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1910-1968

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Howard Lester McKenzie, Jr., age 58, died of cancer in Sacramento, California on 17 October 1968 at the peak of his scientific career.

He was born in Lennox, Iowa on 25 May 1910 and was one of seven children. While in Iowa, Howard McKenzie, Sr. supported his family on the income derived from a combination furniture and hardware store. He also made several real estate and stock investments which were to support his family long after his death.

In 1923 the McKenzie family loaded their belongings into a rented boxcar and moved to Pomona, California. Within a few years after their arrival, Howard senior died and although this left Etta McKenzie with a large family to support, her careful management of previous investments left her with no financial problems.

Throughout grammar and high school, Howard was not overly concerned with his education. He was on the high school basketball team and spent most of his spare time doing odd jobs. When he finished his secondary education he had no intention of going on to college, but through the strong urging of his mother he entered Chaffey Junior College in 1928. While at Chaffey he was impressed by the teaching of Professor George P. Weldon, Economic Entomologist and Pomologist, who inspired Howard to continue his education. When Howard was asked by Dean Booth what his intentions for the future were, he could not answer except to say that he had enjoyed the subject matter of the courses taught by Professor Weldon. Since, at the time, there was a large demand for entomologists, Dean Booth suggested that he continue his education with entomology as his field of emphasis.

So with this encouragement and inspiration, Howard entered the University of California at Berkeley where he soon came under the influence of Professor E. O. Essig. In later years, Howard often spoke kindly of Professor Essig and frequently reminisced about the summer field course and the many evening discussions led by Essig. In a letter written to Essig, Howard expressed his appreciation in these words, "I just can't thank you enough for all that you have done for me, Professor Essig, and remember if ever I can help you in any way, just let me know, and I will surely do so." Other instructors at Berkeley who helped kindle Howard's entomological enthusiasm were Professors W. B. Herms and E. C. Van Dyke.

One of the requirements of those days was a Bachelors thesis. Under the direction of Professor Essig, Howard did a rather extensive paper on the biology of the ladybird beetle *Hyperaspis lateralis*. This was later to be the basis for his first publication (1).

After graduating from Berkeley in 1932, Howard accepted a job at the Riverside Experiment Station as Laboratory Assistant under the auspices of Professor H. J. Quayle. Although his salary was meager, he enjoyed his stay at the experiment station. He continued to work on biological problems and as a result published major works on avocado insects (6) and the gladiolus thrips (5). In his own words he describes his duties at Riverside: "Recorded information on life histories and habits of California avocado insects and mites, the gladiolus thrips and other insects attacking certain ornamental and subtropical plants, conducted systematic work in identifying insects submitted to the University, conducted extensive fumigation experiments with HCN to control scale insects on avocado." The diversity of tasks performed in this position greatly broadened his entomological background.

While at Riverside he began courting Virginia Burdette Rountree whom he married in 1933. These were wonderful days for Howard, but he was bothered by extended stays at Encinitas Research Station which was too far from Riverside to allow for daily commuting.

After Howard had worked in Riverside for over a year, Professor Quayle recognized his potential as an entomologist, and with the hope of encouraging him to continue his formal studies, offered to pay him 75 dollars a month to return to Berkeley and get a Masters degree. Realizing the need for more education, he and Virginia accepted the offer and spent the year of 1933-34 in Berkeley. His Masters thesis was on a portion of the work which he had undertaken at Riverside and was entitled, "Biology and control of the omnivorous looper *Sabulodes*

*caberata* Guenée, on avocado." As before his major professor was E. O. Essig.

In 1934 he returned to Riverside and worked on diverse problems. During this period some of his attention was turned toward strictly taxonomic problems which were ultimately his greatest love. In later years he stated that his discovery of a method to distinguish between red and yellow scales was one of his most important achievements (12). The known taxonomic differences up to that time were extremely subtle, requiring a detailed knowledge of the group. Since only red scale was a serious economic pest, the need for a simple, accurate means to distinguish it from yellow scale was a pressing problem especially for people involved with quarantine and biological control programs.

