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Courtesy of Frances Werner Floyd Gerald Werner, 1991

FLOYD GERALD WERNER 1921–1992

BY CARL A. OLSON¹

Floyd Gerald Werner was born June 1, 1921, to Frank and Edith Mumper Werner. He attended the public schools in Ottawa, Illinois and here his career in insects began with his first publication in

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1938, an account of the habitat and behavior of *Doru aculeatum* (Scudder), an earwig found in the marshes of northern Illinois. His love of science was fostered by a high school teacher, Charles J. Alikonis.

Upon graduation Floyd enrolled at Harvard College. In 1943, he was awarded a bachelor's degree in Biology, magna cum laude. At this time he was initiated into Phi Beta Kappa and Sigma Xi. During these undergraduate years Floyd served as a student assistant in the Coleoptera Section of the Museum of Comparative Zoology, where he discovered many treasures that he would work on later in his career.

World War II interrupted Floyd's college career, giving him the opportunity to serve as an entomologist with the U.S. Army in the South Pacific. His medical survey unit worked with mosquitoes and malaria in Okinawa and Korea. In 1951 he returned to Okinawa at the request of the Pacific Science Board to study sweet potato pests, as sweet potatoes were the chief source of carbohydrates for a population still in post-war recovery.

In 1946–47, Floyd returned to the South Pacific as part of a scientific expedition charged with surveying the flora and fauna of the Philippine Islands, particularly Luzon, Mindanao and Palawa. The expedition was sponsored by the Field Museum of Natural History, Chicago and the Philippine Bureau of Science. Collections included everything from bizarre mayflies in the family Prosopistomatidae to giant fruit eating bats infested with Nycteribiidae to hoodless cobras. Stories about these times always brought a sparkle to Floyd's eyes.

Returning to Harvard in 1947 after these adventures, Floyd worked on a doctorate in Zoology. His specialty was insect taxonomy, in particular the Meloidae and Anthicidae. Many papers on these families followed, climaxed by his work on the meloids of Arizona, published in 1966, and several major generic revisions of anthicids. Floyd and fellow student William L. Nutting took long collecting trips in the summers of 1948 and 1949 across the United States, including side trips into Canada and Mexico. They spent several months in the Southwest. A white bread truck, Floyd's infamous collecting vehicle, took him and Bill into many grand collecting spots, including one in South Dakota that turned out to be accessible only by a horse cart with old car tires, a surprise that left these compadres looking for a tow out. In 1950, Floyd was awarded his Ph. D. in Zoology. His dissertation was entitled "Studies of Nearctic Anthicidae (Coleoptera)."

Floyd's first job was as Assistant Professor of Zoology at the University of Vermont in 1950. It was here that he met his future wife, Frances Watson, who was also teaching in the Zoology Department. This union produced three children, Susan, William and John. All three are commissioned law officers working for wildlife agencies in Colorado or Arizona. They are carrying on their father's interest in and love of the great outdoors.

In 1954, Floyd returned to the scene of those monumental trips of the late forties. He was hired by the University of Arizona entomology department, headed by Dr. Lawrence Carruth, to be part of the staff of the Arizona Economic Insect Survey, to expand the departmental insect collection as curator and to teach systematics and other courses as needed. Collecting emphasis was on insects important to the expanding agricultural community. He was promoted to Associate Professor in 1958 and Professor in 1962.

At the University of Arizona, Floyd built the research collection from one Cambridge Unit that held 28 Schmitt boxes into the finest Southwest insect collection in the United States, with well over half a million specimens and more than thirteen thousand species of Arizona insects. The spectacular array of Coleoptera is the high point. Floyd, though, was the collector's collector, and his forays through Arizona with George Butler and Bill Nutting in the early fifties and sixties added many representatives of Hymenoptera and Diptera, including parasites valuable for biological control. His responsibilities in the department led to publications on scarab beetles and white grubs, parasites of cotton insects and other insects important to agriculture in Arizona. Studies made by his graduate students included bee-meloid interactions, range plantinsect associations, spiders as predators in crops and various taxonomic treatments.

