STATION	DEPTH (m)
12	102
25	108
33	129
41	122
49	50
63	82
60	143

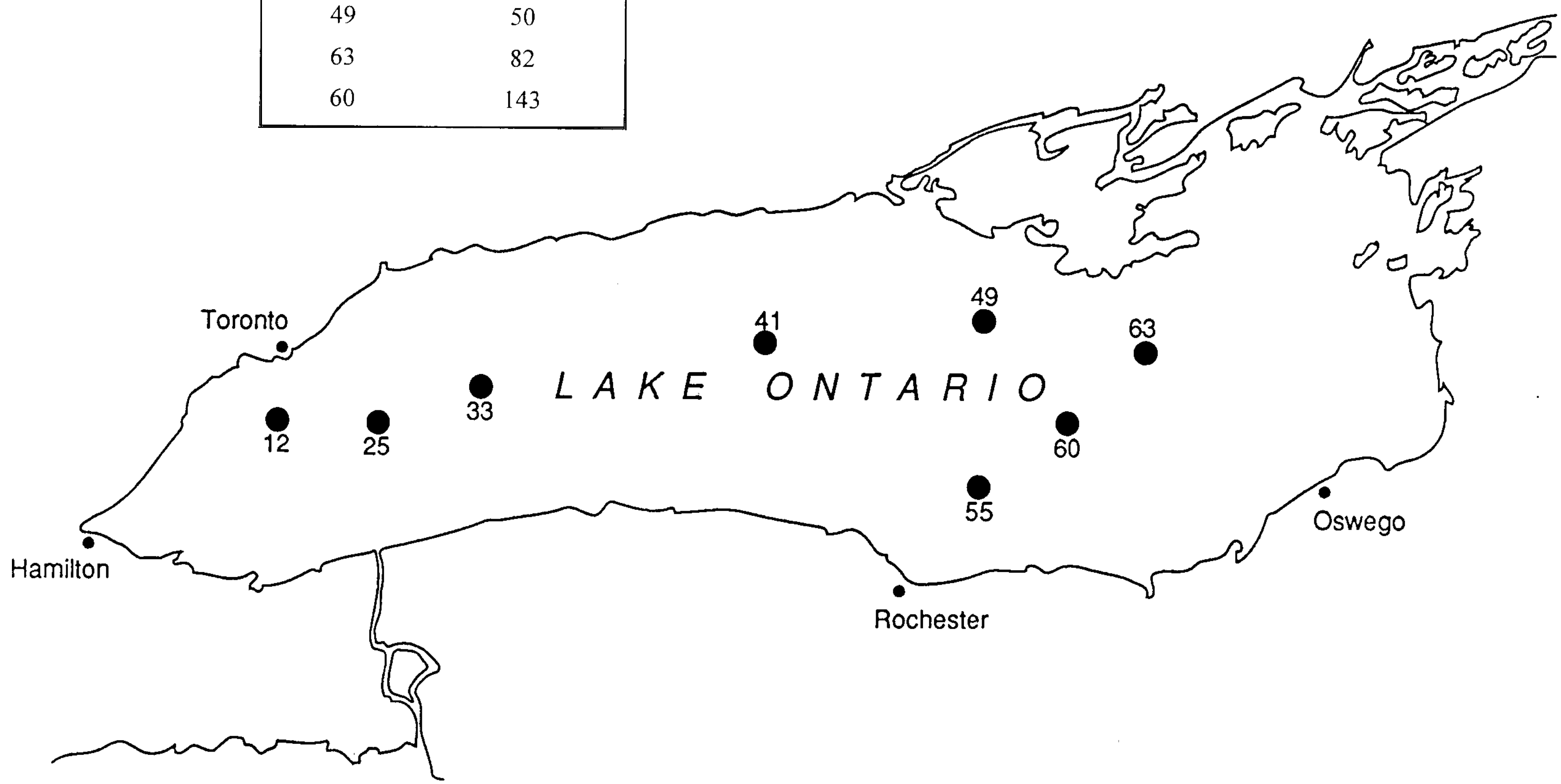

Figure **1**. Lake Ontario sampling stations, 1986-1992.

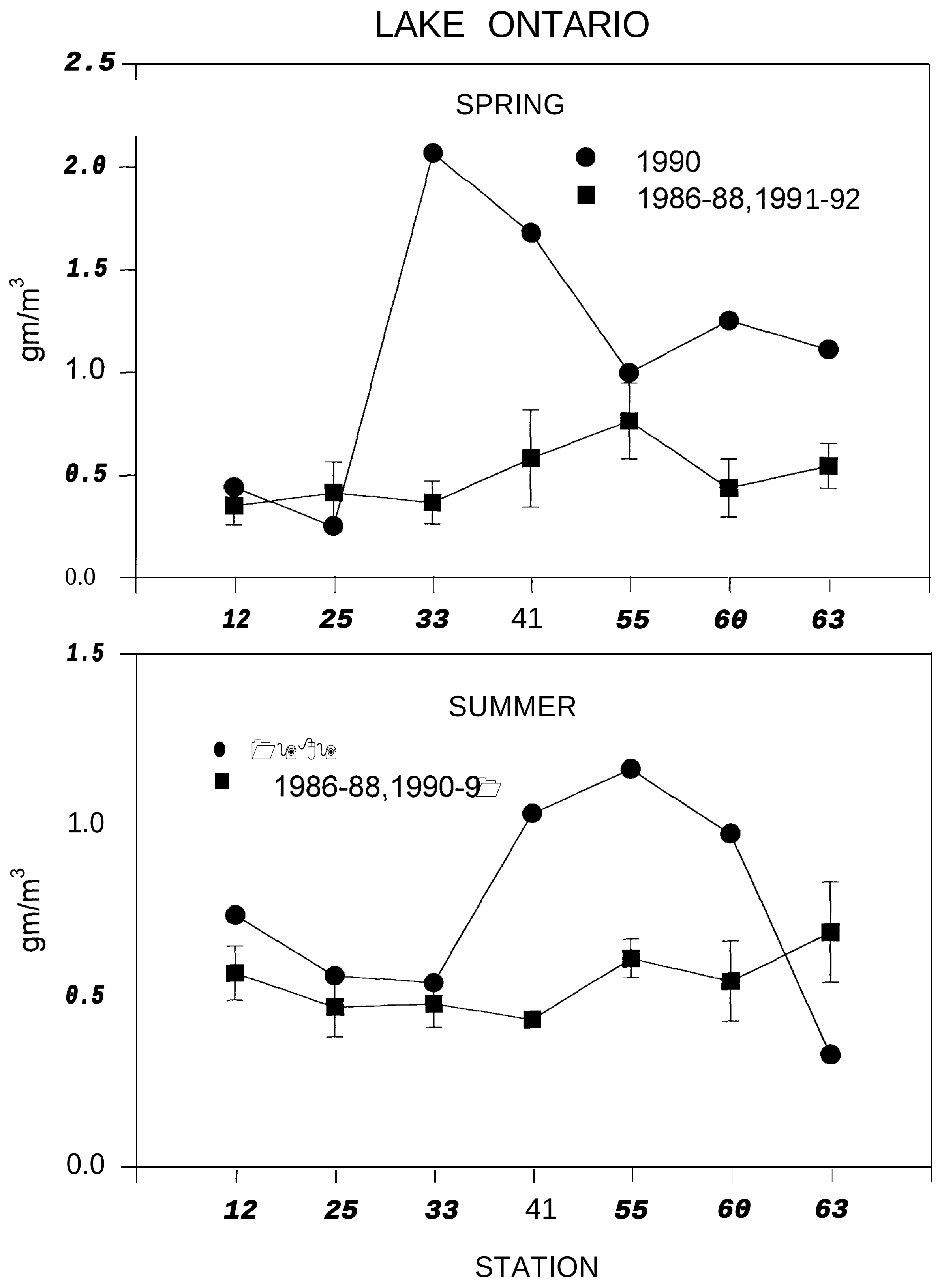

Figure 2. Geographical distribution of phytoplankton biomass in Lake Ontario, 1986-1992. Values are the mean ± S.E.

