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NOTES ON THE "LAMPROPHOLIS" GROUP OF
MIDDLE AMERICAN *LYGOSOMA* (SCINCIDAE)
WITH DESCRIPTIONS OF TWO NEW FORMS

BY L. C. STUART

IN a recent paper Taylor (1937: 5-11) has rearranged the Middle American skinks of what he calls the "Oligosoma" group of the genus *Leiolopisma* (*Lygosoma*). It is hoped that the following conclusions may clarify the status of species of Taylor's "Mocoa" complex. This review is based upon data from an examination of approximately two hundred specimens and reveals that the group is made up of five forms, two of which are undescribed.

As noted by Taylor (1937: 5) these skinks offer many difficulties because of their uniformity in most characters. A few characters, on the other hand, exhibit such great variation that their diagnostic value is questionable. The length of the limbs in comparison with the axilla-groin length varies with both sex and age, and for this reason it has proved difficult to use: an intensive study of this comparative length reveals that it is diagnostic of two groups of forms. Other features of systematic utility are the number of scale rows around mid-body, the number of dorsal scales from parietals to above the anus, the nature of the nuchal scutes, and, to some extent, pattern. Keeling on the body scales, especially in the region of the leg insertions, is feeble at best and varies with preservation. A

study of the above characters reveals the existence of the following forms:

- L. a. assatum* (Cope), western Central America from Tehuantepec to El Salvador.
- L. a. cherriei* (Cope), western Panama, Costa Rica, and the Caribbean coast to Vera Cruz exclusive of Yucatán.
- L. a. ixbaac*, new subspecies, the outer end of the Yucatán Peninsula.
- L. a. taylora* (Oliver), western Mexico from Tehuantepec to Colima.
- L. incertum*, new species, "nuclear Central America."

The proportionate length of the legs varies with both sex and age. Because of the difficulty of sexing all specimens and especially juveniles, this character has not been studied sexually, but it should be noted that the legs of the females are relatively shorter than are those of the males.¹ A study of this character in relation to size (head-body length) reveals the fact that the legs become relatively shorter with increasing age and that the adult proportions are attained when the body length reaches 40–45 mm.² In comparing the relative leg length in *cherriei* and *assatum* of different size groups, the following chart (Fig. 1) is self-explanatory.

It will be noted that even in young *assatum* the overlap in the legs is well below that of *cherriei*. In the adults of *assatum*, on the other hand, the legs never overlap (two specimens with body lengths of 41 mm. and 42 mm. have an overlap of five scales and of two scales respectively). Conversely, though the amount of leg overlap decreases considerably with age, the adpressed legs of *cherriei* always meet (except in one instance in which they failed to meet by the length of one scale).

¹ The leg length is expressed in terms of overlap in scales (+) or failure to meet (-) when adpressed. The legs are measured individually and the total length of fore and hind legs is obtained. This is subtracted from the axilla-groin measurement, and the resulting distance is measured off laterally at mid-body and is expressed in terms of the number of scales contained in that distance.

² This is definitely known only in *cherriei* and *assatum*, as my series of *taylora*, *ixbaac*, and *incertum* have been limited. The material indicates, however, that *taylora* and *ixbaac* are somewhat smaller forms and that *incertum*, a large species, probably parallels *cherriei* and *assatum*.