His true love still lay with the small beetles in the families Anthicidae and Aderidae. In 1963 a sabbatical in South America with stops in Brazil and Argentina helped provide material for his comprehensive study of the genus *Acanthinus* in the New World. Other studies on anthicids included a revision of the genus *Anthicus* in North America and a preliminary study of the anthicids of New Zealand.

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Floyd's final works included a revision of the Aderidae, a study made possible by the excellent collections of Karl Stephan, and a special paper on the genus *Elonus* dedicated to Dr. Frank M. Carpenter, Floyd's mentor while at Harvard. Floyd was also working on the aderids of New Zealand.

After his retirement in 1989, Floyd took on the unenviable task of Editor of the Coleopterist Bulletin, which he fulfilled to the end, his final volume of the Bulletin appearing the day after his death. He prided himself in making sure a job he took on was completed in a timely and professional manner.

Because being editor of a journal and continuing work on beetles wasn't enough, Floyd accepted the challenge of writing a book on the arthropods of the Southwest, for lay people to use to understand what Floyd enjoyed most, the world of insects. This book should be on the market in the spring of 1994.

Floyd was a member of many professional societies and served on a variety of their committees over the years. He was chairman of the Committee on Common Names of Insects and edited the 1982 revision for the Entomological Society of America. He was particularly interested in the survival of taxonomy and the continuation of historical collections. He had visited a number of the collections of the world including those in London, Budapest and Paris, and contributed his curatorial skills and knowledge of beetles wherever possible at those institutions.

Some of the statistics on Floyd's professional accomplishments include 100 professional papers on a variety of insects, from beetles to mantispids, parasitic wasps to spiders. His knowledge of the arthropod world was truly awesome. He described 164 species of meloids, anthicids, aderids and cebrionids, and three new genera in the former three families. His name adorns such insects as an Arizona stonefly, numerous meloids, anthicids and many other taxa.

As a citizen of Tucson, Floyd was active in groups such as the Tucson Men's Garden Club, Tucson Cactus and Succulent Society, the Tucson Natural History Society and many others. He was asked to speak before many local groups about insects. He was an original faculty member for the Tucson Audubon Society's Desert Ecology Institute.

Floyd loved to hunt and fish. He spent much of his leisure time outdoors experiencing the Arizona desert as a naturalist. He fished for sunfish and bass, bow-hunted for elk, antelope and javelina, and stalked the elusive black-tailed jackrabbit.

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Floyd's lasting obsession was his collection of Euphorbiaceae that occupied several greenhouses and a great part of the acre of yard around the Werner casa. Floyd started many rare plants from seed, priding himself in this conservation effort. He finally got to see euphorbias first hand in the wild when he traveled to South Africa with his wife and the Nuttings to attend the annual meeting of the Succulent Society in Johannesburg in 1991.

It seems quite amazing that Floyd waited until retirement to suddenly be afflicted with very untimely ills. He was hunting squirrels the weekend before he needed his gall bladder removed. This little incident caused him to miss a couple weeks of his last systematics class, a rare occurrence indeed. A year later he underwent triple-bypass heart surgery, another 'minor' setback for him. He came out of those like the stout-hearted German he was, and went back after life's challenges. His last battle, though, with cancer was a losing one and Floyd died on December 20, 1992.

It seems only appropriate to end this history of my mentor, colleague and good friend with an archygram from Floyd's favorite philosopher, Archy the Cockroach.

> 'insects have their own point of view about civilization a man thinks he amounts to a great deal but to a flea or a mosquito a human being is merely something good to eat'

the lives and times of archy and mehitabel by don marquis

PUBLICATIONS

- Werner, F. G. 1938. A report on the earwig *Doru aculeatum* (Scudder), from a marsh in Northern Illinois. Trans. Illinois State Acad. Sci. 31: 249.
- ———. 1943a. A revision of the genus *Pleuropompha* LeConte (Col., Meloidae). Psyche 50: 30–3.
- -----. 1943b. Three new species of Cebrio (Col., Cebrionidae). Psyche 50: 34-6.

——. 1945. A revision of the genus *Epicauta* in America north of Mexico (Col., Meloidae). Bull. Mus. Comp. Zool. 95: 421–517.

