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## A COLLECTION OF HERPTILES FROM URIQUE, CHIHUAHUA

Wilmer W. Tanner and W. Gerald Robison, Jr.<sup>1</sup>

The small mining town of Urique is located on the west bank of the Rio Urique, a branch of the Rio Fuerte, and is approximately twenty-five miles up stream from the Chihuahua-Sinaloa border. At Urique the elevation is approximately 1801 feet (549 meters as listed in Compendio Estadístico del Estado de Chihuahua, 1955-56, published by Ing. Leopoldo H. Olin). It is situated in a deep broad canyon which, from the rim (elevation on trail about 6700 feet), provides one with a magnificent view. In size the gorge of the Urique is comparable to the Grand Canyon of the Colorado, but differs in that there is considerably more vegetation on the slopes. To the north of the pueblo Urique the valley becomes gradually narrower, more rugged and steep walled, finally forming the now famous Barranca de Cobre.

Travel in this mountainous country is at best difficult. We were, however, fortunate in being able to use the new railroad grade for most of the way from Creel to Cuiteco and for some of the way from Cuiteco to Cerocahui. On the morning of July 14, 1958, Dr. and Mrs. Irving Knobloch, and the authors left Cerocahui by mule train for Urique. From Cerocahui to the rim of the Urique gorge we were in oak, madrone and pine forests. Our descent into the canyon took us through a number of plant types or zones. Near the rim were the Pine forests, then the Oaks, draped in bromeliads, below this a mixed forest including some species of Oak, Kapok, etc., and finally the short desert thorn and cacti forests on the lower slopes and valley floor. At Urique the valley is still rather narrow, the river flows rapidly, and there are few areas suited for crops.

Four days were spent (July 14-17, 1958) in and around Urique at the onset of the summer rains. Thus the days were hot and humid and with rain in the afternoon and evenings. The adverse weather plus the almost impenetrable thorn forest made collecting most difficult.

Although only fourteen species were taken, they represent a rather interesting group inasmuch as several are new state records and some are described below as new. We have followed the key and check lists of Smith and Taylor (1945, 1948, and 1950) except as otherwise indicated. All measurements are in millimeters.

For the use of comparative materials and for identifications we are indebted to the following: Dr. Doris M. Cochran, United States National Museum (USNM); Dr. L. M. Klauber (LMK); Dr. John M. Legler, University of Kansas (KU); Dr. Hobart M. Smith, University of Illinois (UI); and Dr. Richard G. Zweifel, American Museum of Natural History (AMNH).

*Bufo horribilis* Weigmann—Although this species was abun-

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dant along the river and in the streets of the town, only ten were taken (BYU 14355-14354). Specimens ranged up to 125 from snout to vent and were similar in color pattern. The median dorsal stripe is distinct anteriorly and in some for the entire body. On each side there are irregular dark brown spots, the parotid glands are a dark rusty red, and the venter is unspotted. This is a range extension as well as a new record for Chihuahua.

*Bufo m. mazatlanensis* Taylor—This species was also abundant, principally in small pools along the river. Twelve (BYU 14343-54) were taken, all of which appear to be similar to specimens seen from five miles east of San Blas (BYU 14115-16, 14119-20) and seven miles south of Tuxpan on heights above Rio San Pedro (BYU 19421-3), Nayarit.

A comparison of the three series provides little variation. The occipital crests are present or absent in each series and the color pattern is nearly uniform throughout, except for the absence of the dorsal median stripe in two from Tuxpan. We find, as did Smith and Grant (*Herpetologica* 14:18), that the key characters (occipital crests) for both *nayaritensis* and *mazatlanensis* break down in these populations.

The finding of this species in Chihuahua is a new state record as well as a considerable range extension to the east.

*Bufo punctatus* Baird and Girard—One (BYU 14341) was taken from beneath a rock on the hillside above the river. Although *punctatus* has been taken previously in Chihuahua, the published records are for localities east of the Continental divide.

*Rana pipiens* Schreber—A number were seen along the river. Two specimens (BYU 14365-6) were taken.