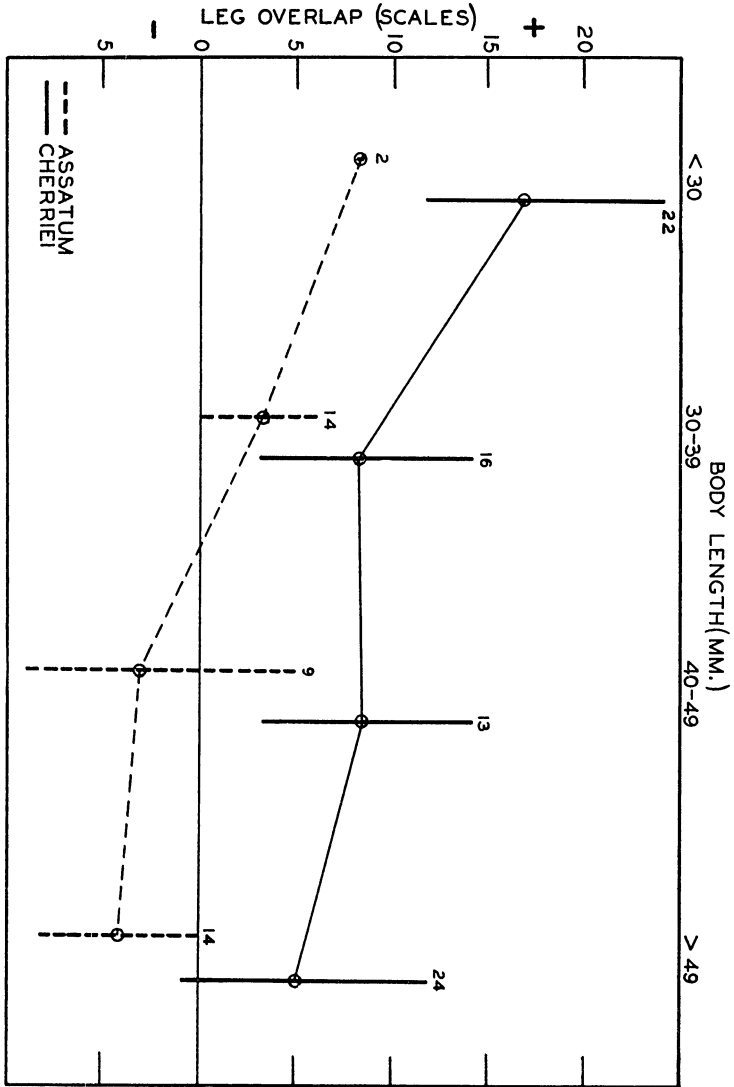


FIG. 1

If one considers only two classes, the following results are obtained (45 mm. head-body length is taken as the juvenile-adult dividing line).

It is interesting to note that the relative decrease in the leg

	Length	
	< 45 mm.	> 45 mm.
<i>cherriei</i>	+ 2* - + 24 (+ 13)	- 1 - + 12 (+ 6)
<i>assatum</i>	- 7 - + 8 (+ 3)	0 -- 9 (- 4)

* Since Figure 1 was made a single 37 mm. specimen has been received from Dr. E. H. Taylor in which the leg overlap amounts to +2. In Figure 1 it will be noted that the least overlap in the 30 to 39 mm. class is +3.

length with increasing size is about the same in both forms, as may be seen by comparing the means.

Geographic variation is slight, but my data indicate that from south to north in *cherriei* there is a tendency toward a shortening of the legs. There seems to be no such variation in *assatum*, on the other hand, and this lack of variation might be explained in the light of its less extensive distribution.

As to the leg length in *ixbaac*, *taylori*, and *incertum*, my data are too few to warrant other than general conclusions. It is certain, however, that the first is a long-legged form, though it represents the culmination of the northward trend in leg shortening in *cherriei* referred to above. Oliver (1937: 15) has indicated that *taylori* is a very short-legged form, and, as will be shown later, it grades directly into *assatum*. Lack of material precludes any statement concerning *incertum*, beyond the fact that it is definitely a short-legged type. On the basis of this character, then, the forms of *assatum* break into two groups, *cherriei* and *ixbaac* representing Caribbean (except in the south) long-legged types, and *assatum* and *taylori* constituting Pacific short-legged forms. Although *incertum* falls into this latter group, other characters preclude its inclusion as a part of that complex.

Paralleling the above arrangement is the tail pattern of the various forms. One pattern may be described as possessing a light brown dorsal ground color, flecked with darker brown and with a dark brown streak situated laterally and extending various distances from the groin posteriorly onto the tail. This condition exists in *assatum* and *taylori* and very probably in *incertum*, and is referred to as the "striped

tail pattern." The other condition, existing in *ixbaac* and *cherriei*, may be described as a "banded pattern." In this type the ground color of the tail is light brown above, with darker fleckings. At definite intervals the scale rows are considerably lightened to produce irregular, light crossbands. In addition to this tail pattern, there is a tendency for the dorsolateral dark stripe, which starts at the snout, to be narrower and more extensive in *assatum*, *taylori*, and in *incertum*. This stripe may even extend unbroken the entire length of the body and become contiguous with the tail stripe. In *cherriei* and *ixbaac*, on the other hand, the dorsolateral stripe is broader and generally blends into the body ground color shortly posterior to the shoulder.