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. 1948. A note on the type specimen of *Bagous sellatus* LeConte (Col., Curculionidae). Psyche 54: 262.

Werner, F. G., and R. L. Edwards. 1948. *Leptinus americanus* LeConte taken on a shrew (Col., Leptinidae). Psyche 55: 51–4.

Werner, F. G. 1949a. *Epicauta diversicornis* and its allies in the Neotropical Region (Col., Meloidae). Psyche 56: 74–80.

——. 1949b. Additions to *Epicauta*, with new synonymy and a change of names (Col., Meloidae). Psyche 56: 93–111.

-----. 1951. Additions to the Nearctic Meloidae (Col.). Psyche 57: 131-6.

-----. 1954a. Further notes on North American *Epicauta*, with new synonymy (Col., Meloidae). Psyche 60: 105–14.

------. 1954b. A review of the subgenus *Gnathospasta* of the genus *Epicauta* (Col., Meloidae). Coleop. Bull. 8: 25-7.

-----. 1954c. *Pyrota plagiata* (Haag) a valid Mexican species (Col., Meloidae). Bull. Brooklyn Entomol. Soc. 49: 102–4.

-----. 1955. Studies in the genus *Epicauta* of the North American Continent (Col., Meloidae). I. The Caviceps-Group. Bull. Brooklyn Entomol. Soc. 50: 1–12.

------. 1956. Two new species of *Emelinus* from Arizona (Col., Aderidae). Psyche 63: 30-6.

Butler, G. D., and Werner, F. G. 1957. The syrphid flies associated with Arizona crops. Arizona Agric. Exp. Sta. Tech. Bull. 132, 12 pp.

Werner, F. G. 1957a. *Lappus thicaniformis*, a new species from Michoacan. (Col., Anthicidae). Coleop. Bull. 10: 87–9.

——. 1957b. A new species of *Epicauta* from the Gulf Coast of Texas (Col., Meloidae). Proc. Entomol. Soc. Washington. 59: 97–8.

——. 1957c. Two cases of intestinal myiasis in man produced by *Hermetia* (Diptera, Stratiomyiidae). Psyche 63: 112.

Werner, F. G., and Butler, G. D. 1958. The reduviids and nabids associated with Arizona crops (Hemiptera). Arizona Agric. Exp. Sta. Tech. Bull. 133, 12 pp.

Werner, F. G. 1958a. A revision of the Nearctic species of *Tomoderus* (Col., Anthicidae). Psyche 64: 51–9.

-----. 1958b. A new genus and species of Anthicidae from western United States (Col.). Psyche 64: 97–101.

------. 1958c. Epicauta dugesi a valid species (Col., Meloidae). Psyche 64: 107-8.

-----. 1958d. Some notes on Boheman's Anthicidae from "California" (Col.). Proc. Entomol. Soc. Washington 60: 213–16.

-----. 1959. Studies in the genus *Epicauta* of the North American Continent (Col.). II. The Uniforma-Group. Coleop. Bull. 12: 1–19.

Butler, G. D.; Todd, F. E.; McGregor, S. E.; and Werner, F. G. 1960. *Melissodes* bees in Arizona cotton fields (Hymenop., Apidae). Arizona Agric. Exp. Sta. Tech. Bull. 139, 11 pp.

Werner, F. G. 1960a. A new character for the identification of the boll weevil and the thurberia weevil (Col., Curculionidae). Ann. Entomol. Soc. America 53: 548–9.

——. 1960b. *Hilarocassis exclamationis* (L.), a tortoise beetle not previously reported from the United States (Col., Chrysomelidae). Coleop. Bull. 14: 94.

------. 1960c. Carpophilus longiventris in saguaro blossoms (Col., Nitidulidae). Psyche 66: 35-6.

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———. 1960d. Emelinus melsheimeri (Lec.) in Arizona (Col., Aderidae). Psyche 66: 36.

——. 1961a. A note on the prey and a nesting site of *Cerceris truncata* Cameron (Hymenop., Sphecidae). Psyche 67: 43–4.