*Anolis nebuloides* Bocour—Three specimens (BYU 14335-7) were taken from among low growing shrubs. All are adult females and possessed in life, a pale pink spot on the dewlap. They are similar to specimens (BYU 13915-16) taken 17 miles north of Mazatlan, Sinaloa, and (UI 41376-7) Puerto Vallarta, Jalisco, in that all have rugose head scales, enlarged dorsals and ventrals, and smaller less conspicuous supraocular plates. Perhaps both *nebulosus* and *nebuloides* occur in Chihuahua, however, these are *nebuloides* thus confirming its presence in Chihuahua.

*Ctenosaura hemilopha* (Cope)—A series of nine (BYU 14616-24) were taken from ledges and trees near town and from crevices in a rock wall surrounding an old cemetery. We found them to be a common species, although wary and difficult to secure.

In all there is a brownish-grey body color with three black blotches on the neck and shoulders. The first is small, the second large and with lateral extensions extending anteriorly nearly to the head, and enclosing the first. The posterior blotch forms a bar across the back and is the largest. A series of nine light cross bars, the anterior ones alternating with the black blotches, extend from between the first and second blotch posterior to base of tail. Near



midbody they consist of a row of light spots and anteriorly wider cross bands. Posterior to the third black blotch there is no indication of dark cross bands between the light bands, only a uniform brown body color occurs. On none did we observe green on the body, legs, or tail.

Variations in some of the scale patterns are as follows: Dorsal crest ranges from 83-104; these begin 7-9 rows posterior to enlarged head plates and terminate just anterior to hind legs, an area much more than three-fourths of body length. Between the posterior dorsal crest scales and the first enlarged scale of the caudal crest are 33-54 transverse rows. Those with the greater number of dorsal crest scales have fewer rows between the dorsal and tail crests. Ventrals range from 120-144; femoral pores 5-8; supralabials 10-12; infralabials 12-14; snout to vent range 138 to 200.

A specimen of *C. pectinata* (BYU 14143) taken 27 mi. S Acaponeta, Nayarit, has a greenish ground color, lacks the large shoulder blotches and has the dorsal crest reach the sacrum. The dorsal crest is separated from the caudal crest by seven rows of small scales. Although the dorsal crest extends farther posterior, the scales are larger and thus fewer (78) than in *C. hemilopha*.

*Sceloporus clarki uriquensis* subsp. n.

*Type*. —An adult male, BYU 14311, taken at Urique, Chihuahua, Mexico, July 16, 1958, by Wilmer W. Tanner and W. Gerald Robison, Jr.

*Paratypes*. —BYU 14310 and 14312, both topotypes.

*Diagnosis*. —A moderate to small form with the averages for the major scale counts, dorsals, ventrals, scales around body and femoral pores, falling between those of *clarki* and *boulengeri*. It is distinct from both in that the nasal is separated from the larilabials; there is only one scale between the subocular and labials at the middle of eye, postmentals are reduced to four, and there are only four supraoculars. The color pattern is distinct with a bright green head cap in males and a gray body without blue scales as in *clarki* or the dorsolateral stripes as in *boulengeri*.

*Description of Type*. —Snout-vent 80.0; total length 182.5; snout-vent length approximately 45 per cent of total length.

Rostral broad, followed by four postrostrals; four internasals, lateral pair curving around nasal; a semicircle of three postnasals; seven frontonasals, first row with two large median and two small laterals immediately posterior to postnasals, second row of three; prefrontals in contact; frontal divided, anterior part twice size of posterior, posterior in broad contact with interparietal; parietals triangle shaped and smaller than interparietal; nasal round, separated from larilabials by lateral postrostral and subnasal; two canthals, first smallest; one loreal; one preocular; one subocular; three postoculars; five superciliaries, separated from supraoculars by a row of small scales; four supraoculars on left side, five on right

first three large supraoculars separated from median head scales by a row of small scales. From rostral to middle of eye, four supra-labials and 5-6 infralabials; larilabials, a large scale alternating with two small scales; mental narrower but longer than rostral; outer row of postmentals 4-4 and separated from mental by half distance of first infralabial; inner row 4-5 and larger.

