

## KEIZO YASUMATSU (1908-1983) \*

Dr. Keizo Yasumatsu, Professor Emeritus, Kyushu University, died at the age of 74 in Fukuoka on January 25, 1983. He was ill for a time and was hospitalized in October 1981. Unfortunately he was not able to recover from his illness. Throughout his illness he had high hopes of returning to his entomological studies and activities.

Professor Yasumatsu was born in Tokyo on March 1, 1908 (in fact, on February 29, but his parents decided he should not be deprived of three out of every four birthdays). He was educated in Fukuoka, and graduated from Kyushu University (then Kyushu Imperial University) in 1933. His major professor was Dr. Teiso Esaki, one of the most distinguished entomologists of that time, who was the first Professor of Entomology at Kyushu University. He received his doctorate from Kyushu University in 1945. His doctoral dissertation submitted to Kyushu University was entitled, "Some analyses on the growth of insects, with special reference to a phasmid, *Phraortes kumamotoensis* Shiraki" (bibliography, item 280).

He was appointed Non-regular Staff Member at the Entomological Laboratory, Faculty of Agriculture, Kyushu University in 1933. For three years from 1936 Dr. Yasumatsu worked as an Assistant Curator for the Hikosan Biological Laboratory at Hikosan, about 90 km east of the city of Fukuoka, which is one of the satellite research institutions of the Kyushu University. During these years he carried out intensive studies on the biology of many insects. Since the Laboratory is located high on the slopes of Mt. Hikosan (1,200 m), he had a convenient access to many insects for field studies.

In 1939 he was appointed Assistant Entomologist and was transferred again to the Entomological Laboratory, Faculty of Agriculture, Kyushu University. He was promoted to Associate Professor of Entomology in 1942, and Professor of Entomology in 1958, at which time he succeeded Professor Teiso Esaki who had passed away at age 58 in 1957. After a 38-year service he retired in March 1971.

Professor Yasumatsu's first contribution to entomology was published in 1928 when he was 20 years old. It was on the geographical distribution of a lycaenid butterfly, *Japonica lutea*, which he recorded from Kyushu for the first time (bibliography, item 1). By the time he had completed his M. A. degree, he had already published 36 papers on biological, taxonomic and morphological

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aspects of various insects including the description of *Methoca japonica* Yasumatsu, which was the first insect he described (bibliography, item 26). At this time wasps and bees were his special interests. From 1933 to 1938, during his research years at Fukuoka and Hikosan, he published more than 130 papers, most of which were on Hymenoptera.

From March 18 to April 24, 1940, Professor Yasumatsu travelled to Micronesia as a member of the Micronesia Expedition conducted by Professor Esaki. The insect specimens brought back to Kyushu University by this expedition (1936-1941) were, and still are of great importance to both domestic and foreign entomologists. For example, the late Dr. J. L. Gressitt, Bishop Museum, Honolulu, Hawaii, was one of the entomologists who recognized the importance of the collections at Kyushu University. He especially recognized the value of the Micronesian collection at Kyushu University when he was engaged in the Insects of Micronesia Project in 1953. Thus, the collection at Kyushu University became naturally involved in the Micronesia Project through the efforts of Professor Esaki and Dr. Gressitt. Excellent cooperative relationships between the Bishop Museum and Kyushu University were maintained by Professor Yasumatsu during his tenure as professor. This cooperative relationship is still being maintained by Professor Y. Hirashima, his successor as Professor of Entomology.

Professor Yasumatsu was also a member of the Scientific Expedition to Shansi (山西省), China, sponsored by the Association of Natural Resources Societies (資源科学諸学会連盟). He visited China from April 15 to July 10, 1942, where he collected a wide range of insect specimens of interest to many entomologists. He himself published three papers on Hymenoptera based on this collection (bibliography, items 328, 329, 454).

By the end of World War II, Professor Yasumatsu had become internationally renowned for the systematics of Hymenoptera, specifically the wasps and bees, but he was also very familiar with ants, fleas, stick insects and others.

