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NEW AMERICAN DIPLLOTAXIS (COLEOPTERA-
SCARABAEIDAE)

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The following new species were found among material submitted to the writer for determination by various museums and friends. The writer is greatly indebted to the late Mr. H. C. Fall for the privilege of studying his many types in the genus and for a number of specimens presented to the writer. Thanks are also due Dr. P. J. Darlington of the Museum of Comparative Zoology, Cambridge, for permitting the writer to study the Le Conte types in his charge. Individual acknowledgments are to be found under each species.

The descriptions are arranged so that the diagnostic portion includes the main characters used by Fall¹ (1909) in his key. This will enable the reader to refer directly to the most closely allied species.

DIPLLOTAXIS IMPRESSIFRONS Cazier, sp. nov.

Medium sized, dark reddish brown; upper surface glabrous; labrum broadly, arcuately emarginate; mentum strongly declivous at anterior third, margin without raised line, setae absent at middle; hind femora with few small punctures, hind coxae sparsely punctate in outer half; prothorax with impressed line along anterior margin.

Head with punctures separated by about their own widths, dense toward clypeus, front shallowly impressed posterior to shallow, post clypeal, obtuse ridge; clypeus densely punctate, punctures coalescent, clypeal suture interrupted medially, clypeal margins evenly, shallowly reflexed, anterior margin truncate, angles evenly rounded, side margins shallowly sinuate, angulate in front of eye; antennae ten-segmented. *Pronotum* with side margins obtusely rounded, widest at middle, front angles rather prominent; surface evenly rather deeply punctate, punctures separated by about their own widths, dense laterally. *Elytra* with distinct costae, intervals irregularly punctate, costae with dorsal row of small punctures; humeral umbone prominent; sides subparallel to apical third. *Beneath* sparsely clothed with short yellow pile; metathorax with both long and short yellow hairs, densely punctate laterally; anterior tibiae tridentate, basal tooth median, tarsal claws with inner, truncate tooth slightly ante-median. Length 11 mm., width 5.5 mm.

Holotype in the writer's collection, taken at Cedarville, Modoc County, California, May 30, 1939 (P. C. Ting, J. A. Downes, T. G. H. Aitken, M. A. Cazier). Collected by beating Juniper at night. One

(1) Fall, H. C., 1909, Revision of the Species of *Diplotaxis* of the United States. Trans. Amer. Ent. Soc. 35:1-97.

paratype collected in the Warner Mountains, Lake County, Oregon, June 19, 1922 (E. C. VanDyke) deposited in the collection of the California Academy of Sciences. Fifty-seven designated topotypical paratypes deposited in the collections of L. W. Saylor, O. L. Cartwright, M. W. Sanderson, H. J. Reinhard, L. P. Wehrle and the author.

This species appears to be the most closely related to *D. haydeni* Lec. and will key to that species in Fall's paper. It can be distinguished by its dark reddish brown color, less acute anterior thoracic angles, larger and more dense punctuation throughout and by the distinct angulation of the canthus. Occasional specimens have a row of setae across the mental margin and will, therefore, key to *D. parallela* Fall. *Diplotaxis impressifrons* can be distinguished from this species by its darker color, robust shape, deeper, more dense punctuation, by having the sides of the pronotum less abruptly constricted anteriorly and the pronotal angles less produced.

DIPLOTAXIS SAYLORI Cazier, sp. nov.

Medium sized, robust; elytra sub-connate, wings rudimentary; color dark brown, opaque; upper surface glabrous; labrum broadly, arcuately emarginate; mentum flat posteriorly, distinctly declivous at anterior third, declivity margined by acute, arcuate raised line and a row of erect setae; thoracic angles not impressed, sides not bisinuate; front without post-clypeal convexity; metasternum short, length between coxae equal to length of second abdominal segment.

