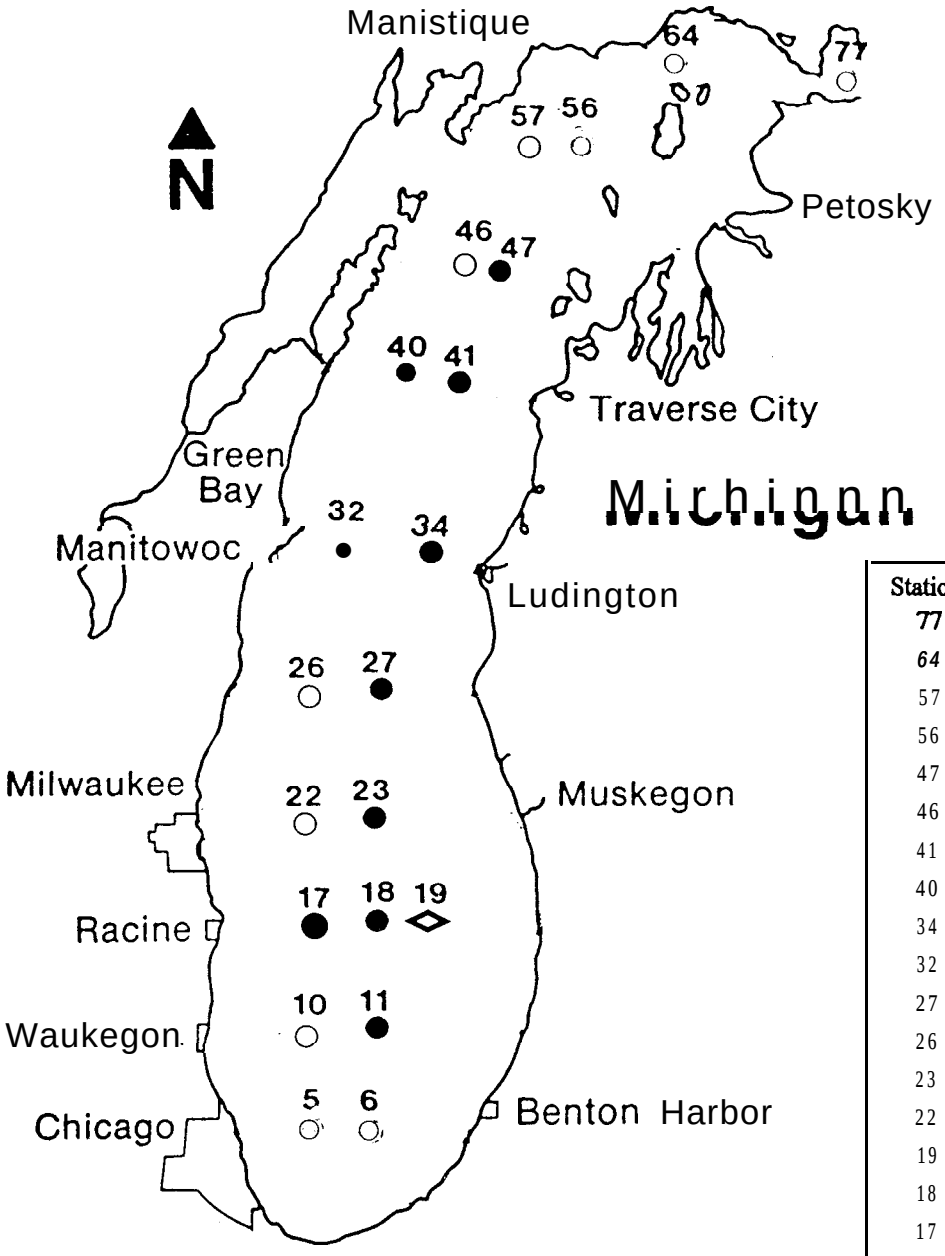
Station Locations
Lake Michigan - Main Lake



Station	Depth (m)
77	80
64	20
57	93
56	77
47	184
46	115
41	203
40	160
34	148
32	152
27	97
26	124
23	87
22	77
19	86
18	154
17	%
11	120
10	93
6	66
5	32

Figure 1 . Lake Michigan sampling stations, 1983-1992. 0 = sampled only in 1983 and 1984. ● = sampled 1983-1992. 0 = sampled in 1985-1992.