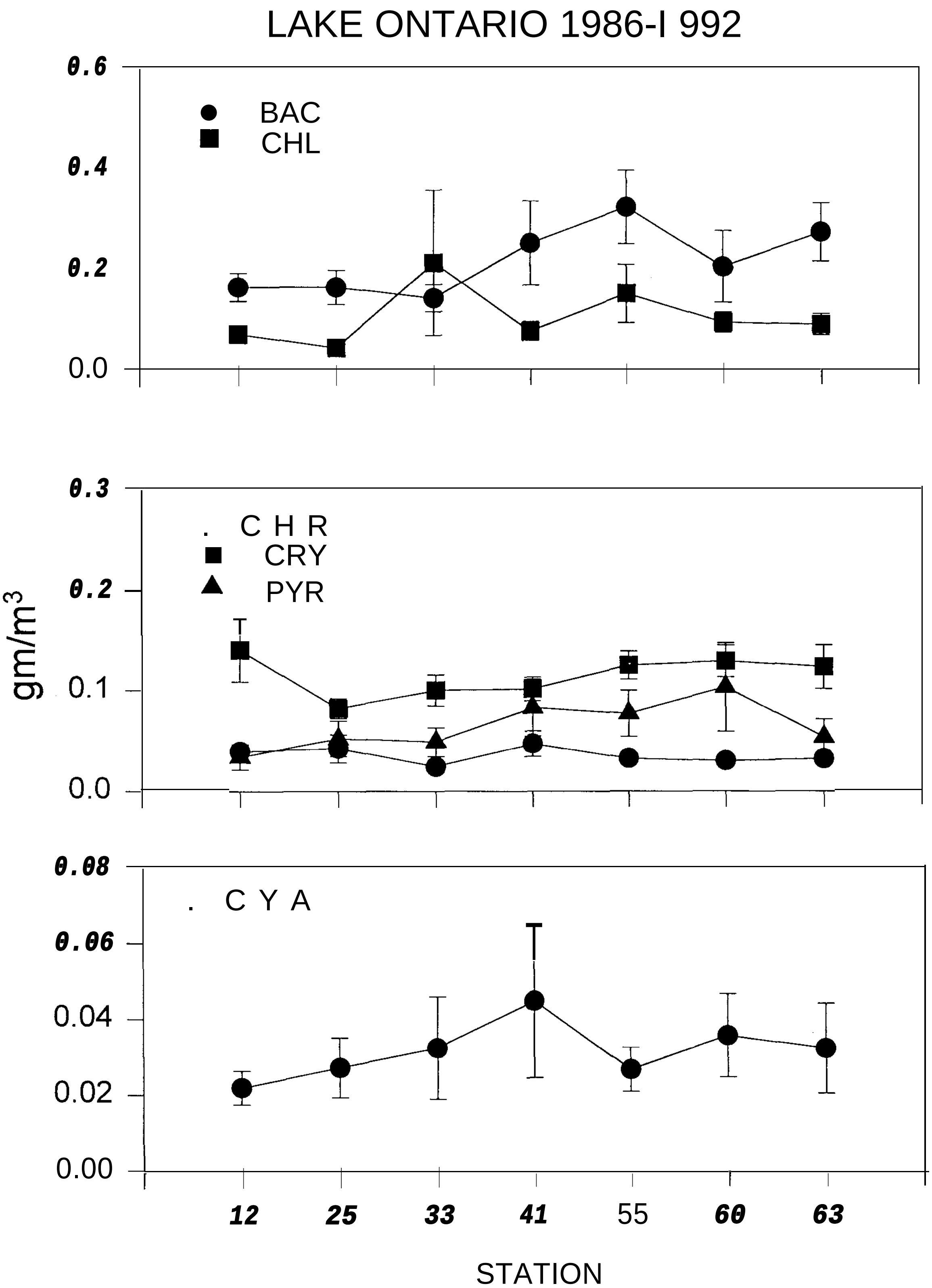

Figure 3. Geographical distribution of selected phytoplankton divisions in Lake Ontario, 1986-1992. Values are the mean biomass ± S.E.

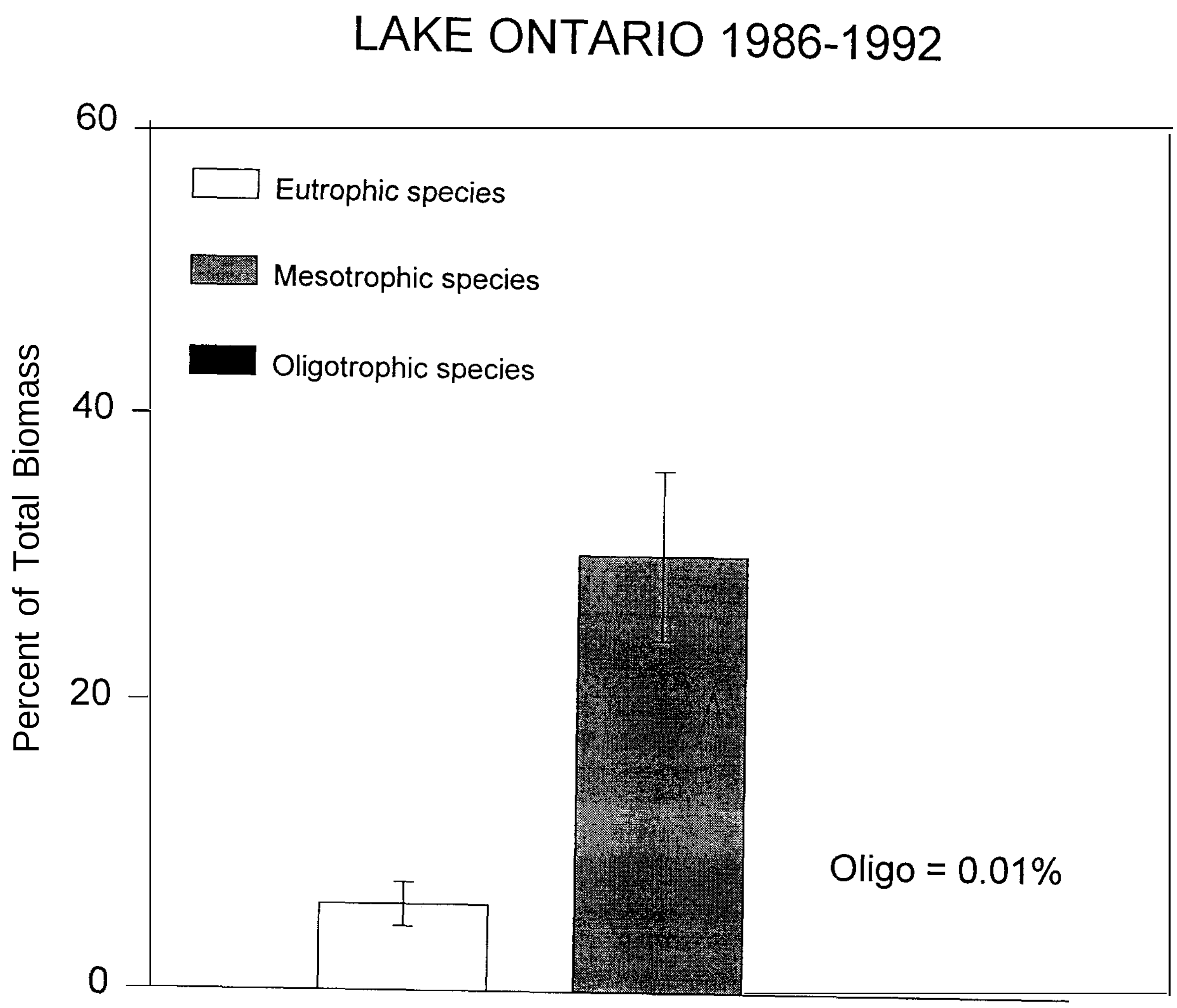

Figure 4. Average relative biomass of eutrophic, mesotrophic and oligotrophic diatom species in Lake Ontario, 1986-1992. Values are the mean + S.E.