While Howard was working on the red scale paper in 1936, he became associated with Professor G. F. Ferris of Stanford University. Ferris reviewed the paper and made several helpful suggestions. From that time until the death of Professor Ferris in 1958, they remained close friends. Ferris urged Howard to continue his taxonomic studies on the scale insects and taught him a great deal about the Coccoidea. Howard often described his first attempt to draw a scale under the direction of Ferris. Much to Howard's chagrin his first illustration was rejected with instructions to redo the entire illustration. Greatly disappointed, "Mac," as Ferris often called him, did so but it was again rejected. Finally his third attempt was accepted. This lesson greatly impressed Howard and even his last illustrations reflect the care demanded by Ferris many years ago.

In 1937 Howard accepted a position as Assistant Entomologist with the U. S. Department of Agriculture to work on scale insects attacking pines. Although his winter headquarters were in Berkeley, he spent his first two summers in Arizona working on a margarodid in the genus *Matsucoccus*. During this period he did some excellent biological work and proved that this scale was causing serious damage to the pines. In so doing he was also able to work out the biology of several species. In his spare time he continued taxonomic studies and published an extensive revision of the diaspidid genera *Aonidiella* and *Chrysomphalus* (18).

These were pleasant days for Howard; when he was not working, he and Virginia spent their time on picnics in many of the scenic areas near Prescott, Arizona.

During the first winter in Berkeley, Howard spent all of his spare time with Professor Ferris; they frequently worked together long after

midnight. Howard was becoming an important entomologist in his own right under the influence of two of the foremost workers of that time—E. O. Essig and G. F. Ferris. Also, his interest in taxonomy was becoming much stronger even though he was employed primarily to do biological research.

From 1939 to 1942, Howard continued his work with the margarodids believing, but never substantiating, the fact that *Matsucoccus* on an individual tree often preceded attack by bark beetles. During this period he continued his field work, but it was apparent that his greatest interest was taxonomy. He disliked having to stay away from his family for extended periods of time and therefore began to search for new employment.

With a broad entomological background he qualified for Assistant Systematic Entomologist with the California State Department of Agriculture, and he began working in this position 1 July 1942. He writes in a letter to Professor Quayle, "It certainly is a real pleasure to be working with Entomologists who appreciate what scale insects can do, and also who appreciate the value taxonomy has in connection with many of the economic insect problems." For the next 16 years Howard was able to concentrate on taxonomic problems and since this was his greatest love, his publications were both plentiful and valuable. He continued to confer with Professor Ferris and as a result their friendship became stronger; rather than teacher and student, they were now colleagues. The diversity of Howard's interests within the Coccoidea made him one of the leading coccidologists in the world; he had published on the taxonomy of the Diaspididae, Asterolecaniidae, and Margarodidae, with studies on zoogeography, life histories, plant damage, and possible mechanisms of control. During his employment with the California State Department of Agriculture, his major contribution was his first book entitled, "The Armored Scale Insects of California" (49).

Although his publications during this period were restricted to the scale insects, his identification responsibilities required an extensive knowledge of the systematics of the insects as a whole. He was therefore able to maintain a broad understanding of the current taxonomic work in many groups other than the Coccoidea, such as Orthoptera, Hemiptera, the other groups of the Homoptera and miscellaneous orders.

Much time was spent on collecting trips with Hartford Keifer, Howard's "boss" while with the State. They were mostly in search of soft scales of the genus *Lecanium*. As a result, there are many hundreds

of slide mounts of these scales in the CDA collection which will hopefully help to unravel this confused genus in the future.