-----. 1961b. A revision of the genus Vacusus Casey (Col., Anthicidae). Ann. Entomol. Soc. America 54: 798–809.

———. 1961c. Anthicus tobias Marseul, another tramp species (Col., Anthicidae). Psyche 68: 70–2.

Butler, G. D., and Werner, F. G. 1961a. Pentatomids associated with Arizona crops (Hemip.). Arizona Agric. Exp. Sta. Tech. Bull. 140, 16 pp.

------. 1961b. The distribution and host plants of May beetles in Arizona (Col., Scarabaeidae). Arizona Agric. Exp. Sta. Tech. Bull. 147, 19 pp.

Werner, F. G. 1962a. The first instar larva of *Epicauta*, subgenus *Gnathospasta* (Col., Meloidae), Verhandl. XI. Int. Kongress Entomol. Wien 1960, vol. 1: 106–9.

-----. 1962b. A redefinition of *Acanthinus* as an important element in the anthicid fauna of the Neotropical Region (Col., Anthicidae). Verhandl. XI. Int. Kongress Entomol. Wien, vol. 1: 109–12.

----. 1962c. The Aderidae of Bata Caves, Malaya (Col.). Pacific Insects 4: 121-7.

——. 1962e. A revision of the Nearctic species of *Sapintus* (Col., Anthicidae). Ann. Entomol. Soc. America 55: 492–8.

——. 1964. A revision of the North American species of *Anthicus*, s. str. (Col., Anthicidae). Misc. Publ. Entomol. Soc. America 4: 139–242.

Werner, F. G., and Butler G. D. 1965. Some notes on the life history of *Plega* banksi (Neurop., Mantispidae). Ann. Entomol. Soc. America 58: 65-8.

Butler, G. D., and Werner, F. G. 1965. Light-trap records of three cactus-eating moths in Arizona (Lepidop., Pyralidae). Pan-Pac. Entomol. 41: 10–12

Werner, F. G. 1965a. A key to the described species of New World Anthicidae of the genus Acanthinus LaFerté, with new synonymy (Col.). Pap. Avuls. Dept. Zool., Secr. Agric. Sao Paulo 18 (Article 1): 1–15.

——. 1965b. Insects of Micronesia, Coleoptera: Anthicidae. Insects of Micronesia 16: 255–69.

——. 1965c. Family Anthicidae, pp. 122–9. *In* Hatch, M. H. The Beetles of the Pacific Northwest, Part IV. U. Washington Pubs. Biol. 16. U. Washington Press, Seattle.

———. 1966a. Notes on the South American species of *Vacusus*, with a new species and two new synonyms (Col., Anthicidae). Ann. Entomol. Soc. America 59: 218–22.

——. 1966b. A new genus of Anthicidae from Chile (Col.), Ann. Entomol. Soc. America 59: 222–6.

-----. 1966c. A redefinition of *Ischyropalpus*, and six new species (Col., Anthicidae). Psyche 72: 191–209.

——. 1966d. Anthicus postsignatus and similar species in southern South America (Col., Anthicidae). Ann. Entomol. Soc. America 69: 362–8.

——. 1966e. A preliminary account of the Anthicidae of Venezuela (Col.). Rev. Fac. Agron., Univ. Central Venezuela 3(4): 9–23.

-----. 1966f. A revision of *Acanthinus* (Col., Anthicidae). I. The Bimaculifer-Group. Ann. Entomol. Soc. America 59: 509–13.

——. 1966g. A revision of *Acanthinus* (Col., Anthicidae). II. The Angusticollis-Group. Ann. Entomol. Soc. America 59: 746–51.

-----. 1966h. A revision of *Acanthinus* (Col., Anthicidae). III. The Spinicollis-Group. Ann. Entomol. Soc. America 59: 1267–76.