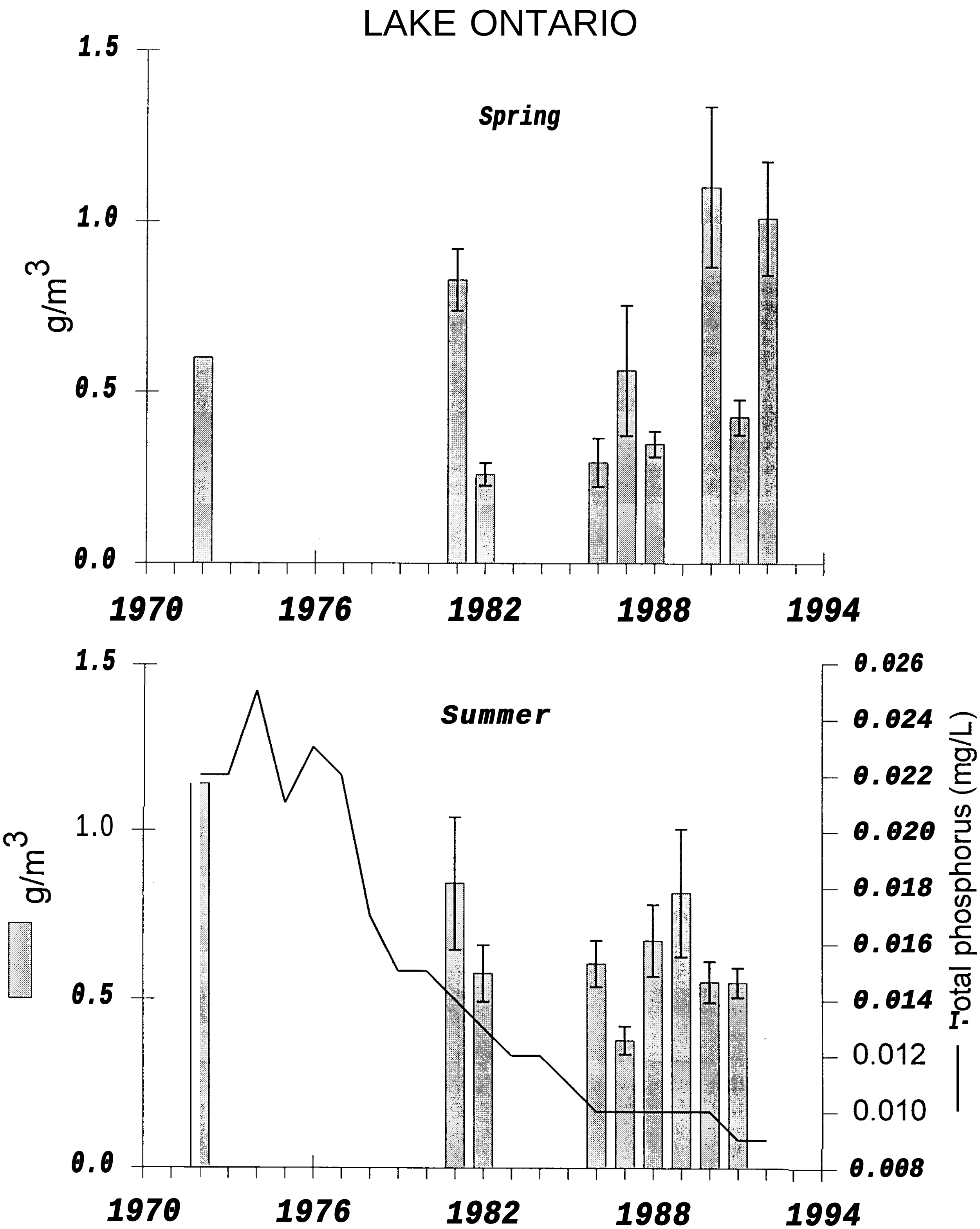

Figure 5. Historical trends in offshore phytoplankton biomass in Lake Ontario. Values represent the mean ± S.E. of the April (spring) and August (summer) data of Johannsson et al. (1985), this study and the April and late July data of Munawar et al. (1974). Total phosphorus data are from Glumac (1994) and represent spring values at a l-meter depth.

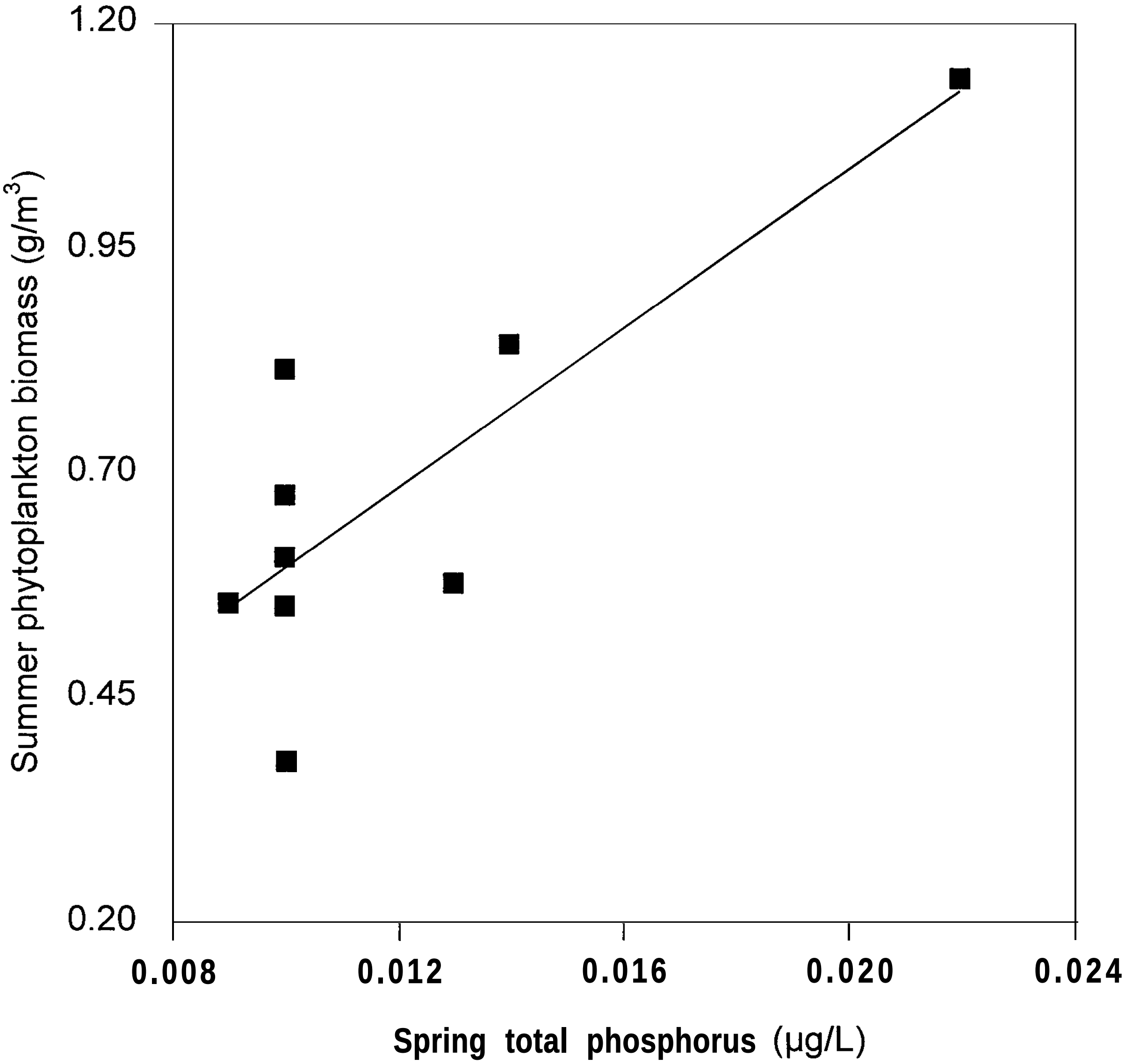

Figure 6. Regression ($r^2 = 0.67$) of summer phytoplarikton biomass (August data) on spring total phosphorus concentrations. Total phosphorus data are from Glumac (1994) and represent spring values at a l-meter depth.