In September 1954 Ferris was nearly through with volume 7 of his "Atlas of the Scale Insects of North America" when suddenly he lost part of the vision in his right eye. In addition he was having a great deal of difficulty organizing one of the more complicated keys in this volume. He writes in a letter to Mac, "My mind has simply given out for things like that. When I try to work with anything at all difficult my mind simply quits work and will not function. I have tried twice to complete this key, with no results. The doctor suggests that the years of high blood pressure have caused some capillaries in the brain to deteriorate, with an incipient cerebral haemorrhage . . . Do you suppose you could come down for a day and help me out?" This Howard did and the seventh volume of the atlas was completed. The fact that Ferris asked Howard to help him, demonstrates the great amount of respect that Ferris had for his Sacramento colleague.

Although Ferris recovered from his blood pressure problems, he was never again able to work to full capacity. He passed away on 21 April 1958 leaving Howard with the responsibility of carrying on and improving upon the work to which he had dedicated his life.

In that same year Howard was given the opportunity to assume this responsibility as a full-time endeavor. Mainly through the efforts of Dr. Alfred Boyce of the University of California at Riverside, Howard was offered a position as Associate Entomologist in the Experiment Station at the University of California either at Davis or Riverside. He gladly accepted the offer and exclaimed to his wife that it did not seem right for someone to actually pay him to do the one thing that he loved most—scale taxonomy.

He decided to do a companion volume to his first book as a revision of the mealybugs of California. He was so enthusiastic about his work that by the time he had been at Davis for three years, he had established himself as a world authority on the mealybugs. Since he had never published on this extremely large and difficult group of scale insects, this was truly a remarkable feat.

In 1960 it was apparent that Howard was quite capable of filling the shoes of Professor Ferris. Realizing this, officials at Stanford University felt that it was a waste not to have the Ferris collection in the hands of an active coccidologist and, therefore, presented the entire Stanford Coccoidea collection as a gift to the University of California, Department of Entomology, Davis.

With this collection as a basis, Howard worked diligently on his final

masterpiece. In 1967 the most important publication of his life was in print. It was published by the University of California Press as a technical book and is entitled "Mealybugs of California, with Taxonomy, Biology, and Control of North American Species" (67). This book treated coccidology broadly with sections on economic importance, control, ecology, biology, cytology, field and laboratory methods, morphology, and most important, taxonomy. The book is truly spectacular with many water color paintings, color photographs, and minutely detailed line drawings. This classical book shall always remain as a memorial to Howard L. McKenzie.

Howard was an extremely meticulous man and his work reflects this characteristic. People who worked with him often found it difficult since he demanded so much attention to detail, but it was this detail that made his work of such excellent quality. He was also a person who would not accept "no" for an answer. If there was any possibility of achieving his goal he would keep at it until it was fulfilled. He had the ability to get people to do just about anything. Only the combination of these talents could have brought together the book described above.

Howard was well known by his friends as a jovial, happy-go-lucky individual. He could always cheer a person up no matter what the conditions. He nearly always had new jokes to tell and although they tended to be somewhat "corny," it was not possible to keep from laughing with him. Along with his sense of humor he had the admirable quality of being extremely optimistic. In addition, he intensely disliked hurting anyone and would go to extremes to avoid any sort of unfavorable confrontation. His friends and colleagues are grateful to have known him and sad to have lost him.

Within the scientific community Howard maintained a strong interest in entomological affairs. He was a member of the Entomological Society of America and the Pacific Coast Entomological Society. At the time of his death he was President-Elect of the latter society.

In Sacramento he was a well known and well respected member of the community. He was very active in his church and by this means was an inspiration and friend to many people.

Throughout his life he developed several hobbies. His early interest was in breeding show pigeons and as most people who knew him will recall, he never did anything halfheartedly. Virginia McKenzie described his pigeon facilities as very extensive and smiles as if to emphasize the word "very." He was apparently quite successful in this endeavor for he amassed an extensive collection of ribbons.

After arriving in Berkeley he was encouraged to make several class

insect collections and with these as a nucleus he continued until he had built a collection which contained approximately 14,000 specimens. As was typical of "Mac" the collection was well curated, with each specimen carefully placed and identified. Through the courtesy of Virginia McKenzie, this collection was recently donated to Davis where it is presently being incorporated.

