

In extreme and isolated ecosystems, organisms are often specifically adapted to local abiotic conditions due to relatively fast-moving diversification and strong selection pressure. Their mutualistic relationships are very often quite unusual and unique.

Plants grow in populations with a limited number of individuals. They are exposed to strong selection pressure for outcrossing to minimize the loss of genetic variability due to inbreeding, which is common in small populations. Maximizing outcrossing usually results in various modifications of pollination systems. These modifications are affected by the insufficient number of potential pollinators and by their irregular occurrence. The aim of this paper is to summarize the typical features of pollination systems in extreme and isolated ecosystems and to clarify the conditions that led to their creation.