

## WHAT IS THE FARMLAND USE THAT SUITS NATURAL ENVIRONMENT AROUND LAGOON IN SHIGA PREFECTURE IN JAPAN?

Rie Oasa, Etsuji Hamabata,

Graduate School of Environmental Science, University of Shiga Prefecture,  
2500 Hassaka, Hikone, Shiga 522-8533, Japan

After World War II, in Lake Biwa, Shiga Prefecture, Japan, many swamps and naikos (lagoon is called naiko in this lake area) were reclaimed as agricultural land. However, in recent years, the importance of swamp and lagoon has come to be evaluated as the place of water purification and biological habitats. In addition, Ramsar Convention advocates wise use of wetlands. As a result, it has begun to restore the reclaimed land of swamp and lagoon in original condition in Japan. However, material that records the appearance of *naiko* before land is reclaimed hardly exists. Moreover, the knower person's aging is advanced at that time.

The purpose of the present study is to record a traditional way of farming that harmonizes with natural environment and the nature of *naiko* before land is reclaimed.

The object region was made *dainakanoko*, *shounakanoko*, and *nishinoko* that was the *naiko* group in Shiga Prefecture. *Dainakanoko* and *shounakanoko* are completely reclaimed by 1964. The period was assumed from 1925 to 1968. The method did the hearing survey and the literature research. As a result, hearing was able to be done to 11 people (five villages) in total.

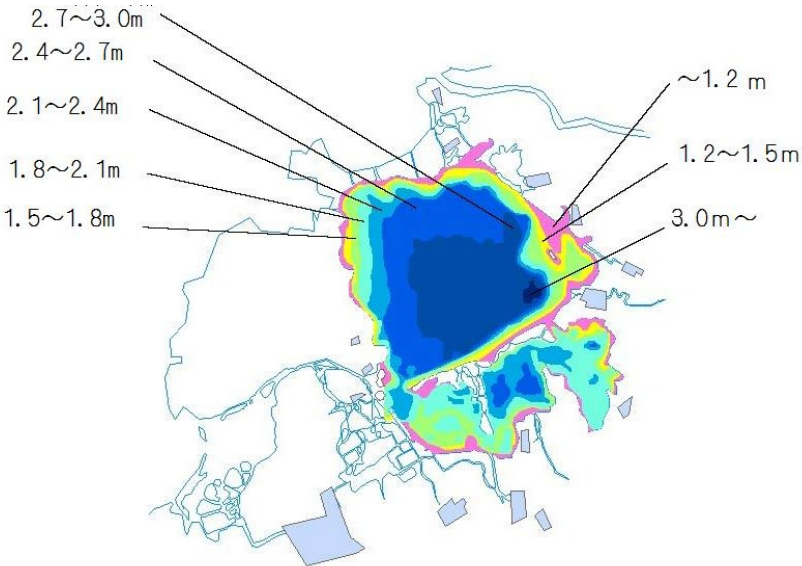
According to survey, depth was 3m or less, and it was shallow. The *dainakanoko* west side, *nishinoko*, and *shounakanoko* were the mud lakes in the bottom sediment, and the *dainakanoko* east side was sands.

Various water plants lived in these *naiko*. We guessed the kind with memorized feature and bottom sediment. As a result, we were able to presume eight kinds of submerged plants and four kinds of floating-leaved plants. *Hydrilla verticillata*, *Vallisneria denseserrulata*, *Vallisneria asiatica var. biwaensis*, and *Trapa Japonica Flerov* were widely distributed. Moreover, *Ranunculus nipponicus var. major* and *Nymphoides indica* that was the valuable species were confirmed now.

Crops were almost waterfield rice in this region. Wheat and the rapeseed were raised of two crops after the waterfield rice of autumn had been harvested. All private vegetables were grown in a small field. What had to make a special mention was to have grown *Sagittaria trifolia var. edulis* to the corner of the rice field in a lot of villages. Moreover, it was clarified to have raised *Juncus effusus L. var. decipens Buchen* as the raw material of matting. It is guessed that these are farm products that is appropriate for the marsh.

People who lived in the village around these *naiko* were using the water plant as a fertilizer. There were three uses. One is "*Doromotori*" that is gathered water plants and mud in the bottom of a lake together in August, made to compost during half a year, and put in rice fields and crofts. A lot of this usages existed. The second is "*Motori*" that wild-craft only water plants, and puts it in crofts. The third is "*Gomikaki*" that gathers only mud in the bottom of a lake, and puts it in rice fields before soil puddling.

The wild-crafting had been prohibited during July and June when fishes faced the spawning time. Therefore, it gathered it from August 1st to May. It is guessed that gathered water plants are all the submerged plants, and that the kind was *Hydrilla verticillata*, *allisneria denseserrulata*, and *Vallisneria asiatica* var. *biwaensis*.



☒ 1. Depth of naikos