Head broad, vertex with small smooth area, front rather deeply, densely punctate; clypeus with punctures large, nearly coalescent, front margin evenly reflexed, shallowly emarginate medially, side margins sinuate anterior to clypeal suture, abruptly angulate in front of eyes, clypeal suture distinct throughout; antennae nine-segmented. *Pronotum* shallowly convex, side margins evenly rounded, widest at middle, prominent, almost reflexed; surface sparsely, shallowly punctate, punctures separated by about twice their own widths, median impression shallow, smooth posteriorly. *Elytra* with humeral umbones reduced but evident, sides evenly rounded; surface without distinct costae, punctures of first interval irregular, remainder arranged in rows, punctures shallow, separated by about twice their own widths. *Beneath* sparsely clothed with short yellow pile; legs with all tarsi setiferous, claws cleft at apex, inner tooth the shortest, hind femora with upper surface sparsely, finely punctate medially, anterior tibiae tridentate, basal tooth small, ante-median in position. Length 12 mm., width 6 mm.

Holotype from Oak Flat, Mt. Graham, Arizona, June 27, 1919 (A. Wetmore) returned to L. W. Saylor of the United States Biological Survey for Deposition in the United States National Museum. One paratype from Graham Mts., Arizona, altitude 9200 ft., June 13, 1914 (E. G. Holt) in the writer's collection. The writer takes pleasure in naming the species after L. W. Saylor who has done much to further

the knowledge of the Scarabaeidae and who gave the specimens to the writer for description.

As can be seen from the diagnostic characters *D. saylori* belongs with *D. connata* Schffr. and *D. macronycha* Fall in Fall's key. It appears to be most closely related to these species but is easily separated. It can be separated from both species by its larger size, brown color, broad, flattened pronotum, small humeral umbones, the smaller, sparser punctuation of the pronotum and by the nine-segmented antennae. From *D. connata* it can be further distinguished by the broadly reflexed clypeus, abrupt angulation of the canthus in front of the eye, prominent side margins of the pronotum and the small, sparse punctures of the hind femora. In *D. connata* the punctures of the hind femora are larger, rather deep, distinctly elongate and more abundant. *Diplotaxis saylori* can be separated from *D. macronycha* by its distinct clypeal suture, angulation of canthus anterior to the eye, the evenly rounded side margins of the pronotum, the antemedian front tibial tooth and by the apically cleft tarsal claws.

DIPLLOTAXIS AEQUALIS Cazier, sp. nov.

Medium sized, dark brown; upper surface glabrous; labrum broadly arcuately emarginate; mentum nearly flat posteriorly, declivous in front, the declivity margined by arcuate raised line and row of erect setae; thoracic angles not impressed, sides not bisinuate; front nearly flat; metasternum longer than length of second abdominal segment; unguis tooth strongly post-median; clypeal margin only slightly emarginate, nearly truncate; unguis tooth subapical; sides of prothorax moderately arcuate, only slightly narrowed behind middle; clypeus nearly flat; punctures of head close; punctures of elytral disk broadly confused, interstices of punctures devoid of minute punctuation; front bi-impressed between eyes; labrum broadly impressed; claws similarly toothed in both sexes.

Head with punctures on front separated by about one-half their own widths; clypeus with front margin shallowly reflexed, side margins shallowly sinuate, angulate in front of eyes, surface with deep punctures, nearly confluent; clypeal suture entire; antennae ten-segmented. *Pronotum* with side margins prominent, widest at middle; posterior margin wider than anterior; upper surface with shallow median impression, punctures rather deep, separated by about their own widths, dense laterally, a shallow impression in front of middle laterally. *Elytra* with costae evident, punctures rather irregular, interspaces irregularly punctured, punctures separated by about three times their own widths, surface irregular between punctures, minutely alutaceous. *Beneath* sparsely clothed with short yellow pile; hind coxae rather densely punctate, basal tooth of front tibiae slightly antemedian, hind femora sparsely punctate throughout; tarsal claws cleft subapically, inner tooth obliquely truncate, equal in length to outer tooth, hind tarsi as long as hind tibiae. Length 12 mm., width 6 mm.

