

## BIOGRAPHY AND BIBLIOGRAPHY OF HILARY PETER CRUSZ

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The University of Ceylon was formed by the amalgamation of the Ceylon University College, established in 1921, and the Ceylon Medical College which had existed as a separate entity since 1870. It 'came into operation' on 1<sup>st</sup> July 1942 by proclamation dated 9 June 1942. Hilary Crusz was in the last batch of students to graduate from the Ceylon University College with an external degree awarded by the London University.

Hilary Peter Crusz was born in Galle on 30<sup>th</sup> August 1920, the eldest child of Michael Charles and Clea Marcellina Crusz. His father was a dedicated and very respected Government Trained Teacher who gave forty one years of his life to this profession, first at St. Aloysius College, Galle and later at St. Peter's College, Colombo. Hilary Crusz was, without doubt, greatly influenced by his father.

After the kindergarten at the Sacred Heart Convent, Galle he was admitted to St. Peter's College, Colombo in 1928, and proceeded over the next decade to enjoy a productive and distinguished academic career as a prize winner (seven prizes in 1936) and a first division pass at the London Matriculation examination. Amongst the teachers at St. Peter's who he remembered with gratitude and affection was Father Thomas Paris who encouraged and trained him for the University entrance examination. Hilary Crusz entered the University College in 1938 on a science scholarship amply rewarding the confidence and efforts of his mentor.

Some of his contemporaries in the interscience class of 1938 at University College were Ernest Abeyaratne, B.C.d'Silva, S.R. Kottegoda and J.F.L. Tissaveerasinghe. Hilary Crusz read for an honours degree in Zoology graduating with second class honours in 1942. He was a very keen and enthusiastic student who spent much time and took great care in the meticulous preparation of notes and practical records. He read widely and was much disciplined in his approach to his study of

Zoology, and indeed to his whole career as an undergraduate. He was a Visiting / Assistant Demonstrator in Zoology as a student in 1940 - 42.

His ambition was to continue in the University, and he began his long and distinguished university career as a Research Assistant to Professor D.R.R. Burt on graduation in 1942, then as a Demonstrator in Zoology in 1943 before appointment to the permanent academic staff as Assistant Lecturer in July 1945.

He had already started his research on tapeworms at Professor Burt's suggestion examining the development of the tapeworm scolex and hooks and related larval development. This work was continued in the London School of Hygiene and Tropical Medicine. Professors J. Buckley and H. E. Shortt (the celebrated Malarialogist), his supervisors, and R.T. Leiper were particularly helpful to the young and enthusiastic foreign student. Hilary Crusz was awarded the Ph.D by London University in 1948 for his studies on the development of cestodes with special reference to the 'chitinization' of the hooks of holdfast organs (Crusz, 1948 (c), (d)).

On his return to Sri Lanka he was promoted to Lecturer Grade II in 1949, and Lecturer Grade I in 1956. He was then made in-charge of the Sub-Department of Zoology in Peradeniya in July 1961 when the Faculty of Science expanded its mandate to Peradeniya as the Second Faculty of Science.

Professor Wilfred Fernando retired in February 1963, to be succeeded by Hilary Crusz as Professor of Zoology, University of Ceylon in 1964. He was also the Head of the Department and in overall charge of Zoology both in Colombo and Peradeniya.

The University of Peradeniya became a separate institution in 1967, and he continued as Professor of Zoology and Head of the Department in Peradeniya while a new chair in Zoology was

created in the University of Colombo. He taught Zoology at all levels and French and German to the Special Degree students. He was an excellent and exemplary teacher, and his lectures to the final year Special students in Parasitology and Biogeography fired the students' interests and encouraged them to read and explore the subjects further. Generations of students will remember him not only for his lectures and the strict discipline he maintained, but also for his commanding presence in the Department and the bonhomie he extended. During his headship the disciplines of Freshwater Ecology, Terrestrial Ecology and Wildlife Biology and Management were developed and strengthened by collaborative studies with the Smithsonian Institute, Washington.

He always encouraged his students to do some research, however small, to 'get on the rails', and to publish their findings in a recognized journal. It is not an exaggeration to say that for many years the Department of Zoology at Peradeniya was Hilary Cruz with the stamp of his remarkable personality, and its growth, with him as Head from its inception in 1961. He retired in 1985 on reaching the mandatory age for retirement but continued his research as Scientific Co-ordinator for the NARESA-SAREC sponsored Zoological Survey of Sri Lanka. He was made Emeritus Professor in 1985.