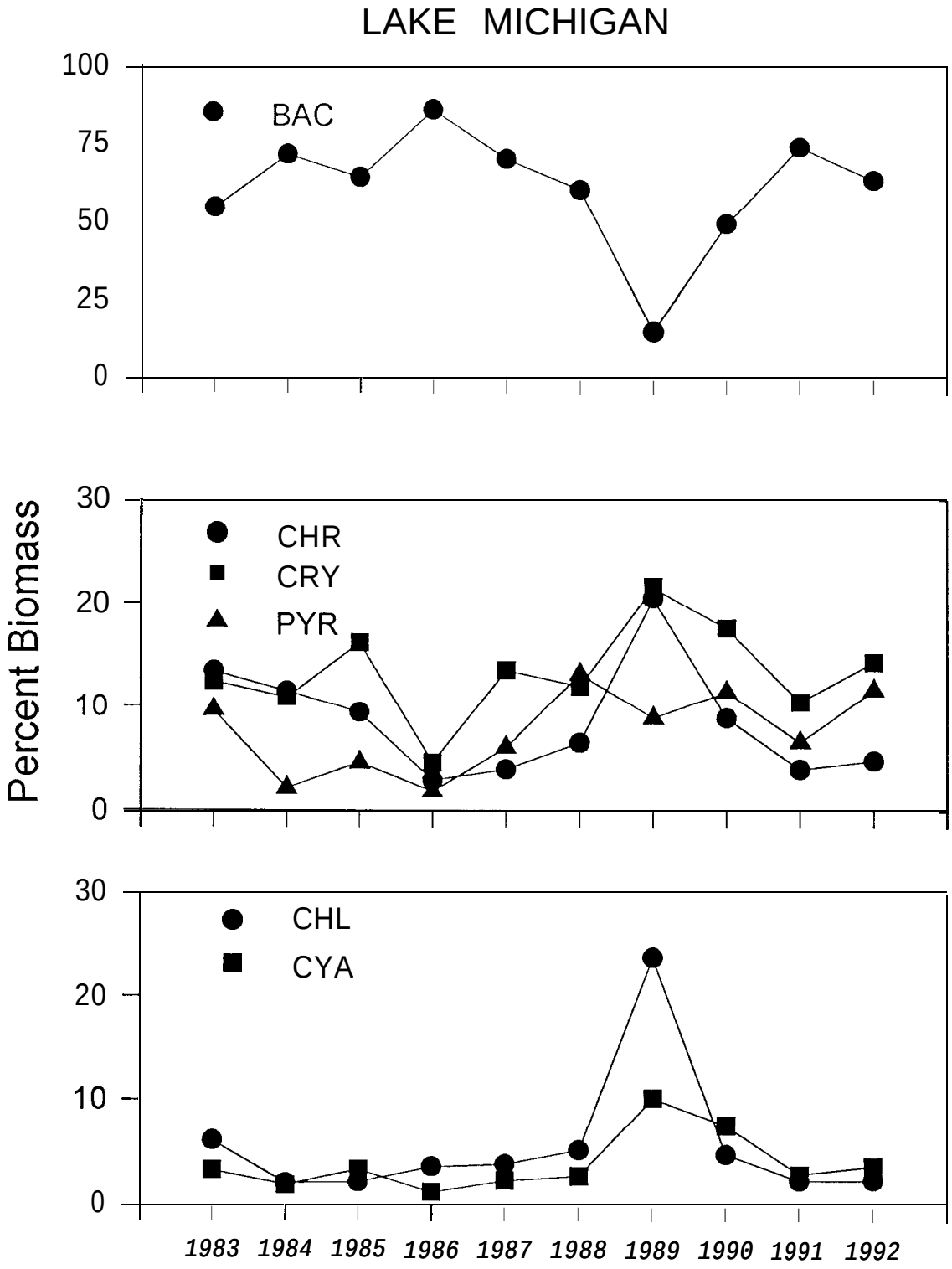


Figure 2 Yearly trends in algal relative biomass (% biomass) by Division, Lake Michigan (1983-1992). Spring and summer data only. BAC=Bacillariophyta, CHR=Chrysophyta, CRY=Cryptophtya, PYR=Pyrrophyta, CHL=Chlorophyta, CYA=Cyanophyta.

