, *Terrapene ornata*, *Phrynosoma cornutum*, and *Heterodon nasicus* were extended. Ecological comments concerning many of the species are included.
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Literature Cited