A third hobby and perhaps one of Howard's greatest loves was gardening. His love of plants was probably influenced or perhaps even started by Professor Essig who was a world renowned horticulturist. In a large percentage of the extensive correspondence between Essig and McKenzie the topic of gardening endeavors nearly always came up. In later years, Howard spent a day or two of vacation each month working in his garden. For those who had the privilege to visit his home, his backyard always reflected the "green thumb" of its owner.

Howard is survived by his wife, Virginia, a daughter, Mrs. Linda Briggs, a son, David, 2 grandchildren, 4 sisters, and a brother.

The following is a bibliographical list of scientific writings by Howard L. McKenzie:

1. 1932. The biology and feeding habits of *Hyperaspis lateralis* Mulsant. Univ. Calif. Publ. Entomol., 6 (2): 9-20, illus.
2. 1933. Observations on the genista caterpillar *Tholeria reversalis* Guenée. Bull. Calif. Dep. Agr., 22 (7): 410-12, illus.
3. 1933. Note on the tarantula hawk wasps. Pan-Pac. Entomol., 9 (4): 159.
4. 1934. The green fruit or peach beetle, *Cotinis texana* Casey, in California. J. Econ. Entomol., 27: 1110.
5. 1935. Life history and control of the gladiolus thrips in California. Univ. Calif. Agr. Exp. Sta. Circ. 337, 16 pp., illus.
6. 1935. Biology and control of avocado insects and mites. Univ. Calif. Agr. Exp. Sta. Bull. 592, 48 pp., illus.
7. 1935. Life history and control of latania scale on avocado. Calif. Avocado Yearb., 1935: 80-82.
8. 1936. Say's plant bug, *Chlorochroa sayi* Stal., on beets in California. Pan-Pac. Entomol., 12 (1): 18.
9. 1936. A bermuda grass diaspine scale new to California. Pan-Pac. Entomol., 12 (2): 96.
10. 1936. An anatomical and systematic study of the genus *Anatis* of America. Univ. Calif. Publ. Entomol., 6 (10): 263-72, illus.
11. 1936. *Rhigopsis effracta* Lec. attacking grape buds in California. Bull. Calif. Dep. Agr., 25 (2): 272.
12. 1937. Morphological differences distinguishing California red scale, yellow scale, and related species. Univ. Calif. Publ. Entomol., 6 (13): 323-35, illus.
13. 1937. Atmospheric HCN fumigation for latania scale on avocado fruits. Bull. Calif. Dep. Agr., 25 (3): 369-76, illus. (by Lindgren, D. L. and H. L. McKenzie).