Though leg length and pattern group the various forms into Pacific and Caribbean series, an examination of the number of scale rows around mid-body results in a north-south arrangement (excluding again the uncertain *incertum*). The following table indicates the range and means (in parentheses) of the number of scale rows in the several forms:

<i>assatum</i>	<i>taylori</i> *	<i>cherriei</i>	<i>ixbaac</i>	<i>incertum</i>
30-33 (30.5)	24-28 (27)	30-36 (31)	26-28 (27)	24-26 (26)

* Mr. James Oliver of the University of Michigan has supplied me with these data.

It will be noted that in the northern forms, *ixbaac* and *taylori*, there is a reduction in the number of scale rows, whereas *incertum*, in this character, departs from *assatum*, which it closely resembled in the two characters previously discussed. This tendency toward reduction to the north, however, does not parallel the variation in *cherriei*. In this form a large series of specimens from Chiriquí in Panama varies from 30 to 34 (31), whereas a series from Honduras and eastern Guatemala varies from 30 to 36 (32).

The number of dorsal scales from parietals to above the anus parallels the condition noted in the number of scale rows. Thus *taylori* has fewer than *assatum* and *ixbaac* has fewer than *cherriei*. In this particular character *incertum* is closest

to *cherriei*. The following table gives the range and means in the number of dorsal scales in the various forms:

<i>assatum</i>	<i>taylori</i>	<i>cherriei</i>	<i>ixbaac</i>	<i>incertum</i>
69-79 (73)	58-69 (66)	58-69 (63.5)	54-60 (57)	57-68 (63)

As in the number of body scale rows, the number of dorsals does not show a north-south increase, as might be expected if *ixbaac* is to be considered an offshoot of *cherriei*. If one compares again the Chiriquí and the Honduras-Guatemala series of *cherriei*, it is found that the former varies from 58 to 68 (62.5) and the latter from 59 to 69 (65). This character is of great value in diagnosing *assatum*.

The arrangement of the nuchal scutes serves partially to diagnose *taylori*. In this form the nuchals are usually differentiated, whereas in all others they are the same as the other dorsal body scales. Oliver (1937: 15) stated that in a series of fifteen specimens, four have a nuchal formula 1-1, seven have only one complete nuchal, and the remaining four have undifferentiated scutes. Two other specimens not seen by Oliver have a formula of 1-1 in one and only one complete nuchal in the other.

To sum up: the relative leg length decreases with age and in the adult separates *assatum* and *taylori* from the *cherriei-ixbaac* series. Pattern, especially that of the tail, further blocks out these two groups. The number of scale rows around the body and the number of dorsal scales from parietals to above the anus tend toward a south to north decrease separating *ixbaac* and *taylori* from their southern relatives, and the character of the nuchal scutes is useful in identifying *taylori*, in which there is a tendency toward their enlargement. The Pacific and Caribbean series will be shown to intergrade, whereas *incertum* represents a peculiar mixture of characters which render its position doubtful.

As to the generic status of these skinks, it seems best to follow, for the present, Smith's recent review (1938). Briefly, Smith assigned the "Oligosoma" and "Mocoa" groups of Taylor to the genus *Lygosoma* Hardwick and Gray, 1827.

This genus he has separated into four sections, the last of which, *Leiolopisma*, contains Taylor's "Oligosoma" and "Mocoo" series. If these four sections are elevated to generic rank, the proper name for the groups at hand should be *Hemiergus* Wagler, 1830, and not *Leiolopisma* as inferred by Smith (1938: 223). Smith has further broken down his "Leiolopisma" section into three divisions, depending upon the size of the interparietal and the nature of the frontoparietals. For Taylor's "Oligosoma" group the name *Hemiergus* is applicable, whereas *Lampropholis* Fitzinger, 1843, is the proper term for Taylor's "Mocoo" group. Further splitting would result in the use of *Leiolopisma* Duméril and Bibron, 1839, for *unicolor* and its allies, and *Lampropholis* for the *assatum* series.