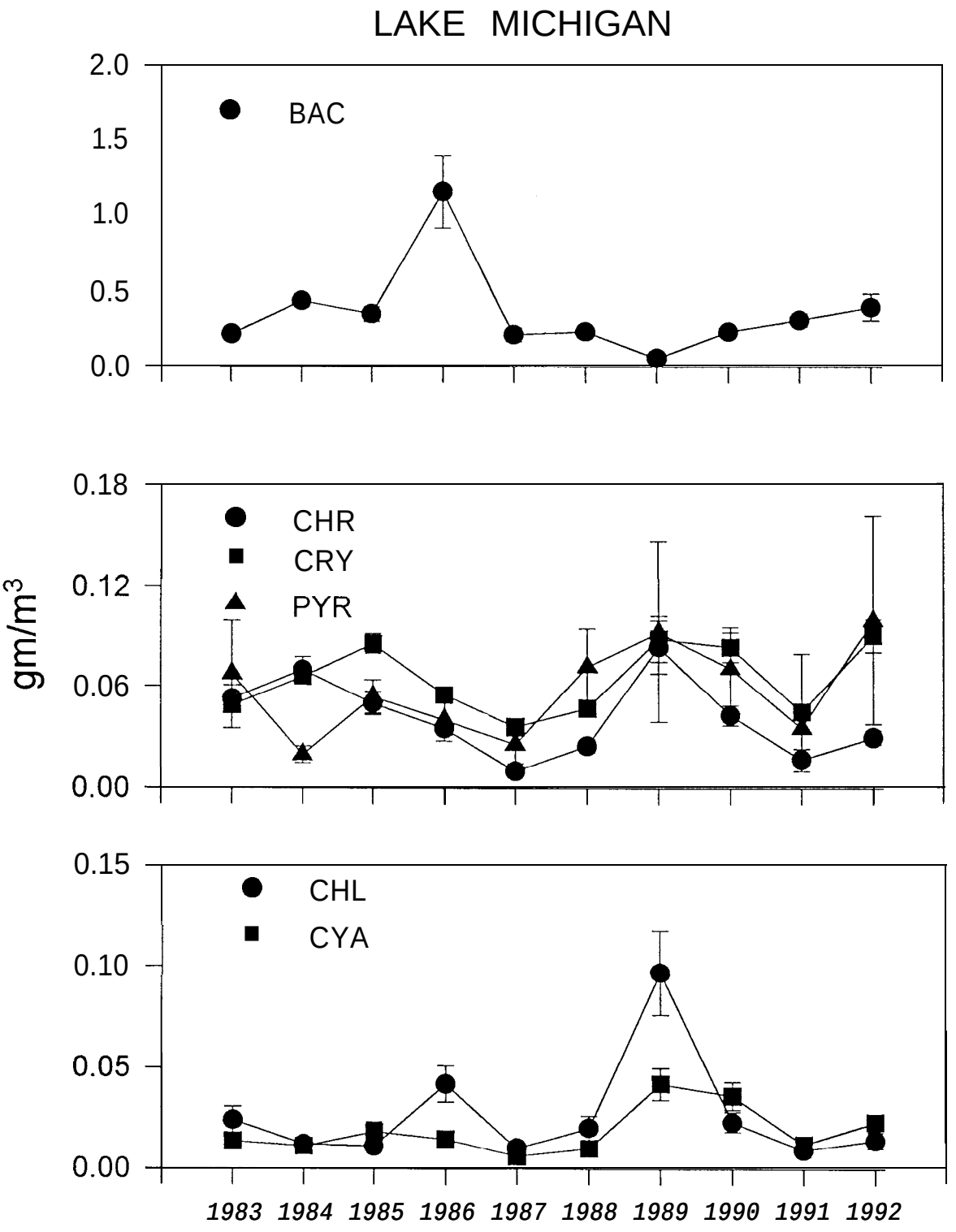


Figure 3. Yearly trends in algal biomass by Division, Lake Michigan (1983- 1992). Values are the mean±S.E. Spring and summer data only. BAC=Bacillariophyta, CHR=Chrysophyta, CRY=Cryptophtya, PYR=Pyrrophyta, CHL=Chlorophyta, CYA=Cyanophyta.

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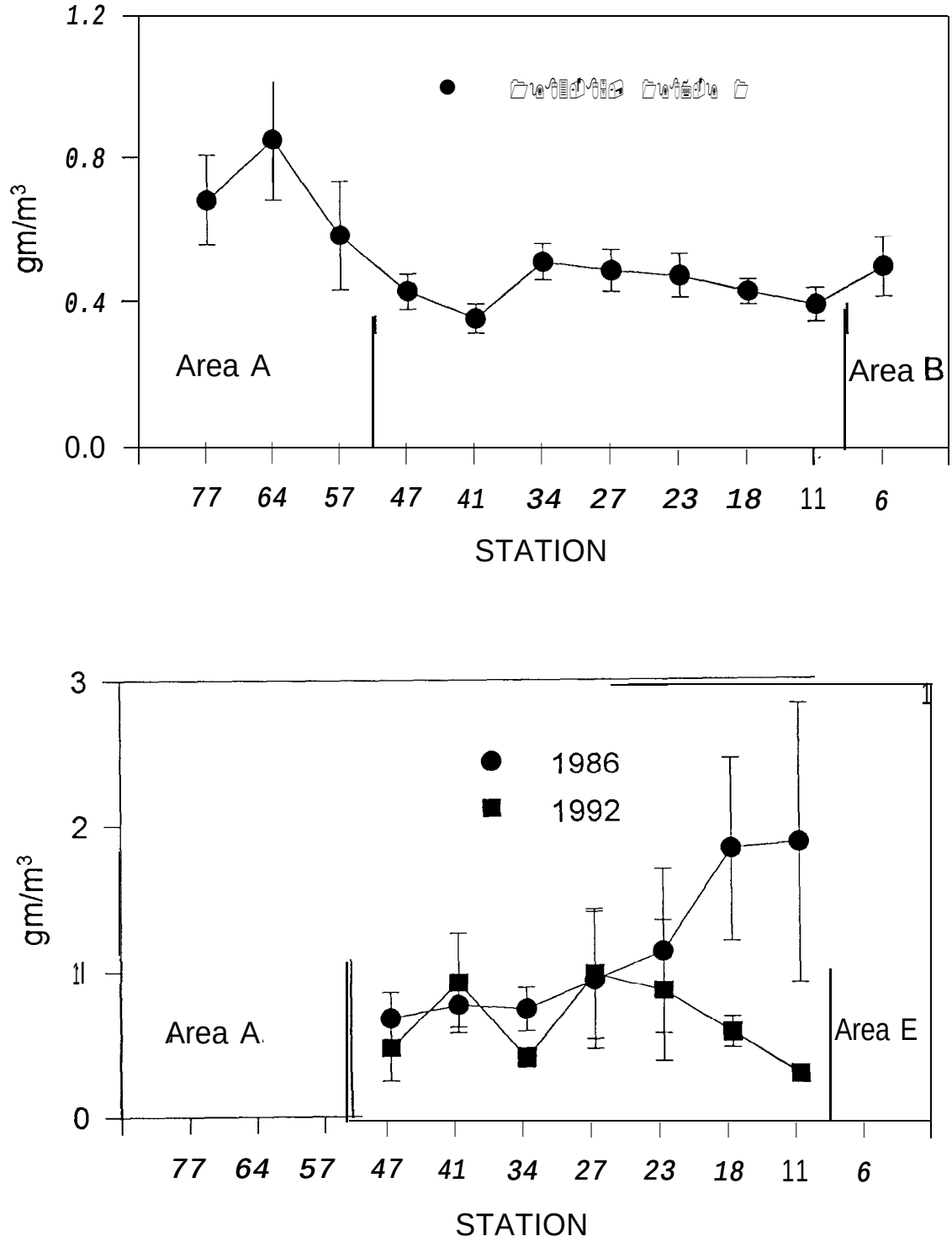