Holotype in the writer's collection, taken at Globe, Arizona, July 27, 1935 (F. H. Parker). Two paratypes from Pinal Mountains, Ari-

zona, August 23, 1935 (F. H. Parker) and one from Pinal Mountains, Arizona, May 22, 1938 (F. H. Parker) deposited in the collections of Frank H. Parker and O. L. Cartwright. One paratype from Prescott, Arizona, April 1919 (A. Kusche) in the collection of the California Academy of Sciences. One paratype from Pinal Mountains, Arizona (C. W. Leng) in the writer's collection.

This species is apparently most closely allied to *D. anthracina* Fall to which it runs in Fall's key. It can be readily separated from *D. anthracina*, however, by its brown color, larger size, longer tarsi, larger pronotal punctures, flattened front of the head, the larger punctures of the elytra and by the roughened elytral surface. Superficially *D. aequalis* resembled *D. peninsularis* Fall but can be distinguished from it by the key difference, by the less emarginate front margin of the clypeus, the longer clypeus, less closely punctate front and pronotum and by the irregular elytral surface.

The writer is indebted to Frank Parker for the privilege of studying specimens in his extensive collection of Arizona insects.

DIPLOTAXIS FULGIDA Cazier, sp. nov.

Small, light reddish yellow, shining; glabrous above; labrum broadly arcuate; mentum declivous in front, the declivity margined by acute raised line and setae; thoracic angles not impressed, sides not bisinuate; front without convexity; metasternum longer than length of second abdominal segment; unguual tooth postmedian; clypeal margin truncate; mental ridge well defined; base of pronotum without impressed line; antennae ten-segmented; front and clypeus densely punctate.

Head with punctures dense on front, often confluent; clypeal suture narrowly interrupted medially, impression distinct; clypeus narrowed in front, margins shallowly reflexed, side margins not sinuate, no angulation in front of eyes. *Pronotum* widest at middle, broadly rounded behind, gradually narrowed anteriorly; front and hind margins equal in width; surface with median punctures separated by about twice their own widths, dense laterally. *Elytra* with costae evident, intercostal spaces irregularly punctate, surface between punctures broadly wrinkled, smooth. *Beneath* clothed with short yellow pile; front tibiae with basal tooth median, hind coxae punctate, hind femora with few small irregular punctures. Length 6 mm., width 3 mm.

Holotype in the author's collection, taken in Smith County, Texas, June 1, 1937 (W. L. Owen Jr.) in a Texas Agricultural Experiment Station Light Trap. Four designated topotypical paratypes in the Texas Agricultural Experiment Station collection. One paratype from McLemman County, Texas, June 7, 1934 (F. F. Bibby) in the writer's collection. The writer is indebted to Dr. H. J. Reinhard for the opportunity of studying the material in his charge.

This species keys to *D. arcuata* Fall but can at once be separated

from that species by its smaller size, shining appearance, deep elytral punctures, by the raised areas between the elytral punctures and by the distinct elytral costae. From *D. dubia* Lec. it can be distinguished by the shape of the pronotum, the less densely punctate pronotum, more constricted clypeus and by having the male tarsi devoid of extra hair.

DIPLLOTAXIS ACONONICUS Cazier, sp. nov.

Medium sized, reddish brown, alutaceous; upper surface glabrous; labrum arcuately emarginate; mentum strongly concave beginning at basal third, without trace of transverse ridge; punctuation sparse, punctures separated by about their own widths; angles of prothorax not impressed.

Head convex in front, punctures separated by about their own widths, densely placed toward clypeus; clypeal suture distinct throughout, front margin shallowly emarginate, narrowly reflexed, punctures separated by about one third their own widths, side margins not on same plane as canthi; canthi obtusely angulate in front of eyes; antennae ten-segmented. *Pronotum* about one and one-half times wider than long, side margins evenly, arcuately rounded, widest near base; surface with shallow, medium sized punctures separated by about their own widths. *Elytra* without elevated costae; striae punctures irregularly placed and of varying sizes and shapes, all punctures separated by about their own widths. *Beneath* sparsely clothed with yellow pile, hind coxae punctate; legs with hind femora sparsely punctate, claws with short, truncate anti-median tooth, front tibiae with basal tooth barely anti-median in position. Length 9.5 mm., width 5 mm.

Holotype in the writer's collection, taken in the Huachuca Mountains, Arizona, September 17, 1935 by F. H. Parker who kindly presented the specimen to the writer.

