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KINOSTERNON FLAVESCENS STEJNEGERI, A NEW
TURTLE FROM NORTHERN MEXICO

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IN 1932 Mr. Morrow J. Allen made a collection of reptiles and amphibians in western Sonora for the University of Michigan Museum of Zoology. His report¹ on the collection listed two specimens of *Kinosternon flavescens* from Llano, Sonora; these I believe represent an undescribed form. Besides finding no parallels among our series of forty-seven *flavescens*, I have the further assurance of Dr. Stejneger who kindly compared the series in the United States National Museum with the two from Sonora without being able to match them. In addition to these two specimens, I have seen seven others from the private collection² of Dr. E. H. Taylor which are from near Pedriceña, Durango. The new form may be appropriately known as

Kinosternon flavescens stejnegeri, n. subsp.

HOLOTYPE.—U.M.M.Z. No. 72235, male, collected by Mr. Morrow J. Allen, at Llano,³ Sonora, July 3, 1932.

PARATYPES.—U.M.M.Z. No. 72234, male, from Llano, Sonora,

¹ "Report on a Collection of Amphibians and Reptiles from Sonora, Mexico, with the Description of a New Lizard," *Occ. Papers Mus. Zool. Univ. Mich.*, 259 (1932): 1-15.

² Referred to in this paper as E.H.T.

³ Llano is approximately midway between Nogales and Hermosillo.

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collected on July 3, 1932, by Morrow J. Allen; E.H.T. Nos. 4438-4439 (two juveniles) and E.H.T. Nos. 4573-4577 (3 males, 2 females) from fourteen miles northeast of Pedriceña, Durango, collected on August 30, 1932, and August 26, 1932, respectively, by Hobart M. Smith and E. H. Taylor.

DIAGNOSIS.—A *Kinosternon* closely related to *Kinosternon f. flavescens*; differing from it conspicuously in the larger size of the nuchal, the larger size of the gular, and the greater length of the femoral seam.

DESCRIPTION OF HOLOTYPE.—Head flattened; head shield deeply bifurcated; upper jaw with a slight beak; shell depressed, no keel; vertebrales and costals somewhat rugose; ninth and tenth marginals conspicuously elevated, higher than the eighth and eleventh; nuchal very large, its width 38 per cent of the length of the bridge, 17 per cent of the width of the posterior plastral lobe, and 30 per cent of the seam length of the median plastral lobe.

Plastron sharply rounded anteriorly, deeply notched posteriorly. Gular very large, its length 60 per cent of that of the anterior plastral lobe, 111 per cent of that of the bridge, 48 per cent of the width of the posterior plastral lobe, and 91 per cent of the seam length of the median plastral lobe. Femoral seam long, its length 20 per cent of the width of the posterior plastral lobe, 24 per cent of the over-all length of the posterior plastral lobe, and 36 per cent of the seam length of the median plastral lobe.

The length of the gular, plus the length of the femoral seam and the width of the nuchal is greater than the length of the anterior lobe of the plastron (108 per cent).

Postfemoral tuberculated patches present.

Carapace olive-brown, edges of vertebrales, costals, and marginals edged with black. Head shield olive-brown, fleshy parts of head dirty gray; jaws a clear light yellow; throat and sides of head yellow-white. Plastron yellow, the edges of the shields and the entire bridge dark brown. Carapace length 123 mm.

REMARKS.—The paratype from Sonora, although much

smaller and of the female sex, shows remarkably close agreement with the given characters of the type. The length of the nuchal is 38 per cent of the length of the bridge, 19 per cent of the width of the posterior plastral lobe, and 32 per cent of the seam length of the median plastral lobe. The gular length is 63 per cent of the length of the anterior plastral lobe, 100 per cent of the length of the bridge, 48 per cent of the width of the posterior plastral lobe, and 83 per cent of the seam length of the median plastral lobe. The femoral seam is 21 per cent of the width of the posterior plastral lobe, 25 per cent of the overall length of the posterior plastral lobe, and 37 per cent of the seam length of the median plastral lobe. The length of the gular, plus the length of the femoral seam and the width of the nuchal is greater than the length of the anterior lobe of the plastron (113 per cent).

The seven paratypes from Durango are in close agreement except that the nuchal tends to be smaller, but its proportionate size is paralleled by only a few of the *f. flavescens* measured.

Besides these specimens there are in the Field Museum of Natural History three from Jaral, Coahuila, which, although much closer to *f. flavescens*, show characteristics of intermedicity; this is especially apparent in a female specimen in the Field Museum, No. 1537. The new form is ranked subspecifically on the basis of the characteristics of these three specimens and on the correlative geographic position.