- Butler, G. D.; Werner, F. G.; and Levin, M. D. 1966. Native bees associated with safflower in south central Arizona. (Hymenop., Apoidea). Jour. Kansas Entomol. Soc. 39: 43–6.
- Werner, F. G.; Enns, W. R.; and Parker, F. H. 1966. The Meloidae of Arizona (Col.). Arizona Agric. Exp. Sta. Tech. Bull. 175, 96 pp.
- Werner, F. G. 1967a. A revision of Acanthinus (Col., Anthicidae). IV. Ann. Entomol. Soc. America 60: 225–73.
- ———. 1967b. The zoological results of Gy. Topal's collectings in South Argentina. 21. Coleoptera: Anthicidae. Acta Zool. Acad. Scientiarum Hungaricae 13: 237–43.
- ——. 1967c. A key to the Anthicidae of Hawaii, with one new species (Coleoptera). Proc. Hawaiian Entomol. Soc. 19: 310–16.
- -----. 1967d. A revision of *Acanthinus* (Coleoptera : Anthicidae). V. The Striatopunctatus Group and some related forms. Ann. Entomol. Soc. America 60: 535–49.
- ------. 1967e. A revision of *Acanthinus* (Col., Anthicidae). VI. Ann. Entomol. Soc. America. 60: 1217–34.
- Butler, G. D.; Ritchie, P. L.; and Werner, F. G. 1968. The effect of temperature on the life cycle of the alfalfa seed chalcid and its parasites. Arizona Agric. Exp. Sta. Tech. Bull. 185–17 pp.
- Werner, F. G. 1968. The Arizona brown spider. Progr. Agric. Arizona 20: 12-13.
- Humphrey, R. R., and Werner, F. G. 1969. Some records of bee visitations to the flowers of *Idria columnaris*. J. Arizona Acad. Sci. 5: 243–4.
- Werner, F. G. 1970a. A revision of Acanthinus (Col., Anthicidae). VII. Ann. Entomol. Soc. America 63: 111–28.
- ———. 1970b. A revision of *Acanthinus* (Col., Anthicidae). VIII. The Australian species. Ann. Entomol. Soc. America 63: 486–90.
 - -----. 1970c. A revision of *Acanthinus* (Col., Anthicidae). IX. The Leporinus, Scitulus, Cuyabanus and Myrmecops-Groups. Ann. Entomol. Soc. America 63: 718-31.
 - ——. 1970d. A revision of *Acanthinus* (Col., Anthicidae). X. Albicinctus-Group and conclusion. Ann. Entomol. Soc. America 63: 899–76.
 - 1970e. Terrestrial insects of the Rita Blanca Lake deposits, pp. 123–130, pl. 16–20. In: Anderson, R. Y. and D. W. Kirkland. Paleoecology of an early Pleistocene lake on the High Plains of Texas. Mem. Geol. Soc. America 113, 215 pp.
- Rosander, R. W., and Werner, F. G. 1970. Larvae of some Arizona Species of *Phyllophaga* (Col., Scarabaeidae). Ann. Entomol. Soc. America 63: 1136–42.
- Drake, J. L.; Ware, G. W.; and Werner, F. G. 1971. Insecticidal effects on soil arthropods. J. Econ. Entomol. 64: 842-5.
- Werner, F. G. 1973. Revision of the Nearctic Ischyropalpus (Col., Anthicidae). Ann. Entomol. Soc. America 66: 1055–64.
 - -----. 1974a. Three new *Epicauta* from Mexico (Col. Meloidae). Proc. Entomol. Soc. Washington 75: 458–63.

——. 1974b. Further description of *Epicauta prosopidis* Werner (Col., Meloidae). Proc. Entomol. Soc. Washington 76: 40.

-----. 1974c. A new genus of primitive Meloidae from West Texas. (Col.). Psyche 81: 147-54.

- Erickson, E. H., and Werner, F. G. 1974a. Bionomics of Nearctic bee-associated Meloidae (Col.); life histories and nutrition of certain Meloinae. Ann. Entomol. Soc. America 67: 394–400.
 - . 1974b. Bionomics of Nearctic bee-associated Meloidae (Col.); life histories and nutrition of certain Nemognathinae. Ann. Entomol. Soc. America 67: 401–6.
- ——. 1974c. Bionomics of Nearctic bee-associated Meloidae (Col.). A comparative analysis of larval host-seeking behavior among the Meloinae and Nemognathinae. Ann. Entomol. Soc. America 67: 903–8.
- Werner, F. G. 1975a. A review of the Chilean Anthicidae (Col.). Rev. Chilena de Entomol. 8: 27–34.