Dipllotaxis acononicus is closely allied to *D. parvicollis* Fall but can be separated from that species by the angulate canthi, larger and more dense punctuation of the head and clypeus, less constricted front angles of the pronotum, the larger and more dense punctuation of the pronotum and by the lack of well defined elytral costae. In *D. parvicollis* the lateral margins of the clypeus are on the same plane as the canthi although there is a shallow sinuation immediately in front of the canthi.

DIPLLOTAXIS AULACOCHELA Cazier, sp. nov.

Medium sized, head and pronotum piceous, elytra dark reddish brown, shining; upper surface glabrous; labrum deeply divided; mentum excavated in front; front feebly impressed.

Head with front densely punctate, punctures separated by less than their own widths above, nearly coalescent below; clypeus with front margin narrowly reflexed, shallowly emarginate medially, side margins continuous with canthi, clypeal suture interrupted at middle, impression distinct throughout; antennae ten-segmented. *Pronotum* with side margins obtusely angulate medially, widest at mid-

dle; front and hind margins subequal in width, front margin sinuate, slightly produced medially; surface irregularly punctate, punctures separated by one to two times their own widths, dense laterally, interspaces smooth, shining, anterior angles with an oblique, shallow impression behind, surface depressed along side margins. *Elytra* with costae well defined, only first intercostal space irregularly punctate, interspaces flat and smooth, punctures separated by about twice their own widths. *Beneath* sparsely clothed with short yellow pile, hind coxae punctate; legs with hind femora irregularly, sparsely punctate, front tibiae with basal tooth median in position, claws with subapical truncate tooth, tarsi short. Length 9 mm., width 4.7 mm.

Holotype in the collection of the Texas Agriculture Experiment Station, taken at Presidio, Texas, June 28, 1930 (W. L. Owen Jr.) and kindly loaned to the writer by H. J. Reinhard.

This species is most closely allied to *D. fissilabris* Fall but can readily be separated from it by the reddish brown elytra, shining appearance, by lacking the sinuate side clypeal margins, by having the anterior pronotal angles more pronounced, the pronotal surface irregular punctate with the intervals flat and smooth, and the elytral surface smooth with punctures separated and no irregular impressions present. In *D. fissilabris* the pronotum is rather evenly punctured, the surface between the punctures is minutely alutaceous and sparsely covered with small punctures, the elytral interspaces have irregular impressions that often connect the punctures with one another thus giving the surface a rough, dull appearance.

DIPLOTAXIS UNGULATUS Cazier, sp. nov.

Medium sized, dark reddish brown, shining; upper surface glabrous; labrum broadly, arcuately emarginate; mentum strongly declivous from apical third, without raised line or setae; hind femora nearly impunctate, tooth of tarsal claws median in position; hind coxae nearly impunctate.

Head with impunctate area on vertex, front sparsely, minutely punctate above, more densely punctate below where punctures are shallow and separated by about their own widths; clypeus with anterior margin rather broadly flexed, shallowly emarginate, side margins shallowly sinuate in front of eye, surface with shallow punctures separated by about their own widths, clypeal suture distinct throughout; antennae ten-segmented. *Pronotum* about twice as broad as long, side margins evenly arcuately rounded, widest at middle, angles obtuse; front margin little narrower than hind margin; surface finely alutaceous, punctures small, separated by about twice their own widths. *Elytra* with costae well defined, intercostal spaces finely alutaceous, irregularly punctate, punctures separated by about twice their own widths. *Beneath* with metasternum sparsely punctate laterally, impunctate medially; legs with basal tooth of front tibiae median in position, tarsi longer than tibia, claws two-thirds the length of fifth tarsal segment. Length 10 mm., width 5 mm.

Holotype in the writer's collection, taken in the White Mountains,

Arizona, July, 1930 by D. K. Duncan and kindly presented to the writer by F. H. Parker.