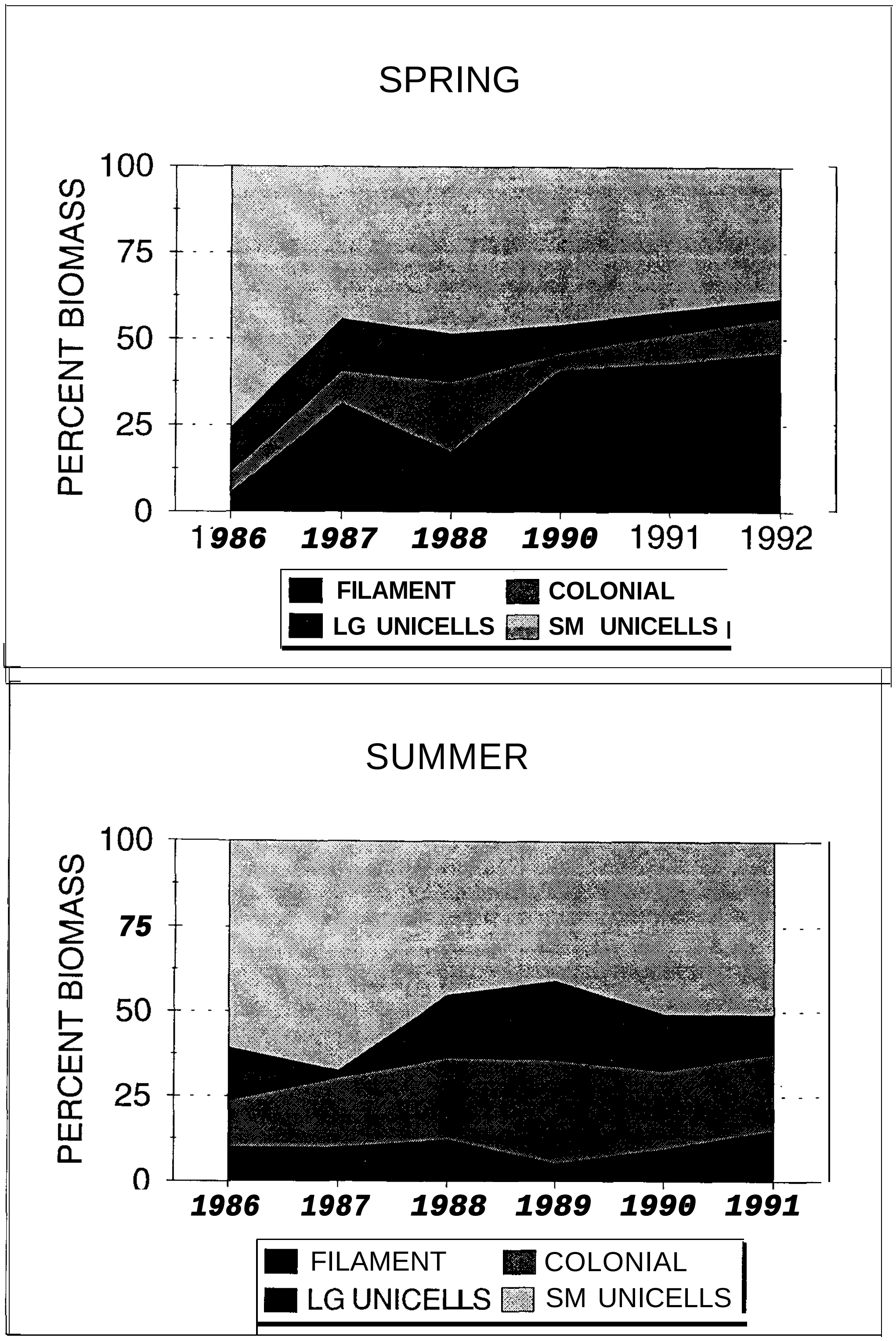

Figure 7. Relative biomass of filamentous, colonial, and small (<50 pm) and large unicelluar algae (>50μm) in Lake Ontario, 1986-1992.

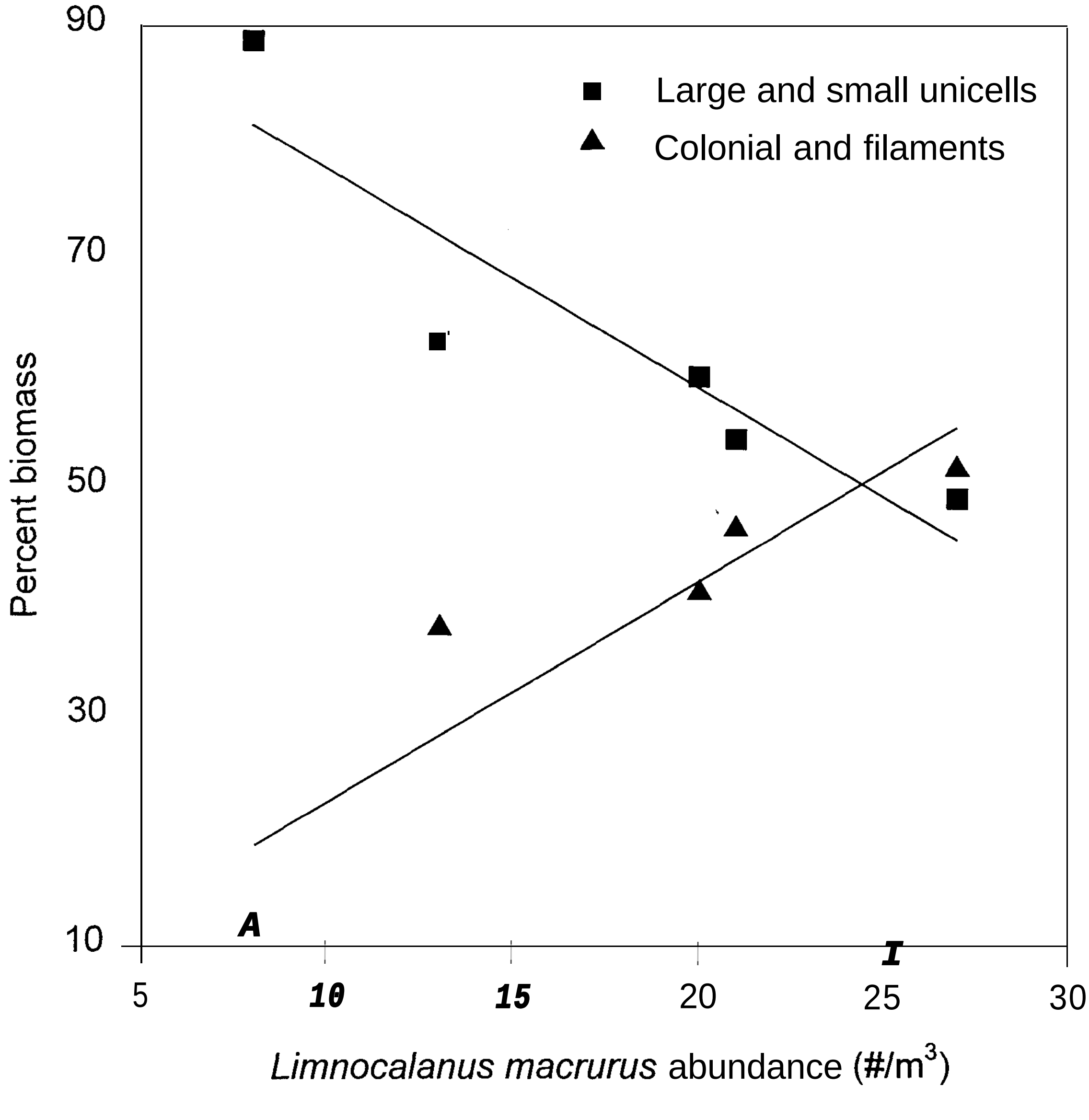

Figure 8. Relationship between Limnocalanus abundance and relative biomass of spring unicelluar algae (r^2 = 0.83) and relative biomass of spring colonial/filamentous algae (r^2 = 0.83).