In the comparison between *f. flavescens* and *f. stejnegeri* in Table I the data for each sex are given separately in order that any difference in proportions may not be obscured. Although all specimens were carefully checked, none under 80 mm. carapace length were used in obtaining the proportional measurements since sex is not obvious in specimens of less length. Thirty-six specimens were used in obtaining the measurements set forth below.

One specimen, U.M.M.Z. No. 64915 from Kansas, was not used in the proportions involving gular length since the gular in that specimen was asymmetrical and obviously aberrant.

TABLE I

<i>K. f. fauvescens</i>		Range		♂	30-50	♀	27-50	<u>Gular Length</u> Anterior Lobe Length	
		Average		♂	40	♀	42		
<i>K. f. stejnegeri</i>		Range		♂	53-100	♀	48-91	<u>Gular Length</u> Bridge Length	
		Average		♂	79	♀	77		
<i>K. f. fauvescens</i>		Range		♂	11-30	♀	11-25	<u>Nuchal Width</u> Bridge Length	
		Average		♂	20	♀	15		
<i>K. f. stejnegeri</i>		Range		♂	5-15	♀	5-11	<u>Femoral Seam Length</u> Posterior Lobe Width	
		Average		♂	9	♀	8		
<i>K. f. fauvescens</i>		Range		♂	21-37	♀	18-36	<u>Gular Length</u> Posterior Lobe Width	
		Average		♂	30	♀	28		
<i>K. f. stejnegeri</i>		Range		♂	4-11	♀	4-10	<u>Nuchal Width</u> Posterior Lobe Width	
		Average		♂	7	♀	6		
<i>K. f. fauvescens</i>		Range		♂	9-20	♀	7-14	<u>Femoral Seam Length</u> Post. Lobe Over-all Length	
		Average		♂	14	♀	12		
<i>K. f. stejnegeri</i>		Range		♂	12-26	♀	9-21	<u>Femoral Seam Length</u> Median Lobe Seam Length	
		Average		♂	20	♀	17		
<i>K. f. fauvescens</i>		Range		♂	40-67	♀	31-71	<u>Gular Length</u> Median Lobe Seam Length	
		Average		♂	56	♀	54		
<i>K. f. stejnegeri</i>		Range		♂	8-22	♀	8-20	<u>Nuchal Width</u> Median Lobe Seam Length	
		Average		♂	14	♀	11		
<i>K. f. fauvescens</i>		Range		♂	52-78	♀	51-78	<u>Anterior Lobe Length</u> <u>Gular Length + Nuchal Width</u> + Femoral Seam Length	
		Average		♂	65	♀	62		
<i>K. f. stejnegeri</i>		Range		♂	60-62	♀	63-64		
		Average		♂	62	♀	64		
<i>K. f. fauvescens</i>		Range		♂	93-115	♀	99-100		
		Average		♂	106	♀	100		
<i>K. f. stejnegeri</i>		Range		♂	23-38	♀	16-38		
		Average		♂	28	♀	24		
<i>K. f. fauvescens</i>		Range		♂	20-32	♀	21-28		
		Average		♂	26	♀	24		
<i>K. f. stejnegeri</i>		Range		♂	45-48	♀	42-48		
		Average		♂	46	♀	45		
<i>K. f. fauvescens</i>		Range		♂	10-17	♀	7-19		
		Average		♂	13	♀	11		
<i>K. f. stejnegeri</i>		Range		♂	24-37	♀	25-34		
		Average		♂	31	♀	30		
<i>K. f. fauvescens</i>		Range		♂	36-55	♀	37-50		
		Average		♂	47	♀	45		
<i>K. f. stejnegeri</i>		Range		♂	79-91	♀	82-84		
		Average		♂	84	♀	83		
<i>K. f. fauvescens</i>		Range		♂	17-30	♀	13-32		
		Average		♂	22	♀	20		
<i>K. f. stejnegeri</i>		Range		♂	108-121	♀	107-114		
		Average		♂	114	♀	113		

The advantage of combining the measurements of the three chief distinguishing characters can be readily seen by consulting the last column in Table I; for the single proportions which approach each other in the two forms may not be due to inconstancy of the chief characters noted in the diagnosis but to the variation of some other character with which they were compared.

The measurements of the three *f. flavescens* from Jaral, Coahuila, form the following proportions arranged in the same order as those given in Table I.

F.M. 1535	♂	46	78	15	13	36	7	16	21	60	11	71
F.M. 1536	♂	48	81	17	16	36	7	20	29	63	13	81
F.M. 1537	♀	55	75	16	15	40	8	18	27	73	15	87

Some of the proportional measurements are above the range for *f. flavescens*; others are above the average of that subspecies; very few are well within the prescribed range of variation. The above statements are especially true of the female, Field Museum No. 1537, whose measurements are beyond the range of those of *f. flavescens* in seven instances and above the average in ten instances.

