

ABOUT THE PREDICTION OF REDTIDES IN THE SETO INLAND SEA

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We had made the water evaluation of the data shown in the book entitled "Comprehensive Regional Survey of Water Quality in the Seto Inland Sea" edited by the Ministry of the Environment in the last time by the Analysis of Variance of the statistical technique.

This time, this report examined it further about the analysis predicted in Chlorophyll-a and the Water Restriction Items that the Red tide Occurrence shows the amount of phytoplankton by using data of the Ministry of the Environment.

Before the analytic examination, the method of Principal Variable Selection of the new Multivariate Analysis did comparison with the way of choosing it about the statistical analysis with the usual Multivariate Analysis (the method of Principal Component Analysis) case.

First, the method of Principal Component Analysis showed that 15 variables were divided roughly into the four groups as well as the result of the method of Cluster Analysis.

Next, about the case of Principal Variable Selection of the new Multivariate Analysis, Contribution Ratio showed that Multivariate Regression Analysis could be computed as well as the way of analyzing it by choosing the Item of each one the Explanatory Variable (15 variables contained in those four groups) as to the prediction of Criterion Variable (the amount of phytoplankton).

Therefore, when the Red tide Occurrence was predicted from the above result, the usual Principal Component Analysis result was the qualitative way of analyzing it, and it was confirmed that the method of Principal Variable Selection of the new Multivariate Analysis was the quantitative way of analyzing it .