

REVISION OF THE GENUS *PARACHMA* WALKER
(PYRALIDAE: CHRYSAUGINAE) OF NORTH AMERICA
NORTH OF MEXICO WITH DESCRIPTION OF A NEW GENUS

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ABSTRACT. The genus *Parachma* Walker is redescribed. A lectotype is selected for *P. borregalis* Dyar, and *P. borregalis* is synonymized under *P. ochracealis* Walker. The color variation of *P. ochracealis* is discussed. A new genus, *Basacallis*, is described and *P. tarachodes* Dyar is designated the type species. Complete data and distribution maps are presented for all specimens examined.

Twelve species have been placed in the genus *Parachma* Walker. Of these, two species, *P. ochracealis* Walker and *P. borregalis* Dyar were known from the United States and listed by Barnes and McDunnough (1917). A third species, *P. tarachodes* Dyar, listed in Hodges et al. (1983), was collected in the southeastern United States but remained unidentified in many collections. The present work, based on the accumulation of more specimens and intensive studies of genitalia, venation, and head characters, has resulted in a redescription of the genus *Parachma*. *Parachma borregalis* is treated as a synonym of *P. ochracealis*. *Parachma tarachodes* is removed from this genus and is designated as the type species for a new genus, *Basacallis*.

Genus *Parachma* Walker, 1866

(Figs. 1-5, 8-11)

Parachma Walker, 1866:1263. Type species: *Parachma ochracealis*, by monotypy.

Zazaca Walker, 1866:1269. Type species: *Zazaca auratalis* (= *Parachma ochracealis* Walker), by monotypy.

Perseis Ragonot, 1891:538. Type species: *Asopia culiculis* Hulst (= *Parachma ochracealis* Walker), by monotypy.

Artopsis Dyar, 1908:95. Type species: *Artopsis borregalis* Dyar (= *Parachma ochracealis* Walker), by original description.

Description

Head. Labial palpus sharply upturned, about one-third longer than eye diameter, second segment about twice length of first and third segments; maxillary palpus vestigial, two segmented, hidden beneath scaling; proboscis well-developed, scaled at base; frons rounded, smoothly scaled; vertex smoothly scaled; antenna filiform, about seven-tenths forewing length, two rows of scales to each segment, uniformly pilose beneath; ocellus directly behind base of antenna; chaetosema formed by row of fine setae along ocular suture laterad and posterad to the ocellus.

Thorax (Fig. 5). Forewing triangulate; Sc nearly straight, intercepting costa at about one-half length; R₁ short and arising just before anterior angle of discal cell; R₂, R₃, R₄, and R₅ stalked together; R₂, extremely short and weak, arising the same point as R₃ or short-stalked with R₃; R₄ and R₅ stalked together, M₁ separate, arising from anterior angle of discal cell; M₂ and M₃ stalked together with Cu₁; Cu₂ from below posterior of discal cell; 1A absent; 2A and 3A separate at base, anastomosed briefly a short distance from

the base then divergent; retinaculum normal. Hindwing with frenulum normal; Sc and Rs anastomosed beyond the discal cell; M₁ from anterior angle of discal cell; M₂ and M₃ coincident and stalked with Cu₁, arising proximad to the posterior angle of the discal cell. Legs moderate in length; foreleg smoothly scaled; midtibia, midtarsi, hindtibia, hindtarsi with heavy scale tufts.

Abdomen. Moderately long and slender.

Male genitalia (Figs. 8, 9). Uncus moderately broad and hood-shaped, apex broadly rounded, lateral arms for articulation of gnathos relatively long; tegumen narrow dorsad; pedunculus strongly modified for articulation of gnathos; vinculum narrow ventrad, without a well-developed saccus; gnathos moderately long, not extending past apex of uncus; transtilla weak and incomplete; valva moderately developed with apex rounded, inner surface clothed with long setae directed dorsad; juxta relatively small and U-shaped; aedeagus moderately developed, cylindrical with base slightly broadened and without a caecum; vesica with microspines and two plate-like cornuti armed with a row of several spurs.

Female genitalia (Fig. 10). Ovipositor moderately short; papillae anales moderately broad with apex unilobate; anterior apophysis broad at base, longer than posterior apophysis; eighth segment relatively short; ostium bursae membranous and without a well-developed lamella postvaginalis; antrum relatively long and lightly sclerotized, constricted at inception of ductus seminalis; ductus bursae broadened and sclerotized posteriad; anterior half narrowed and membranous; corpus bursae simple and without signa.

Remarks

Parachma is allied to *Caphys* Walker, 1863, *Acallis* Ragonot, 1891, and *Zaboba* Dyar, 1914c, as indicated by the venation and genitalia. All four genera have the forewing M₂ and M₃ long-stalked and Cu₁ separate, but in *Parachma* Cu₁ arises from the stem of M₂ and M₃. In all four genera, forewing 2A and 3A anastomose briefly as described above. The hindwing shows a similar relationship with M₂ and M₃ coincident and stalked with Cu₁ except in *Acallis* where Cu₁ is separate or arises from the same point on the discal cell.

The male genitalia of *Parachma*, *Acallis*, *Caphys*, and *Zaboba* are similar in structure, having a simple well-developed valva, uncus, and gnathos. The uncus of *Parachma* is broad with a well-rounded apex, whereas in *Caphys* it is relatively narrow and tapered posteriad (Munroe, 1970, fig. 8). The uncus of *Zaboba* and *Acallis* is shorter than that of *Parachma* and more rounded than *Caphys*.