The year 1946 was very productive and satisfying to Professor Yasumatsu. In the early summer of this year he discovered an encyrtid wasp parasitic on the red wax scale, *Ceroplastes rubens*, which had long been known as one of the most serious pests of citrus, tea, persimmon and other economic plants in Japan. His discovery led to a series of field studies which revealed that this parasite was a very effective biological control agent of the red wax scale. It was named *Anicetus beneficus* Ishii et Yasumatsu in 1954 (bibliography, item 381). He discovered this wasp on the Hakozaki Campus of Kyushu University where the Entomological Laboratory is located and where many plants including laurel had been infested by the red wax scale. Within a few years after its discovery, there developed a great demand for this parasitic wasp by citrus cultivators of Japan. It was liberated in the citrus orchard of many places

in Honshu and Shikoku where the red wax scale was a pest. After liberation it ceased to be a pest. Because of this work on *Anicetus beneficus*, he received the prize, Nihon Nogaku Sho (日本農学賞), from the Association of Japanese Agricultural Science Societies (日本農学会) in 1953. Since then his interests shifted more and more towards the field of biological control.

Again he was very fortunate in 1955 when he received another grant. He received a grant to study entomology and biological control in the United States by the Ministry of Education (now Ministry of Education, Science and Culture) as a resident scholar. He travelled widely in the United States from February 18, 1956 to January 29, 1957, visiting many scientific institutions such as Bishop Museum and Department of Entomology, University of Hawaii, Honolulu, Hawaii; Department of Biological Control, University of California, Riverside, California; Department of Entomology and Parasitology, University of California, Berkeley, California; Commonwealth Institute of Biological Control, Fontana, California; United States Department of Agriculture, San Diego, California; Department of Entomology, University of Kansas, Lawrence, Kansas; Department of Entomology, Kansas State University, Manhattan, Kansas; Department of Entomology, Iowa State University, Ames, Iowa; Smithsonian Institution, Washington, D. C.; Department of Entomology, Ohio State University, Columbus, Ohio; Department of Entomology, University of Minnesota, St. Paul, Minnesota; Museum of Comparative Zoology, Harvard University, Cambridge, Massachusetts; and others. While in the United States he also attended the 10th International Congress of Entomology held at Montreal, Canada. These experiences were without doubt of great educational value. They laid the foundation for his illustrious career after he returned to Japan.

After his return from the United States he began writing articles on natural enemies and biological control in scientific journals and magazines. He was enthusiastic in spreading the idea on the use of natural enemies for the control of pests in Japan. In January 1959, he was awarded the Asahi Prize (Culture Section) (朝日文化賞) from the Asahi Press for his contributions on biological control. In accepting the award, Professor Yasumatsu was very delighted that the Asahi Press had recognized his knowledge of taxonomy of the Hymenoptera and remarked that his contributions to biological control were the result of this knowledge. He was a "hymenopterologist", indeed.

The year 1964 was a happy and commemorative year for Professor Yasumatsu. In April of that year the Institute of Biological Control was founded at Kyushu University. Needless to say Professor Yasumatsu was the founder. It seems very probable that he had already decided in his mind to establish the Institute of Biological Control at Kyushu University when he was at the Biological Control Laboratories at Riverside and Fontana, California, in 1956.

From 1963 to 1966 Professor Yasumatsu carried out field studies on the natural enemies of rice stem borers in southeast Asia in collaboration with

Professor T. Nishida and Professor H. A. Bess, University of Hawaii, Honolulu, **Hawaii**, under the Japan-United States Binational Science Program. Under this program he carried out research in Pakistan, India, Thailand, and Philippines in 1963 ; Philippines and Hong Kong in 1964; Australia, Thailand, and Hong Kong in 1965; and Taiwan in 1966.

His next major research program was on the biological control of rice stem borers, aphids, diaspine scales, and spider mites. This program, entitled "Field survey on the biological control of rice stem-borers, aphids, diaspine scales and phytophagous mites in S. E. Asia", was organized under the International Biological Program (IBP), which was conducted in 1970 in Philippines, Thailand and Hong Kong, sponsored by the Ministry of Education, Science and Culture. After the retirement of Professor Yasumatsu this program was continued by Professor Y. Hirashima, who carried out field studies again in these countries in 1973.