14. 1937. Contributions to the knowledge of the Coccoidea V. Microentomology, 2 (2): 47-101, illus. (by Ferris, G. F., D. D. Jorgensen, and H. L. McKenzie).
15. 1937. Avocado fumigation investigation. Bull. Calif. Dep. Agr., 26 (3): 311-19, illus. (By McKenzie, H. L. and D. L. Lindgren).
16. 1937. Generic characteristics of *Aonidiella* Berlese and Leonardi, and a description of a new species from Australia. Pan-Pac. Entomol., 13 (4): 176-80, illus.
17. 1938. The genus *Aonidiella*. Microentomology, 3 (1): 1-36, illus.
18. 1939. A revision of the genus *Chrysomphalus* and supplementary notes on the genus *Aonidiella*. Microentomology, 4 (2): 51-77, illus.
19. 1941. A new species of the genus *Matsucoccus* attacking piñon pine in California. Microentomology, 6 (1): 2-5, illus.
20. 1941. Injury by sugar pine matsucoccus scale resembles that of blister rust. J. Forest., 39 (5): 488-89.
21. 1941. *Matsucoccus bisetosus* Morrison, a potential enemy of California pines. J. Econ. Entomol., 34 (6): 783-85, illus.
22. 1942. New species of pine-infesting Margarodidae from California and southwestern United States. Microentomology, 7 (1): 1-18, illus.
23. 1942. Seasonal history of the margarodid scale, *Matsucoccus bisetosus* Morrison, occurring on ponderosa and jeffrey pines in California. Microentomology, 7 (1): 19-24, illus.
24. 1942. Two new species related to red scale. Bull. Calif. Dep. Agr., 31 (3): 141-47, illus.
25. 1943. Miscellaneous diaspid studies including notes on *Chrysomphalus*. Bull. Calif. Dep. Agr., 32 (2): 148-62, illus.
26. 1943. Errata. Change of deposition of types of *Aonidiella paucitatis* McKenzie. Bull. Calif. Dep. Agr., 32 (3): 187.
27. 1943. The seasonal history of *Matsucoccus vexillorum* Morrison. Microentomology, 8 (2): 42-52, illus.
28. 1943. Notes on *Matsucoccus vexillorum* Morrison. Microentomology, 8 (2): 53-57, illus.
29. 1944. Miscellaneous diaspid scale studies. Bull. Calif. Dep. Agr., 33 (1): 53-59, illus.
30. 1945. A revision of *Parlatoria* and closely allied genera. Microentomology, 10 (2): 47-121, illus.
31. 1946. Supplementary notes on the genera *Aonidiella* and *Parlatoria*. Microentomology, 11 (1): 29-36, illus.
32. 1946. A new species of *Lepidosaphes* attacking *Dendrobium* orchids in Hawaii and California. Proc. Hawaiian Entomol. Soc., 12 (3): 611-13, illus.
33. 1946. General distribution of red scale, *Aonidiella aurantii* (Maskell) in California. Bull. Calif. Dep. Agr., 35 (2): 95-99, illus.
34. 1946. Distribution of red scale in California. Calif. Citrogr., 31 (11): 428-29, illus.
35. 1947. Diaspid scale studies, with notes on California species. Bull. Calif. Dep. Agr., 36 (1): 31-36, illus.
36. 1947. Miscellaneous diaspid scale studies. Part V. Bull. Calif. Dep. Agr., 36 (3): 107-14, illus.