Figure 4. (A). Geographical distribution of algal biomass in Lake Michigan. Values are the mean for 1983-85, 1987-1991 ±S.E. (B) Geographical distribution of algae biomass in Lake Michigan, 1986 and 1992. Area A and B were sampled only in 1983 and 1984.

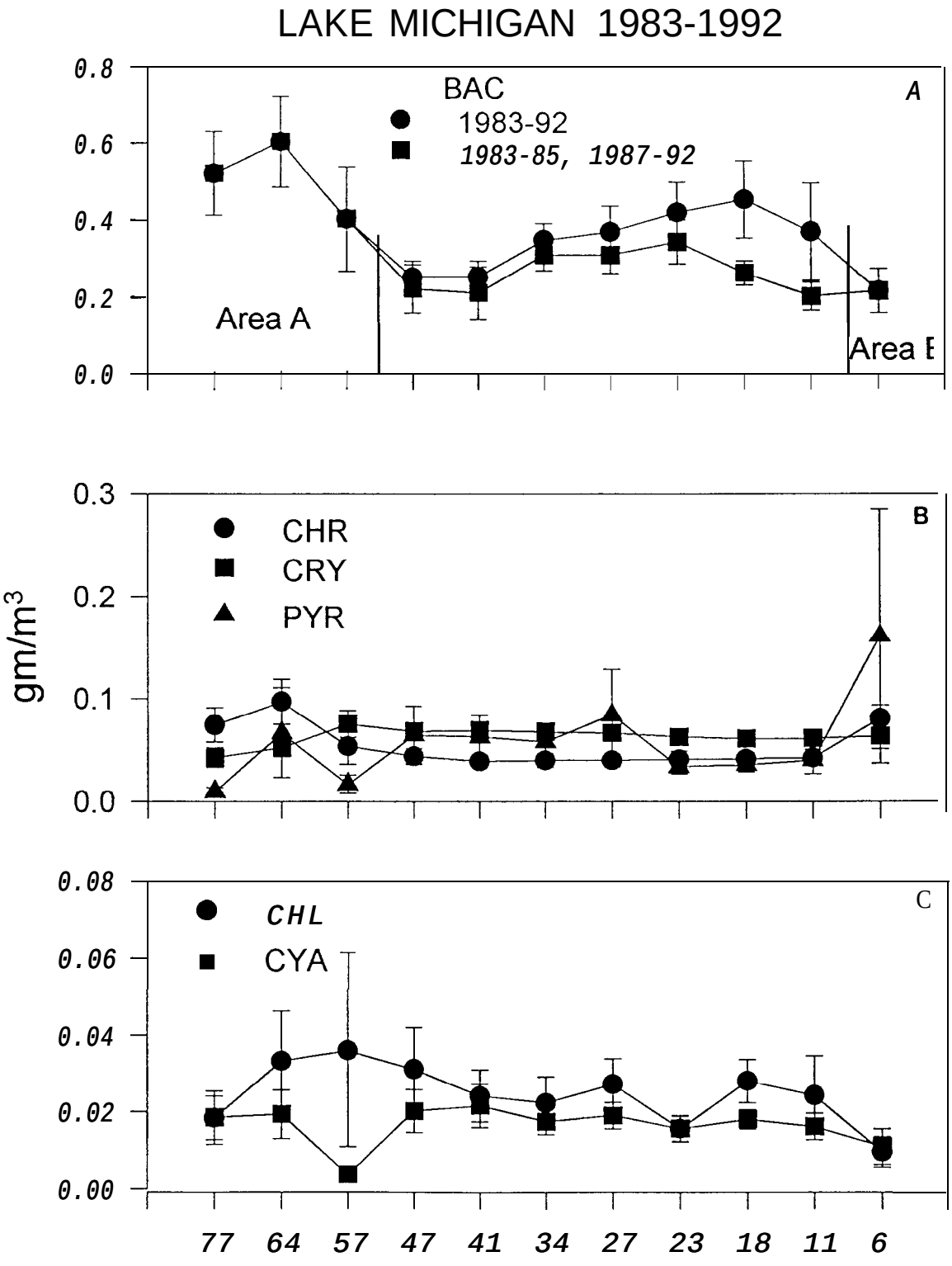

Figure 5. Geographical distribution of algal biomass in Lake Michigan. Values are the mean±S.E. Spring and summer data only. (Area A and B were sampled in 1983 and 84 only). BAC=Bacillariophyta, CHR=Chrysophyta, CRY=Cryptophtya, PYR=Pyrrophyta, CHL=Chlorophyta, CYA=Cyanophyta