Smith's arrangement of the genus may be outlined as follows (sections other than *Hemiergus* not outlined here):

Genus *Lygosoma*

Section *Sphenomorphus*

Section *Lygosoma*

Section *Ictiscincus*

Section *Hemiergus* (= *Leiolopisma* of Smith)

Hemiergus (frontoparietals paired, interparietal large)

Hemiergus

Leiolopisma (Range: Australia, southeastern Asia, East Indies, and the United States and Mexico; twenty-six Old World forms listed by Smith; New World forms, *unicolor*, *silvicorum*, *gemmingeri*, *forbesorum*)

Hemiergus

Lipinia

Unnamed group (no name available)

Lipinia

Lampropholis (frontoparietals united; interparietal large, five fingers)

Lampropholis (Range: Australia, South India, East Indies, west Pacific Islands, and Middle Amer-

ica; eighteen Old World forms listed by Smith;
assatum complex comprises New World forms)

Cophoscincus

Lygisaurus (frontoparietals united, interparietal small
or absent, 4 fingers)

I prefer to follow Smith and refer the American forms to the genus *Lygosoma*, and to designate our American forms as the "Leiolopisma" and "Lampropholis" groups. The latter may be diagnosed as follows:

An agglomeration of *Lygosoma* with a single frontoparietal, a large interparietal, and well-developed pentadactyle limbs. The New World forms have body scales smooth or at most very feebly keeled in the region of the limb insertions, twenty-four to thirty-four scale rows around mid-body and fifty-four to seventy-nine scales from parietals to above the anus. Two enlarged preanal scutes.

They range from western Panama northward into Mexico, avoiding the plateau but extending along both coasts into Colima and Vera Cruz.

Lygosoma assatum ixbaac, new subspecies

HOLOTYPE.—University of Michigan Museum of Zoology (U.M.M.Z.) No. 80820. An adult male collected by Milton Trautman at Chichen Itzá, Yucatán, Mexico, March 26, 1936.

PARATYPES.—U.M.M.Z. Nos. 70413–14, Uaxactún, El Petén, Guatemala; United States National Museum (U.S.N.M.) No. 71379, San Miguel, El Petén, Guatemala; and E. H. Taylor collection No. 19150, Tres Brazos, Campeche, Mexico.

DIAGNOSIS.—A *Lygosoma* of the "Lampropholis" group, twenty-six to twenty-eight rows of scales around the middle of the body, fifty-four to sixty dorsal scales from parietals to above the anus, the adpressed limbs just meeting or overlapping slightly, with undifferentiated nuchal scutes, and a "banded" tail pattern.

DESCRIPTION OF HOLOTYPE.—Rostral broader than long, visible from above. Internasal single, in contact with frontal, thus separating the prefrontals, which are lateral in position. The latter are in contact with the two loreals on one side and

with only the anterior loreal on the other. Frontal longer than broad. Four enlarged supraoculars, bordered laterally by a row of moderately enlarged supraciliaries. Frontoparietal single, large, and bordered anteriorly by three supraoculars and the frontal anteriorly, and by the parietals and interparietal posteriorly. Scales of the nuchal region undifferentiated. Nostril in a single nasal, two loreals, and three praeoculars. Postoculars broken. Temporals 1 + 2, the superior secondary one largest. Supralabials six on one side and seven on the other. Seven infralabials, an enlarged postmental, and three pairs of chin shields, of which only the anterior pair are in contact. Twenty-six rows of scales around the middle of the body, and fifty-nine from the parietals to above the anus. The adpressed limbs just meet: sixteen lamellae beneath the fourth toe. The measurements are as follows:

Total length, 89 mm.	Snout to axilla, 16 mm.
Body length, 44 mm.	Axilla to anus, 28 mm.
Tail length, 45 mm.	Axilla to groin, 23 mm.
Snout to eye, 3 mm.	Foreleg, 9 mm.
Snout to ear, 8 mm.	Hind leg, 14 mm.

Dorsally, the head and body are brown. On the body each scale has a somewhat darker center, to produce an effect of a series of fine, dark, longitudinal lines. The upper surface of the tail is somewhat lighter than is the body ground color and is immaculate owing to regeneration. Laterally, on the body the dorsal ground color gradually fades to white, and the sides are finely spotted with dark flecks. A dark streak extends from the snout to the eye and from the eye across the neck to about mid-body, where it diffuses. On the neck the band is about three scales wide. The supralabials are white, with brown vertical bars. The infralabials, chin, and throat are white with fine brown punctations. The belly and underside of the tail are immaculate white. The arms and legs are brown above, punctated with fine dark spots, and are white beneath.