Most closely allied to *D. lexicora* Fall but distinguishable by its smaller size, narrow form, shallow, sparsely punctate front and clypeus, continuous clypeal suture, sinuate side clypeal margins, evenly rounded canthi, by the lack of the small punctures of the elytral interspaces and by the longer hind tarsi. In *D. lexicora* the side margins of the clypeus are not sinuate, the canthi are angulate, the elytral interspaces are minutely punctate and the hind tarsi are shorter than the tibiae.

DIPLTAXIS PERSISAE Cazier, sp. nov.

Medium sized, head and pronotum black, elytra piceous; upper surface glabrous; labrum broadly arcuately emarginate; mentum nearly flat posteriorly, strongly concave from basal third; punctuation of upper surface rather dense.

Head with front shallowly convex, punctures small, separated by about their own widths; clypeus with front margin narrowly reflexed, shallowly emarginate medially, side margins straight, canthi obtusely rounded, clypeal suture not interrupted, impression prominent, flattened, sparsely punctate; antennae ten-segmented. *Pronotum* with side margins evenly, arcuately rounded, widest at middle; front angles deeply impressed, hind angles shallowly but broadly impressed, surface of impressed area rough, opaque; surface with punctures separated by about their own widths, interspaces finely punctate. *Elytra* with costae well defined, intercostal spaces wide, irregularly punctate, punctures separated by about one and one-half times their own widths. *Beneath* sparsely clothed with short yellow pile; legs with hind coxae punctate, hind femur sparsely punctate on inner surface, front tibiae shallowly tridentate, basal tooth slightly in front of middle, tarsal claws cleft subapically, inner tooth truncate, short, hind tarsi about two-thirds as long as tibiae. Length 9 mm., width 4.5 mm.

Holotype in the writer's collection, taken in the Chiricahua Mountains, Arizona, September 14, 1935 by F. H. Parker. The writer is pleased to name this species in honor of Mrs. F. H. Parker who has contributed much to the knowledge of the insect fauna of Arizona through her collecting efforts.

Diplotaxis persisate is apparently most closely allied to *D. costulata* Fall but can be readily separated by its smaller size, unimpressed front, impressed front angles of pronotum, impressed, opaque hind pronotal angles, more widely separated punctures and by the shorter tarsi. From the other four species in this section, *D. brevicollis* Lec., *D. semifoveata* Fall, *D. parvicollis* Fall, and *D. acanonicus* Cazier it can be distinguished by the opaque impressed hind pronotal angles and the larger and more dense punctuation throughout.

DIPLTAXIS PARKERI Cazier, sp. nov.

Medium sized, shining black; upper surface glabrous; labrum broadly arcu-

ately emarginate; mentum declivous from anterior third, the declivity margined posteriorly by an acute raised line and a row of erect setae; thoracic angles not impressed, sides not bisinuate; front without post-clypeal convexity; metasternum longer than second abdominal segment; unguual tooth subapical; clypeal margin scarcely emarginate medially; sides of pronotum strongly arcuate, widest at middle; tarsi not hairy beneath, all claws similarly toothed.

Head with front rather densely, deeply punctate below, punctures separated by about one-half their own widths, above by about their own widths, front shallowly impressed on each side of median line; clypeus with front margin broadly reflexed, angles obtusely rounded, side margins continuous with canthi, not sinuate, surface deeply, densely punctate, clypeal suture distinct throughout; antennae ten-segmented. *Pronotum* with posterior margin slightly wider than anterior margin, surface smooth, punctures deep, separated by about twice their own widths, scarcely more abundant laterally. *Elytra* with costae obscure except for row of small median punctures, first intercostal space irregularly punctate, second with an irregular single row. *Beneath* sparsely clothed with short yellow pile; legs with hind femora sparsely punctate, hind coxae densely punctate, front tibiae tridentate, basal tooth median in position, posterior tarsi as long as tibiae. Length 11 mm., width 5.5 mm.

Holotype in the writer's collection, taken in the Pinal Mountains, Arizona, May 19, 1935 by F. H. Parker in whose honor the writer is pleased to name the species. One topotypical paratype in the collection of F. H. Parker.