The female genitalia are more diverse. *Parachma* and *Acallis* have an ovipositor that is moderate in length and without a lamella postvaginalis. *Caphys* and *Zaboba* have an extended ovipositor with the lamella postvaginalis reduced to two small elongated plates.

Parachma ochracealis Walker, 1866

Parachma ochracealis Walker, 1866:1263.

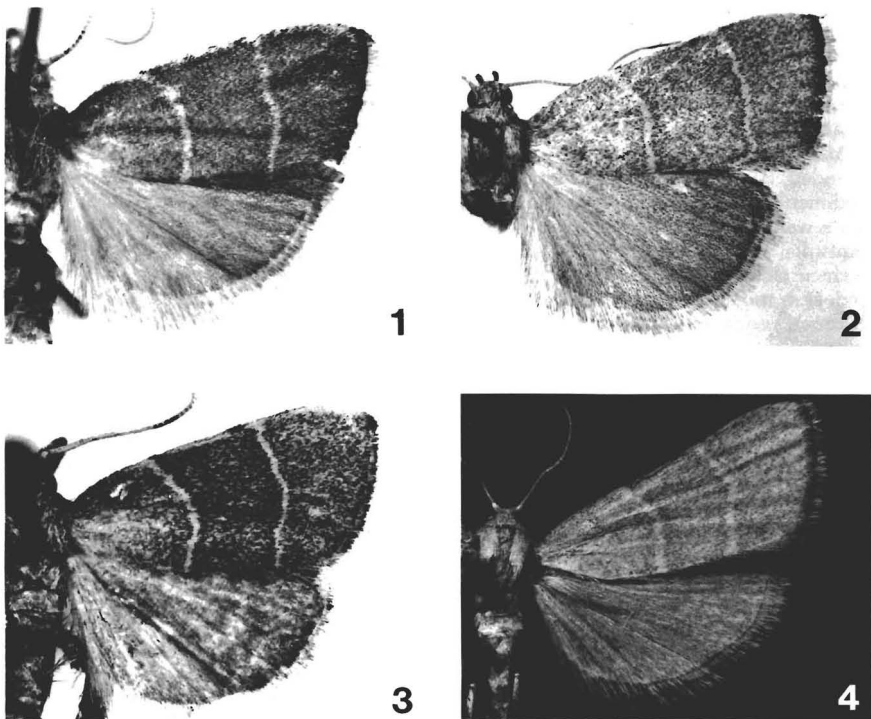
Zazaca auratalis Walker, 1866:1269.

Asopia culiculalis Hulst, 1886:147.

Artopsis borregalis Dyar, 1908:95. NEW SYNONYMY.

Artopsis nua Dyar, 1914a:164.

Parachma ochracealis a culiculalis, Barnes and McDunnough, 1917:138.



FIGS. 1-4. Wing maculation of *Parachma ochracealis*: 1, male, reddish brown form, Key Largo, FL; 2, female, reddish brown form, St. Petersburg, FL; 3, male, grayish brown form, Key Largo, FL; 4, female, pale ochreous form, Alpine, TX.

Description

Alar expanse. 13 to 23 mm.

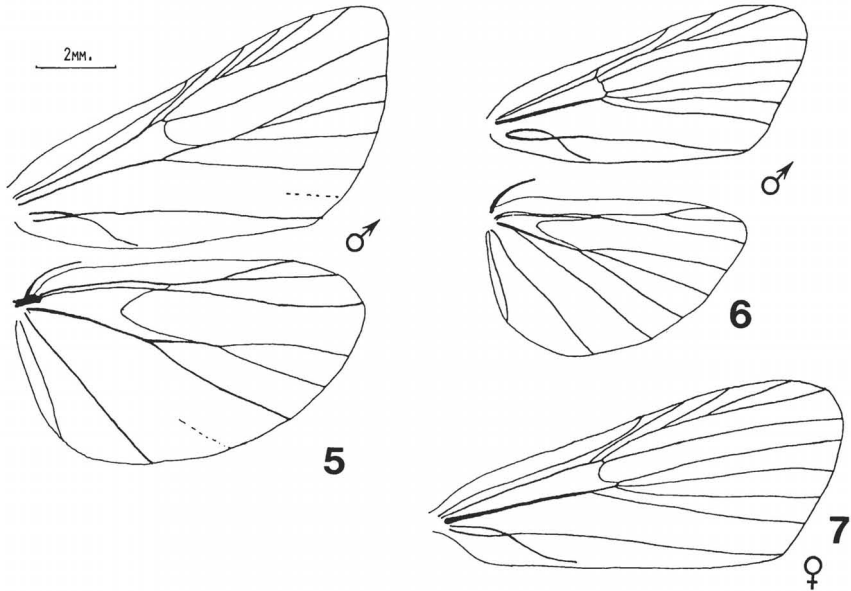
Head. Labial palpus ochreous with light to dark reddish brown laterad; frons and vertex ochreous, in darker specimens overscaled with dark reddish brown.

Thorax. Dorsum light reddish brown to dark reddish brown or ochreous-gray, ventrum dark reddish brown to grayish brown. Forewing (Figs. 1-4) ochreous to reddish brown or ochreous-gray; antemedial line ochreous, extending from one-third costa excurved to about one-third hind margin; postmedial line ochreous, extending from about two-thirds costa to two-thirds hind margin, nearly straight; terminal line reddish brown; fringe ochreous; undersurface orange-brown to reddish brown, costa darker. Hindwing light to medium orange-brown; fringe ochreous; undersurface ochreous, overscaled with reddish brown to fuscous and with an ochreous median line. Legs dark reddish brown to fuscous; midtarsi ochreous, hind tibial spurs ochreous with band of dark reddish brown.

