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Obituary: John Brigham Ward (1928 – 2016)

John Brigham Ward was born in Harrogate, Yorkshire, England on 10 January 1928 to Arthur and Evelyn Ward, and had one younger sister Deb. His father Arthur left the family while the two children were young and his mother died when John was just 12 years old. From then, John's aunt who ran a boarding house, brought up the two children. John attended primary and secondary school in Harrogate before being called up for compulsory military service in the airforce at age 18. During this period he spent an enjoyable and life-changing year in Japan, and often remarked that Japan became part of his soul. On returning to civilian life he and a friend set off on a cycle journey to South Africa, although they never made it – arrested in Libya without visas and deported to Naples. Following that adventure John had a few temporary jobs then decided to do some serious study, gaining a scholarship to the University of London following success at night school. He attended the Royal College of Science, University of London from 1953-1956 graduating with a B.Sc. in Physics, Honours Class 2(1) in 1956. John then travelled to the United States to study towards his Ph.D. at Northwestern University in Evanston, Illinois from 1956-1960. His thesis was entitled "Low-temperature recovery of resistivity in electron-irradiated gold".

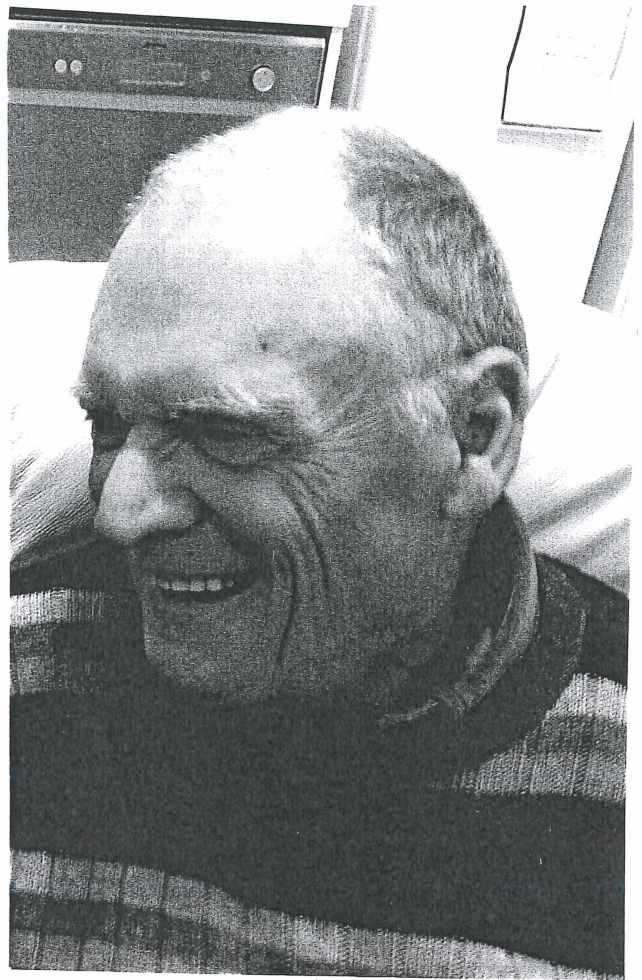
John met and married Glenda at the University and following marriage in Mexico they had two children; Sam and Susan, with a third Diana adopted later in New Zealand and Nick born two years later in Christchurch. From Evanston John and Glenda moved back to the University of London where John worked from November 1960 till September 1961 as a research assistant in the Department of Metallurgy, Royal School of mines. There he designed and built a floating-zone electron-beam melting furnace. Following that position, they moved to the Physics Department at the University of Arizona, Tucson, USA in October 1961 where John worked as an assistant Professor with both teaching and research responsibilities. His research programme was on the change of lattice parameter of aluminium after quenching. He left that position in January 1965 and took up a position as Senior Lecturer at the Physics Department of Canterbury University in New Zealand in March 1965. Apart from teaching responsibilities, he researched Mossbauer Spectroscopy.

John was a musician, playing the cello in chamber groups and in the Christchurch Orchestral Society. However, outside of work, his foremost lifelong interest was entomology – to which he devoted many hours.

In 1978 John and wife Glenda separated and several years later in 1985 John met Geraldine, soon to be his second wife, at the Canterbury Sun Club. He often described Geraldine as a "smashing woman". They married in 1985, with ex-wife Glenda "giving John away". They enjoyed 31 years of marriage, living in both Durham and Simeon Streets in Christchurch over the years.

I met John on 2nd January 1988 when I picked him and Geraldine up from the airport at Hobart, Tasmania. They had registered to be part of a joint ecological expedition of Tasmania which I had co-organised. For the next two weeks (2-16 January 1988) we explored remote parts of the island together and became close friends and entomological comrades.

In January 1990 John took early retirement from the University of Canterbury and began a long and productive association with the Canterbury Museum where he was welcomed as a Research Associate in the Entomology



Department till he died in April 2016. John's chosen area of research there was caddisflies (Trichoptera); their systematics and distribution. He followed closely in the footsteps of Alex MacFarlane at the Canterbury Museum who assisted John in those first few years. Sadly Alex died in 1992 and together with Museum entomologist Antony Savill, John wrote Alex's obituary which was published in both the New Zealand Entomologist and Braueria, a European caddisfly journal.

John used the Canterbury Museum as his research base to explore the freshwater seepages, streams and rivers of New Zealand and pull together lists of the caddisflies present. New species found in the course of his expeditions were regularly described and published along with maps of distribution of all our caddisflies. He was always pleased to receive caddisflies from countless persons across New Zealand and supply a list of what they had found and its significance. Apart from many published scientific papers he leaves a huge caddisfly collection, immaculately labelled, at the Canterbury Museum as a priceless resource for future workers in this field.