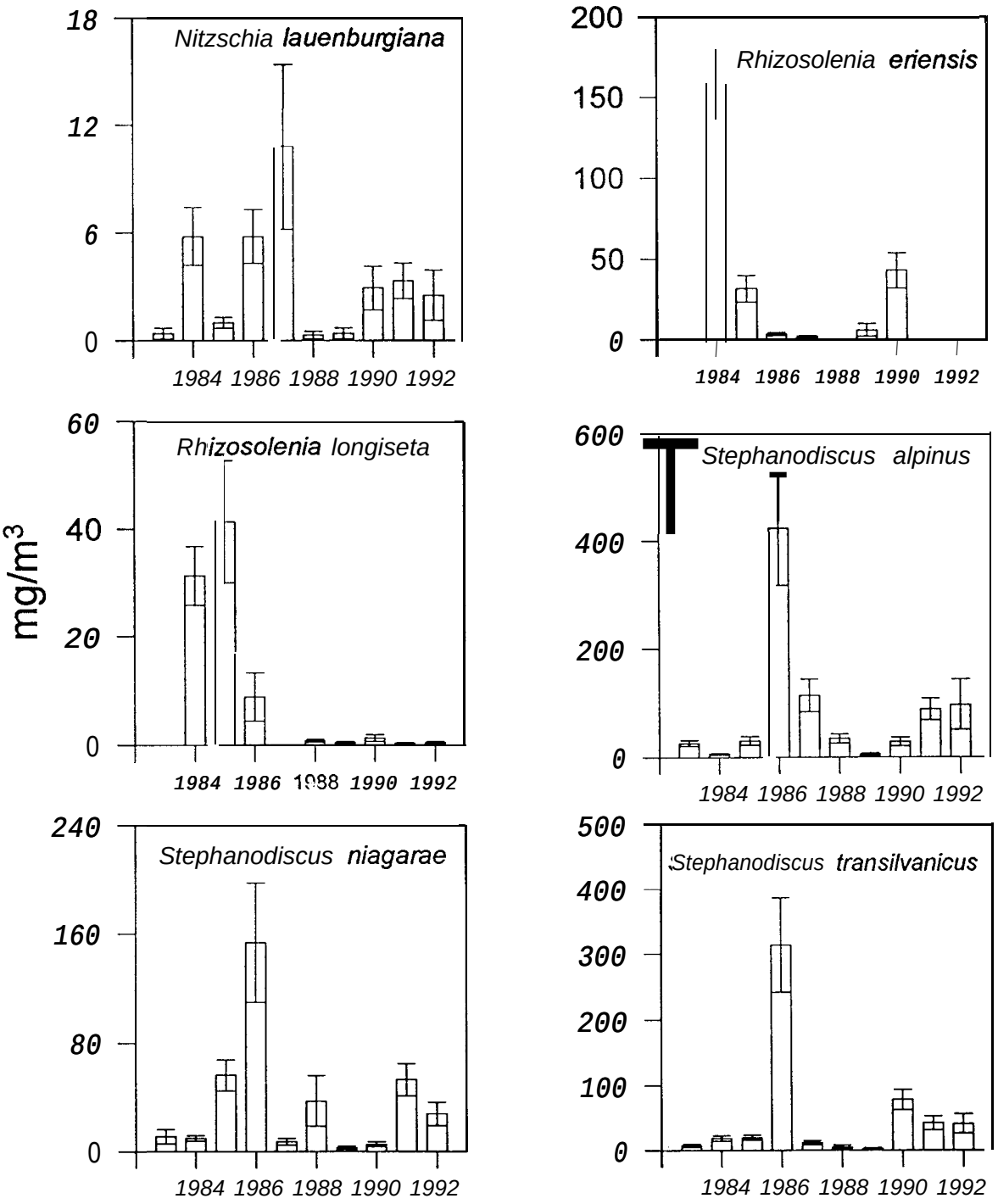

Figure 6. Mean annual biomass of phytoplankton species from 1983 to 1992 contributing greater than 3% of the algal abundance or biomass in any given year. Values are the mean±S.E.