——. 1975b. New synonymy in the Nearctic Anthicidae. Proc. Entomol. Soc. Washington 77: 290.

- 1975c. Additions to the Nearctic Anthicus (Col., Anthicidae). Proc. Entomol. Soc. Washington 77: 472–7.
- Erickson, E. H.; Enns, W. R.; and Werner, F. G. 1976. Bionomics of the bee-associated Meloidae (Col.); bee and plant hosts of some Nearctic meloid beetles—a synopsis. Ann. Entomol. Soc. America 69: 959–70.
- Sluss, T. P.; Rockwood Sluss, E. S.; and Werner, F. G. 1977. Enzyme variation in semi-isolated populations of the mountain fly, *Chamaemyia herbarum*. Evolution 31: 302–12.
- Mason, C. E., and Werner, F. G. 1978. Monitoring insect parasites in a cotton pest management program. Arizona Agric. Exp. Sta. Res. Report 276, 28 pp.
- Werner, F. G. 1978. Keys for the identification of parasitic insects in Arizona agricultural areas. Arizona Agric. Exp. Sta. Tech. Bull. 236, 38 pp.
- Werner, F. G.; Moore, L.; and Watson, T. F. 1979. Arizona Cotton Insects. Arizona Coop. Ext. Serv. Bull. A23R, 38 pp.
- Hetz, M. W., and Werner, F. G. 1979a. Xeranobium laticeps (Col., Anobiidae) reared from Haplopappus tenuisectus (Compositae), with description of the larva. Proc. Entomol. Soc. Washington 81: 583-7.
- ——. 1979b. Insects associated with roots of some rangeland Compositae in southern Arizona. Southwestern Entomol. 4: 285–8.
- Werner, F. G. 1979c. Tachinid flies collected in a Phoenix, Arizona cotton field. Southwestern Entomol. 4: 282–4.
- Hetz, M. W., and Werner, F. G. 1980. Descriptions of the larvae of two olethreutine moths reared from roots of woody Compositae. Ann. Entomol. Soc. America 73: 536–40.
- Thomas, D. B., and Werner, F. G. 1981. Grass feeding insects of the western ranges: an annotated checklist. Arizona Agric. Exp. Sta. Tech. Bull. 243, 50 pp.
- Werner, F. G., editor. 1982. Common names of insects and related organisms 1982. Entomol. Soc. America, 132 pp.
- Butler, G. D.; Henneberry, T. J.; Werner, F. G.; and Gillespie, J. M. 1982. Seasonal distribution, hosts, and identification of parasites of cotton insects. USDA, ARS, Agric. Rev. & Manuals: ARM-W-27, 54 pp.
- Werner, F. G. 1983a. Neotropical Sapintus, with a general key to species (Col., Anthicidae). Proc. Entomol. Soc. Washington 85: 405–25.

-----. 1983b. Anthicidae of the Greater Antilles, and a new species from Venezuela (Col.). Psyche 90: 211-25.

-----. 1986. Frank Henry Parker, 1910–1984. Pan-Pac. Entomol. 62: 1–5.

- Stanghellini, M. E.; Werner, F. G.; Turner, B. C.; and Watson, M. C. 1988. Seedling death of *Salicornia* attributed to *Metachroma* larvae. The Southwestern Entomologist. 13: 305.
- Werner, F. C. 1990. Revision of the Aderidae of Eastern North America. J. New York Entomol. Soc. 98: 187–232.
 - ——. 1992. The Nearctic species of *Elonus* (Coleoptera: Aderidae) Psyche. 99: 245–264.