After retirement from Kyushu University in 1971, Professor Yasumatsu devoted himself to integrated crop protection research in Thailand. He worked in Bangkok from 1972 to 1974, and again from 1976 to 1980, a total of six years. During these years he was supported by FAO and the Japan International Co-operation Agency (JICA). He was accompanied by his wife in Bangkok for most of these years. During these years they were busy greeting Japanese visitors who came to Thailand. Because he was so kind and helpful to them, he was called "Japanese civil ambassador" and also "one man Japan travel bureau". During this same period some people called him "Mr. Entomologist" and "Mr. Biological Control" of the Orient. During 1976-80, he was also consultant in crop protection for FAO in Korea, Malaysia, and Iran.

Besides research, he was also active in the affairs of many educational and scientific organizations. He was the president of the Entomological Society of Japan for eight years, 1961 to **1968**. He was also a member of Science Council of Ministry of Education, Science and Culture as well as member of committees of other domestic and international organizations such as Science Council of Japan; Ministry of Agriculture, Forestry and Fisheries; Pacific Science Congress ; International Organization for Biological Control (IOBC) ; UM Section, Working Group of Biological Control of IBP; Rice stem borer Project Coordinator, IBP ; International Advisory Committee on Biological Control ; Panel of Experts on Integrated Pest Control, FAO; and others. He was a member of standing committee of International Congress of Entomology from 1968, and a member of standing committee of International Congress of Plant Protection from 1975 to the time of his death.

He travelled extensively attending many international meetings, workshops, and symposia, many of which he was an organizer. Professor Yasumatsu played an important role in the establishment of IOBC/SEARS. He was the first President of this organization.

Professor Yasumatsu received many awards and honors during his distinguished career, some which were mentioned already. His other awards include Professor Emeritus of Kyushu University in 1971, Medal with Purple Ribbon (紫綬褒章) in 1971, Honorary member of the Hawaiian Entomological Society in 1971, Second Harry Scott Smith Memorial Award (University of California) in 1971, Doctor Emeritus of Science (Kasetsart University) in 1976, Third Class Order of the Rising Sun (勳三等旭日中綬章) in 1978, Honorary member of the Entomological Society of Japan in 1980, Honorary member of the International Congress of Entomology in 1980, and Honorary member of the Japanese Society of Applied Entomology and Zoology in 1982.

In addition to being an excellent researcher, he was an effective teacher. During 1942-1971 he guided the research work of many students at the Kyushu University. His students are today all successful entomologists holding high positions in universities, government, and private industries.

Professor Yasumatsu was a prolific writer. He published more than 600 papers, among which are about 130 on biological control and natural enemies. His famous book on biological control, entitled "Natural Enemies-An Approach to Pest Management" was published in 1970 (bibliography, item 601). His long-lasting textbook "Applied Entomology", written in collaboration with T. Yamasaki, S. Utida and K. Nomura, first appeared in 1953 (bibliography, item 363). He also wrote a popular book on insects entitled "Man and Insects" in 1965, which was revised in 1968 (bibliography, items 541, 590). It is a jewel among reading materials with many interesting stories. He also wrote a book, "Man and Ants", in 1948, which was reprinted in 1983 (bibliography, items 298, 656).

Professor Yasumatsu was a very skillful biological artist. Almost all illustrations of insects that appeared in his papers and books were drawn by himself. One of these, *Anicetus beneficus*, is shown in Fig. 1.

He was one of the founders of the Fukuoka Entomological Society (福岡蟲の会), the organization which published an international journal, *Mushi*. He was the editor of this journal for more than 45 years. Unfortunately, the publication of this journal ceased with volume 49 (1976) because the editor could not manage it after he left Fukuoka for Bangkok. However, in his memory we intend to publish the last volume 50 and a general index of *Mushi* in the near future.