RANGE.—This race appears to be restricted to northern Guatemala and the Yucatán Peninsula and may be considered as endemic to the Yucatán Province (Stuart, 1935: 19).

VARIATION.—The paratypes are essentially similar to the

holotype in all characters. Those from San Miguel and from Tres Brazos depart from the typical condition in possessing twenty-eight scales around the middle of the body. Whether this is the result of an approach to *cherriei* or merely normal variation it is difficult to say on the basis of the scanty material now before me. In all specimens of this species the legs either just meet when adpressed or overlap to the extent of not more than five scales. The dorsal scales from the parietals to above the anus vary 54 to 60. The tails of the paratypes have the banded pattern which is characteristic of *cherriei*.

RELATIONSHIPS.—This new race is obviously an offshoot of *Leiolopisma assatum cherriei*, which it resembles in leg length and pattern. It differs from that form in the reduction of the number of scales around mid-body and in the number of dorsal scales from parietals to above the anus. In pattern of both body and tail *ixbaac* is the same as *cherriei*, though the markings seem less intense, and in this particular feature the *cherriei-ixbaac* series parallels the *assatum-taylori* series.

Intergradation with *cherriei* apparently takes place in central El Petén, as a specimen from La Libertad has intermediate characters. This specimen, though possessing thirty rows of scales around the body, has but fifty-nine from parietals to anus, the lower limit for *cherriei*. It is possible that a large series from Yucatán may eventually prove that the paratypes from San Miguel and Tres Brazos are also somewhat intermediate.

The name *ixbaac* is the Mayan designation of the diminutive.

Lygosoma incertum, new species

HOLOTYPE.—Field Museum of Natural History (F.M.N.H.) No. 20307. A gravid female collected by K. P. Schmidt from beneath a log on Volcán Tajumulco, Guatemala, at 5500 feet, February 16, 1934.

PARATYPES.—F.M.N.H. No. 20728, Finca Samac, Alta Verapaz, Guatemala; U.S.N.M. No. 25224, Guatemala; Museum of Comparative Zoology, Harvard University, No. 38933, Portillo Grande, Honduras.

DIAGNOSIS.—A *Lygosoma* of the "Lampropholis" group,

twenty-four to twenty-six scales around the middle of the body, fifty-seven to sixty-eight dorsal scales from parietals to above the anus, the adpressed limbs failing to meet, with undifferentiated nuchal scutes, and with either a mottled or striped tail pattern.

DESCRIPTION OF HOLOTYPE.—Rostral broader than long, visible from above. Internasal single, narrowly separated from the frontal by the laterally placed prefrontals. These are in contact laterally with the two loreals. Frontal longer than broad. Four supraoculars, bordered laterally by moderately enlarged superciliaries. Frontoparietal single, bordered by three supraoculars and the frontal anteriorly and by the parietals and interparietal posteriorly. Interparietal small, not separating the parietals posteriorly. Scales of the nuchal region undifferentiated. Nostril in a single nasal, two loreals, and a single preocular. Postoculars broken. Temporals 1 + 2, the superior secondary one largest. Seven supralabials, and six infra-labials. Postmental enlarged and followed by three pairs of chin shields, of which only the first pair are in contact medially. Twenty-six rows of scales around the middle of the body and sixty-eight scales from the parietals to above the anus. The adpressed limbs fail to meet by four scales. Fifteen lamellae underneath fourth toe. The measurements are as follows:

Total length, 142 mm. + (tip of tail broken)	Snout to axilla, 20 mm.
Body length, 57 mm.	Axilla to anus, 3.7 mm.
Tail length, 85 mm. +	Axilla to groin, 34 mm.
Snout to eye, 4 mm.	Foreleg, 12 mm.
Snout to ear, 10 mm.	Hind leg, 19 mm.