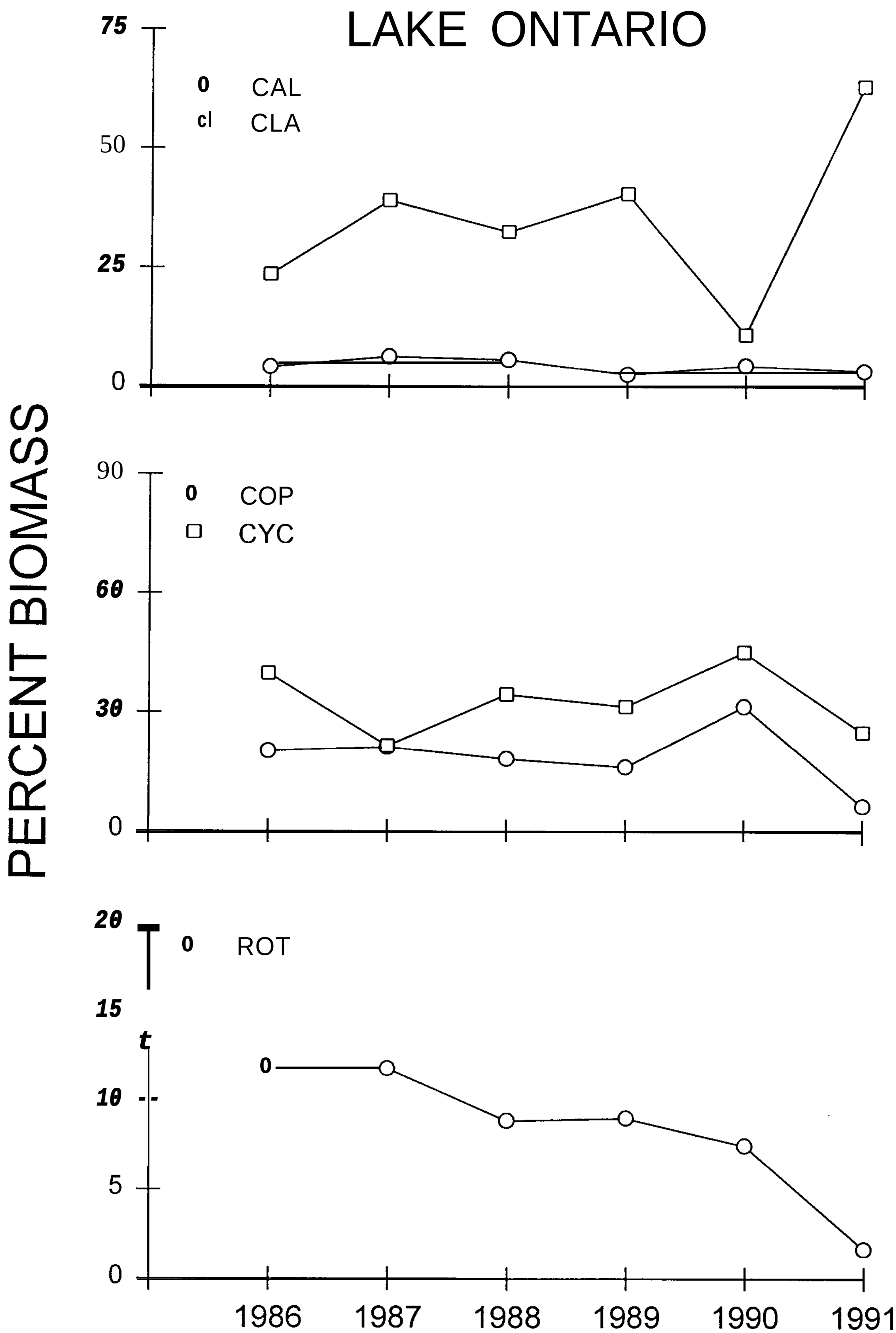

Figure 9. Yearly trends in relative biomass of zooplankton phyla, 1986-199 1.

LAKE ONTARIO

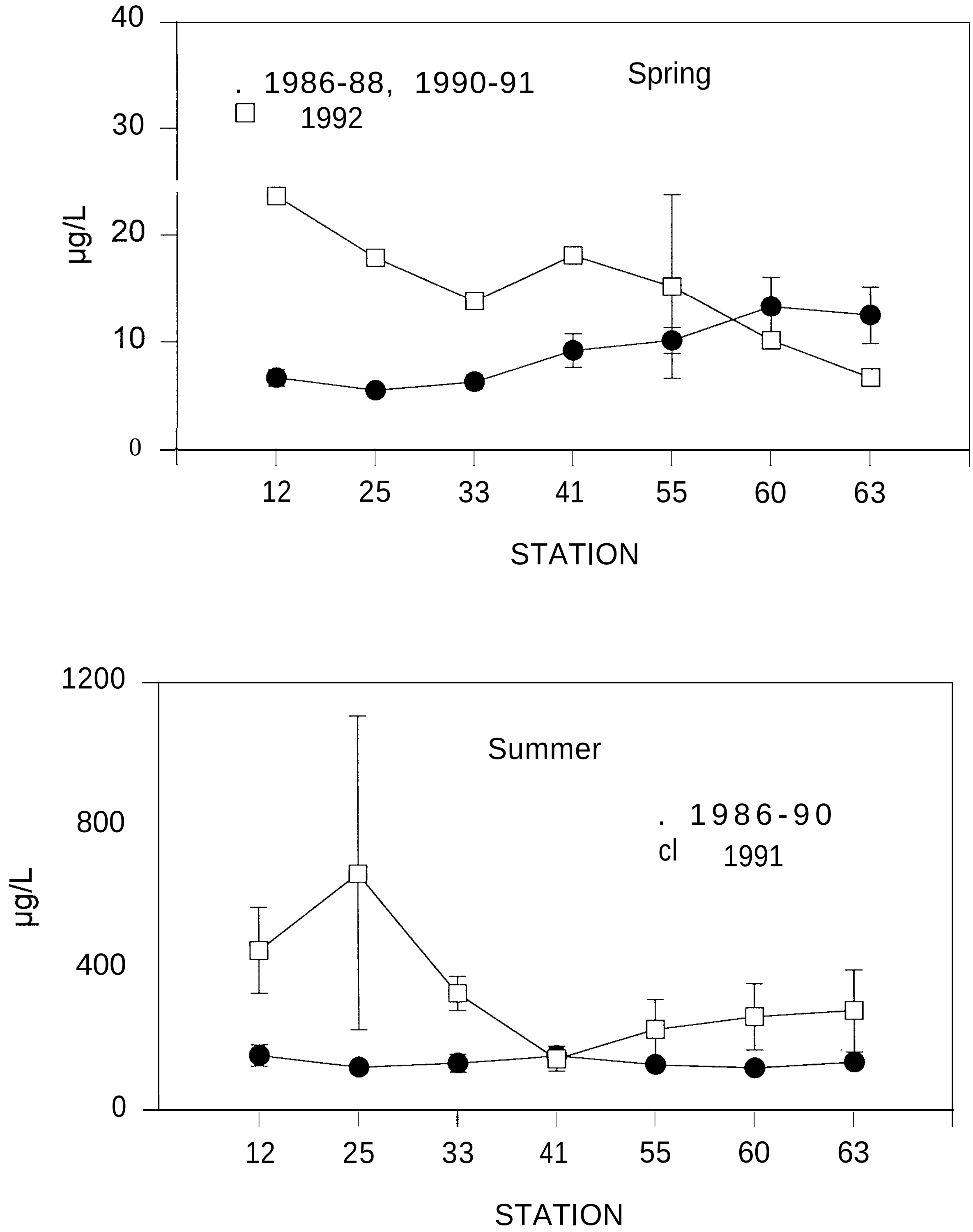

Figure 10. Geographical distribution of zooplankton biomass in Lake Ontario, 1986- 199 ı Values are the mean ± S.E.