Although *D. parkeri* runs to *D. acerba* Fall in Fall's key it is in reality, more closely allied to *D. anthracina* Fall. It can be distinguished from *D. acerba* by its larger size, black color, bi-impressed front, unsinuate side clypeal margins, single irregular row of punctures in second costal interval and by the longer tarsi. From *D. anthracina* it can be separated by its more elongate clypeus, bi-impressed front, more angulate pronotal side margins, larger pronotal and elytral punctures, by having only a single irregular row of punctures in the second costal interval and by having the basal tooth of front tibiae median in position. In *D. anthracina* the second costal interval has two irregular rows of punctures and the basal front tibial tooth is distinctly nearer the apex than the base.

DIPLOTAXIS MICRIPS Cazier, sp. nov.

Small, narrow, rufotestaceous; upper surface glabrous; labrum broadly arcuately emarginate; mentum declivous in front, posterior margin of declivity with acute raised line and row of erect setae; thoracic angles not impressed, sides not bisinuate; front without post-clypeal convexity; metasternum longer than second abdominal segment; unguual tooth subapical; clypeal margin angulate on each side of shallow median emargination; tarsal segments not conspicuously hairy beneath; punctures of elytral intercostal spaces confused; elytra with minute alutaceous sculpturing.

Head with front densely punctate throughout, punctures coalescent or narrowly separated; eyes exposed for about the same distance as width of canthi; clypeus strongly flexed, side margins nearly straight, strongly angulate and connecting with canthi at point of angle, surface with median punctures indistinct, edges with coalescent punctures; clypeal suture absent except for small smooth spot at corner of eye on junction of front and clypeus; antennae short, nine-segmented. *Pronotum* with sides rather strongly, obtusely angulate, widest at middle, more strongly constricted behind middle; anterior margin as wide as posterior, shallowly emarginate medially; surface with punctures separated by about their own widths, dense laterally, interspaces with small punctures interspersed; disk with small spot devoid of large punctures, sparsely covered with small punctures. *Elytra* with costae indistinct, punctures on top of costae irregular and nearly as large as striae punctures, first intercostal space punctures separated by about twice their own widths, those of second by about their own widths. *Beneath* clothed with short yellow pile; legs with hind femora sparsely punctate with large punctures, hind coxae and metasternum densely punctate, front tibiae with basal tooth median in position, hind tarsi with first segment about half length of second, hind tarsi subequal in length to hind tibiae. Length 7 mm., width 3.5 mm.

Holotype in the author's collection, taken at Cochise Stronghold, Cochise County, Arizona, April 29, 1938 (H. F. Tate) and very kindly presented to the writer by Dr. L. P. Wehrle. Paratopotype in Dr. Wehrle's collection at the University of Arizona. A third damaged specimen in the collection of the Southern California Academy of Sciences was collected in Sabino Canyon, Santa Catalina Mountains, Arizona, June 10, 1919 (D. Roberts) and was kindly loaned to the writer by Dr. W. D. Pierce of that institution.

The paratype specimen is like the holotype in all major features except for size. It measures 9 mm. in length, 4.2 mm. in width and may possibly be the female of this species. The third specimen is intermediate in size between the other two.

In Fall's key *D. micros* will run to *D. errans* Fall but is readily distinguishable from that species by its wider mental declivity, un-sinuuated side clypeal margins, lack of the clypeal suture, the small eyes, by the median position of the basal tooth on the front tibiae and by its shorter, nine-segmented antennae.

A brief note attached to the type by Dr. Wehrle indicates that this species does some damage to peach trees and other deciduous fruits. The adults hide in the soil near the trunks of the trees during the day and come out at night to feed on the young growth. This is one of few reported cases of members of this genus doing damage to cultivated plants.

DIPLLOTAXIS RECTICANTHUS Cazier, sp. nov.

Small, narrow, rufotestaceous; upper surface glabrous; labrum broadly, arcu-

ately emarginate; mentum declivous at anterior third, declivity margined behind by an acute raised line and row of setae; thoracic angles not impressed, sides not bisinuate; front without post-clypeal convexity; metasternum longer than second abdominal segment; unguual tooth subapical; clypeal margin distinctly angulate on each side of middle situation, the angles rather sharply defined, not dentiform; tarsi not conspicuously hairy beneath; elytral punctuation confused in all intercostal spaces, with indication of minute alutaceous sculpturing; pronotum widest a little behind the middle; eyes small.