Abdomen. Dorsum concolorous with wings, ventrum darker.

Genitalia (Figs. 8-10). As described for the genus (Figs. 8-10).

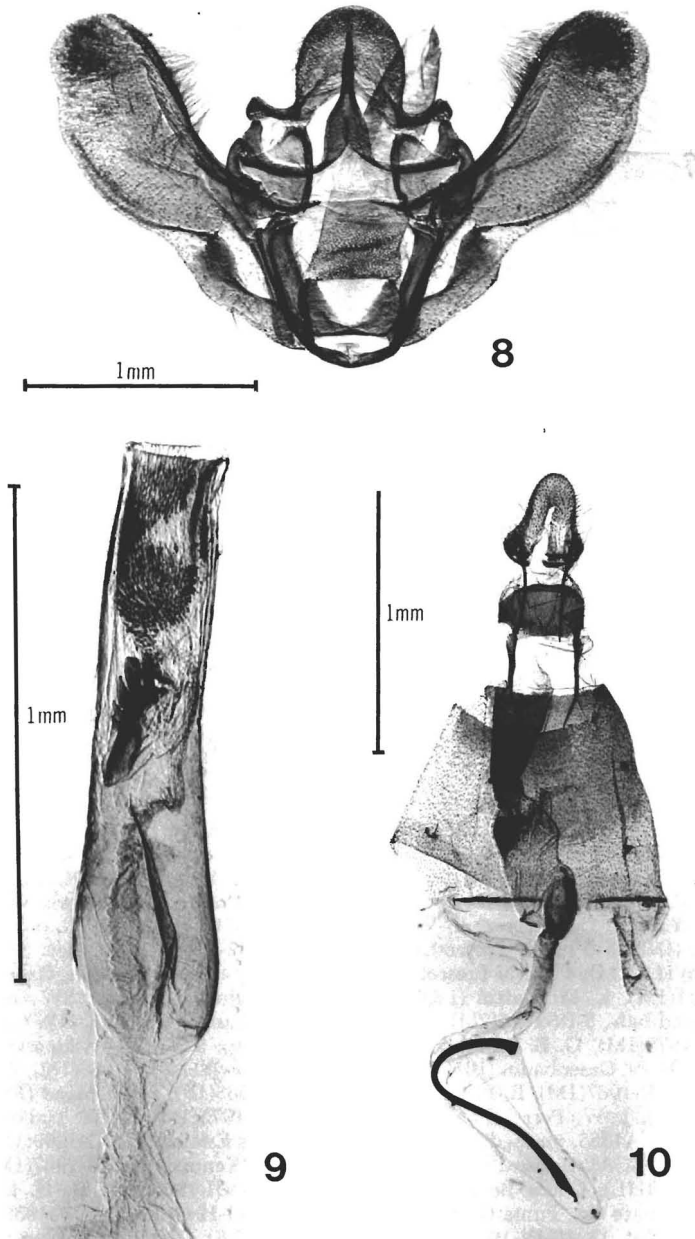
Type data. *Parachma ochracealis* Walker, holotype, male, no data, genitalia slide BM 10729, in the collection of the British Museum (Natural History); *Zazaca auratalis* Walker, holotype, female, no data, genitalia slide BM 10730, in the collection of the British Museum (Natural History); *Aspoia culiculis* Hulst, holotype, male, Florida (no other data), in the collection of the American Museum of Natural History; *Artopsis borregalis*



FIGS. 5-7. Wing venation: 5, male, *Parachma ochracealis*; 6, male, *Basacallis tarachodes*; 7, female forewing.

Dyar, four male syntypes [with identical labels], Los Borregos, Brownsville, Texas, June 5, 1905, H. S. Barber (I hereby designate one of these syntypes as the lectotype of *Artopsis borregalis* and have so labeled it), U.S. National Museum Type No. 11921; *Artopsis nua* Dyar, holotype, male, Lakeland, Florida, March 1913, C. N. Ainslie, U.S. National Museum Type No. 19081.