Gulars and ventrals smooth and notched; dorsals strongly

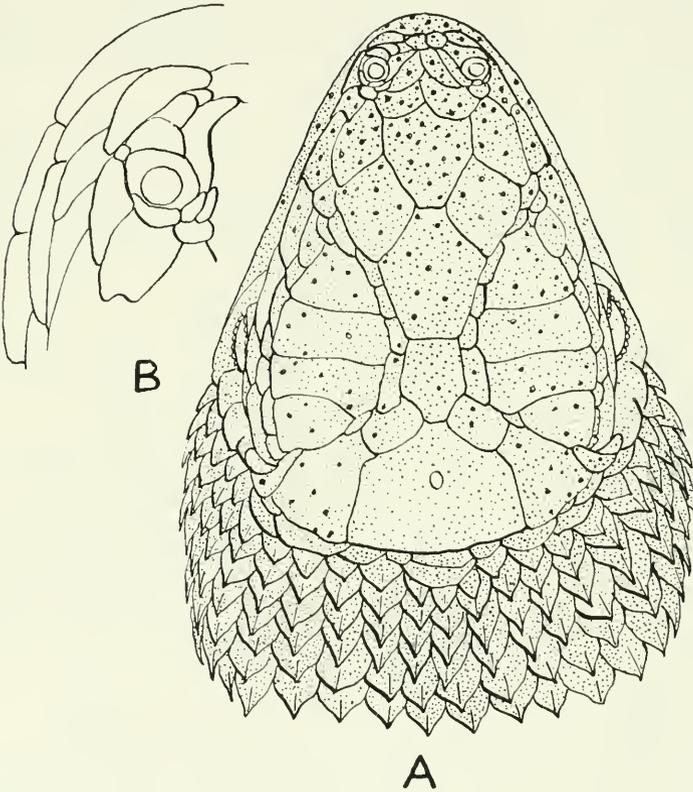


Fig. 1. Type specimen, *Sceloporus clarki uriquensis*. A. Dorsal head plates showing the four supraoculars. B. Scale arrangement around and below the nostril.

keeled and spined; scales around body 36; dorsals 30; ventrals 44; femoral pores 12-12; lamellae fourth toe 21-21.

*Color and Color Pattern.*—Dorsum grayish-brown, without spots or stripes; dorsal head scales approximating a uniform Sul-

phate Green (Ridgeway 1912); nuchal dark spots distinct anterior to shoulders, fading dorsally, margined posteriorly by a narrow incomplete light stripe; scales below ear and on posterior edge of shoulder spot with blue spots; dark shoulder spots narrowly separated ventrally by blue of gular spot; a single median bright blue gular spot, surrounded by black, except posteriorly; chin gray, stippled with fine dark spots; chest cream colored; abdomen with lateral patches of light blue, darker medially and separated narrowly by white; posterior half of tail faintly barred; forearm and hands with three light brown bars.

*Range*.—Known only from the type locality.

*Remarks*.—Several other specimens were seen but were so agile in the large trees that we had great difficulty even seeing them. The females are more drab colored and lack the bright green on the head scales. In contrast to the male there are four or five brownish chevron cross bands from nape to base of tail; the brown bands on tail are also distinct.

The two paratypes have only four large subequal supraocular plates. This is quite in contrast to the series of five large supraoculars observed in specimens of *clarki* and *boulengeri*. Although the anterior supraocular in the latter two forms is always smaller than the other scales, it is present and easily distinguished from the small adjoining circumorbitals. Other scales range as follows: rows around body, 36-38; dorsals, 29-30; ventrals, 40-45; femoral pores, 12-12.

*Material*.—(*S. c. clarki*). Chihuahua: Bavispe River, below Three Rivers, Sonora-Chihuahua line, BYU 13368-9, 13429, 13431-3, 13470, 13494-5, 13498, 13500-2, 13506, 13584-9, 13592; Colonia Juarez, BYU 13440-1; Red Rock, 12 mi. up Tinaja Canyon, BYU 13854. Arizona: 2 mi. W of Highway 92, Carr Canyon, BYU 13569.

(*S. c. boulengeri*). Sonora: Agiabampo, LMK 4069; Guirocoba, LMK 28390, 3, 4 and SDSNH 18299-33; 4 mi. N Navojoa, BYU 15179; 7 mi. SW of Alamos, SDSNH 18834-9. Sinaloa: Mazatlan, LMK 7337-41. Nayarit: Isabel Island, LMK 7332-4, 19125-9, 26780, 32931-3.