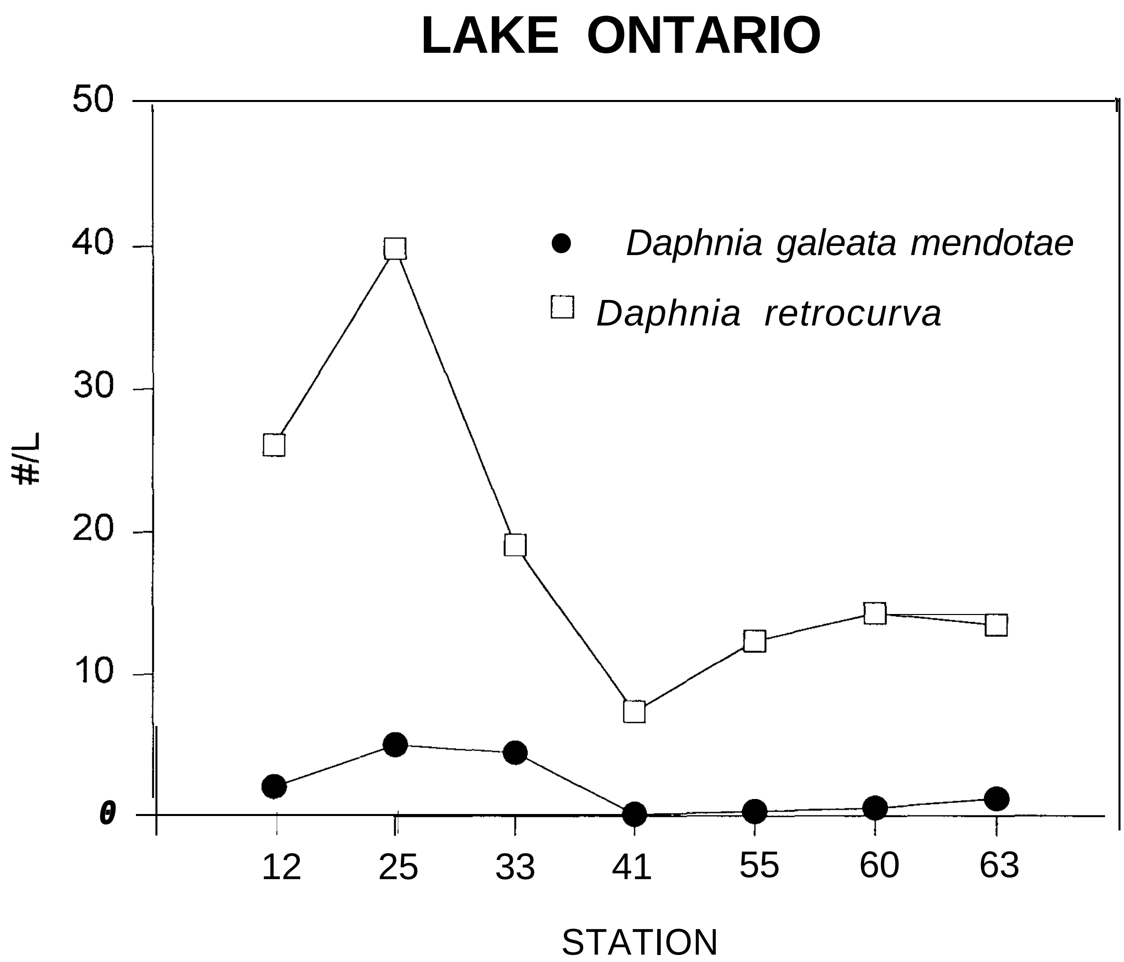

Figure 11. Geographical distribution of Daphnia galeata mendotae and D. retrocurva in Lake Ontario in 199 1.

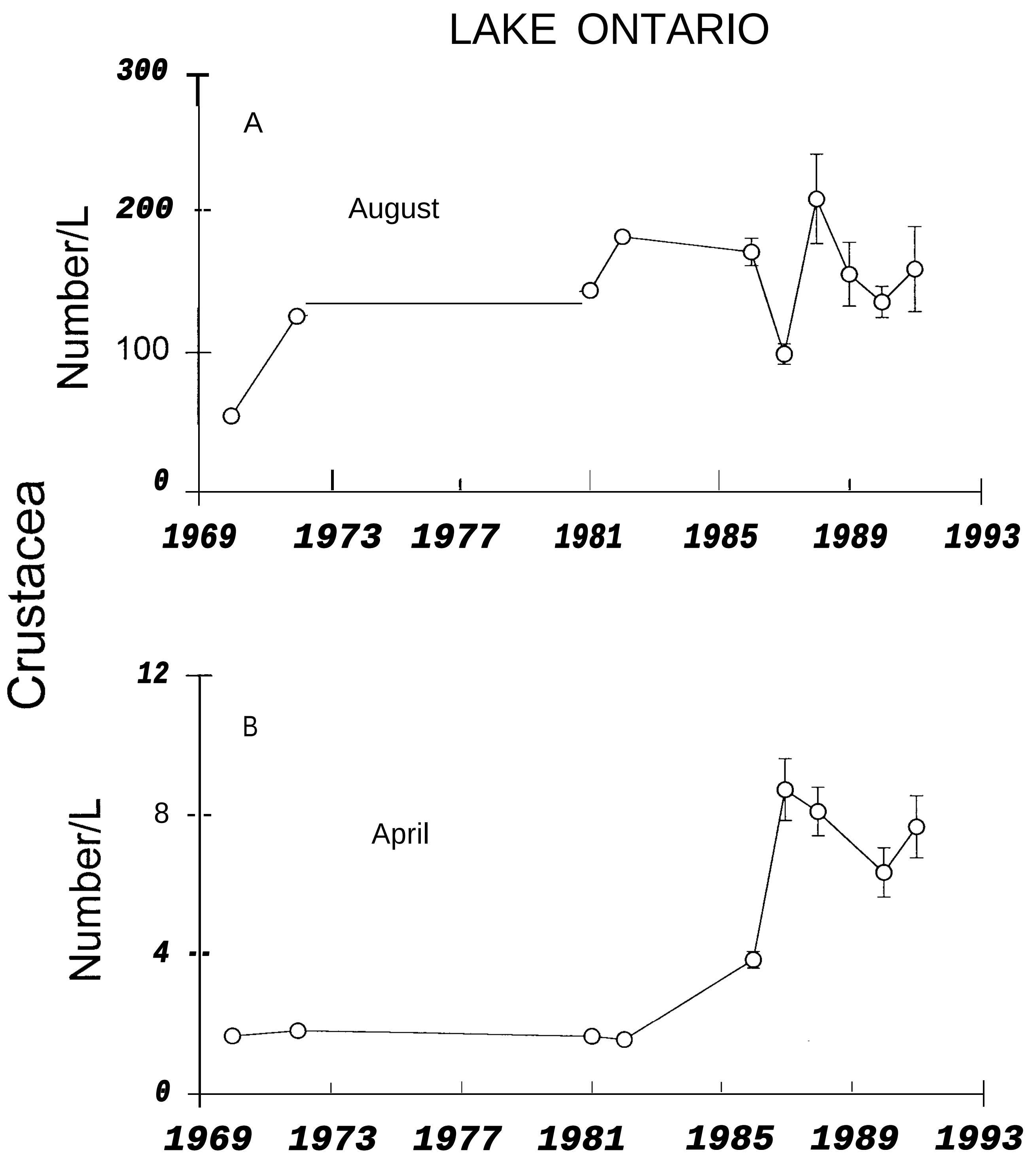

Figure 12 . Historical offshore zooplankton abundance trends in Lake Ontario. April and August data. 1986-l 99 1 data are the mean±S.E. Data are from Patalas (1970), Watson and Carpenter (1974), McNaught et al. (1975), Johannsson et al. (1985) and this study.