Specimens examined (182 males (M), 109 females (F); Fig. 11). UNITED STATES, *Arkansas*: Hempstead Co., Hope, 12-VI-1926(1F), L. Knobal (CNC). Logan Co., Mt. Magazine, Cameron Bluff, 6-VI-1964(1F), 10-VI-1964(1M), gen. sls. EDC662, 765, J. F. G. & T. M. Clarke (USNM). *Arizona*: Cochise Co., Paradise, VI(1F), gen. sl. EDC759 (USNM). Yavapai Co., Mayer, 18-VI-1959(1M), 25-VI-1959(2M), 11-VII-1959(1M), M. O. Glenn (INHS); 5 mi. N Prescott, 1-VII-1973(1F), 22-VI-1973(1F), elev. 5450 ft., L. M. Martin (LACM); 4 mi. N Prescott, 27-VI-1973(1F), 4 mi. N Prescott, Granite Dells, 4-VII-1971(1M), L. M. Martin (LACM). *Florida*: Alachua Co., 3 mi. SW Gainesville, Archer Road Lab., 8-IV-1975(2M), J. B. Heppner (JBH), u.v. light; 9 mi. NW Gainesville, 26/27-II-1975(1M), G. B. Fairchild (JBH), malaise trap; 9 mi. NW Gainesville, 5-IV-1975(1M), H. N. Greenbaum (JBH), malaise trap; Gainesville, 9-IV-1963(1M), R. P. Esser (FSCA), 13-IV-1967(1M), R. P. Esser (FSCA); 18-IV-1968(1F), F. W. Mead (FSCA); 26-VII-1967(1M), J. W. Perry (FSCA), blacklight, 3-VI-1975(1M), D. H. Habeck (JBH), DHH rearing A1383, on media; Gainesville, Pine Hills Estates, 20-VII-1969(1M), H. V. Weems, Jr. (FSCA). Brevard Co., Cocoa Beach, Cape Kennedy, 9-VII-1967(1M), R. H. Leuschner (RHL); Cocoa Beach, Cape Kennedy, 17-VII-1967(1M), R. H. Leuschner (RHL). Charlotte Co., Punta Gorda, III-1956(2M), 30-III-1941(1M), 14-IV-1956(1M,1F), 25-IV-1941(1M), 15-30-IV-1941(1F), H. Ramstadt (INHS). Clay Co., Keystone Heights, 6-III-1953(1M), H. E. Woodcock (FSCA), Lake Geneva, 16-III-1953(1M) H. E. Woodcock (FSCA). Dade Co., Florida City, 25-III-1936(1M), gen. sl. EDC743, J. G. Franclemont (CU); Homestead, 3-VII-1964(1M), 7-VII-1964(1M), 28-VII-1964(1M), 30-VII-1964(4M), 6-VIII-1964(1M), 13-VIII-1964(1M), 2-IX-1964(1M), 29-IX-1964(1F), D. O.



FIGS. 8-10. Genitalia of *Parachma ochracealis*: **8**, male, ventral view, aedeagus removed, Benton Co., MO, slide EDC 1017; **9**, aedeagus, lateral view of cornuti, Cochise Co., AZ, slide EDC 753; **10**, female, ventral view, spermatophore in corpus bursae, Benton Co., MO, slide EDC 1018.

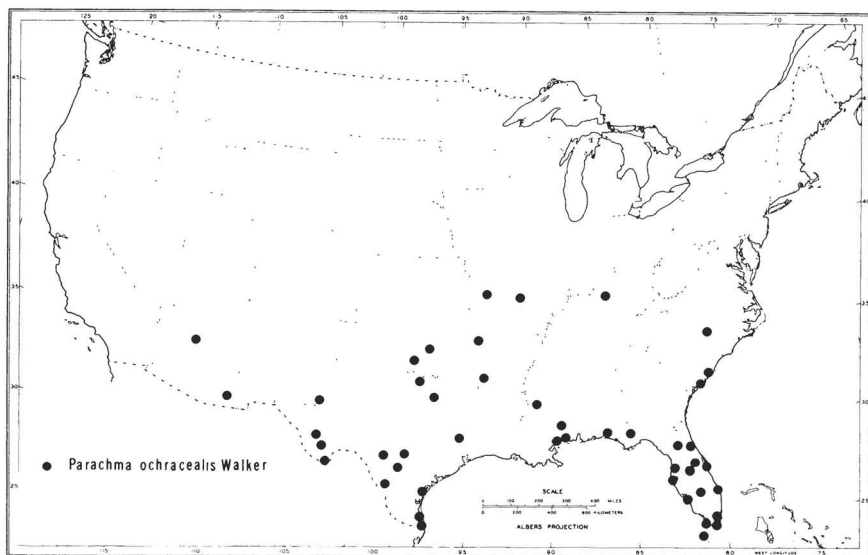


FIG. 11. Documented locality records for *Parachma ochracealis*. One dot represents more than one locality where collection sites are adjacent.

