RECOVERY OF SHIJIMI CLAM IN LAKE TOUGHO-WATER QUALITY IN THE LAKE-

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Lake Togo is situated in the central part of Tottori City, Tottori Prefecture, Japan. The lake has an area of 4.1 km^2, a mean depth of 2.1 m (4.6 m in maximum depth), a circumference of 13 km, and a storage capacity of 580,000 tons (hydraulic retention time of about one month). Lake Togo is a lagoon, that is, a part of a bay in the Sea of Japan was dammed in old times by sedimentation of sand transported by the River Hasizu. Though Lake Togo has been boasted of rich catch of fish including Shijimi clam, the catch has reduced recently. The main causes are considered to becoming eutropic. Then, comprehensive investigation of water quality has been begun to get hold of the real situation. The authors set the 4 observation points in the lake and one point in 4 main rivers flowing into the lake and flowing out the Sea, respectively.

Following items were measured periodically. That is, Electric conductivity (EC), pH, Dissolved Oxygen (DO), temperature, Chemical Oxygen Demand (COD), Total nitrogen (T-N), Total phosphorus (T-P), transparency and Suspended solid (SS), Chlorophyll-a and plankton in 2002. The following results are obtained from this investigation. 1) T-N in lake is ranging from 0.3 μg/l to0.6 μg/l and T-N is about 0.4. Then we can say that Lake Togo becomes eutrophic. 2) The COD in Lake is larger than that in rivers. It exceeds 20g/l in autumn. 3) Chlorophyll-a in lake is larger than that in river and shows over 20g/l in autumn. 4) Predominant planktons changes with time, that is, *Tetraedron minimum* in August, *Coscinodiscus* sp in September, *Tintinnopsis* sp, and *Chaetoceros* sp which is sea in October.