He was a member of several national and international societies, a founder member of the Ceylon (later Sri Lanka) Association for the Advancement of Science, and President of section D in 1970; Fellow of the National Academy of Sciences, Sri Lanka; Member of the National Science Council of Sri Lanka (1968-72); Chairman, Working Committee on Biological Sciences for NARESA, Scientific Coordinator NARESA-SAREC Zoological Survey of Sri Lanka (1984-1989); Member of the Government's Fauna and Flora Protection Society (1965-1980); Fellow of the Zoological Society of London; Research Associate of the Smithsonian Institution, USA; Member of the Societe de Biogeographie, Paris; Member of the Asian Association for Biology Education; Member of the International Jury of the Institut de la Vie, Paris, for the award of the Prize for Environmental Studies; Fellow of the Royal Society of Arts, London.

His exceptional writing and editorial skills were widely recognized. He was Co-Editor of the *Ceylon Journal of Science (Biological Sciences)* (1961-81) and General Editor (1965-81); Consulting Editor for *Biological Conservation* (Great Britain) since 1973 and Co-Editor *Systematic Parasitology* (The Netherlands) since 1982.

He participated in many local and international conferences, seminars, workshops, study tours etc. which doubtless benefited from his contributions with his consummate preparation and the knowledge of the subject at hand.

The publications of Hilary Cruz listed below in three categories indicate clearly his research prowess as well as his wide interests. His research in parasitology was essentially of a taxonomic nature, and the series on the parasites of the Relict Fauna of Ceylon is of particular interest with its biogeographic and evolutionary implications (*vide* scientific publications of 1978, '84 and '86). His seminal work on the development and chemistry of tapeworm hooks is cited in most of the standard texts in animal parasitology. The pioneering investigation (Cruz, 1952) on the amphistome infestation in Sri Lankan ruminants is worthy of repetition and revision. The very elegant study of the life history of *Transversotrema patialense* and other work on digeneans were well received to the extent that a new genus of a digenian *Cruziella* was named 'in honour of Professor Hilary Cruz in recognition of his contribution to trematodology'. He was a meticulous researcher. The early publications were bound in two volumes (1952) and some of the papers were regularly updated with references and notes in his neat handwriting. To read these and later publications is an education in research and the writing up of ones research findings.

The articles in non-peer reviewed journals and periodicals are indicative of his interests and involvement in education, the arts and philosophy in addition to his own special discipline. He was truly the well rounded academic with his collection of books stimulating to talk to as well as read, for his point of view and clear exposition.

Not included in the list are several newspaper articles on a range of subjects and mimeographed publications of presentations at seminars and

workshops on university education, the writing of a scientific paper, the scientific method, taxonomy, Darwin and evolution, and a talk on parasites broadcast on Radio Ceylon.

Hilary Crusz was ever ready to express his views on educational and scientific matters and administrative decisions of which he was critical. He enjoyed being a 'bloody-minded' person on some occasions, who kicks shins, telephones the media, writes letters... to be a kind of human nettle' (Alex Comfort).

He also took delight in referring to an observation made by the late Francis Crick in his Nobel narration, which I brought to his notice: 'Politeness is the poison of all good collaboration in science. The soul of collaboration is perfect candour rudeness if need be... in science criticism is the height and measure of friendship.'

He continued his work with the same enthusiasm and dedication after his retirement until his death on 18<sup>th</sup> May 1989 leaving behind a rich and exemplary legacy of learning, teaching and research. A vote of condolence was moved by Professor W.R. Breckenridge at the 120<sup>th</sup> meeting of the Senate of the University of Peradeniya held on ninth August, 1989.

Hilary Crusz is survived by his wife Decima, sons Thomas and Robert, daughters Frances and Marie and nine grand children.