Head with punctures large and dense, separated by less than one-half their own widths or coalescent; eyes little wider than angulation in front composed of canthi and clypeus; clypeus with front margin broadly flexed, side margins scarcely flexed; side margins bisinuate, posterior angles rounded, protruding outward beyond anterior angles of canthi which are obtusely angulate, clypeal suture evident only laterally; antennae ten-segmented. *Pronotum* widest a little behind the middle, posterior portion more strongly constricted than anterior, posterior margin about same width as anterior margin; surface with punctures separated by about their own widths, interspaces finely punctate. *Elytra* with costae distinct, punctures of intercostal spaces separated by about their own widths, second intercostal space with two and three irregular rows of punctures. *Beneath* sparsely punctate and clothed with short yellow pile; legs with hind femora impunctate, front tibia with basal tooth short, median in position. Length 7.5 mm., width 3.8 mm.

Holotype in the writer's collection, taken in the White Mountains, Arizona, September (D. K. Duncan) and very kindly given to the writer by F. H. Parker.

Diploaxis recticanthus will run to the dichotomy including *D. punctata* Lec. and *D. chiricahuac* Fall in Fall's key but can be separated from either of these species by the small eyes, the angulate canthi, the broadly flexed anterior clypeal margin, and the bisinuate side clypeal margins. It appears to be most closely allied to *D. deserta* Fall, which also belongs in this group, but can be distinguished by its larger size, darker color, more prominently reflexed front clypeal margin, strongly angulate canthi, smaller eyes, larger pronotal and elytral punctures and by the double, irregular rows of punctures in the second intercostal space. From *D. pinalica* Fall it can be distinguished by its small eyes, more reflexed front clypeal margin, obscure clypeal suture, angulate canthi, by having the interspaces of the pronotum finely punctate, and by the less alutaceous sculpturing of the elytra.

DIPLLOTAXIS BREVICORNIS Cazier, sp. nov.

Small, narrow, rufotestaceous; upper surface glabrous; labrum broadly arcuately, emarginate; mentum declivous in front, declivity margined posteriorly by rather indistinct raised line and row of erect setae; thoracic angles not impressed, side margins not bisinuate; front without post-clypeal convexity; metasternum longer than second abdominal segment; unguual tooth apical; clypeal margin an-

gulate on each side of median sinuation; tarsi not conspicuously hairy beneath; elytral punctuation confused only in the subsutural area, elsewhere arranged in nearly regular series; interocular width of front about three times the width of the eye.

Head with punctures of front separated by about their own widths; clypeus more densely punctate, front margin broadly flexed, side margin less so, shallowly sinuate, canthi angulate before junction with clypeal margins; antennae ten-segmented, club short, equal in length to terminal segment of maxillary palpi. *Pronotum* with side margins arcuately rounded, widest slightly behind middle, posterior portion more strongly constricted than anterior; posterior margin subequal in width to anterior margin; surface with punctures somewhat irregular, generally separated by about their own widths, interspaces with smaller punctures. *Elytra* alutaceous, punctures not well defined, separated by about twice their own widths. *Beneath* sparsely clothed with short yellow pile, sparsely punctate throughout, laterally the punctures are separated by at least their own widths; legs with hind femora impunctate, hind coxae punctate, anterior tibiae with basal tooth median in position, posterior tarsi as long as tibiae, inner tooth of claws apical, scarcely truncate. Length 6 mm., width 3 mm.

Holotype in the collection of the Southern California Academy of Sciences, taken at Pyramid Peak, Dona Ana County, New Mexico, August 8, 1930 (F. R. Fosberg) and kindly loaned to the writer by Dr. W. D. Pierce. Twenty-three topotypical paratypes deposited in the same collection as the holotype and in that of the writer.

This species is most closely allied to *D. misella* Fall but can be distinguished by its less acute anterior clypeal angles, smaller and less dense pronotal and elytral punctuation and by its shorter antennal club.