## **OBITUARY**

## EL PEYTON 1929–1999



EL Peyton, one of the foremost mosquito taxonomists of his generation, passed away at his home in Alexandria, VA, on April 26, 1999, after a valiant struggle with cancer. He was buried in Arlington National Cemetery.

EL (he was quite adamant about no periods) was born in Pine Bluff, AR, on May 1, 1929. After completing high school, he enlisted in the U.S. Army in 1948. His 1st assignment was at Fort Clayton, Panama Canal Zone, with the 25th Preventive Medicine Survey Detachment. Within a 3-year period, he rose from a Private to a Sergeant, First Class. During this time he rapidly acquired skills in field techniques, mosquito identification, and taxonomy from his 2 renowned supervisors, Col. Stanley J. Carpenter and Lt. Col. Frank S. Blanton. Upon returning to the USA in 1953, EL was assigned to various military installations within the continental United States, until 1964; this period was interrupted by a 3-year tour in Germany at a U.S. Army Hospital (1958–61). Most of his assignments were with preventive medicine units, which provided additional training and opportunities for research on mosquito taxonomy. While at Fort Sam Houston, TX (1956–57), he was senior enlisted instructor in entomology and was responsible for classroom and laboratory teaching on the identification and biology of mosquitoes. This was to serve him well in subsequent years.

The highlight of EL's military career was his assignment to the U.S. Army Medical Component, SEATO Medical Research Laboratory, Bangkok, Thailand, from 1964 to 1967, where he was in charge of the mosquito biology and taxonomy section of the Department of Medical Entomology under the supervision of Dr. Douglas J. Gould. He continued studies of the mosquito fauna of Thailand that had been initiated several years earlier by the late Professor John E. Scanlon. The Thai mosquito project persisted for more than 30 years and resulted in an outstanding mosquito collection of several hundred thousand specimens (largely deposited in the Smithsonian Institution in Washington, DC) and more than 300 publications.

EL returned to the USA in 1968 and spent the remaining 2 years of his military career at the Department of Entomology, Walter Reed Army Institute of Research (WRAIR), Washington, DC, with secondment to the Southeast Asia Mosquito Project (SEAMP) at the Smithsonian Institution. While at SEAMP he conducted independent research on the taxonomy, zoogeography, and biology of the mosquito genera Anopheles and Uranotaenia.

After retiring as a Master Sergeant in 1968, EL accepted a position as a research entomologist on U.S. Army Medical Research and Development Command contract projects at the Smithsonian Institution (SEAMP, 1969–74, and the Medical Entomology Project, 1974–84). At the conclusion of these contracts, he received a civil service appointment at WRAIR and was associated with the Walter Reed Biosystematics Unit at the Smithsonian until his death.

For distinguished service in the military, EL received the U.S. Army Commendation Medal in 1967 and a year later was awarded an Oak Leaf Cluster. He also received many service ribbons. In honor of his research in mosquito systematics, he was designated a Collaborator in the Smithosonian's Department of Entomology in 1973, and in 1993 he was honored as a Research Associate. In 1993 the American Mosquito Control Association presented him with the coveted John N. Belkin Memorial Award for life-time achievement in mosquito systematics.

Individuals who knew EL personally and professionally know that he eminently succeeded in demonstrating what heights can be reached by high intelligence, dedicated performance, keen interest, enthusiasm, and hard work, despite the handicap of never having received a formal college education. He not only reached a scientific level that only a very few of our colleagues have ever attained, but he also served as a model for those who have been disadvantaged by the lack of advanced schooling. Many of EL's closest friends and colleagues will agree that his unique accomplishments and contributions in the field of mosquito systematics are attributable to 4 innate and admirable characteristics. These include his keen insights into problems involving mosquito classification, taxonomic relationships, and identification; his unequaled meticulous attention to detail; his absolute integrity, honesty, and preciseness in recording and reporting scientific data; and his unselfish willingness to share his knowledge with others.

Few individuals realize the full impact of EL's contributions to mosquito systematics research because so much of what he learned from personal observation and study was not published. But those who were fortunate enough to have worked with him know that he possessed a fountain of hidden knowledge and stimulating awareness about taxonomic relationships and the morphologic diversity of mosquitoes. He eagerly revealed his personal observations and insights to individuals who shared his enthusiasm and excited curiosity about the diversity of form and taxonomic characters waiting to be further investigated and used for taxonomic purposes. Unfortunately many of his discoveries and unpublished findings were lost, at least for the time being, with his passing. This is particularly true of the discovery and morphologic characterization of the Anopheles dirus complex, information of indispensable value on the biology and identification of principal vectors of malaria in Southeast Asia. In spite of this, EL's contributions to mosquito systematics research are impressive. During his career he was author or coauthor of more than 60 publications (see bibliography below).