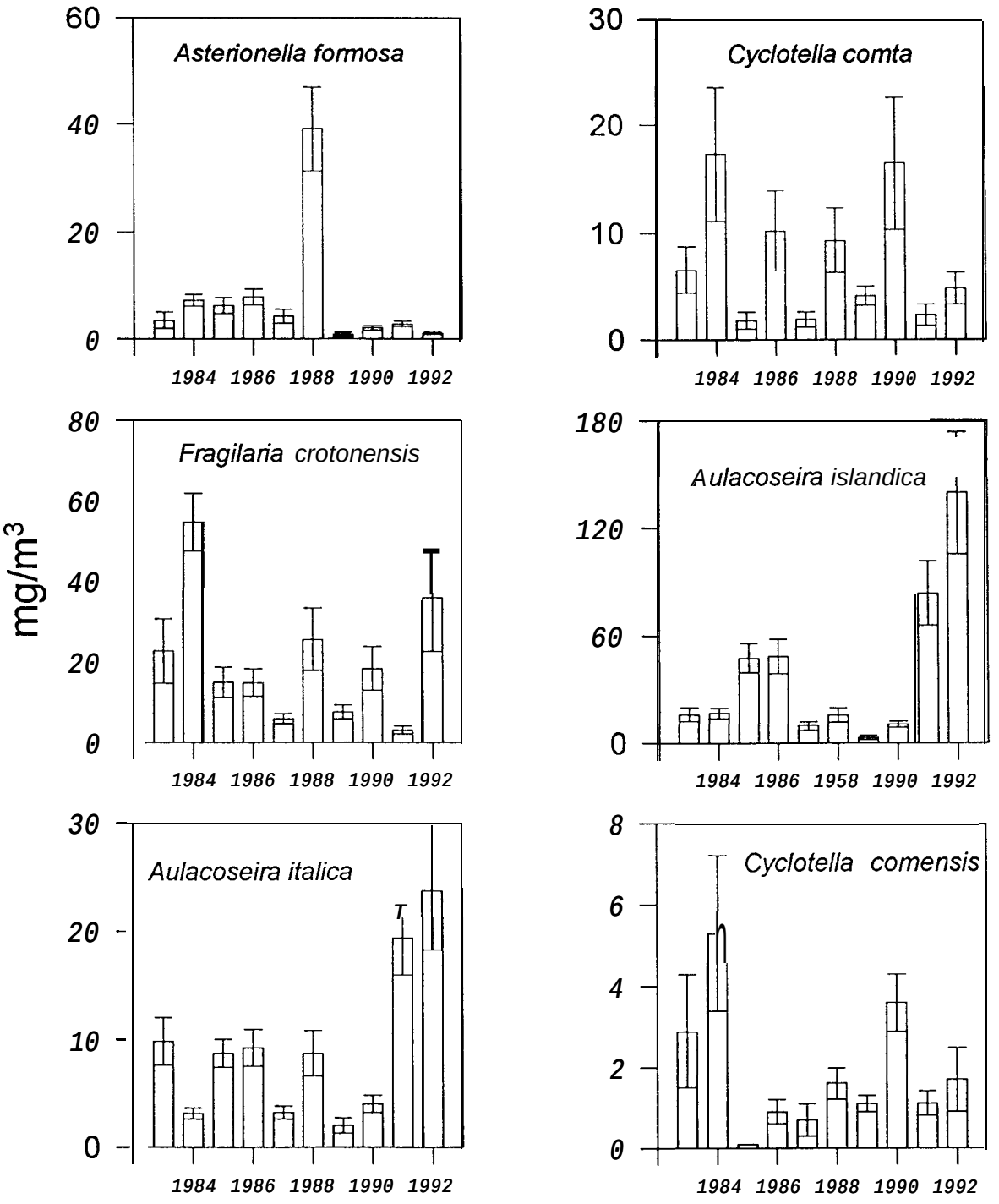

Figure 2 Mean annual biomass of phytoplankton species from 1983 to 1992 contributing greater than 3% of the algal abundance or biomass in any given year. Values are the mean±S.E.