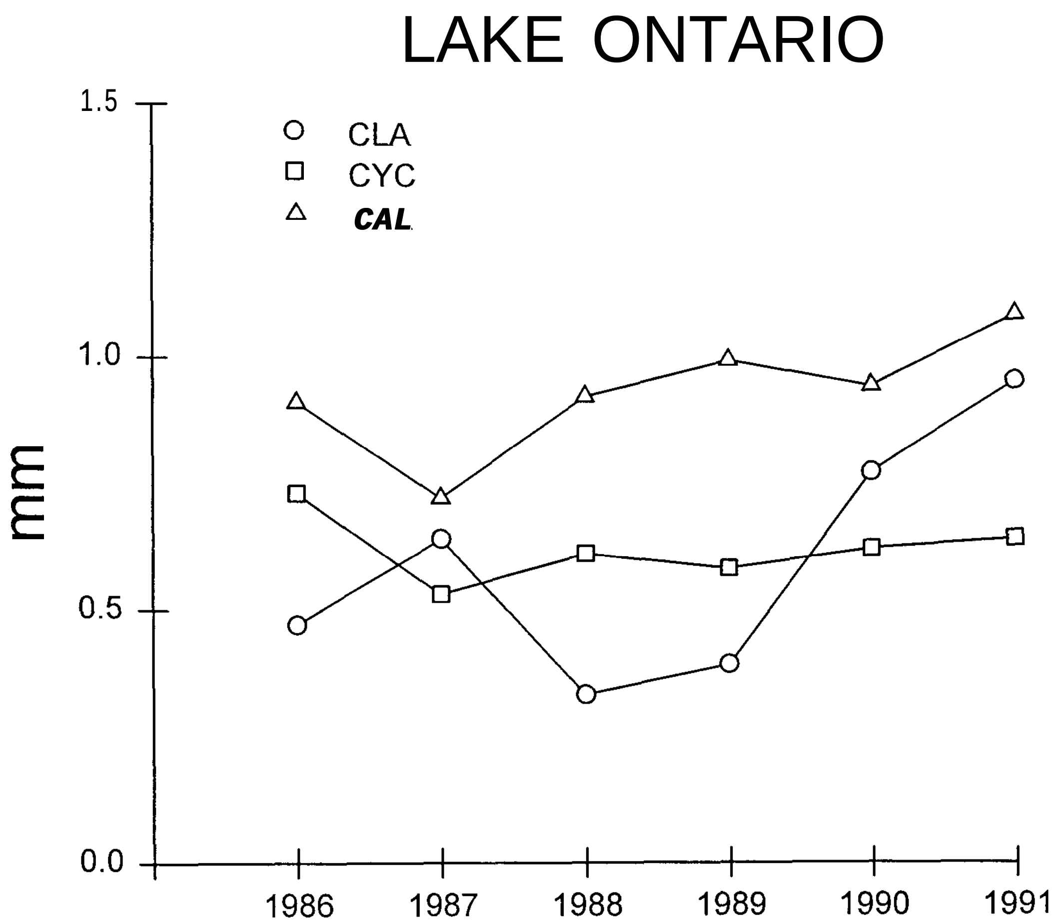

Figure **13**. Annual weighted mean length of Cladocera, Cyclopoida and Calanoida in Lake Ontario, 1986-9 1. Bythotrephes cederstroemi is not included in the Cladocera measurements.

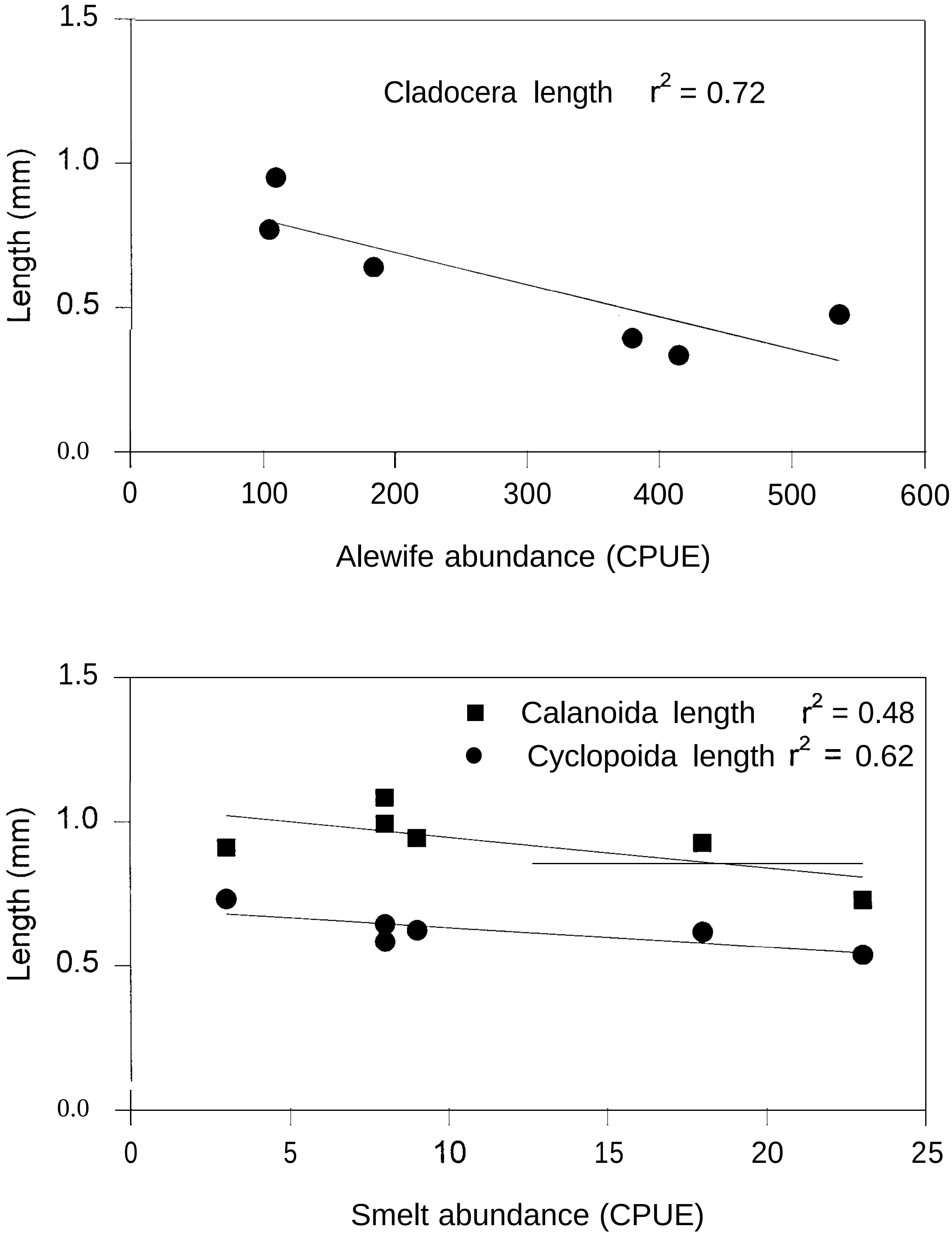

Figure **14.** Relationship between alewife and smelt abundance and Cladocera, Calanoida and Cyclopoida length. The Cladocera versus alewife abundance regression is significant ($P<0.05$).

