

JOHN SHRADER GARTH
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Mary K. Wicksten¹, Joel W. Martin², and J. Antonio Baeza³

¹Department of Biology, Texas A&M University,
College Station, Texas 77843-3258 (Wicksten@mail.bio.tamu.edu)

²Division of Invertebrate Studies, Natural History Museum of Los Angeles County,
900 Exposition Boulevard, Los Angeles, California 90007 (jmartin@nhm.org)

³Department of Biology, University of Louisiana at Lafayette,
P.O. Box 42451, Lafayette, Louisiana 70504-2451 (Jab9444@louisiana.edu)

It is regrettable that more than 15 years have gone by since the passing of John Garth, renowned expert on both the true crabs (Brachyura) and the butterflies (Lepidoptera). Many of the facts and figures about John Garth are given in an excellent dedication of a symposium to him, written by Richard Brusca in 1992. We will try not to duplicate too much of this fine work in our memorial herein.

John Shrader Garth was a native Angeleno, born in Los Angeles, California, on 3 October 1909. His family lived in Long Beach. He graduated from Polytechnic High School in Long Beach in 1927. A skilled pianist, he earned a bachelor's degree in music at the University of Southern California in 1932. He was a member of the Yosemite School of Field Natural History and a temporary ranger naturalist at Glacier National Park in 1935. As a summer graduate student, he studied at Cornell University in 1937 and the University of Pennsylvania in 1940. While still an undergraduate, he first accompanied Captain C. Allan Hancock aboard his yacht, the "Velero III", on the first of four expeditions during the years 1931-1935 to the Galapagos Islands and the coasts of Mexico, and Central and South America. Later expeditions included voyages to the Gulf of California (1936, 1937, and 1940), along the coasts of Peru and Ecuador (1938), and to Colombia, Venezuela, and Trinidad (1939). The enormous collections made during these expeditions still form the basis for understanding many of the invertebrates of the eastern tropical Pacific. His travels gave him a great understanding of eastern Pacific zoogeography and natural history, as well as an unending source of stories (such as the "hardship cruise" during which they had only one flavor of ice cream aboard ship -Captain Hancock traveled in style).

With his interest in natural history growing, John Garth went on to earn first his Master of Science degree in 1935 and later his Ph.D. in 1941. He studied at USC with Irene McCulloch, specialist on the Foraminifera and mentor to many a budding zoologist. Dr. McCulloch and John Garth were influential in establishing the Allan Hancock Foundation, which sponsored research cruises, maintained collections and a library, and promoted publication of taxonomic papers at USC. His mentor in brachyurans was Waldo Schmitt of the U.S. National Museum, who participated in some of the cruises to the Galapagos. John also had the chance to meet Mary Jane Rathbun, first lady of the American Brachyura, in 1937.

In 1940, John Garth married Isla Lora Detter. Mrs. Garth, also fond of music, accompanied him on some of his visits to foreign museums and on collecting trips, although usually no farther than the hotel. Dr. Garth once gave a talk on an insect collecting trip to northern Australia and adjacent areas, a trip on which Mrs. Garth accompanied him. Dr. Garth never was one to let hardships, be they altitude, humidity or rugged terrain, bother him. He told the audience ruefully that he had forgotten to put on jungle boots while out collecting, and then returned to the hotel to find 13 leeches on one leg alone. Mrs. Garth was aghast. "Leeches! You never said anything about leeches!"

John and Isla Garth had one child, daughter Linda Jean, born 16 January 1945. Tragedy struck with her sudden death on 20 October 1967. She was not married and had no children.

World War II interrupted John's scientific career. He served as a civilian instructor in maps and charts at the Santa Ana Army Air Base, California, from 1942-1944, and obtained a direct commission in the Sanitary Corps of the Army Medical Department.

Returning to USC after the war, Garth jointed the Biology Department. He received tenure and became an Associate Professor in 1952, rising to full professor in 1967 and serving as chief curator of the collections of the Allan Hancock Foundation from 1963-1975. He became major advisor to 10 graduate students and served on advisory committees of 36 others. Among his students were Robert Menzies, Jens Knudsen, J. Laurens Barnard, Gary Brusca, Donald Bright, Roger Seapy, Manuel Murillo, John McConaugha, Elliot Norse and Mary Wicksten. He is now an "academic great-grandfather" many times over.

Over the years, a large number of visiting scientists had rewarding and productive stays with John Garth. These visitors included John Yaldwyn and Desmond Hurley of Victoria University, Wellington, New Zealand, in the 1960's; Lenoila Vasquez of Mexico, in the 1970's; William Stephenson of Australia (who co-authored a well-known work on portunid crabs with Garth (1966) and filled in as visiting professor while Garth took a leave of absence in 1973); Hoon Soo Kim, of Korea, perhaps best remembered for his continuous presence at the copy machine (also in the 1970s); and many more.