In addition to his scientific accomplishments, EL was an authority on the 1st issue of the stamps of the United Nations. During his retirement he was planning to write a definitive monograph on this subject, which unfortunately never came to fruition.

EL is survived by a son, Michael W. Peyton of

Pine Bluff, AR, a daughter, Patricia Bachman of Lamesa, CA, his mother, Mrs. Hallie Peyton also of Pine Bluff, 2 sisters, a brother, 3 grandchildren, and a host of friends, both at home and overseas, who will long have fond memories of EL.

## BIBLIOGRAPHY

- Baimai V, Green CA, Andre RG, Harrison BA, Peyton EL. 1984. Cytogenetic studies of some species complexes of Anopheles in Thailand and Southeast Asia. Southeast Asian J Trop Med Public Health 15:536–546.
- Blanton FS, Galindo P, Peyton EL. 1955. Report of a three year light trap survey for biting Diptera in Panama. *Mosq News* 15:90–93.
- Blanton FC, Keenan CM, Peyton EL. 1955. Mosquitoes collected in horse-baited traps in Panama during 1951 to 1953 inclusive as an index to malaria control. *Mosq News* 15:39-42.
- Blanton FS, Peyton EL. 1956. Notes and distribution records of *Anopheles* and *Chagasia* mosquitoes in Panama based on a three year light trap survey. *Mosq News* 16:22–26.
- Blanton FS, Peyton EL. 1957. Distribution of *Aedeomyia* squamipennis (Diptera, Culicidae) in Panama based on light trap surveys. *Mosq News* 17:98–99.
- Blanton FS, Peyton EL. 1958. Notes on the distribution of *Aedes* mosquitoes in Panama based on a three year light trap survey. *Mosq News* 18:30–33.
- Carpenter SJ, Peyton EL. 1952. Mosquito studies in the Panama Canal Zone during 1949 and 1951 (Diptera, Culicidae). Am Midl Nat 43:673-682.
- Galindo P, Blanton FS, Peyton EL. 1954. A revision of the Uranotaenia of Panama with notes on other American species of the genus (Diptera, Culicidae). Ann Entomol Soc Am 47:107–177.
- Harbach RE, Jacob WL, Peyton EL. 1986. Recognition of *Culex bidens* Dyar and *Culex interfor* Dyar (Diptera: Culicidae) as separate species. *Mosq Syst* 18:139–144.
- Harbach RE, Peyton EL. 1990. A new subgenus in Wyeomyia (Diptera: Culicidae), with the reclassification and redescription of the type species Sabethes fernandezyepezi (Diptera: Culicidae). Mosq Syst 22:15–23.
- Harbach RE, Peyton EL. 1990. Transfer of the subgenus Davismyia from Wyeomyia to Sabethes and description of type species, Miamyia petrocchiae (Diptera: Culicidae). Mosg Syst 22:149–159.
- Harbach RE, Peyton EL. 1991. A new subgenus of Wyeomyia (Diptera: Culicidae), with the reclassification and redescription of Wyeomyia (Davismyia) arborea, Wyeomyia (Dendromyia) tarsata and Sabethes (Sabethes) carrilloi. Mosq Syst 23:92–109.
- Harbach RE, Peyton EL. 1992. A new subgenus of *Culex* in Central and South America (Diptera: Culicidae). *Mosq Syst* 24:242–252.
- Harbach RE, Peyton EL. 1993. Morphology and evolution of the larval maxilla and its importance in the classification of the Sabethini (Diptera: Culicidae). *Mosq Syst* 25:1–16.
- Harbach RE, Peyton EL, Harrison BA. 1984. A new species of *Culex (Melanoconion)* from southern South America (Diptera: Culicidae). *Mosq Syst* 16:185–200.
- Harbach RE, Peyton EL, Jakob WL. 1984. Synonymy of Culex (Culex) oswaldoi with Culex (Culex) maxi (Diptera: Culicidae). Mosq Syst 15:310–317.
- Harbach RE, Rattanarithikul R, Peyton EL. 1987. Occurrence of Uranotaenia (Pseudoficalbia) hirsutifemora

Peters (Diptera: Culicidae) Thailand, with notes on the larval stage and species affinity. *Mosq Syst* 18:230–232.