37. 1947. Correction: *Lepidosaphes noxia* McKenzie. Proc. Hawaiian Entomol. Soc., 13 (1): 31.
38. 1948. The Prescott scale (*Matsucoccus vexillorum*) and associated organisms that cause flagging injury to ponderosa pine in the southwest. J. Agr. Res., 76 (2): 33-51, illus. (by McKenzie, H. L., L. S. Gill, and D. E. Ellis).
39. 1949. A new introduced diaspidid scale of possible economic concern in California. Scale studies—part VI. Bull. Calif. Dep. Agr., 38 (3): 123-26, illus.
40. 1950. The genera *Lindingaspis* MacGillivray and *Marginaspis* Hall. Microentomology, 15 (3): 98-124, illus.
41. 1951. Miscellaneous diaspidid scale studies. Scale studies—part VII. Bull. Calif. Dep. Agr., 40 (2): 1-3, illus.
42. 1951. Present status of the kuno scale, *Lecanium kunoensis* Kuwana, in California. Bull. Calif. Dep. Agr., 40 (3): 105-09, illus.
43. 1952. New parlatoriine scales from India and Egypt, and supplementary notes on other related species. Scale studies—part IX. Bull. Calif. Dep. Agr., 41 (1): 9-18, illus.
44. 1952. Present status of the olive pollinia scale, *Pollinia pollini* (Costa), in California. Bull. Calif. Dep. Agr., 41 (2): 115-21, illus. (by Armitage, H. M. and H. L. McKenzie).
45. 1952. Distribution and biological notes on the olive parlatoria scale, *Parlatoria oleae* (Colvee), in California. Scale studies—part X. Bull. Calif. Dep. Agr., 41 (3): 127-38, illus.
46. 1953. A new scale insect from the Ryukyu Islands related to red scale. Scale studies—part XI. Bull. Calif. Dep. Agr., 42 (1): 1-4, illus.
47. 1953. Two new *Selenaspidus* scales infesting *Euphorbia* in California. Scale studies—part XII. Bull. Calif. Dep. Agr., 42 (2): 53-58, illus.
48. 1955. A new species of *Lepidosaphes* scale infesting umbrella pine in California. Pan-Pac. Entomol., 31 (4): 187-90, illus.
49. 1956. The Armored Scale Insects of California. Bull. Calif. Insect Surv., vol. 5. Univ. Calif. Press, 209 pp.
50. 1957. A new armored scale insect on *Elaeagnus* from Texas. Scale studies—part XIII. Bull. Calif. Dep. Agr., 46 (3): 218-20, illus.
51. 1958. A new asterolecaniid scale on succulents from Mexico. Pan-Pac. Entomol., 34 (3): 169-72, illus.
52. 1959. Gordon Floyd Ferris as a student of the scale insects. Pan-Pac. Entomol., 35 (1): 25-28.
53. 1959. Soft scales infesting walnut. Calif. Agr., 13 (5): 6, 13, illus. (by Michelbacher, A. E., H. L. McKenzie, and C. Q. Gonzales).
54. 1960. A new subterranean *Rhizoecus* mealybug from Arizona. Pan-Pac. Entomol., 36 (3): 139-41, illus.
55. 1960. Taxonomic study of California mealybugs, with descriptions of new species. Hilgardia, 29 (15): 681-770, illus.
56. 1960. Taxonomic position of *Parlatoria virescens* Maskell, and descriptions of related species. Scale studies—part XIV. Bull. Calif. Dep. Agr., 49 (3): 204-11, illus.
57. 1961. Second taxonomic study of California mealybugs, with descriptions of new species. Hilgardia, 31 (2): 15-52, illus.

58. 1961. Systematic status of the *Pseudococcus maritimus*—*malacearum* complex of mealybugs. Bull. Calif. Dep. Agr., 50 (4): 245-49, illus. (by Wilkey, R. F. and H. L. McKenzie).
59. 1962. Third taxonomic study of California mealybugs, including additional species from North and South America. Hilgardia, 32 (14): 637-88, illus.
60. 1962. Two new species and additional collection records for the genus *Protodiaspis*. Hilgardia, 33 (4): 133-39, illus. (by McKenzie, H. L. and W. A. Nelson-Rees).
61. 1962. Evolutionary patterns in the armored scale insects and their allies. Hilgardia, 33 (4): 141-70a, illus. (by Brown, S. W. and H. L. McKenzie).
62. 1963. Miscellaneous diaspidid scale studies, including a new asterolecaniid from Florida. Scale studies—part XV. Bull. Calif. Dep. Agr., 52 (1): 29-39, illus.
63. 1964. Fourth taxonomic study of California mealybugs, with additional species from North America, South America, and Japan. Hilgardia, 35 (10): 211-72, illus.
64. 1964. Two new eriococcid scales from California. Scale studies—part XVI. Bull. Calif. Dep. Agr., 53 (1): 21-25, illus.
65. 1965. Fifth taxonomic study of North American mealybugs, with revisional notes on seven species. Hilgardia, 37 (1): 1-15, illus. (by McKenzie, H. L. and D. J. Williams).
66. 1967. A systematic study of *Ovaticoccus* Kloet and its relatives, with a key to North American genera of Eriococcidae. Hilgardia, 38 (13): 471-539, illus. (by Miller, D. R. and H. L. McKenzie).
67. 1967. Mealybugs of California; with taxonomy, biology and control of North American species. Univ. Calif. Press, Berkeley, 525 pp.