Between 1988 and 2006 John and I had 31 joint expeditions across the South Island surveying for moths and caddisflies and other insects. John was usually accompanied by his wife Geraldine, while my growing family also accompanied us too. We stayed in tents, huts or motels depending on what was available. Together we explored myriad places across the South Island from Fiordland, Takitimu Mountains, Blue Mountains and The Catlins in the far south, through the Waipori Valley, Alexandra area, Ida Range, Coronet Peak and The Remarkables of Central and Western Otago; Kirkliston Range, Two Thumb Range, Mount Hutt and Craigieburn Range of Canterbury and further north Lewis and Arthurs Passes; many trips sampling the streams and glaciers of the West Coast, and east to Banks

Peninsula. These expeditions ranged in length from three to eight days.

One memorable trip was by helicopter to Chancellor Hut via Mount Fox above the Fox Glacier, Westland National Park between 14-21 January 1996. This was John's first helicopter trip and I remember well his trepidation, but later elation at being able to explore new alpine terrain set amidst a stunning mountain landscape. John was always jovial company and we often enjoyed red wine in the evening while we were sitting around the light trap awaiting caddisflies and moths. In the morning we sorted our collection and set-off for the next stream or alpine area, sweeping streamsides and searching under rocks in the stream by day for adults and larvae of caddisflies, then setting up camp late in the day at another likely-looking site for the night work. We would often spend a week of such searching before returning to our respective homes in Christchurch (John), or myself (Dunedin or Alexandra). It was profitable teamwork as regularly we found new species of caddisfly, moth or stonefly, and we made large collections of the lacewings, and New Zealand's sole species of scorpionfly and dobsonfly too. The stoneflies were sent to the late Ian McLellan living in Westport who regularly published the results of our surveys, and the mayflies to Terry Hitchings who also was an Honorary Curator at the Canterbury Museum. Ian dedicated a new species of stonefly *Zelandobius wardi* to John who discovered it at Hinewai, Banks Peninsula. It remains an endemic species to Banks Peninsula and is an appropriate memorial to John's surveying ability and to his landmark publication that he led on the insect fauna of the Hinewai Reserve. A beetle also bears John's name. *Allinocinopus wardi* was described in 2005 by entomological colleagues Andre Larochelle and Marie-Claude La-Riviere of Landcare Research, Auckland.

John travelled widely during his lifetime, including attending many caddisfly conferences across the world, and always took the opportunity to socialise with colleagues and cement relationships, in addition to making caddisfly collections in the places he visited which included Sweden, Singapore, Australia, Thailand, Japan, United States and several trips to Great Britain. In England he made friends with the late Joe Firmin who remained a friend of both of us, often visiting New Zealand, until Joe died. A sabbatical from the University of Canterbury in 1989 was mostly spent in the United States.

John suffered a major stroke on returning home from a joint trip on the West Coast between 4-6 February 2006, and was paralysed down one side of his body. I distinctly remember waving goodbye to him and Geraldine as they drove off home from Maruia Hot Springs hotel in their red four-wheel drive. This was to be John's last fieldtrip as John was confined to a wheelchair on his release from hospital. While being confined to a wheel-chair meant his fieldwork chapter of his life was over, he continued to liaise with entomologists, co-author and edit caddisfly papers for many years to come. He was unable to travel to the Canterbury Museum or explore outside of Christchurch anymore, but he enjoyed friends visiting him at his home in Spreydon and was often seen browsing nearby Barrington DVD libraries and stores as he enjoyed watching movies.

In total John published 55 scientific papers, eighteen of which related to his research in Physics particularly on Mossbauer spectroscopy. In the 37 papers on caddisflies and survey results, John described or co-described 52 novel New Zealand caddisflies between 1991 and 2005 (Winterbourn 2014), and a further 64 New Caledonian species in nine co-authored papers on that island's caddis fauna.

John had many diverse interests including being active in the Canterbury Sun Club since 1965, Canterbury Botanical Society since 1980, Over 40s Tramping Club from 1975, Greenpeace from 1992, Royal Forest and Bird Society from 1990, Free Beach Group from 1995, Royal Society of New Zealand from 1965, New Zealand Entomological Society from 1987, Systematics Association from 1993, Summit Road Society from 1975, NZ Ecological Society since 1993, Youth Hostel Association from 1950 and new Zealand Humanist Society since 1980.

John died peacefully at his home in Spreydon, Christchurch on the night of 4-5 April 2016, and his funeral was held on Friday 8 April 2016. John is survived by his sons Sam, Nick, daughters Susan and Diana and wives Glenda and Geraldine. He was grandfather to eleven grandchildren spread between Japan, Cairns, Australia and Christchurch.

John's research on the natural history of New Zealand's caddisflies has led to a much better understanding of their biogeography, ecology and biodiversity. Consequently New Zealand's freshwater entomology and ecology is in a much better situation following John's unlocking of biodiversity, as caddisflies are the most diverse insect group there. Additionally based on his mapping systems and descriptions of new genera and species, its biodiversity is better appreciated and we now have a more consistent view of nationwide diversity and hotspots through his nationwide surveying that had not been undertaken by one person previously. John leaves a tremendous scientific legacy with a large curated caddisfly collection at the Canterbury Museum, mapping programmes that allow species' distributions to be mapped and better appreciated, and many colleagues including myself that were inspired by his sense of adventure, collegiality, generosity and discipline to master a branch of science and make it accessible and relevant to a wider audience.

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