*Sceloporus horridus albiventris* Smith — A series of six specimens (BYU 14304-9) ranging from juveniles to adults were taken from a rocky brush area near the river and south of town. Adult males were conspicuous with their orange colored head cap, prominent dorsal spotting and dorsolateral stripes. Specimens seen in Nayarit (1956) were not so distinctly marked. The venter is with few marks and without blue. Femoral pores are seemingly increased over the coastal populations and range from 3-3 to 4-4.

This extends the range to the north and east, and is a new record for Chihuahua.

*Sceloporus nelsoni coeruleus* subsp. n.

*Type*. —An adult male, BYU 14316, taken at Urique, Chihuahua, Mexico, July 16, 1958, by Wilmer W. Tanner and W. Gerald Robison, Jr.

*Paratypes.* —BYU 14315, 14317-20, 14322-25, all topotypes.

*Diagnosis.*—Smaller than *nelsoni* and with tail compressed in both males and females. Dorsals increased, but with postrostrals usually decreased to three. Males with extensive deep blue from throat to hind legs. Adult females with considerable blue on abdo-

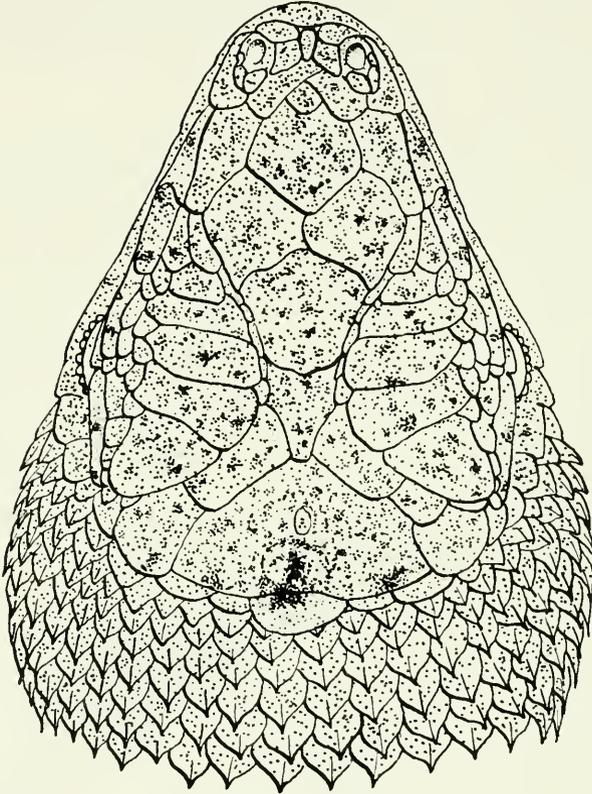


Fig. 2. Type specimen, *Sceloporus nelsoni coeruleus*. Dorsal head plates and color pattern.

men, margined medially by black. Dorsolateral stripes faint or obscure; labials, nape, shoulders and femors, with patches of orange, rather than the red or pink of *nelsoni*.

*Description of type.* —Snout-vent 57; tail slightly compressed and with the tip regenerating.

Rostral broad, clearly visible from above, three postrostrals, median longer than wide and separating first pair of internasals, three scales in second row of internasals, median smallest; three

frontonasals, median largest; two large prefrontals, widely sutured medially; frontal divided, first section larger, second wedge-shaped and dividing frontoparietals; right frontoparietal divided, two undivided parietals; interparietal large, wider than long and followed by an enlarged median scute.

Nasal round, in broad contact with larilabials; a circle of three postnasals; two canthals, first larger; five supraoculars, first three separated from median head scales, all separated from superciliaries by a row of small scales; preocular divided; one large subocular, followed by two smaller postoculars; both sub and postoculars keeled. Four supralabials, separated from lateral head scales by two rows of larilabials; mental nearly as long as wide, followed by three pair of chin-shields, first pair in contact, second pair slightly smaller and separated by two small scales, third pair smallest; four infralabials, first much the largest, separated from chin-shields and gulars by outer row of postmentals.

Gulars and ventrals smooth and notched; dorsals 39; ventrals 48; scales around body 42; femoral pores 18-19; lamellae fourth toe 17-18.