During his time on the faculty of USC, John Garth instituted a course on the biology of crustaceans, one of the first of its kind (and probably a model for Gary Brusca, who taught the course to Mary Wicksten at Humboldt State College). He and librarian Mary Ellen Pippin conducted a fascinating seminar on the voyages of Captain James Cook, focusing on the biogeography of the South Pacific and Australia and incorporating the rare books of the Hancock collections with the specimens from the collections. He hosted end-of-the-semester dinners with the students at a seafood restaurant. At least once, he was "roped into" teaching an introductory biology course to unresponsive non-majors. Was it purely by accident that, during a field trip, he led them to the edge of the rocky intertidal zone? And surely it must have been an accident that he gave no warning when a big wave rushed in, drenching all of them.

Dr. Garth was the author of numerous publications, the best known of which probably was the two-volume series on the majid crabs of the eastern Pacific. In this, he recognized the subfamily Oregoniinae, the snow crabs and related species, of cold-water origin. He published on crabs from Eniwetok Atoll, infamous site of nuclear testing; Easter Island, Clipperton Atoll, the Peru-Chile Trench, and adjacent coastline; and numerous sites in the tropical Indo-Pacific region. He co-authored an excellent illustrated chapter on the crabs of California in the extensive book, Intertidal Invertebrates of California (1990). Perhaps his strangest assignment was helping researchers in the Philippines establish that there were indeed poisonous crabs (see Garth, 1971, 1975; Alcala et al., 1988). He participated in conferences, organized symposia, and

served as president of the Society of Systematic Zoology in 1952-1953.

Equipped with an excellent memory, Dr. Garth was a terrific resource for students or visitors. With the help of Ms. Pippin, he quickly could locate the most obscure literature, regardless of the language of publication. Many of these references even today would be hard to locate, for they are not in abstracting journals and never have been entered into digital format. He never forgot a puzzling specimen, either. When biologists from the California Department of Fish and Game brought in huge specimens of the spider crab Maiopsis panamensis, he quickly figured out that the animals were adults of a species previously known only from juveniles. As one of us (MKW) prepared to write a report on the crabs, he searched among the unidentified specimens in the collections. Very pleased, he returned with a fragment of a cheliped that matched those of the adults. The fragment had been collected by Steve Glassell in the 1930's.

John Garth "officially" retired in 1975 but continued to serve as head of the advisory committees of Norse, McConaugha and Wicksten until their graduations. He moved from the office in front of the laboratory, later to be occupied by Richard Brusca, to a smaller office previously used by Norse. He continued to come in regularly to work on crustaceans, especially Indo-Pacific material. At times, Mrs. Garth would join him in the lab for afternoon tea, using a fine set given to him by colleagues in Japan. In 1987, John Garth received the Distinguished Emeriti award from the University of Southern California.

John Garth was fortunate to work with talented scientific illustrators. Anker Petersen prepared many of the fine stippled pen and ink drawings in his works on the Brachyura. Dr. Garth spent endless hours with illustrator David Mooney working on the book Butterflies of California. He continued to make collecting trips even to high alpine sites well into retirement. Well before digital imaging freed biologists from such tedious work, Mooney had to double-check with Dr. Garth on color patterns and arrangement of veins on wings for each species. Anything with a problem had to be repainted—by hand, of course.

In 1992, John Garth was honored for his research at the Colloquium on Benthic Macrocrustaceans of the Eastern Tropical Pacific (Brusca, 1992). This was the last scientific conference he was to attend. Nevertheless, he presented a summary of the state of knowledge of the crabs of the Galapagos Islands—an update of his work of 1946. Dr. Garth found himself the center of earnest attention from young biologists from Mexico, Costa Rica, Peru, and all over Mexico, as well as from colleagues from the U.S.A. Hearing that specimens of butterflies were to be moved from the USC campus to the Natural History Museum of Los Angeles County (across the street from USC; and where the Hancock crustacean collection also now resides), he spent some time organizing the work and ensuring that everything was moved properly.

While working with one of us (MKW) on a paper in 1993, John Garth observed that, while the pace of discovery of new anomurans and carideans in the northeastern Pacific continued steadily, that of brachyurans had greatly slowed.

He was correct about that. Only three new brachyurans have been reported in the area since 1993.

John Garth died on 18 October 1993. His last paper, co-authored with P. Davie, was published posthumously in 1995.

