Robert Traub (1916–1996)

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Robert Traub, one of the most accomplished and respected medical entomologists of this or any generation, died on 21 December 1996 at the National Naval Medical Center in Bethesda, MD, after an extended illness. Although he is best known for his encyclopedic knowledge of fleas, his name stands for much more. He leaves a legacy of pioneering research accomplishments in several disciplines, especially flea systematics, chigger taxonomy, and the epidemiology of both scrub typhus and murine typhus. Because Dr. Traub was instrumental in founding the Journal of Medical Entomology in 1964 in which several of his substantial manuscripts were published, it is appropriate to present his obituary here and to dedicate this issue of the journal to him.

Robert Traub was born in Manhattan, NY, on 26 October 1916. In New York, he met a young girl named Renée Gluck who would later become his wife; they were married in 1939. Bob attended the College of the City of New York (now City University of New York) and graduated with a Bachelor of Science degree cum laude in 1938. He then attended Cornell University in Ithaca, NY, and the following year earned an M.S. degree in medical entomology, with a minor in veterinary bacteriology. Later in 1939, he started his Ph.D. studies in medical entomology at the University of Illinois in Urbana, concentrating on the Mexican flea fauna and the morphology of the aedeagus in male fleas. However, Bob’s studies were abruptly interrupted by World War II, and in 1942 he joined the U.S. Army. In 1947, Bob completed his dissertation in absentia from the University of Illinois, and to this day it remains a standard work in flea systematics. It was published as a monograph by the Field Museum of Natural History (Chicago, IL) in 1950.

Robert Traub’s illustrious career in medical entomology perhaps started in 1941, when he and Renée joined Harry Hoogstraal’s 4th parasitological expedition to Mexico. Fleas collected during that and other expeditions in Mexico provided the basis for Bob’s dissertation research. Harry Hoogstraal and Bob were concurrently enrolled in Ph.D. programs at the University of Illinois, and a close friendship developed that endured for the rest of their lives. It seems fitting that two of the most influential medical entomologists of this century were good friends from the outset.

Harry Hoogstraal was larger than life and smoked cigars passionately even at that time. His smoking habit drew the ire of Bob and Renée’s landlord. Eventually, the landlord could tolerate Harry’s smoking visits no longer. This, however, did not stop Harry. When he heard her hurried footsteps up the stairs, he simply hid in the closet with lit cigar in hand and listened to her rantings about “that horrible cigar-smoking man,” while Bob desperately tried to conceal the evidence.

From 1942 to 1962, Bob served in the U.S. Army (Fig. 1) and led pioneering investigations in scrub typhus, murine typhus, Korean hemorrhagic fever, and other diseases affecting Allied troops during and after World War II. Based in Southeast Asia for much of this time, he was Commanding Officer of the U.S. Army Medical Research Unit at the Institute for Medical Research in Kuala Lumpur, Malaysia, from 1955 to 1959 (Fig. 2). He led medical expeditions throughout Southeast Asia, including Myanmar (Burma), India, Korea, and Malaysia, with the aim of improving sanitary conditions for troops in the field. Frequently, he presented the National Zoological Park in Washington, DC, with rare or unusual mammals such as orangutans, gibbons, and giant squirrels that were collected during these expeditions.

Other Army assignments included membership in the United States of America Typhus Commission in Burma and Washington, DC (1944–1946), director of the Field Unit of the Commission on Hemorrhagic Fever in Korea (1952–1953), and member of the Armed Forces Epidemiological Board on Hemorrhagic Fever in Korea (1955–1956). He also was Chief of the Department of Entomology/Parasitology at the Walter Reed Army Institute of Research in Washington, DC, from 1946 through 1955, and field director of numerous epidemiological investigations.

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In 1962, Bob retired from the Army with the rank of colonel and embarked upon a successful career in medicine as a professor of medical microbiology at the University of Maryland School of Medicine in Baltimore. There he pioneered research on several important infectious diseases, such as murine typhus and scrub typhus, and he organized medical research units working in Ethiopia, Indonesia, Japan, Mexico, Guinea, Pakistan, Thailand, and the United States.

After retiring from the University of Maryland in 1975, Bob served as a Senior Curator of Siphonaptera at the Smithsonian Institution in Washington, DC. He devoted himself to the study of the evolution, systematics, biology, and medical importance of fleas. He also continued his research on the epidemiology of typhus fever.

Before his death, he donated his collection to the Carnegie Museum in Pittsburgh to serve as a legacy for others who might wish to study the systematics, evolution, zoogeography, and medical importance of fleas.