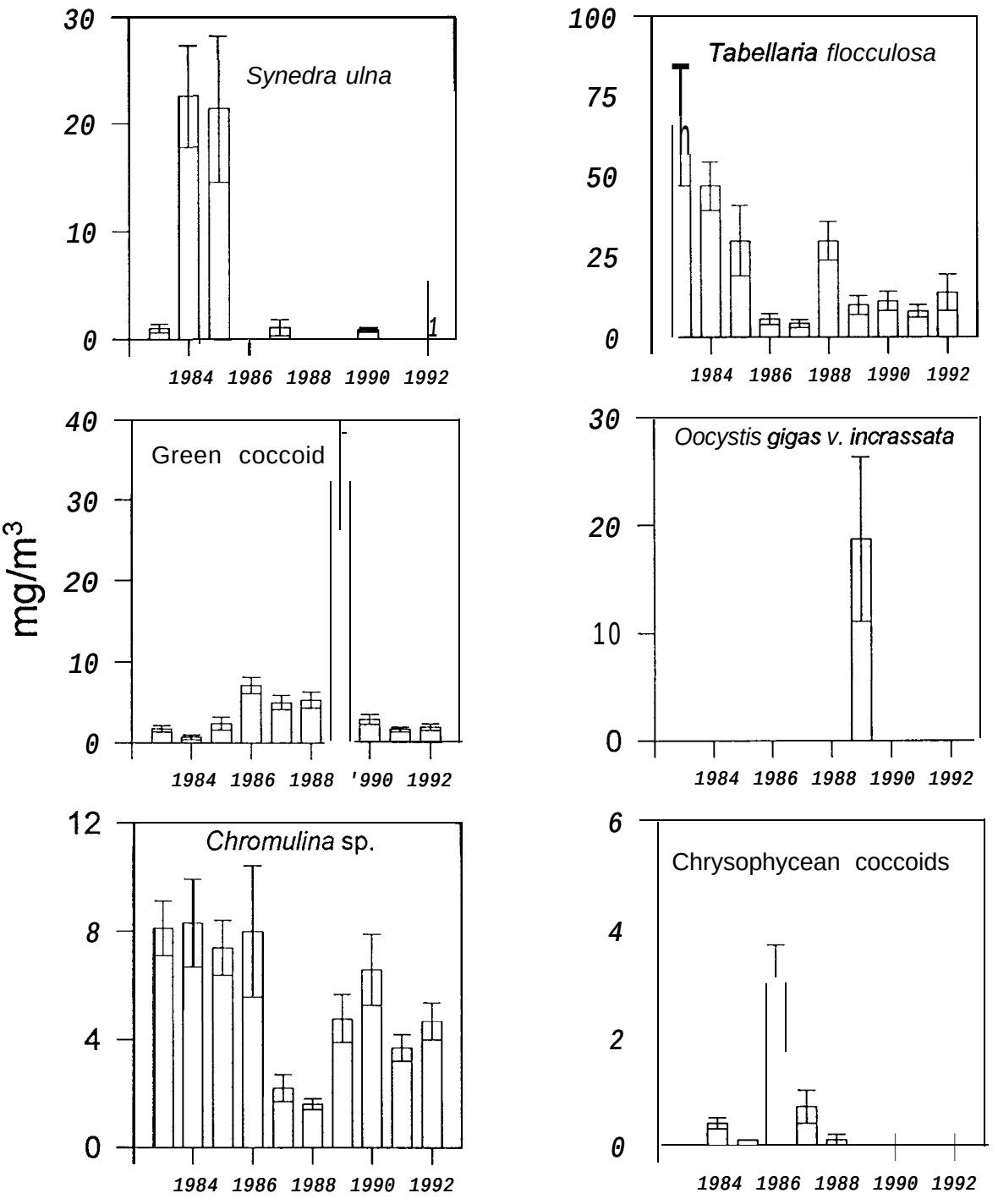

Figure 8. Mean annual biomass of phytoplankton species from 1983 to 1992 contributing greater than 3% of the algal abundance or biomass in any given year. Values are the mean±S.E.

