



Howard Whisler (1931-2007)

Howard Whisler died on September 16, 2007. Howard was a renowned expert on Coelomyces and entomopathogenic fungi and spent the majority of his career at the University of Washington, Seattle.

Howard was born in Oakland, California on February 4th, 1931. He met his future wife, Patricia Paine, as a seventh grader in Berkeley. Howard began his undergraduate studies at Oregon State University in 1949, but after two years he returned to California and entered the University of California. In 1952 he and Patty married. For a period of more than 50 years, Patty and Howard traveled around the world chasing blackflies, mosquitoes, nematodes and other invertebrate hosts of entomopathogens, especially aquatic fungi.

Howard's undergraduate major at Berkeley was in Plant Pathology and a fascination with fungi led him to take Ralph Emerson's course on "Phycomycetes". Howard isolated the aquatic fungus *Monoblepharis* from twigs collected in Yosemite National Park, disproving Emerson's view that this genus could not be found in relatively arid states such as California.

Howard was stationed in Aviano, Italy, during the Korean War as a US Air Force supply officer and was joined there by Patty and their two young children, Jack and Jane. On his return from the Air Force, Howard continued his studies and his PhD thesis was on entomogenous fungi and chytridiomycetes. One of these organisms, now known as the mesomycetozoean, *Amoebidium parasiticum*, became the subject of several papers in subsequent years .

After receiving the Ph.D. in 1960, Howard and family were off to Europe again for a year of postdoctoral study with Dr Jehanne-Françoise Manier and Dr Odette Tuzet at the University of Montpellier in the south of France. In 1961 he became an Assistant Professor of Botany at McGill University, Montreal and in 1963 Howard moved to the

Department of Botany, University of Washington in Seattle where he remained until his retirement as a full Professor in 1999.

One of Howard's duties at the University of Washington was to develop a marine mycology course and fungal research program at the Friday Harbor Marine Laboratory. He was joined by Melvin Fuller and David Porter to teach the very first marine mycology course at The Friday Harbor Laboratory.

During graduate studies with Emerson, Whistler and Fuller had heard much about an important fungal pathogen of mosquitoes and the potential that it might have for controlling the mosquitoes that were responsible for the spread of malaria. In 1972 Howard published his first studies of *Coelomomyces* spp. with Joe Shemanchuk of The Lethbridge Research Center in Alberta, Canada and Linda Travland (Whisler et al. 1972). This fungus became a major focus for Whisler's research (Whisler et al. 1974, 1975). His discovery of an alternate host for *Coelomomyces* and, as a result the sexual stages of the life cycle, were groundbreaking. Howard received a standing ovation when he reported these findings that he made with Steve Zebold and Joe Shemanchuk at the SIP meeting in Tempe, Arizona, in June 1974.

Although Howard did not succeed in growing *Coelomomyces* spp. in axenic culture, he never stopped trying, and the January 2009 issue of the *Journal of Invertebrate Pathology* contains an article Howard on this topic (Whisler et al., 2009).

While he continued his work on fungi associated with invertebrates, he was not able to forget the challenges first posed by *Monoblepharis* when he was an undergraduate. He and Ralph Emerson had been able to grow pure cultures of the fungus but never achieved more than mycelial development. Howard persisted until he succeeded in getting isolates of *Monoblepharis* to produce the sexual stage in the laboratory. The work resulted in a film, "Sexuality of *Monoblepharis*" and several papers (Marek, 1984; Whisler & Marek, 1987).

A detailed biographical sketch that emphasizes Howard's research achievements and includes a complete bibliography was published by Joe Ammirati of the University of Washington (Ammirati, 2008).

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