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APPENDIX I: PUBLICATIONS (CRUSTACEANS ONLY) OF JOHN GARTH

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APPENDIX II: TAXA DESCRIBED BY JOHN GARTH (arranged chronologically within families)

Family Homolodromiidae

Homolodromia robertsi Garth, 1972

Family Cymonomidae

Cymonomus menziesi Garth, 1971

Family Leucosiidae

Randallia angelica Garth, 1940

Family Calappidae

Osachila sona Garth, 1940 Acanthocarpus delsolari Garth, 1973

Family Inachidae

Anomalothir hoodensis Garth, 1939 Podochela schmitti Garth, 1939 Eupleurodon rathbunae Garth, 1939 Podochela ziesenhennei Garth, 1940 Collodes robsonae Garth, 1958 Podochela veleronis Garth, 1958 Paradasygius Garth, 1958

Family Pisidae

Notolopas mexicanus Garth, 1940 Lophorochinia Garth, 1969 Lophorochinia parabranchia Garth, 1969 Delsolaria Garth, 1972 Delsolaria enriquei Garth, 1972 Libinia peruviana Garth & Méndez, 1983

Family Mithracidae

Mithrax clarionensis Garth, 1949 Macrocoeloma maccullochae Garth, 1940 Hemus finneganae Garth, 1958

Family Tychidae

Tyche potiguarra Garth, 1952 Stilbomastax burryi Garth, 1952 Tyche clarionensis Garth, 1958 Tyche galapagensis Garth, 1958

Family Epialtidae

Epialtoides paradigmus Garth, 1958 Subfamily Oregoniinae Garth, 1958

Family Parthenopidae

Heterocrypta colombiana Garth, 1940 Parthenope stimpsoni Garth, 1958 Heterocrypta craneae Garth, 1959 Parthenope poupini Garth, 1992 Parthenope allisoni Garth, 1992 Parthenope cidaris Garth and Davie, 1995

Family Atelecyclidae

Trachycarcinus hystricosus Garth, 1971

Family Portunidae

Portunus guaymasensis Garth and Stephenson, 1966

Family Xanthidae

Glyptoxanthus hancocki Garth, 1939
Kraussia americana Garth, 1939
Heteractaea peterseni Garth, 1940
Demania toxica Garth, 1971
Demania alcalai Garth, 1975
Demania macneili Garth, 1976
Neolioxantho Garth and Kim, 1983
Nelioxantho Garth and Kim, 1983
Euryxanthops Garth and Kim, 1983
Euryxanthops dorsiconvexus Garth and Kim, 1983
Euryxanthops flexidentatus Garth and Kim, 1983
Actaeodes quinquelobatus Garth and Kim, 1983
Parapanope euagora hexacarapas Garth and Kim, 1983

Actumnus granotuberosus Garth and Kim, 1983 Neoactumnus unispina Garth and Kim, 1983 Actaea allisoni Garth, 1985 Liomera laperousei Garth, 1985 Monodaeus pettersoni Garth, 1986 Micropanope ashcrafti Garth, 1986 Micropanope taylori Garth, 1986 Guitonia Garth and Iliffe, 1992 Guitonia troglophila Garth & Iliffe, 1992

Family Platyxanthidae

Platyxanthus balboai Garth, 1940

Family Domeciidae

Maldivia galapagensis Garth, 1939

Family Panopeidae

Hexapanopeus cartagoensis Garth, 1939 Hexapanopeus costaricensis Garth, 1940 Eurypanopeus hyperconvexus Garth, 1986

Family Trapeziidae

Philippicarcinus Garth and Kim, 1983
Philippicarcinus oviformis Garth and Kim, 1983
Philippicarcinus tuberomerus Garth and Kim, 1983

Family Pilumnidae

Pilumnoides rotundus Garth, 1940 (family uncertain)
Pilumnus fernandezi Garth, 1973
Lobopilumnus multituberosus Garth and Kim, 1983
Glabropilumnus spinidentatus Garth and Kim, 1983
Parapilumnus euryfrons Garth and Kim, 1983
Parapilumnus nefissurus Garth and Kim, 1983
Parapilumnus tuberculosus Garth and Kim, 1983
Pilumnus palmeri Garth, 1986 (genus and family placement uncertain)

Family Goneplacidae

Chasmocarcinus longipes Garth, 1940 Trizocarcinus peruvianus Garth, 1973 Odontoplax Garth, 1986 Odontoplax chacei Garth, 1986

Family Pinnotheridae

Parapinnixa glasselli Garth, 1939 Pinnixa darwini Garth, 1960

Family Cympoliidae

Cympolia velerae Garth, 1939

Family Grapsidae

Plagusia integripes Garth, 1973

Family Pseudorhombilidae

Pseudorhombila xanthiformis Garth, 1940