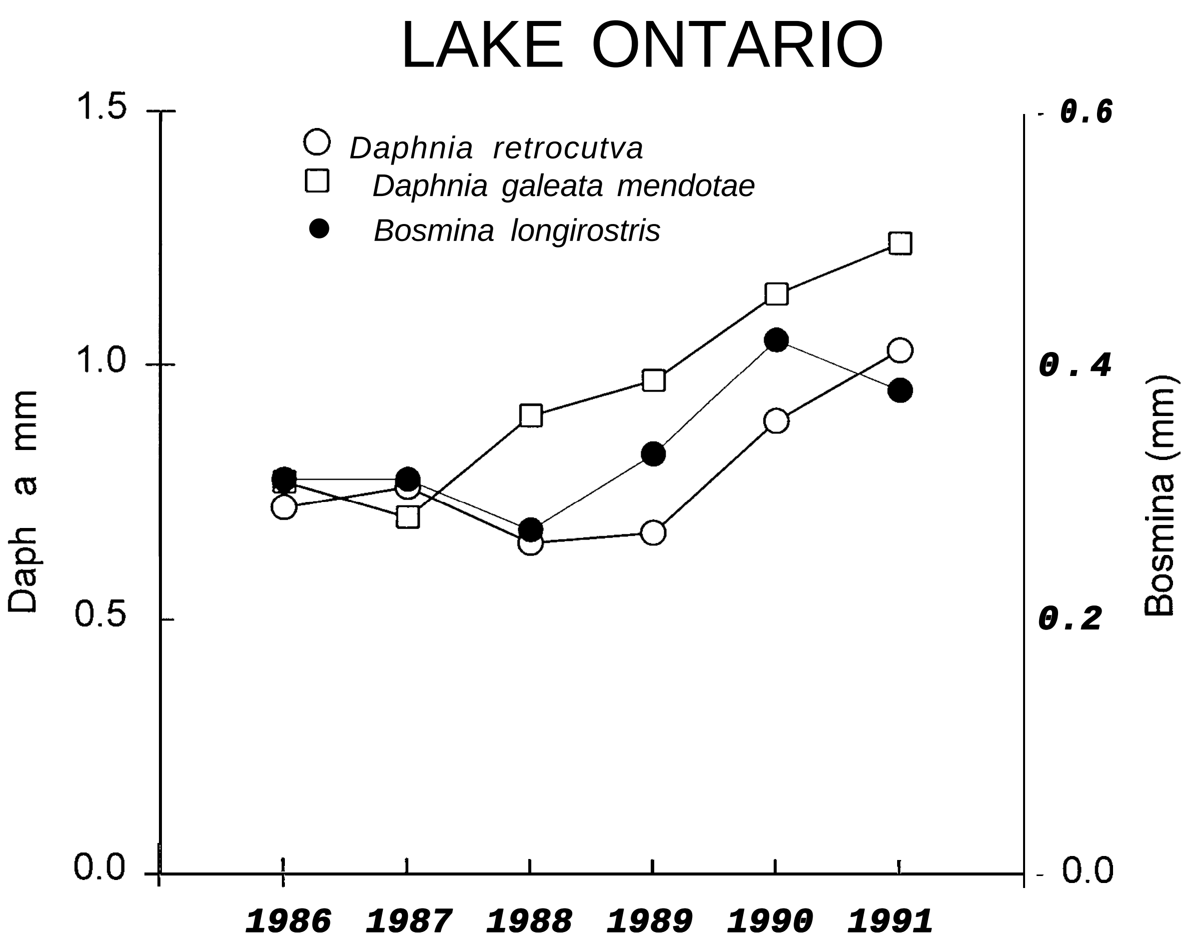

Figure 15. Annual weighted mean length of Daphnia retrocurva, D. paleatae mendotae and Bosmina lonairostris, 1986 -1991.

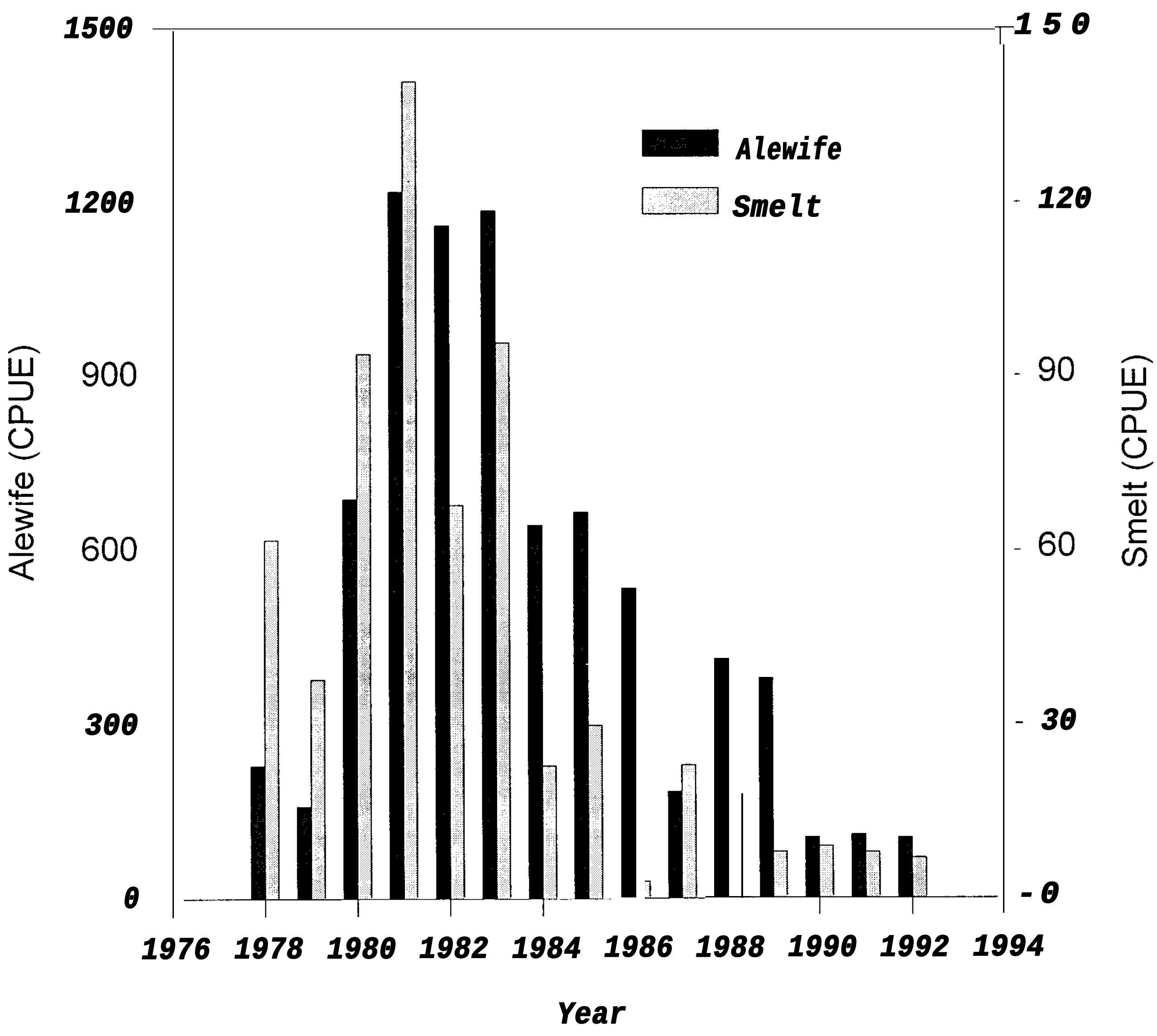

Figure 16. Number of alewife >164mm and rainbow smelt >149mm caught per standard trawl during the spring in U.S. waters of Lake Ontario. Data are from Johannsson et al. (1991), Great lakes Fishery Commission (1992) and NYSDEC (1992).