He also started the publication of the journal *Esakia* which was first published in 1960 as Occasional Papers of the Hikosan Biological Laboratory in Entomology. It was named in honor of Professor Teiso Esaki.

Professor Yasumatsu was also the editor of *Kontyū*, the official publication for the Entomological Society of Japan from 1954 to 1960. In addition, he was one of the editors of *Pacific Insects* and *Oriental Insects*. At one time *Pacific Insects* was printed in Fukuoka under the direction of Professor Yasumatsu.

Y. HIRASHIMA

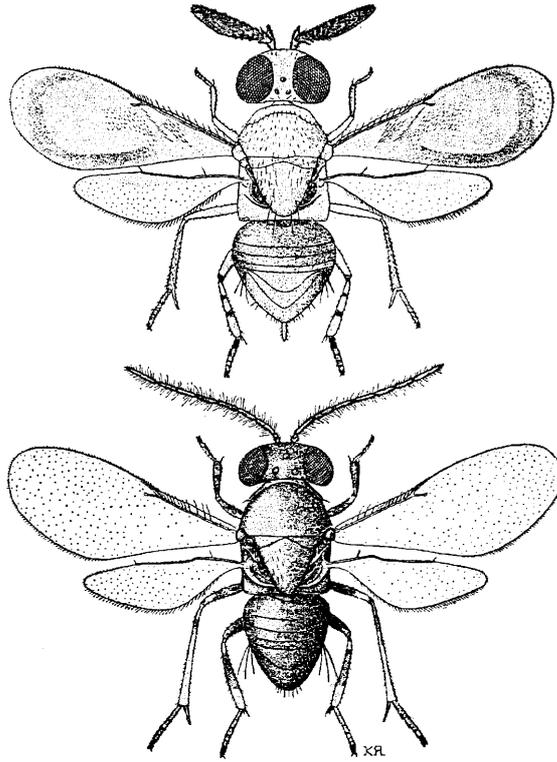


Fig. 1. *Anicetus beneficus* Ishii et Yasumatsu, ♀ (above) and ♂, drawn by Professor Yasumatsu. (Reproduced from *J. Fac. Agr., Kyushu Univ. vol. 9, 1949*)

Before closing I would like to cite a part of the final tribute to Professor Yasumatsu made by Dr. Toshiyuki Nishida, Professor Emeritus of University of Hawaii, who flew to Fukuoka to attend the funeral services. His statements summarize the kind of individual Professor Yasumatsu was as a scientist, teacher and person.

"I first met Professor Yasumatsu in April 1959 when I first came to Fukuoka. I was deeply impressed by the kindness extended to me, a total stranger. From that meeting began our lifetime friendship and cooperative research. He was indeed a compassionate and an understanding man who went out of his way to help his fellowman. Because of his many fine personal qualities, he had numerous friends all over the world; many of them made special trips to Fukuoka to visit him. Many of them came to know and appreciate Japan because of Professor Yasumatsu. He was indeed a one-man ambassador of good will. He opened the doors of the Japanese entomological world to foreign entomologists.

"In addition to his many fine human qualities, Professor Yasumatsu was a great teacher. There are many outstanding entomologists in this room today

