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A NEW AMERICAN *PSEUDEMYIS*

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WHILE engaged in a study of the herpetofauna of the Big Bend region of Texas during the summer of 1928 Mrs. H. T. Gaige obtained a pseudemyd turtle exhibiting a distinctive pattern. For reasons too numerous to enumerate here, I take great pleasure in associating the collector's name with this form.

Pseudemys scripta gaigae, new subspecies

HOLOTYPE.—U.M.M.Z.¹ No. 66472; female, collected by Helen T. Gaige at Boquillas, Rio Grande River, Brewster County, Texas.

PARATYPES.—F.M.N.H. No. 27760, Boquillas, Texas; M.C.Z. Nos. 4550-51 (3), San Pedro, Coahuila; U.S.N.M. No. 60921, Lerdo, and No. 103706, Río Nazos, Durango.

DIAGNOSIS.—A *Pseudemys* of the *scripta* group forming a natural link between *troostii* and *cataspila*. It differs from the former in the fundamental ocellate pattern of the carapace and the longitudinally linear pattern of the plastron; from the latter in the more intensive secondary pigmentation of the plastron and carapace; from both by the presence of a large, conspicuous, isolated yellow spot in the temporal region of the head.

¹ U.M.M.Z. indicates the University of Michigan Museum of Zoology; F.M.N.H., the Field Museum of Natural History; U.S.N.M., the United States National Museum; M.C.Z., the Museum of Comparative Zoology; and C.M., the Carnegie Museum.

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DESCRIPTION OF THE SUBSPECIES.—Head blunt; cutting edge of upper and lower jaws smooth; upper jaw notched at the symphysis. Carapace suboval in dorsal view, somewhat flattened in vertical outline; posterior marginal scutes very slightly emarginate; plastron emarginate posteriorly. Fundamental pattern of carapace irregularly figured with light reticulations forming distinct light-centered ocelli on the posterior half of some or all of the scutes; undersurface of marginals with black bordered ocelli. Plastral figure a linear or sublinear unit occupying half or more of the median region; bridge with longitudinal black stripes. Head and neck with numerous light stripes the most prominent of which are as follows: (1) a narrow stripe from nose to occiput, (2) a stripe from the median posterior border of the eye extending across the upper part of the tympanum and continuing along the side of the neck, (3) a lower stripe from the eye extending across the middle of the tympanum and continuing along the latero-inferior surface of the neck, (4) a third stripe from the posterior border of the eye extending across the angle of the jaws and continuing along the inferior surface of the neck, (5) a stripe from a point about midway between the symphysis and angle of the lower jaw extending along the inferior surface of the neck or terminating on the throat, (6) a stripe from the symphysis of the lower jaw extending along the throat, bifurcating and continuing along the neck, (7) a stripe from the bifurcation extending along the median inferior surface of the neck, (8) a stripe from above the nostril extending across the anterior portion of the upper eyelid, (9) a sigmoid stripe from below the nostril extending posterior to the midpoint of the upper jaw, (10) a short bar from the eye to the jaw between the former and the angle. A small but distinct light spot immediately behind the eye; a large, subcircular, isolated light spot in the temporal region. Forelimbs regularly striped with black and yellow; hind limbs unevenly striped with the same colors.

With growth the above outlined patterns of the carapace and plastron become obscured by a secondary deposit of dark pig-

ment, by a progressive and by a diffusion of the a juvenile, the opaqueness progressed to such a degree is barely visible; yet when pattern is distinct. Fundarily a black spot of pig the horny marginal set original light-centered two other specimens un show the same progress the type, U.M.M.Z. No. of the carapace and plas lar markings remain or deposits of dark pigmen the plastral figure is co ment although the origi ary pigment deposit has

RELATIONSHIPS.—*Psci troostii* as evidenced by: Phantom Lake and Toy following characteristic present, costal pattern c nearer the *troostii* type postorbital spots conflue plastral pattern compos M.Z. No. 65178, tempor of either form but tendi tern almost typical of *t* spot present, costal patt male *troostii*; plastral p unit characteristic of *ga* be almost exactly into Hondo, Cameron Coun elongate, costal and pla specimens C.M. No. 3 County, Texas, are typic

ment, by a progressive opaquing of the scutes of the carapace, and by a diffusion of the original pattern. In M.C.Z. No. 4551, a juvenile, the opaquing of the scutes of the carapace has progressed to such a degree that the ocellated pattern beneath is barely visible; yet where the scutes have slipped the original pattern is distinct. Further there has been deposited secondarily a black spot of pigment on the undersurface of each of the horny marginal scutes; this spot lies directly above the original light-centered ocellus, completely obscuring it. The two other specimens under the same number, M.C.Z. No. 4551, show the same progressive type of color pattern change. In the type, U.M.M.Z. No. 66472, an adult, the original pattern of the carapace and plastron is completely altered; faint irregular markings remain on the costal scutes, and the secondary deposits of dark pigment spots are present on the marginals; the plastral figure is composed entirely of the secondary pigment although the original shape may be detected; the secondary pigment deposit has also extended across the bridge.

RELATIONSHIPS.—*Pseudemys scripta gaigcae* intergrades with *troostii* as evidenced by several specimens. Four examples from Phantom Lake and Toyahvale, Reeves County, Texas, have the following characteristics: U.M.M.Z. No. 65176, temporal spot present, costal pattern ocellate, plastral pattern composite but nearer the *troostii* type; U.M.M.Z. No. 65177, temporal and postorbital spots confluent, costal pattern of the *troostii* type, plastral pattern composite but nearer the *troostii* type; U.M.M.Z. No. 65178, temporal spot present, costal pattern atypical of either form but tending slightly toward *troostii*, plastral pattern almost typical of *troostii*; U.M.M.Z. No. 65179, temporal spot present, costal pattern of the melanistic type as in the old male *troostii*; plastral pattern the typical longitudinally linear unit characteristic of *gaigcae*. This latter specimen appears to be almost exactly intermediate. U.M.M.Z. No. 74786, Rio Hondo, Cameron County, Texas: temporal spot present, but elongate, costal and plastral pattern of the *troostii* type. The specimens C.M. No. 3088*a* and *b*, Black Bayou, Victoria County, Texas, are typical *troostii*, except for a slight tendency

toward ocellation of the costal pattern in the latter. In C.M. No. 3090 from the same locality the temporal spot is present but elongate; the other characters are typical of *troostii*.

Specimens from Tamaulipas indicate the close relationship between *cataspila* and *gaigcae*. U.S.N.M. Nos. 30746 and 46288 from Soto la Marina have a continuous line from the posterior border of the eye extending across the temporal region and continuing along the laterosuperior surface of the neck; this line engulfs both the postorbital and the temporal spot, but there is a great expansion in the temporal region. In U.S.N.M. No. 46287, from Forlon, the spot behind the eye is isolated but the temporal spot is confluent with the laterosuperior light stripe. The plastral pattern of all three is of the longitudinally linear unit type, but in one specimen, the largest, the original pattern is partly obscured by the secondary pigment deposit. A specimen from Vera Cruz, U.M.M.Z. No. 80963, has a continuous laterosuperior stripe which is expanded in the temporal region, though less than in the Tamaulipas specimens. Unfortunately the plastral scutes are worn, but a trace of the longitudinally linear pattern remains anteriorly.