Wolfenbarger (MCZ). Hernando Co., Weeki Wachee Springs, 6-III-1955(1F), 14-III-1955(3M,1F), 20-VII-1955(1M), 29-III-1955(1M,1F), J. F. May (MCZ), 14-III-1955(1F), J. F. May (CNC), 14-III-1955(1M), J. F. May (MCZ), 14-III-1955(1F), J. F. May (CNC), 14-III-1955(1M), J. F. May (FSCA). Highlands Co., Archbold Biol. Stat., Lake Placid, 15-31-VII-1948(1M), A. B. Klotts (AMNH), Lake Placid, VII-1945(1F), gen. sl. 749, J. G. Needham (CU). Liberty Co., Torreya State Park, 1-V-1952(1M), gen. sl. EDC666, J. R. McGillis (CNC); 1-V-1952(1M), O. Peck (CNC), 1-V-1952(1M), G. S. Walley (CNC). Manatee Co., Oneco, IV(2M), IV-1954(1M,1F), 5-V-1953(2M), 14-V-1953(1M), 6-VI-1953(1M,2F), 3-VII-1953(1F), 15-VII-1953(6M), 3-VIII-1953(1F), 27-VIII-1954(1F), 15-X-1953(1M), 30-X-1954(1F), P. Dillman (MCZ,CNC,FSCA). Marion Co., 12 mi. NW Salt Springs, Lake Delany Campground, u.v. light, 12-IV-1974(1M,2F), J. B. Heppner (JBH). Martin Co., Port Sewall, 7-11-II-1950(1M), 20-III-1938(1M), J. Sanford (AMNH). Monroe Co., Big Pine Key, 4-IX-1972(1M), at u.v. light, J. B. Heppner (JBH); Key Largo, 19-I-1967(1F), 26-I-1967(2M), 1-II-1965(1M,1F), 4-II-1967(1F), 10-II-1967(2M,1F), 11-II-1968(1F), Mrs. S. Kemp (LACM), 13-II-1967(1M,1F), 14-II-1967(1M), 21-II-1966(1F), 27-II-1966(1F), 28-II-1967(1M), 11-III-1967(2M,1F), 14-III-1967(1F), Mrs. S. Kemp (MCZ), 31-III-1952(1M), G. S. Walley (CNC), 26-IV-1966(1F), 5-V-1966(1M), 12-V-1966(1F), 22-VI-1966(1M), 17-VII-1965(1F), 25-VII-1966(1M), 22-VIII-1966(1M), Mrs. S. Kemp (MCZ); No Name Key, 20-IV-1974(1M,1F), at u.v. light, J. B. Heppner (JBH); Plantation Key, 4-IV-1966(3M), in blacklight trap, Zeigler & Weems (FSCA); Tavernier, 13-16-VIII-1955(2M,3F), J. N. Todd (CNC,FSCA). Okaloosa Co., Shalimar, 11-V-1964(3M), H. O. Hilton (FSCA). Orange Co., Orlando, 31-III-1942(1M), gen. sl. EDC767, D. F. Berry (CNC); Winter Park, VII-1946(1M), A. B. Klotts (AMNH). Pasco Co., 2 mi. E Land O Lakes, 4-VII-1973(7M,6F), E. D. Cashatt (ISM), live oak forest. Pinellas Co., St. Petersburg, 12-IV-1915(1F), at light, gen. sl. EDC742, R. Ludwig (USNM); IV(1F), gen. sl. EDC110 (USNM). Polk Co., Lake Alfred, 5-VII-1928(1M,1F), gen. sl., EDC737,109, L. J. Bottimer (USNM). Putnam Co., 2 mi. S Welaka, 20-IV-1973(2F), at u.v. light, J. B. Heppner (JBH). Sarasota Co., no locality, 14-V-1946(1F), 25-V-1946(1M), C. P. Kimball (CNC,MCZ); Sarasota, 20-III-1946(1M), 26-III-1946(5M,2F), gen. sl. 744-8, 750-1, J. G.

Needham (CU), 5-VII-1951(1M), at light, H. L. King (MCZ); Siesta Key, 30-II-1966(1M), 30-III-1964(1M), 12-IV-1964(1M), 25-IV-1957(1M), C. P. Kimball (MCZ). Volusia Co., Cassadaga, 14-IV-1965(2M), 17-IV-1964(3M), 19-IV-1965(1M), 21-IV-1965(1M), 23-IV-1965(1F), 24-IV-1953(1F), 28-IV-1965(2F), 5-V-1961(1F), 6-V-1961(1F), 28-V-1962(1F), 1-VI-1962(1F), 5-VII-1964(1F), 11-VII-1953(1M), 13-VII-1953(1M), 20-VII-1953(1M), 2-VIII-1953(1M), 4-VIII-1955(1M), 7-VIII-1962(1F), 27-VIII-1962(1F), 28-VIII-1962(1F), S. V. Fuller (FSCA). Walton Co., DeFuniak Springs, 13-III-1958(1M), C. L. Dickenson (FSCA). No County Given, no date(1M,1F), P. Orange (INHS); V(1F), G. P. Hulst (AMNH); no date(3M), Acc. No. 26226, Mrs. A. J. Slosson (AMNH). *Kentucky*: Nelson Co., Leslie Farm, near Boston, 23-VI-1971(1M), G. Florence (UL). *Missouri*: Benton Co., 4 mi. NW Warsaw, 6-VI-1970(4M,1F), 9-VI-1971(2F), gen. sl. EDC1018, u.v. light; near Warsaw, 3-VI-1967(1M), 3-VI-1971(1M), 9-VI-1971(1M), gen. sl. EDC1017, J. R. Heitzman (JRH). Franklin Co., Meramac St. Park, 7-VI-1972(1F), J. R. Heitzman, old deciduous forest (JRH). *Mississippi*: Forrest Co., Hattisburg, 29-V-1966(1F), Roshore (BM), VI-1944(1M), C. D. Michener (AMNH). Hancock Co., Big Biloxi, 12-V-1972(1M), 13-V-1973(1F), 15-V-1971(1M), 20-V-1972(1M), Kergosien (BM). Harrison Co., Bay St. Louis, 1-VI-1978(2F), 2-VI-1971(1M), 3-VI-1971(1M), 4-VI-1979(1M,1F), 15-VI-1971(1M), 27-VI-1979(1M), 4-VII-1979(1F), 13-VII-1979(1M), 8-VIII-1971(1M), Kergosien (BM); Handsboro, 30-IV-1967(1M), Taylor (BM); Pass Christian, 1-VI-1979(2M), 25-VI-1979(1M), Kergosien (BM). Hinds Co., Clinton, 7-VI-1959(1M), 20-VI-1980(1F), B. Mather (BM), 15-VI-1979(1F), Hartfield (BM). Jackson Co., Biloxi, 24-V-1964(1M), Taylor (BM), Ocean Springs, 27-V-1960(1M), 28-V-1960(1M), 30-VIII-1960(1F), K. Dawson (BM), 5-IX-1960(1M), gen. sl. EDC769, 9-IX-1960(1M), 17-IX-1960(1M), gen. sl. EDC768, K. Dawson (CNC). *North Carolina*: Moore Co., Southern Pines, 8-VI-1915(1F), gen. sl. EDC760 (USNM). *New Mexico*: Eddy Co., Whites City, 15-V-1950(1F), E. C. Johnson (CNC). *Oklahoma*: Cleveland Co., Norman, 22-V-1949(1F), W. J. Reinthal (CNC). Comanche Co., Wichita Mts., 6-V-1950(3M), 26-V-1950(1M), W. J. Reinthal (CNC). *South Carolina*: Charleston Co., 7 mi. NE McClellanville, Wedge Plantation, 6-VII-1973(2M,1F), E. D. Cashatt (ISM). *Texas*: Blanco Co., no locality, VIII(1F), G. D. Hulst (AMNH). Brewster Co., Alpine, 22-V-1950(2F), E. C. Johnston (CNC); Big Bend, 15-30-VII-1926(1M), O. C. Poling (CNC). Cameron Co., Brownsville, 20-III-1908(1M), at light, no collector (USNM), 23-VIII-1931(1M), gen. sl. EDC734, T. N. Freeman (CNC), 7-XI(1M), gen. sl. EDC755 (USNM); San Benito, 8-VII-1915(1M), gen. sl. EDC732 (USNM), 16-VII-1923(2F), gen. sl. EDC101 (USNM). Dallas Co., Irving, 2-V(1F), no collector (FSCA). Jeff Davis Co., Fort Davis, 20-V-1950(1M), E. C. Johnston (CNC); Limpia Canyon, 20-V-1950(6M), E. C. Johnston (CNC). Montague Co., no locality, 10-V-1941(1M), L. H. Bridwell (CNC). Nueces Co., Corpus Christi, 8-V-1943(1M), gen. sl. EDC735, W. M. Gordon (USNM), VII-1943(1M), at light, W. M. Gordon (CU). Walker Co., Stubblefield Lake, 12-V-1977(1M), u.v. light, Peigler & Brown (USNM). Zavalla Co., Nueces River, 28-IV-1910(1M), gen. sl. EDC102, F. C. Pratt (USNM). No County Given: X(1F), F. G. Schaup, gen. sl. EDC757 (USNM); IV(1M,1F), G. D. Hulst (AMNH); V(1M), G. D. Hulst (AMNH); VII(1F), G. D. Hulst (AMNH); VIII(1M), G. D. Hulst (AMNH); no date(1M,6F), no collector (INHS).