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New genera and species of insects named by Floyd G. Werner

Anthicidae

1) Acanthinus acutus 2) A. ambiguus 3) A. australiensis 4) A. bechyneorum 5) A. blackburni 6) A. bokermanni 7) A. bordoni 8) A. browni 9) A. ceibensis 10) A. continuus 11) A. cristatus 12) A. darlingtoni 13) A. diffusus 14) A. egleri 15) A. elegantulus 16) A. fairchildi 17) A. fastigatus 18) A. fimbriatus 19) A. formiciformis 20) A. freyorum 21) A. fucosus 22) A. geijskesi 23) A. glareosus 24) A. hapacarensis 25) A. harringtoni 26) A. imitans 27) A. invitus 28) A. klagesi 29) A. kraussi 30) A. lanceatus 31) A. lucidus 32) A. nevermanni 33) A. paraguayensis 34) A. parianae 35) A. pilositibia 36) A. pullus 37) A. rohweri 38) A. rosalesi 39) A. schwarzi 40) A. silvai 41) A. simplicisternum 42) A. solus

44) A. veracruzensis 45) A. zeteki 46) Anthicus antilleorum 47) A. antiochensis 48) A. barbatus 49) A. blackwelder 50) A. comanche 51) A. custodiae 52) A. darlingtoni 53) A. hispaniolae 54) A. hondurensis 55) A. margaritae 56) A. musculus 57) A. panamensis 58) A. potosianus 59) A. soledad 60) A. sonorensis 61) A. torquatus 62) Chileanthicus penai* 63) Ischyropalpus alvarengai 64) I. cochisei 65) I. dispar 66) I. decoratus 67) I. eryngii 68) I. freyi 69) I. gemellus 70) I. placidus 71) I. puteifer 72) I. tibialis 73) Lappus thicaniformis 74) Mecynotarsus hispaniolae 75) Sapintus alvarengai 76) S. arizonicus 77) S. balteatus 78) S. canaliculatus 79) S. capitatus 80) S. caudatus 81) S. creber 82) S. curvipilosus 83) S. golbachi 84) S. lemniscatus 85) S. lobatus 86) S. malkini

- 87) S. ovalis
- 88) S. sentis
- 89) S. similis
- 90) S. spinulosus
- 91) S. subulatus
- 92) Tomoderus inhabilis
- 93) Vacusus martinsi
- 94) V. vulgaris

43) A. spinosior

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- 1) Epicauta afoveata
- 2) E. alpina
- 3) E. andersoni
- 4) E. arizonica
- 5) E. aspersa 6) E. balli
- 7) E. barberi
- 8) E. bipunctata
- 9) E. bispinosa
- 10) E. brunnea
- 11) E. calcarata
- 12) E. californica
- 13) E. cicatrix
- 14) E. ennsi
- 15) E. ensiformis
- 16) E. ficta
- 17) E. floridensis
- 18) E. fortis
- 19) E. hubbelli
- 20) E. isthmica
- 21) E. kansana
- 22) E. laevicornis
- 23) E. lauta rossi
- 24) E. liebecki
- 25) E. nigritibialis
- 26) E. nogales
- 27) E. normalis
- 28) E. occidentalis
- 29) E. parkeri
- 30) E. phoenix
- 31) E. polingi
- 32) E. prosopidis
- 33) E. punctipennis
- 34) E. senilis
- 35) E. selanderorum
- 36) E. solani
- 37) E. tenebrosa
- 38) E. tenuemarginata
- 39) E. texana
- 40) E. triquetra
- 41) E. uniforma
- 42) E. ventralis
- 43) Lytta mirifica
- 44) L. navajo

- 45) Pleuropompha tricostata
- 46) Thambospasta howdeni*

Cebrionidae

- 1) Cebrio abnormis
- 2) C. atokanus
- 3) C. bruesi

Aderidae

- 1) Aderus mcclurei
- 2) Elonus chisosensis
- 3) E. excavatus
- 4) E. hesperus
- 5) E. simplex
- 6) Emelinus butleri
- 7) E. huachucanus
- 8) Euglenes batuensis
- 9) E. cephalicus
- 10) E. malayanus
- 11) Gymnoganascus stephani*
- 12) Vanonus balteatus
- 13) V. macrops
- 14) V. musculus
- 15) V. oklahomensis
- 16) V. uniformis
- 17) V. valgus
- 18) Zonantes floridanus
- 19) Z. mississippiensis
- 20) Z. ouachitanus
- 21) Z. pallidus

*Indicates genus named by F. G. Werner



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