As perhaps our most sensitive biomonitor of forest ecosystem health, the calicioid lichens and fungi are a natural unit of investigation. Distinguished by their tiny (1-2 mm tall) stipitate apothecia, the taxa in this group can be found growing in more forest microhabitats than any other group of species. As the diversity of microhabitats increases over time in an aging forest, so, too, does the diversity of calicioid species that colonize them. As a result, the presence or absence of calicioid lichens and fungi can provide evidence as to whether a forest that looks old really is old and has been little disturbed over a long period of time. Over the past 25 years, the calicioid lichens and fungi have been used to assess the continuity of forest ecosystems in northern New England and Maritime Canada. Students in this course will become familiar with this method of assessment by learning to locate these species in the field, learning how to collect and process them for subsequent investigation, and learning how to identify them using available keys.

About the instructors

Dr. Steven Selva (sselva@maine.edu) is Professor Emeritus of Biology and Environmental Studies at the University of Maine at Fort Kent, where he has been since 1976. Since the summer of 1986, Dr. Selva has been engaged in an ongoing research project in which lichens are being used to assess the continuity of forest ecosystems in the Acadian Forest of northeastern North America. He has written numerous articles on the subject, including several on the calicioid lichens and fungi and their role as old-growth forest indicator species.

Dr. Troy McMullin (tmcmullin@nature.ca) is a research scientist in lichenology at the Canadian Museum of Nature in Ottawa, Ontario. Calicioid lichens and fungi have been an important part of his research program since 2005. He studies their distribution, taxonomy, and ecology in North America. He often uses them to help determine forests of high conservation value.