

Fred Urquhart (1912-2002)



Born in Toronto, Fred Urquhart began his career at the university as a student, graduating at the top of his class in 1935. He completed his MA in 1937 and PhD in 1940. Following graduation, he joined the meteorological division of the Department of Transport and taught meteorology to students in the RCAF until the end of the war. In 1945, he became the assistant director of zoology at the Royal Ontario Museum, and in 1948, was cross-appointed as an assistant professor in zoology. The following year he became director of zoology and palaeontology at the ROM, and in 1961, he assumed full-time duties as an associate professor of zoology, becoming a full professor in 1963. Among Fred Urquhart's students was noted Canadian author Farley Mowat.

In 1966, Urquhart became one of three initiators and organizers of the zoology teaching and research program at Scarborough College, retiring in 1977. Urquhart was one of the few people at Scarborough to produce a highly successful television lecture series.

Although his research interests were broad – with four books, a monograph and 62 papers in refereed journals and countless scientific reports and popular articles relating to a wide range of biological subject matter to his credit – Urquhart's first love was butterflies. He longed to answer the question: where do monarch butterflies go in the winter? Urquhart's first attempt in 1937 to follow the monarch by marking individual butterflies met with limited success. But by 1940 he'd developed a method of tagging that worked and after the war he and his wife, Norah, whom he married in 1945, tagged thousands of monarchs, affixing a tiny label to the wing, reading, "Send to Zoology University Toronto Canada." In 1952 he issued the first appeal for volunteers to assist with the tagging and over the next 20- odd years thousands of people had participated. In January 1975, these efforts paid off. In 1976, the Urquharts were able to see the spectacular sight for themselves.

Now over a dozen sites on five mountains have been identified as winter habitat for monarchs and these are protected as ecological preserves by the Mexican government, largely through Urquhart's early influence and advocacy. In Canada, Urquhart was an advocate for a reduction in the use of pesticides and herbicides, and for the planting of milkweed, the sole food plant of monarch butterfly larva.

"Large numbers of people were encouraged to be citizen-scientists and a lot of people got involved internationally. It had quite an electrifying effect on butterfly migration studies," said University of Toronto, Zoology Professor, David Gibo. Many volunteer "Research Associates" remained with the program, tagging monarchs for 10, 20, 30 years and more. At least one individual who began tagging with the Urquharts in the mid 1950's is still tagging monarchs, and one of the first 12 individuals, selected from those who responded to the appeal for help in the 1952 article in Natural History, still lives in Michigan and recently turned 92 years of age!

While the tagging project was official ended in 1992, The Urquharts continued to support limited monarch tagging in remote areas from where no recoveries had been made. One such monarch from Grand Manan Island, Nova Scotia was recovered in Mexico three years ago.

It is noteworthy that until later years when the National Geographic Society and the National Research Council provided grants for their insect migration research, this program operated on very limited funding provided by the Urquharts and their Research Associates.

Fred Urquhart was involved in the creation of the Federation of Ontario Naturalists. Until recently, a framed collection of photos from the 1941 "Limberlost Camp" hung in the reception area of the

Federation of Ontario Naturalists Headquarters in Toronto. One of these photos shows "Fred Urquhart" stirring a huge caldron over an open fire. The Urquharts were later presented with the W.W.H. Gunn Conservation Award – the Federation's highest honour.

On 6 May 1998, Fred and Norah Urquhart were jointly appointed to the Order of Canada: as Members of the Order of Canada. "They are credited with one of the greatest natural history discoveries of our time. After forty years of determination in mobilizing thousands of professionals and amateurs in a massive volunteer tagging program, they located the over-wintering sites of the monarch butterfly in a remote area of Mexico. Thanks to their advocacy of protecting the butterflies' habitat, ecological preserves have been established throughout North America, including the first municipal butterfly garden, named in their honour, in Dundas, Ontario. Their life-long, dedicated research on insect migration has raised environmental awareness among everyone from scientists to school children. They have generously shared their knowledge on the important role insects play in a healthy ecosystem and our part in ensuring the survival of the planet by caring for a fragile species." Excerpted from the University of Toronto Bulletin (7) of Monday, 9 June, 2003 and other sources.

— Donald A. Davis, Research Associate (1968 – 1992), Urquhart's Insect Migration Association