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2000 ~ 2004년 통영 바다목장해역에서 일차생산  
(현존량, 엽록소, 생체량)의 비교

**Comparison with primary production (standing crops, chlorophyll-a, biomass) for  
the year of 2000-2004 in the marine ranching ground of Tongyeong of Korea**

이진환, 정승원, 김종만\*

상명대학교 자연과학대학 생명과학과

한국해양연구원해양자원연구본부\*

In order to make an annual comparison with phytoplankton standing crops, chlorophyll-a and biomass, the present study was carried seasonally out at 10 stations from Apr. 2000 to Feb. 2004 in the marine ranching ground of Tongyeong coastal waters .

Monthly mean phytoplankton stang crops ranged from min.  $5.15 \times 10^3$  cells/l (Feb. 2002) to max.  $1.93 \times 10^6$  cells/l (Oct. 2002) and annual mean showed  $3.41 \times 10^5$  cells/l in 2000,  $1.32 \times 10^5$  cells/l in 2001,  $5.46 \times 10^5$  cells/l in 2002,  $2.95 \times 10^5$  cells/l in 2003 and  $7.26 \times 10^4$  cells/l in Feb. 2004, mean of chlorophyll-a concentration was fluctuated from min  $0.82 \mu\text{g/l}$  (Feb. 2002) to max.  $8.83 \mu\text{g/l}$  (Aug. 2002) and annual mean showed  $2.60 \mu\text{g/l}$  in 2000,  $1.11 \mu\text{g/l}$  in 2001,  $3.04 \mu\text{g/l}$  in 2002,  $2.79 \mu\text{g/l}$  in 2003, and  $1.27 \mu\text{g/l}$  in 2004, and mean of the carbon contents of phytoplankton biomass were changed from min.  $1.54 \mu\text{g/l}$  (Feb. 2002) to max.  $95.88 \mu\text{g/l}$  (Oct. 2002) and annual mean showed  $43.01 \mu\text{g/l}$  in 2000,  $24.77 \mu\text{g/l}$  in 2001,  $35.50 \mu\text{g/l}$  in 2002,  $50.02 \mu\text{g/l}$  in 2003, and  $12.70 \mu\text{g/l}$  in 2004.

From the results of Pearson correlation analysis among the standing crops of phytoplankton community, the concentrations of chloropyll-a and the carbon contents of phytoplankton biomass, those were shown with positive correlation. Especially the correlations between standing crops and biomass, and biomass and chlorophyll-a were high positive correlation as  $0.517 (p < 0.001, n = 300)$  and  $0.646 (p < 0.001, n = 300)$ , respectively.