- Harrison BA, Peyton EL. 1984. The value of the pupal stage in anopheline taxonomy, with notes on anomalous setae (Diptera: Culicidae). *Mosq Syst* 16:201–210.
- Harrison BA, Rattanarithikul R, Peyton EL, Mongkolpanya K. 1990. Taxonomic changes, revised occurrence records and notes on the Culicidae of Thailand and neighboring countries. *Mosq Syst* 22:196–227.
- Harrison BA, Reinert JF, Sirivanakarn S, Huang Y-M, Peyton EL, de Meillon B. 1974. Distributional and biological notes on the mosquitoes from Sri Lanka (Ceylon) (Diptera: Culicidae). *Mosq Syst* 6:142–162.
- Hii JLK, Peyton EL, Shang VY. 1988. Redescription of the adult and first descriptions of the larva and pupa of *Anopheles (Cellia) sulawesi* Waktoedi, a species of the Leucosphyrus Group from Sulawesi, Indonesia (Diptera: Culicidae). *Mosq Syst* 20:141–154.
- Lourenco-de-Oliveira R, Harbach RE, Castro MG, Motta MA, Peyton EL. 1999. Wyeomyia (Prosopolepis) confusa (Lutz) (Diptera: Culicidae): subgeneric validation, species description and recognition of Wyeomyia flui (Bonne-Wepster and Bonne) as the senior synonym of Wyeomyia kerri del Ponte and Cerqueira. J Am Mosq Control Assoc 15:200-212.
- Manguin S, Peyton EL, James AC, Roberts DR. 1993. Apparent changes in the abundance and distribution of *Anopheles* species on Grenada. J Am Mosq Control Assoc 9:403–407.
- Manguin S, Roberts DR, Peyton EL, Fernandez-Salas L, Barreto M, Loayza RF, Spinola RE, Granaou RM, Rodriquez MH. 1995. Biochemical systematics and population genetic structure of Anopheles pseudopunctipennis vector of malaria in Central and South America. J Trop Med Hyg 53:361–377.
- Manguin S, Roberts DR, Peyton EL, Rejmankova E, Pecor JE. 1996. Characterization of Anopheles pseudopunctipennis larval habitats. J Am Mosq Control Assoc (1995) 12:619–626.
- Mendis KN, Ihalamulla RL, Peyton EL, Nanayakkara S. 1984. Biology and descriptions of the larva and pupa of Anopheles (Cellia) elegans James (1903). Mosq Syst 15:318-324.
- Pafume BA, Campos EG, Francy DC, Peyton EL, Davis AN, Nelms M. 1988. Discovery of Aedes (Howardina) bahamensis in the United States. J Am Mosq Control Assoc 4:380.
- Pecor JE, Mallampalli V, Harbach RE, Peyton EL. 1992. Catalog and illustrated review of the subgenus *Melanoconion* of *Culex* (Diptera: Culicidae). *Contrib Am Entomol Inst (Ann Arbor)* 27(2):1–228.
- Peyton EL. 1956. Biology of the Pacific Coast tree hole mosquito Aedes varipalpis (Coq.). Mosq News 16:220– 224.
- Peyton EL. 1970. Studies on Uranotaenia at SEAMP. A plea for further material. Mosg Syst News Lett 2:2-5.
- Peyton EL. 1972. A subgeneric classification of the genus Uranotaenia Lynch Arribalzaga, with a historical review and notes on other categories. Mosq Syst 4:16–40.
- Peyton EL. 1973. The identity of Aedes species unknown of Knight and Hull, 1953. Mosq Syst 5:161-162.
- Peyton EL. 1973. Notes on the genus Uranotaenia. Mosq Syst 5:194-196.
- Peyton EL. 1974. Uranotaenia srilankensis, a new species of the subgenus *Pseudoficalbia* from Sri Lanka. (Diptera: Culicidae). Mosq Syst 6:222–227.
- Peyton EL. 1977. Medical entomology studies. X. A re-

vision of the subgenus *Pseudoficalbia* of the genus *Uranotaenia* in Southeast Asia (Diptera: Culicidae). *Contrib Am Entomol Inst (Ann Arbor)* 14(3):1–273.