## LIST OF NAMES PROPOSED BY HOWARD L. MCKENZIE

TRIBE	<b>Chorizococcus</b> (55)
MARGARODIDAE	<b>Circaputo</b> (59)
<b>Pityococcini</b> (22)	<b>Paradoxococcus</b> (59)
	<b>Pygmaeococcus</b> (55)
GENERA	<b>Scaptococcus</b> (63)
DIASPIDIDAE	SPECIES
<b>Africonidia</b> (36)	DIASPIDIDAE
<b>Helaspis</b> (62)	<i>Acutaspis</i>
<b>Neopinnaspis</b> (39)	<b>subnigra</b> (35)
<b>Parlagena</b> (30)	<b>tingi</b> (35)
<b>Parlaspis</b> (30)	<b>Africonidia</b>
ASTEROLECANIIDAE	<b>halli</b> (36)
<b>Sclerosococcus</b> (51)	<i>Annulaspis</i>
MARGARODIDAE	<b>singularis</b> (62)
<b>Desmococcus</b> (22)	<i>Aonidiella</i>
<b>Pityococcus</b> (22)	<b>comperiei</b> (12)
PSEUDOCOCCIDAE	<b>ensifera</b> (24)
<b>Anthelococcus</b> (63)	<b>eremocitri</b> (16)

- inornata** (17)  
**longicornia** (18)  
**marginipora** (31)  
**messengeri** (46)  
**paucitatis** (24)  
*Chrysomphalus*  
**nulliporus** (18)  
**variabilis** (25)  
*Diaspidiotus*  
**mcombi** (62)  
*Diaspis*  
**conocarpi** (36)  
**ferrisi** (36)  
**gilloglyi** (62)  
**parasiti** (36)  
**Helaspis**  
**mexicana** (62)  
*Hemiberlesia*  
**fraxini** (29)  
**mendax** (25)  
**pseudorapax** (41)  
*Lepidosaphes*  
**mackieana** (25)  
**noxia** (32)  
**sciadopitysi** (48)  
*Lindingaspis*  
**ferrisi** (40)  
**fusca** (25)  
**magnifica** (25)  
**neorossi** (40)  
**similis** (40)  
**tingi** (40)  
*Melanaspis*  
**elaegni** (50)  
**tenax** (29)  
**Neopinnaspis**  
**harperi** (39)  
**Parlagena**  
**inops** (30)  
*Parlatoria*  
**acalcarata** (56)  
**boycei** (43)  
**citri** (25)  
**crypta** (25)  
**desolator** (56)  
**marginalis** (30)  
**morrisoni** (25)  
**multiopora** (30)  
**perplexus** (43)  
**vandae** (56)  
*Protodiaspis*  
**chichi** McKenzie and Nelson-Rees  
 (60)  
**cinchonae** (29)  
**didymus** McKenzie and Nelson-Rees  
 (60)  
*Pseudoparlatoria*  
**browni** (62)  
*Selenaspis*  
**albus** (47)  
**rubidus** (47)
- ASTEROLECANIIDAE
- Sclerosococcus**  
**bromeliae** (62)  
**ferrisi** (51)
- MARGARODIDAE
- Desmococcus**  
**captivus** (22)  
**sedentarius** (22)  
*Matsucoccus*  
**monophyllae** (19)  
**Pityococcus**  
**deleoni** (22)  
**ferrisi** (22)  
**rugulosus** (22)
- ERIOCOCCIDAE
- Ovaticoccus*  
**californicus** (64)  
**senarius** (64)
- PSEUDOCOCCIDAE
- Anisococcus*  
**abnormalis** (63)  
**imperialis** (67)  
**Anthelococcus**  
**simondsi** (63)  
*Balanococcus*  
**takahashii** (63)  
**Chorizococcus**  
**abortivus** (67)  
**abroniae** (55)  
**brevicruris** (55)  
**californicus** (63)  
**coxindex** (67)  
**fistulosus** (67)  
**interruptus** (63)  
**microporus** (55)