#### SCIENTIFIC PUBLICATIONS OF HILARY CRUSZ

- 1944 - H. Crusz. Contributions to the helminthology of Ceylon, I. On *Multiceps serialis*, *Ceylon J. Sci. (B)* 22, 173-181.
- 1946 - H. Crusz. Contribution to the helminthology of Ceylon, II. Notes on some parasitic nematodes, with a description of *Anisakis tursiopsis* sp.nov. *Ceylon J. Sci. (B)* 23, 57-66.
- 1947 - H. Crusz. The early development of the rostellum of *Cysticercus fasciolaris* Rud., and the chemical nature of its hooks. *J. Parasit.* 33, 87-98
- 1948 - (a) H. Crusz. Observations on a case of endogenous budding in *Cysticercus tenuicollis* Rudolphi. *J. Helminth.* 22, 63-72.
- (b) H. Crusz. On an English case of an intramedullary spinal coenurus in man, with some remarks on the identity of *Coenurus* spp. infesting man. *J. Helminth.*, 22, 73-76.
- (c) H. Crusz. On the transverse fission of *Cysticercus pisiformis* in experimentally infested rabbits, and the phylogenetic significance of asexual phenomena in cysticerca. *J. Helminth.* 22, 165-178.
- (d) H. Crusz. Further studies on the development of *Cysticercus fasciolaris* and *Cysticercus pisiformes* with special reference to the growth and sclerotization of the rostellar hooks. *J. Helminth.* 22, 179-198.
- 1950 - (a) H. Crusz. Observation on some spirurid nematodes from Ceylon vertebrates. *Ceylon J. Sci. (B)*, 24, 131-134.
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- 1952 - H. Crusz. The nature, incidence and geographical distribution of amphistome infestations in neat cattle, buffaloes and goats in Ceylon. *Ceylon J. Sci. (B)*, 25, 59-73.
- 1954 - H. Crusz & V.S.V. Fernando. The trematode parasites of the dugong, with descriptions of two new monostomes and histopathological changes in the host. *J. Parasit.* 40, 499-507.
- 1956 - The progenetic trematode *Cercaria patialensis* Soparkar in Ceylon. *J. Parasit.* 42, 245.
- 1957 - (a) H. Crusz. Gregarine protozoa of silverfish (Insecta: Thysanura) from Ceylon and England, with the recognition of a new genus. *J. Parasit.* 43, 90-92.
- (b) H. Crusz. A new anaporrhutine trematode, *Staphylorchis parisi* sp. nov. from the shark *Scoliodon walbeehmi*. *Ceylon J. Sci. (B)* 25, 193-195.

- 1960 - (a) H. Crusz. New gregarines parasitic in lepismatides from Ceylon. *Proc. Zool. Soc. Lond.*, 135, 525-536.  
 (b) H. Crusz. A.H. Sathanathan. Metacercaria of *Transversotrema patialense* in the freshwater fish *Macropodus cupanus*. *J. Parasit.* 46, 613.
- 1964 - H. Crusz, W.E. Ratnayake and Sathanathan, A.H. Observations on the structure and life cycle of the digenetic fish trematode *Transversotrema patialense* (Sopakar). *Ceylon J. Sci. (Bio. Sci.)* 5, 8-17.
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- 1975 - H. Crusz & C.C. Ching. Parasites of the relict fauna of Ceylon. V. New species of nematodes from uropeltid snakes. *Ann. Parasit. Hum. Comp.*, 50 339-349.
- 1976 - H. Crusz & C.C. Ching. Parasites of the relict fauna of Ceylon VI. More new helminths from amphibians and reptiles, with a new host-record and redescription of *Acanthocephalus serendibensis* Crusz and Mills, 1970. *Ann. Parasit. hum. comp.*, 50, 531-558.
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- 1980 - M.R. Baker & H. Crusz. *Cosmocercella uropeltidarum* (Crusz & Ching, 1975) n. comb. (Nematoda: Cosmocercidae), parasites de serpents (Uropeltidae) d'Asie. *Bull. Mus. Natn. Hist. Nat., Paris*, 2, (Sect. A), 719-722.
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## OTHER PUBLICATIONS

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- 1960 (a) Dugongs. *Loris* 8 (5) 300 - 302  
 (b) Silverfish breeding. *Loris* 8 (6), 355 - 359
- 1972 Wanted urgently: a new politics of ecology. *Loris* 12 (6), 275 - 277
- 1973 The Coelacanth : A moment with *Latimaeria* in Paris. *Loris* 13 (2), 98 - 99
- 1984 Problems of Evolution - In: Fundamental studies and the Future of Science. Ed.
- 1985 N.C. Wickremasinghe. Cardiff. University College Cardiff Press. 239-249.

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## II TEACHING / RESEARCH / EDUCATION

- 1968 CAAS School Biology Project. *J. Nat. Edvc. Soc. Ceylon* 17, 17-30.
- 1969 V. Basnayake and H. Crusz. The relation of school biology to post-school biology and everyday life. *New Trends in Biology Teaching II. Paris, UNESCO.*
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- 1974 Aims and Ideals of University Education. *Marga* 2 (3), 86-91.
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- 1963 Science and Theology of the Virgin Birth. *LOGOS* 4 (1), 62-70.
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## IV THE ARTS

Does the Doctor sing Volume 1. Love. Selected works of Hilary Crusz. pp I - VI + 46. Published by Robert Crusz, 2000, Kelaniya.

## SELECTED TEXT BOOK REFERENCES TO PROF. H.CRUSZ'S WORK.

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