During his scientific career, Robert Traub authored more than 200 research papers, monographs, and books. He was always careful to ensure that his publications were of the highest standard, and he penned several monograph works, particularly on fleas, as sole author. His remarkably diverse abilities and interests are reflected in his literary legacy, which includes publications on chiggers (he described 136 new chigger taxa alone, see Appendix I), fleas, mosquitoes, lice, leeches, mammals, hantaviruses, arboviruses, leprosy, scrub typhus, plague, evolution, zoogeography, vaccines, control agents, repellents, and tropical biology.

A sampling of Bob’s monographic works includes a systematic revision of the flea genus Peromyscopsylla (coauthored with Phyllis Johnson [1984]), an illustrated flea glossary (coauthored with Miriam Rothschild [1971]), 3 interrelated publications on the zoogeography, convergent evolution and taxonomy of Soutsepticus and Fleas (1972), a review on the ecology of scrub typhus (with Charles W. Olson Jr., 1974), a review on the ecology of murine typhus (with Abdul Azad and Charles Wissman Jr. [1976]), an analysis of the zoogeography and coevolution of Fleas, base, and mammals (1980), a book on the flea family Geotrupidae (with Miriam Rothschild and John Hadlow 1983), and a 15-page chapter on the coevolution of fleas and mammals (1985).

Such research was noted in 1985 when he was elected a member of the U.S. National Academy of Sciences and in 1986 when he received the Distinguished Service Award from the American Society for Tropical Medicine and Hygiene. He was also elected a Fellow of the American Academy of Microbiology in 1987.

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medical entomology. His 18-h days of intensive research in remote jungles and deserts for weeks at a time are legendary. He also fully recognized the importance of combining field investigations with careful laboratory and literary skills. All the while, he maintained close and amicable ties with colleagues, refusing to work in a competitive or hostile manner. Science, especially the study of flies, was just too much fun to do that. Robert Traub, scientist, connoisseur, raconteur, friend, lives on in our hearts, ever inspiring us to excellence.

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Appendix 2. Patronymics named for Robert Traub

Lice

Geomydoleus traubi Price & Emerson, 1971 (Trichodectidae)
Hoplogonora trubi Durden & Musser, 1991 (Hoplogonoruridae)
Lisinomophides trubi Rubin, 1946 (Polyplacidae)

Flies

Acropeplla trubi Lewis, 1973 (Leptopisyllidae)
Ascomycotus trubi Barrera, 1981 (Ascomycotidae)
Bhikooana trubi (Holland, 1969) (Pygopisyllidae)
Cluniaunorum trubi Johnson, 1967 (Pygopisyllidae)
Diplophila trubi Beauchesne & Bahn, 1975 (Diplophilaenidae)
Phlebotominae trubi Tipton & Mendez, 1981 (Ceratophyllidae)

Lagocapella trubi Klein, 1967 (Lagocapellidae)
Mictencapella trubi Holland & Jellison, 1952 (Ceratophyllidae)
Myzopisylla lacerani trubi Lewis, 1966 (Ceratophyllidae)
Nearopisylla trubi Hubbard, 1949 (Ceratophyllidae)

Plocopsylla trubi Del Ponte, 1968 (Stephanoecridae)
Rectiglossa trubi Holland, 1969 (Pygopisyllidae)
Tromblella Prince, Eads & Barnes, 1970 (Ceratophyllidae)
Tralis Smit, 1953 (Pygopisyllidae)

Fliers

Armagos trubi Macdonald, 1990 (Culicidae)
Bastia trubi Maa, 1968 (Nycteribididae)
Culex trubi Colless, 1965 (Culicidae)
Nectonomia trubi Wenzel, 1966 (Streblidae)
Sergentomia trubi (Lewis, 1957) (Psychodidae)
Tabanus trubi Philip, 1960 (Tabanidae)

Beetle

Leberopisylla trubi Martinez & Barrera, 1966 (Languridiae)

Mites

Haemolaemus traubi (Strandtman, 1948) (Laelapidae)
Eltonella Traubiana Veramannen-Grandjean, 1935 (Trombiculidae)
Eschangarata (Walchellia) trubi (Womersley, 1952) (Trombiculidae)
Laclais trubi Domrow, 1962 (Laelapidae)
Microtrombicula mulleraiwa & Verdiave, 1974 (Trombiculidae)
Spinoturnixus trubi Morales-Malacara & Lopez, 1990 (Spinoturnicidae)
Trubana sp. Audy & Nadchatram, 1957 (Trombiculidae)
Trombiculindus trubi (Womersley, 1952) (Trombiculidae)

Tick

Haemopathylla trubi Kohls, 1955 (Ixodidae)

Mammal

Hypoxenius wygani trubi Phillips, 1969 (Muriidae)

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