Dorsally, the head, body, and tail have a light brown ground color, irregularly flecked with darker shades. The flecking becomes more intense posteriorly, and on the tail almost obliterates the lighter ground color. Dorsolaterally there is an irregular, dark brown band extending from the tip of the snout posteriorly to the tail, where it is lost in the dark mottlings. Above this band is a barely discernible lighter streak of brown, evident only because of the lack of darker punctations in that region. Below the lateral dark stripe the ground color fades

to white and is heavily flecked with dark brown. The sides of the head are very pale brown mottled with darker brown. The upper surfaces of the arms and legs are brown and also heavily punctated. The undersurfaces are white and, with the exception of the infralabials and tail, which are punctated with dark brown, are immaculate.

RANGE.—The scanty material at hand indicates that this species probably ranges over the area commonly referred to as “nuclear Central America.”

VARIATION.—As only the holotype and three paratypes, one in poor condition, have been available, little can be said concerning the variation in this form. The paratypes agree in all respects with the holotype. Most striking is the regularity and extent of the dorsolateral dark stripe and of its light superior border. The number of scales around mid-body varies 24 to 26, and the dorsal scales from parietals to above the anus range 57 to 68.

RELATIONSHIPS.—The relationships of this species are extremely obscure. In pattern and leg length the species most closely resembles *assatum*, but differs from it in the reduced number of scales from parietals to above the anus. The reduction in number of scale rows around mid-body parallels the condition in both *ixbaac* and *taylori*, but its geographic position precludes the possibility of any relationship to them. Its occurrence in Guatemala at Finca Samac, just west of Cobán, with *cherriei* indicates no genetical proximity in that quarter. On Volcán Tajumulco, Guatemala, it is found above *assatum*, and with this latter alone does there seem to exist any possible relationship. Its geographic position on the ancient Central American block may be indicative of its existence as a relict. On the other hand, occurring as it does with both *assatum* and *cherriei*, it may represent a mere occasional throwback aberrancy. As its name indicates, however, I feel in no position to offer more than the above suggestions as to its systematic position at this time.

Lygosoma assatum assatum (Cope)

Lampropholis assatus, Cope, *Proc. Acad. Nat. Sci. Phila.*, 1864: 179-80

(type locality, Volcano of Isalco, Guatemala [El Salvador]; type, Academy of Natural Sciences of Philadelphia, No. 9465).

DIAGNOSIS.—A *Lygosoma* of the "Lampropholis" group, with thirty to thirty-three rows of scales around mid-body, sixty-nine to seventy-nine dorsal scales from parietals to above the anus, adpressed limbs failing to meet in adults, with undifferentiated nuchal scutes, and with a striped tail pattern.

RANGE.—The Pacific coast of Central America, from Tehuantepec to western El Salvador.

RELATIONSHIPS.—This form intergrades with both *cherriei* and *taylori*, and a discussion of this phenomenon will be delayed until these subspecies are diagnosed.

DISCUSSION.—My friend, E. R. Dunn, who has examined the type for me, informs me that it is in poor condition. This is unfortunate, since another specimen from El Salvador, taken very close to the type locality, is almost typical *cherriei*. Another specimen from Matagalpa, Nicaragua, represents a typical *cherriei-assatum* intergrade. It is indicated, therefore, that the two species intergrade over a fairly extensive area and that within that region we might expect specimens typical of each form in addition to true intermediates. Whether or not the type of *assatum* is a part of this intergrading population, it is impossible to bury the name, and it is assigned here to that form in western Guatemala and Chiapas.

Lygosoma assatum cherriei (Cope)

Mocca cherriei, Cope, *Proc. Amer. Phil. Soc.*, 31 (1893), No. 142: 340–41 (type locality, Palmar, Costa Rica; type, American Museum of Natural History, No. 9531).

Lygosoma assatum brevis, Werner, *Abh. Akad. Wiss.*, 22 (1904), No. 2: 345 (type locality, Cobán [Guatemala]; type deposited in the collections at Munich).

DIAGNOSIS.—A *Lygosoma* of the "Lampropholis" group, with thirty to thirty-four rows of scales around mid-body, fifty-nine to sixty-nine dorsal scales from parietals to above the anus, adpressed limbs overlapping in both juveniles and adults, with undifferentiated nuchal scutes, and a banded tail pattern.

