

P804

Conservation of Endangered Aquatic Plants in Japan: Present Status and Future Strategy

Yasuro Kadono

Department of Biology, Kobe University, Japan

Red Data Book of Plants published by the Environmental Agency of Japan (2000) enumerated 1887 taxa as extinct, threatened or data deficient. This number corresponds to ca. 24 % of the wild plants growing in Japan. Among them, 87 species (43 %) of aquatic plants in *a strict sense* were included, and the conservation of aquatic plants is one of the most urgent subjects. However, the studies of aquatic plants is far behind those of terrestrial plants in Japan and basic knowledge on their distribution, habitat conditions, life history traits, genetic structure of the populations, and geographical variation is limited. In some genera the classification is still confusing and taxonomic revision is truly in need. In the present lecture, I firstly introduce the aquatic plants and their habitats in Japan with special reference to the present status of endangered species. The habitats of the endangered species range widely from natural lakes and rivers to artificial irrigation ponds and rice fields. The critical states of so called secondary nature such as agricultural ecosystems will be emphasized. Many populations have been lost by various kinds of development, the change of society (life styles of people), and related habitat degradation and change. Recently the invasion of alien plants has also become a serious problem which will threaten the biodiversity in aquatic habitats. In face to these situations some conservation biological studies have started in the field of taxonomy as well as in ecology. Recent progress in the study of the population genetic structure makes it possible to propose conservation strategy in some taxa. The elucidation of the life history traits make clear the habitat conditions which should be protected. The information on the geographical variations of some taxa helps to establish a guideline for conservation and, if unavoidable, transplantation of the plants. There are also cases that taxonomic study led to the recognition of new taxa and made clear the very endangered status of the newly recognized taxa. I hope to discuss the future subjects in the conservation of biodiversity based on recent challenges in Japan and propose the cooperation programs between Korean and Japanese plant taxonomists.