Life history. Dr. Dale H. Habeck, University of Florida, has reared larvae on a slightly modified Shorey and Hale (1965) pinto bean medium. The natural food habits and larval habits are unknown.

Remarks

The synonymy is a result of the wide range of color variation and size. The moths at hand indicate a clinal color relationship between the western and the southeastern specimens. Specimens from the warmer and more humid areas in Mississippi, Texas, and Florida are darker and more reddish. The lighter colored and larger moths were collected from Arizona, New Mexico, and western Texas (Fig. 4). Some

smaller specimens taken on the Gulf Coast are grayish brown (Fig. 3) and were described as *Artopsis borregalis*, a separate genus and species by Dyar (1908). The reddish form (Figs. 1, 2) was named *culiculalis* by Hulst (1886) and *Artopsis nua* by Dyar (1914a). One specimen from southern Florida has an ochreous forewing with a dark reddish brown median band. A few specimens exhibit variation in the arching and distance between the antemedial and postmedial lines. On examining a large series of specimens, I discovered a gradation of all of these characters. As Kimball (1965) so aptly stated, "There is no question about the variation in color, as well as size, but it is difficult, if impossible, to fit specimens into the named forms." I have examined all type specimens and have studied the genitalia. There are no apparent morphological differences between the ochreous, reddish brown, and grayish brown forms.

This species comes in readily to a blacklight at night. The resting posture is distinctive, as for most of the Chrysauginae. The wings are positioned somewhat parallel to the substrate, not held roof-like over the abdomen. The legs are held at right angles from the body, displaying the heavy scale tufts on the mid and hindtibia.

Genus *Basacallis* Cashatt, NEW GENUS
(Figs. 6, 7, 10-17)

Type species: *Parachma tarachodes* Dyar, 1914b.

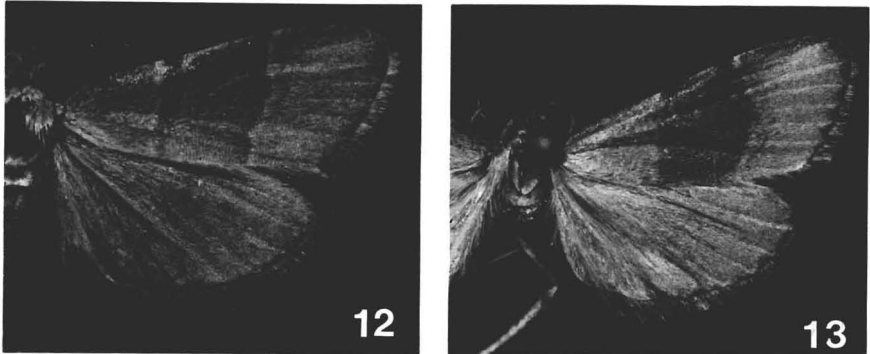
Description

Head. Labial palpus curved upward, about one-fourth longer than eye diameter, first and third segments subequal in length, second about one-third longer; maxillary palpus vestigial, hidden beneath scaling; proboscis well-developed; frons rounded and smoothly scaled; vertex roughly scaled; antenna filiform, about seven-tenths length of forewing, each segment with two rows of scales, uniformly pilose beneath; ocellus posteriad to antenna base, chaetosema formed by a row of fine setae along ocular suture posteriad to ocellus.