- Peyton EL. 1989. A new classification for the Leucosphyrus Group of Anopheles (Cellia). Mosq Syst 21:197– 205.
- Peyton EL. 1993. Anopheles (Nyssorhynchus) dunhami resurrected from synonymy with Anopheles nuneztovari and validated as a senior synonym of Anopheles trinkae (Diptera: Culicidae). Mosq Syst 25:151–156.
- Peyton EL, Campbell SR, Candeletti TM, Romanowski M, Crans WJ. 1999. Aedes (Finlaya) japonicus japonicus (Theobald), a new introduction into the United States (Diptera: Culicidae). J Am Mosq Control Assoc 15:238-241.
- Peyton EL, Galindo P, Blanton FS. 1955. Pictorial key to the genera of Panama mosquitoes. *Mosq News* 15:95– 100.
- Peyton EL, Harbach RE. 1992. A new species of *Culex* (*Melanoconian*) encountered during arbovirus surveillance in Mexico (Diptera: Culicidae). *Mosq Syst* (1991) 23:199-204.
- Peyton EL, Harbach RE, Roberts DR. 1984. Culex (Melanoconion) serratimarge (Diptera: Culicidae), a new occurrence record from Bolivia. Mosq Syst 16:183–184.
- Peyton EL, Harrison BA. 1979. Anopheles (Cellia) dirus. A new species of the Leucosphyrus Group from Thailand (Diptera: Culicidae). Mosq Syst 11:40–52.
- Peyton EL, Harrison BA. 1980. Anopheles (Cellia) takasagoensis Morishita, 1946, an additional species in the Balabacensis Complex of Southeast Asia (Diptera: Culicidae). Mosq Syst 12:335–347.
- Peyton EL, Hill SO. 1957. Keys to the genera of larvae and adult mosquitoes of the United States. *Mosq News* 17:294-296.
- Peyton EL, Hochman RH. 1968. A revised interpretation of the proctiger of male *Uranotaenia* with a related note on *Hodgesia* (Diptera: Culicidae). *Proc Entomol Soc Wash* 70:376–382.
- Peyton EL, Jayasekera N, Chelliah RV. 1979. The biology and immature stages of Uranotaenia (Pseudoficalbia) srilankensis Peyton (Diptera: Culicidae). Mosq Syst 11: 215–220.
- Peyton EL, Klein JM. 1970. Five new species of Uranotaenia from Southeast Asia (Diptera: Culicidae). Proc Entomol Soc Wash 72:243–251.
- Peyton EL, Pecor JE, Trpis M, Gaffigan T, Rueda LM, Wilkerson RC. 1999. The Johns Hopkins University School of Hygiene and Public Health Lloyd E. Rozeboom mosquito collection (Diptera: Culicidae). J Am Mosg Control Assoc 15:526–551.
- Peyton EL, Ramalingam S. 1988. Anopheles (Cellia) nemophilous, a new species of the Leucosphyrus Group from Peninsular Malaysia and Thailand (Diptera: Culicidae). Mosq Syst 20:272–299.
- Peyton EL, Rattanarithikul R. 1970. Five additional new species of Uranotaenia from Southeast Asia. Proc Entomol Soc Wash 72:403–413.
- Peyton EL, Reinert JF, Peterson NE. 1964. The occurrence of *Deinocerites pseudes* Dyar and Knab, in the United States with additional notes on the biology of *Deinocerites* species of Texas. *Mosq News* 24:449.
- Peyton EL, Roberts DR, Pinheiro FP, Vargas R, Balderama F. 1983. Mosquito collections from a remote unstudied area of southeastern Bolivia. *Mosq Syst* 15:61– 89.
- Peyton EL, Scanlon JE. 1966. Illustrated key to the female

Anopheles *mosquitoes of Thailand* Bangkok, Thailand: Applied Science Research Corporation of Thailand.

- Peyton EL, Wilkerson RC, Harbach RE. 1992. Comparative analysis of the subgenera *Kertezia* and *Nyssorhynchus* of *Anopheles* (Diptera: Culicidae). *Mosq Syst* 24:51-69.
- Rejmankova E, Roberts DR, Pecor JE, Peyton EL, Manguin S, Krieg R, Polanca J, Legters L. 1993. Environmental and regional determinants of *Anopheles* larval distribution in northern Belize. *J Environ Entomol* 22: 978–992.
- Roberts DR, Peyton EL, Pinheiro FP, Balderama F, Vargas R. 1984. Associations of arbovirus vectors with gallery forest and domestic environments in southeastern Bolivia. PAHO Bull 18:337–350.
- Scanlon JE, Peyton EL. 1967. Anopheles (Anopheles) tigertti, a new species of the aitkenii group from Thailand. Proc Entomol Soc Wash 69:18–23.
- Scanlon JE, Peyton EL, Gould DJ. 1967. The Anopheles (Cellia) leucosphyrus Dönitz 1901 group in Thailand. Proc Calif Mosg Control Assoc Annu Conf 35:78-83.
- Scanlon JE, Peyton EL, Gould DJ. 1968. An annotated checklist of the Anopheles of Thailand Thai National

Science Papers, Fauna Series No. 2. Bangkok, Thailand: Applied Science Research Corporation of Thailand.

- Wilkerson RC, Peyton EL. 1990. A standardized nomenclature for the costal wing spots of *Anopheles* and other spotted-wing mosquitoes (Diptera: Culicidae). J Med Entomol 27:207–224.
- Wilkerson RC, Peyton EL. 1992. The Brazilian malaria vector Anopheles (Kertezia) cruzii: lifestages and biology (Diptera: Culicidae). Mosq Syst (1991) 23:110– 122.

In addition to these publications, at least 3 additional papers that were in preparation by EL Peyton at the time of his death are now undergoing completion by colleagues.

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