RANGE.—From western Chiriquí and western Panama

northward on both coasts of Costa Rica and thence restricted to the Caribbean coasts of Nicaragua, Honduras, Guatemala, and Mexico (only into Vera Cruz), avoiding the outer end of the Yucatán Peninsula.

RELATIONSHIPS.—As previously indicated, this form intergrades with *assatum* along the Pacific slopes of El Salvador to Nicaragua. A specimen from Sacare in El Salvador, not far removed from Isalco, the type locality of *assatum*, seems to be an almost typical specimen of *cherriei*. It has the banded tail pattern of the latter and a reduced number of scales from parietals to above the anus, though the adpressed limbs overlap so slightly that it might well be considered intermediate, in this character, between *cherriei* and *assatum*. A specimen from Matagalpa, Nicaragua, represents a truly intermediate condition. In this specimen the legs are shortened as in *assatum*, but the number of dorsal scales is typical of *cherriei*. Although the extensive range of this form is in keeping neither with the other members of the group nor with natural physical conditions, no significant differences are to be found in series emanating from Mexico to Panama.

DISCUSSION.—Hobart Smith of the United States National Museum has recently informed me that skinks of this species which he collected in Vera Cruz and Tabasco, Mexico, possessed blue tails. The significance of this feature I am unable to judge, since all the material to which I have had access was preserved. Certainly, specimens from southern Central America appear to have had red or brown tails (as do all other forms of the species). It may well be that this tail color will eventually prove to be a diagnostic character by which the northern and southern populations may be separated. In that event these two forms would be the only ones of the species which are differentiated by chromatic characters alone.

Lygosoma assatum taylori (Oliver)

Leiopisma assatum taylori, Oliver, *Occ. Papers Mus. Zool. Univ. Mich.*, No. 360 (1937): 12-15 (type locality, Santiago, Colima, Mexico; type, U.M.M.Z. No. 80107).

DIAGNOSIS.—A *Lygosoma* of the "Lampropholis" group, with twenty-four to twenty-eight rows of scales around mid-

body, fifty-eight to sixty-nine scales from parietals to above the anus, adpressed hind limbs widely separated in adults, a tendency toward two enlarged nuchal scutes, and a striped tail pattern.

RANGE.—Along the Pacific coast of Mexico from Tehuantepec into Colima.

RELATIONSHIPS.—A fine series of specimens in the United States National Museum collections from Tehuantepec affords direct proof that this form and *assatum* intergrade in that area. A single specimen might well pass as *taylori*, for it has the typical scale formula and an enlarged nuchal scute on one side. Another, also possessing the enlarged nuchal scute of *taylori*, has the scale row formula of *taylori*, but the number of dorsal scales from parietals to above the anus is typical of *assatum*. Two others without nuchals possess the scale formula of *taylori* and the greatest number of dorsal scutes of *assatum*. The remainder, seven in number, lack nuchal scutes, and have the scale formula and number of dorsal scales of *taylori*. That *taylori* is closest to *assatum* is evidenced by the short limbs and the striped tail pattern.

DISCUSSION.—Except for the above notes on intergradation, no new data have been forthcoming on this recently described form. It may be noted in passing that Oliver (1937: 15), in diagnosing *taylori*, confused under *assatum* both *cherriei* and *assatum*. For this reason he was puzzled by the occurrence of a short-legged series from Chiapas (*assatum*), since he considered short-leggedness diagnostic of *taylori*. Because of the same confusion, he failed to recognize the striped tail pattern which is characteristic of the *assatum-taylori* series.

KEY TO THE ADULT MIDDLE AMERICAN *Lygosoma* OF THE
“LAMPROPHOLIS” GROUP

- A. Frontoparietal divided “*Leiolopisma*” group
- AA. Frontoparietal single “*Lampropholis*” group
- B. Adpressed legs failing to meet C
- C. Scale rows around mid-body, 30 or more; dorsal scales, 69 or more *a. assatum*
- CC. Scale rows around mid-body, less than 30; dorsal scales, 69 or less D

D. Tendency toward enlarged, differentiated nuchals

a. taylori

DD. Nuchals small and undifferentiated *incertum*

BB. Adpressed legs overlapping E

E. Scale rows around mid-body, 30 or more *a. cherriei*

EE. Scale rows around mid-body, less than 30 *a. izbaac*

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