Thorax (Figs. 6, 7). Forewing long, relatively narrow and triangulate; Sc long; R_1 intercepts Sc in male, separate in female; R_3 and R_4 coincident and stalked with R_5 ; male discal cell about one-third wing length, female discal cell about one-half wing length; M_1 separate, arising from anterior angle of discal cell; M_2 , M_3 , Cu_1 , and Cu_2 all separate and arising from posterior angle of discal cell in male, Cu_2 arising proximad to posterior angle in female; 2A and 3A separate at base, briefly anastomosed a short distance from base; retinaculum normal. Hind wing with frenulum normal; Sc and Rs anastomosed beyond discal cell; discal cell extremely short with posterior angle long; M_2 coincident with M_3 and arising from the posterior angle of the discal cell; Cu_1 and Cu_2 separate. Legs moderately long; midtibia with two scale tufts.

Abdomen. Moderately long with no lateral scale tufts.

Male genitalia (Figs. 14, 15). Uncus relatively short, tapered posteriad, lateral arms strongly modified for articulation with gnathos; tegumen narrow dorsad; pedunculus strongly modified for articulation with gnathos; vinculum moderately broad; gnathos long, slender and aculeate with apex hooked dorsad; valva moderately long and wide with tip curved mediad, sacculus slightly expanded, transtilla weak; juxta narrower at base; aedeagus long and slender, distal one-third bent ventrad.



FIGS. 12, 13. Wing maculation of *Basacallis tarachodes*: 12, male; 13, female; both from Pensacola, FL.

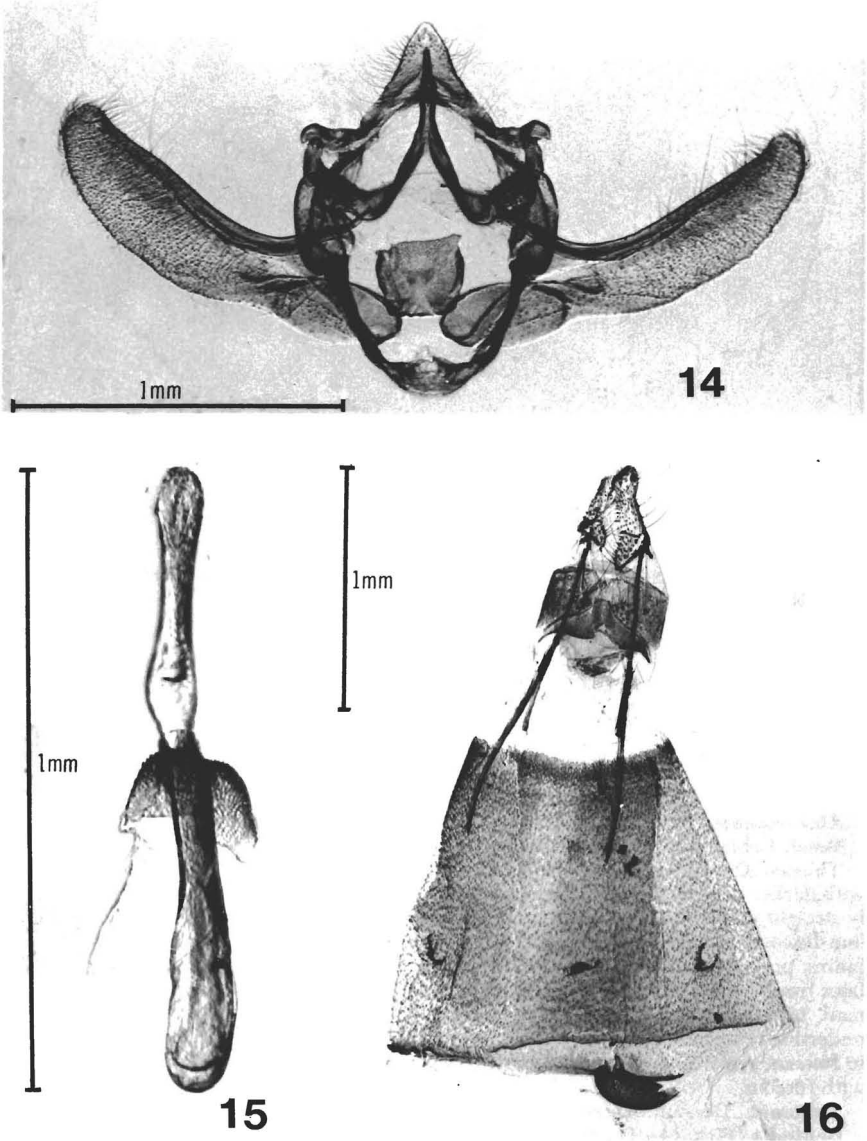
Female genitalia (Fig. 16). Ovipositor relatively short; apex of papillae anales unilobate; anterior and posterior apophysis slender and moderately long, approximately the same length; lamella postvaginalis triangulate with anterior margin cleft; ostium bursae relatively small and membranous; ductus bursae extremely slender.

Remarks

The type species of *Basacallis*, *tarachodes* Dyar, is not congeneric with *P. ochracealis*, but belongs in a separate genus allied to *Humiphila* Becker (1974), a genus described for a saprophagus species (*H. paleolivacea* Becker) in Costa Rica. The male and female genitalia show relatively close relationships between *H. paleolivacea* and *B. tarachodes* in the gross morphology. In particular, the aedeagus (Fig. 15) is acutely bent in these two species.