- penultimatus** (67)  
**polyporus** (57)  
**psoraleae** (55)  
**senarius** (67)  
**snellingi** (67)  
**variabilis** (63)  
**wilkeyi** (55)  
**wilsoni** (57)  
**yucaea** (57)
- Circaputo**
- hirsutus** (59)
- Cryptoripersia*
- tubulata** (63)
- Discococcus*
- spectabilis** (57)
- Distchlicoccus*
- arundinis** (67)  
**megacirculus** (67)
- Dysmicoccus*
- desertorum** (59)  
**hurdi** (59)  
**pinicolus** (63)  
**racemus** (67)  
**vacuatus** (67)
- Heliococcus*
- adenostomae** (55)  
**atriplicis** (63)
- Humococcus*
- caritus** (55)  
**ceraricus** (63)  
**inornatus** (55)
- Paradoxococcus**
- medanieli** (59)
- Phenacoccus*
- advena** (63)  
**alleni** (63)  
**cajonensis** (67)  
**destitutus** (67)  
**dicoriae** (57)  
**echeveriae** (55)  
**eschschoitziae** (57)  
**giganteus** (63)  
**graminosus** (55)  
**hurdi** (63)  
**incomptus** (63)  
**infernalis** (59)  
**lotearum** (55)  
**megaulus** (67)  
**milleri** (63)
- multisetosus** (67)  
**nonarius** (63)  
**tibiaegracilis** (55)
- Pseudococcus*
- aberrans** (59)  
**dispar** (59)  
**diversus** (63)  
**importatus** (55)  
**macswaini** (59)  
**megasetosus** (67)  
**microcirculus** (55)  
**pertusus** (67)  
**prunicolus** (63)  
**pseudobscurus** (63)  
**sparsus** (59)
- Puto*
- acirculus** (55)  
**albicans** (67)  
**atriplicis** (57)  
**californicus** (67)  
**decorosus** (67)  
**echinatus** (57)  
**laticribellum** (57)  
**mimicus** (67)  
**nulliporus** (55)  
**pacificus** (67)  
**pricei** (55)  
**profusus** (55)  
**simmondsiae** (57)  
**usingeri** (59)
- Pygmaecoccus**
- morrisoni** (55)
- Rastrococcus*
- chilensis** (63)
- Rhizoecus*
- bicirculus** (67)  
**bituberculatus** (55)  
**boharti** (54)  
**browni** (57)  
**disjunctus** (67)  
**eluminatus** (55)  
**gracilis** (57)  
**menkei** (59)  
**neomexicanus** (59)  
**pritchardi** (55)  
**sonomae** (55)  
**spinosus** (55)  
**stangei** (59)

**Scaptococcus**  
**californicus** (63)  
**milleri** (67)

*Spilococcus*  
**cactearum** (55)  
**ceanothi** (67)  
**corticosis** (67)  
**haigi** (59)  
**keiferi** (55)  
**parkeri** (59)

**parvicirculus** (55)  
**quercinus** (59)  
**ventralis** (67)

*Trionymus*  
**frontalis** (67)  
**furvus** (67)  
**haancheni** (55)  
**myersi** (57)  
**quadricirculus** (67)  
**winnemucae** (67)

Some of the insects and related groups named in honor of Howard L. McKenzie are as follows:

ACARINA

*Aculodes mckenziei* Keifer (Eriophyidae)

*Amblyseius mckenziei* Schuster and Pritchard (Phytoseiidae)

HOMOPTERA

*Dysmicoccus mackenziei* Beardsley (Pseudococcidae)

*Humococcus mackenziei* Ezzat (Pseudococcidae)

*Lindingaspis mackenziei* Williams (Diaspididae)

*Ovaticoccus mackenziei* Miller (Eriococcidae)

*Parlagena mckenziei* Balachowsky (Diaspididae)

*Selenediella mckenziei* Takahashi (Diaspididae)

DIPTERA

*Tujungia mackenziei* Steyskal (Otitidae)