*Color and Color Pattern.*—Dorsal scales brown with a bluish undertone, becoming darker laterally; dorsolateral stripe obscure; lateral head scales, shoulders and hind legs with patches or splashes of orange; abdomen, chest and throat with an extensive deep blue, a small pale blue spot on sternum surrounded by dark blue; gulars with scale rows of white and blue alternating spots, producing a checkered pattern; black shoulder spot present, extending as a narrow band across the throat area. A dorsal and three ventral light spots in margin of shoulder spot; latter extending onto front leg; one at point of shoulder largest.

*Range.*—Known only from the type locality.

*Variations.*—The type series is rather uniform but does show the following variations: Scales around body 41-45; dorsals 38-43, average 40.2; ventrals 42-48; femoral pores 17-19, average 18.3; postrostrals 3 or 4, more often 3; postnasals 2-4, average 2.84; frontoparietals divided in seven specimens, divided on one side in two and not divided in one. In first row of dorsals posterior to interparietal is a large medial scale, partly covered by black of parietal spot. Snout to vent length range from 51.5 to 57.5. In males the color pattern is uniform, as described for type. Females are variable, with smaller specimens having less pigment in the ventral pattern. Adult females have large ventral patches of blue edged medially with black and are similar in this regard to the males of *nelsoni*.

*Material.* (*S. n. nelsoni*) Type (USNM 47676); paratypes; USNM 18979, 47271, 47273-5, 47629 and 47690-1; and BYU 14383-4, 18 mi. S Acaponeta, Nayarit.

*Urosaurus bicarinatus tuberculatus* Schmidt—One adult male (BYU 14321) was taken from a ledge approximately one mile south of Urique. It is similar to specimens seen from northern Sinaloa, varying only in that the enlarged dorsals commence slightly poster-

ior to the anterior edge of the insertion of the front legs. The enlarged dorsals are equally rugose and some are mucronate. A female specimen (KU 47401) taken at La Bufa\*, Chihuahua, is also similar to the *bicarinatus* specimens seen from Sinaloa. Batopilas, the type locality for *Urosaurus unicus* Mittleman, is not far from La Bufa or Urique and all three localities are in the same drainage system.

We have examined the type of *Urosaurus unicus* Mittleman (USNM 14248) and find it to resemble *bicarinatus* except for the more posterior position of the enlarged dorsals and the reduced rugoseness. The type appears to be an adult female. A second specimen seen by Mittleman (Smith & Mittleman, Kans. Acad. Sci. 46:246) is a juvenile.

Based on the data available for the four known specimens, there is considerable doubt as to whether *unicus* represents a distinct species. Except for the characters indicated above there are no significant differences in either scalation or color pattern. There is also a question as to whether it is a subspecies of *Urosaurus bicarinatus*, or a clinal variation in *b. tuberculatus*. Therefore, until sufficient material is available to make a final determination, we choose to include the Chihuahua specimens in *Urosaurus bicarinatus tuberculatus* Schmidt.

*Cnemidophorus sacki barrancorum* Zweifel—Seven specimens (BYU 14326-43) were taken along the river and trails near Urique. This species is one of the commonest in the area.

*Phrynosoma o. orbiculare* Linnaeus—One specimen (BYU 14314) was taken on the west side of the canyon approximately three-fourths of the distance to the rim. It was in an opening at the lower edge of the pine belt.

*Drymarchon corais rubidus* Smith—A single adult (BYU 14245) was taken from near the river approximately one mile south of Urique. It was abroad when seen at 11:15 a.m.

The occurrence of this species so far north is not surprising since the area is actually a continuation of the coastal plain-foothill habitat. It is a new record for Chihuahua.

The color pattern is a uniform black above and with a pale salmon colored venter. In scutellation it is similar to the series listed by Smith (1941:476). The important characteristics are as follows: A male, 1457 total length, with tail 275; ventrals 199; caudals 72; and infralabials 7-7.

*Hypsiglena torquata* subsp.—One adult male (BYU 14313) was taken approximately one mile west of Urique. The night snakes of Chihuahua are being considered in a subsequent study.

\*A recently abandoned town on the Batopilas River and not to be confused with the mountain of the same name at Cusihuirachi, Chihuahua.