Of the North American fauna *Basacallis* shows the closest natural relationships with *Caphys* and *Acallis*. Hindwing M_2 and M_3 are coincident and the discal cell is reduced. Vein $M_2 + M_3$, and Cu_1 are short-stalked or arise separately from the posterior angle of the discal cell as in *Caphys* and *Acallis*. *Basacallis* is distinguished from the related genera by forewing M_1 and M_2 arising separately and not stalked as in *Caphys* and *Acallis*. The male genitalia more closely resemble *Acallis* except for the acutely bent aedeagus. The bursa copulatrix is relatively slender and delicate in *Acallis* and *Basacallis* except for the sclerotization of the ductus bursae just below the inception of the ductus seminalis. I have found the structure of the bursa copulatrix to be extremely delicate and difficult to dissect and interpret.

The name *Basacallis* is feminine in gender and formed by combining the Greek word for foundation and the genus name *Acallis* (*Bas* + *acallis*).



FIGS. 14-16. Genitalia of *Basacallis tarachodes*: 14, male, ventral view, aedeagus removed; 15, aedeagus, slide EDC 872; 16, female, ventral view, slide EDC 873; all from Pensacola, FL.

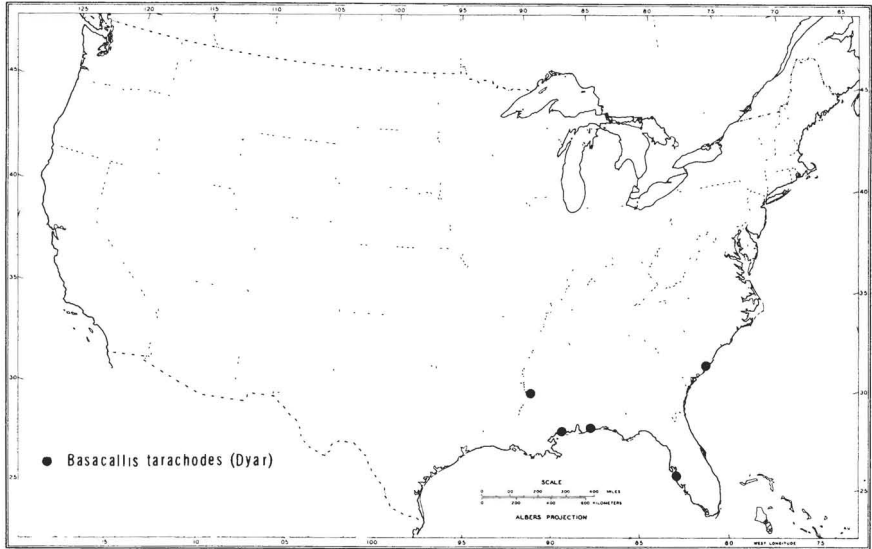


FIG. 17. Documented locality records for *Basacallis tarachodes*. One dot represents more than one locality where collection sites are adjacent.

Basacallis tarachodes (Dyar), NEW COMBINATION

Parachma tarachodes Dyar, 1914b:306.

Description

Alar expanse. 16 to 23 mm.

Head. Labial palpus gray, brownish laterad; frons, vertex, and antenna gray.

Thorax. Dorsum gray, ventrum reddish-brown. Forewing (Figs. 12, 13) light gray, with darker gray median band across middle one-third, antemedial and postmedial nearly straight and distinct in male, more diffuse and slightly excurved in female; terminal line fuscous; fringe reddish to purplish brown, sometimes invading distal portions and fading proximad; underside purplish red with short fuscous antemedial and postmedial lines from the costa. Hindwing grayish white with outer margin purplish, fading proximad, terminal line fuscous; fringe ochreous with base reddish brown; females darker, underside reddish to purplish brown with an ochreous median band. Legs reddish brown to fuscous, scale tufts fuscous, midtarsi ochreous; hindtibia and tarsi ochreous overscaled with fuscous.

Abdomen. Dorsum ochreous-gray, ventrum light reddish brown.

Genitalia (Figs. 14–16). As described for the genus.

Type data. Holotype, female, Portobelo, Panama, April 1912, genitalia slide EDC878, Type No. 16297, in the U.S. National Museum.

Material examined (8 males (M), 6 females (F); Fig. 17). UNITED STATES, *Florida*: Escambia Co., Pensacola, III-1961(1M), 12-IV-1962(1F), 19-IV-1961(1M), 20-IV-1961(1M), gen. & wing sl. EDC872, 20-VIII-1961(1F), gen. & wing sl. EDC873, S. Hills (MCZ). Manatee Co., Oneco, IV-1954(1M), 14-V-1953(1F), V-1954(1F), gen. sl. EDC878, P. Dillman (CNC). *Mississippi*: Harrison Co., Handsboro, 16-IV-1966(1M), Taylor (BM). Warren Co., Bovina, 14-IV-1972(1M), 26-VII-1976(1M), 21-IX-1972(1M); Vicksburg, 3-IX-

1981(1F), 20-IX-1978(1F), B. Mather (BM). *South Carolina*: Charleston Co., McClellanville, Wedge Plantation, 3-V-1973(1M), at light, R. B. Dominick (RBD).

Life history. Unknown.

Remarks

Unrecognized in many collections, this species was referred to in Kimball (1965) as, "5801,3 [X.] SP. — either *Xantippe*, *Parachma*, or a closely related genus." Of the few specimens examined, the size and maculation varies considerably between males and females. The alar expanse ranges from 16 to 18 mm in males and 19 to 23 mm in females. The forewing median band is sharply defined by distinct antemedial and postmedial lines in the male. In females the antemedial and postmedial lines are less distinct and the median band is darker than that of the male.

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