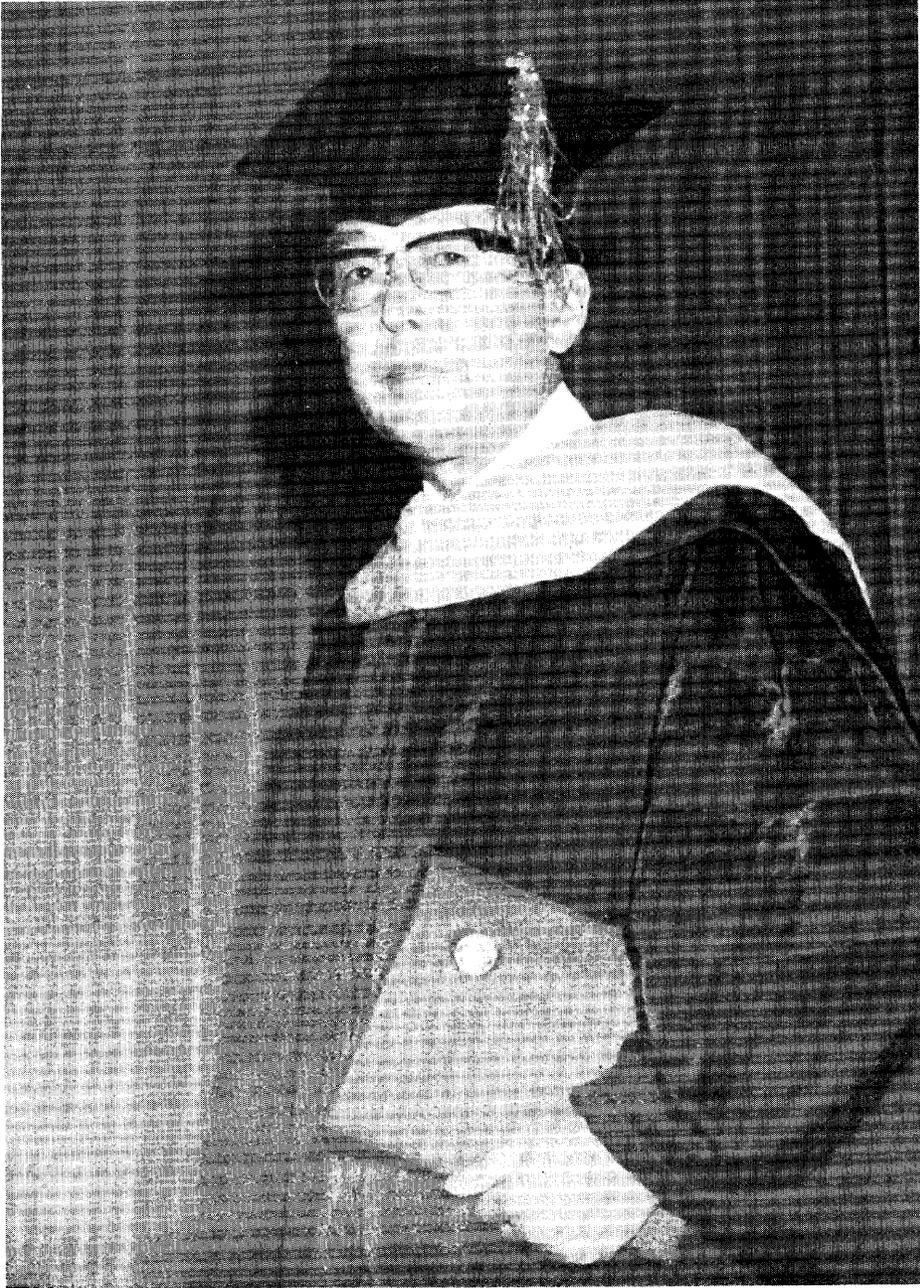
who were his students. They are professors and scientists who hold responsible positions within and outside of Japan. Although I did not receive my formal education under his guidance, I like to consider myself as one of his students because I have learned much through our long association.

“As a scientist, Professor Yasumatsu was recognized as one of the top entomologists of the world especially in the area of taxonomy, biological control, and pest management. He has published numerous papers in these areas of specialty. He has received many research grants and honors in recognition of his work including an Honorary Doctorate from the Kasetsart University in Thailand in 1976. In addition, he has received numerous requests to participate in workshops and symposia held in many parts of the world.

“In conclusion, I wish to state that Professor Yasumatsu’s work and his philosophy of entomology will long be remembered in the years to come not only in Japan but throughout the world. Indeed, the world has lost not only a great scholar, but a true friend who devoted himself unselfishly to the welfare of entomology and his fellow workers”.

He is survived by his wife, Yoshie, and daughter, Eiko, who is Mrs. T. Sengoku of Tokyo. Mrs. Yasumatsu lives in Ooki 1-17-17, Oonojo City, Fukuoka Prefecture. We wish to express our condolences to both of them.

Yoshihiro Hirashima, *editor*



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