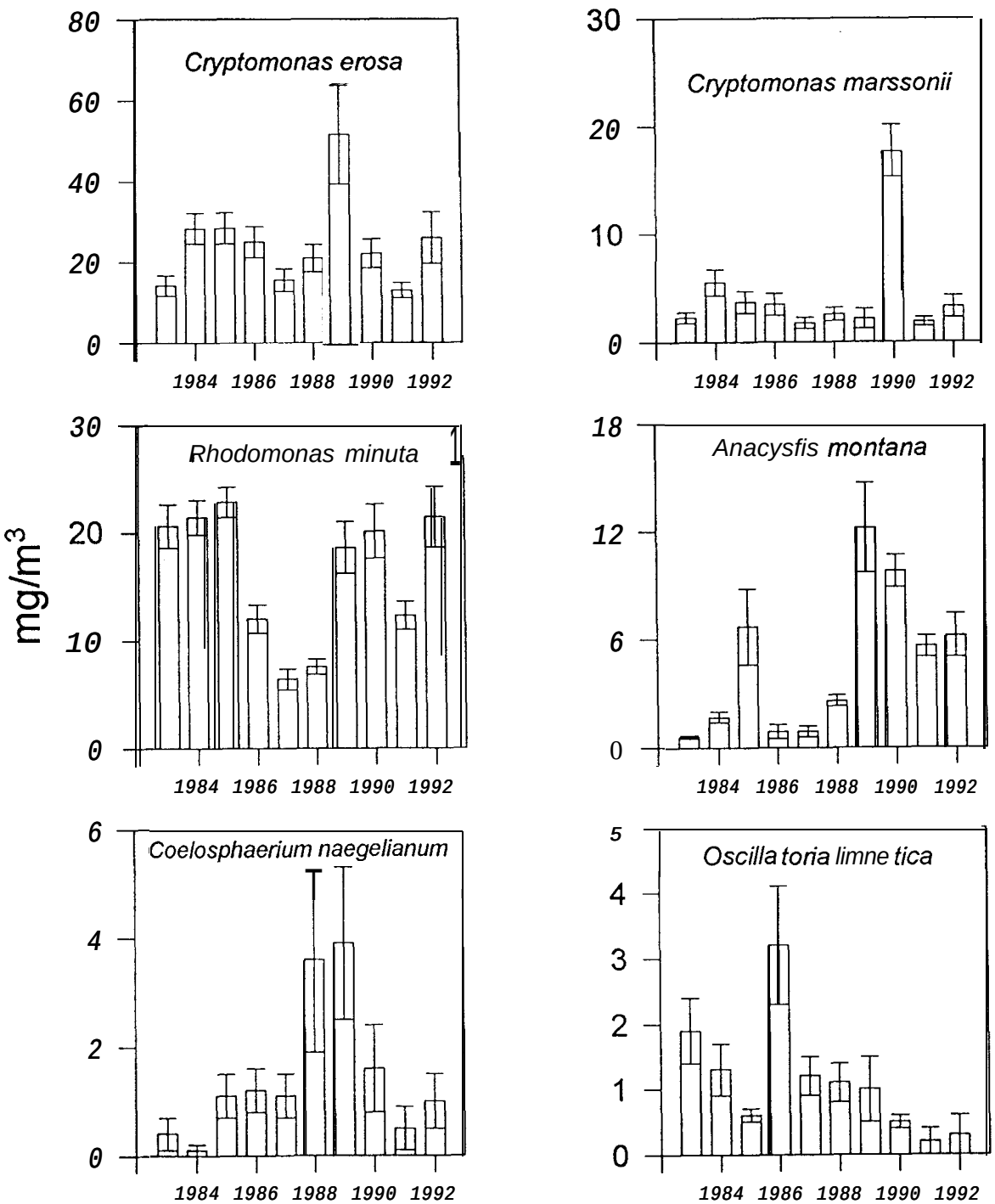

Figure. 9 Mean annual biomass of phytoplankton species from 1983 to 1992 contributing greater than 3% of the algal abundance or biomass in any given year. Values are the mean±S.E.

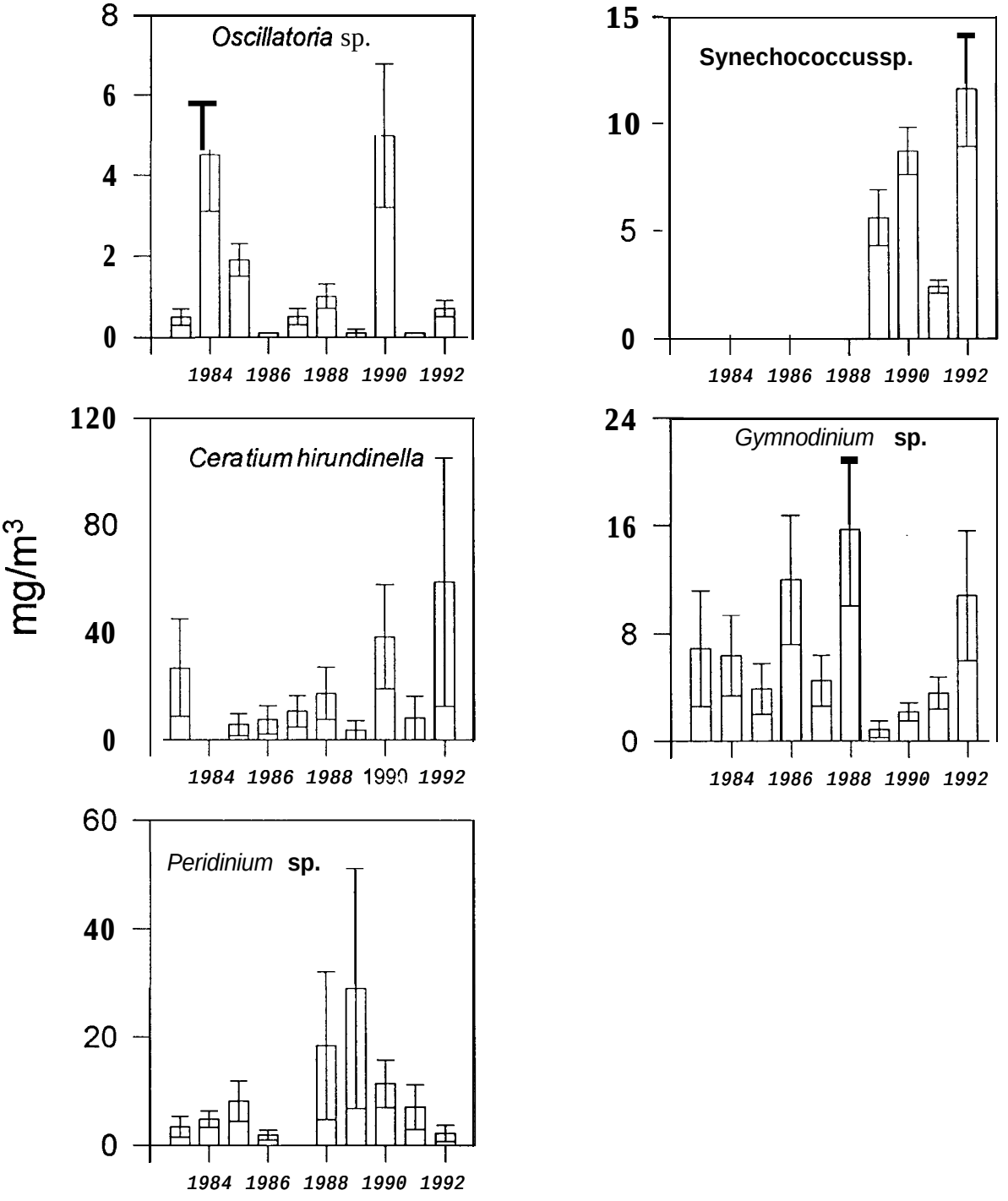

Figure 10. Mean annual biomass of phytoplankton species from 1983 to 1992 contributing greater than 3% of the algal abundance or biomass in any given year. Values are the mean±S.E.

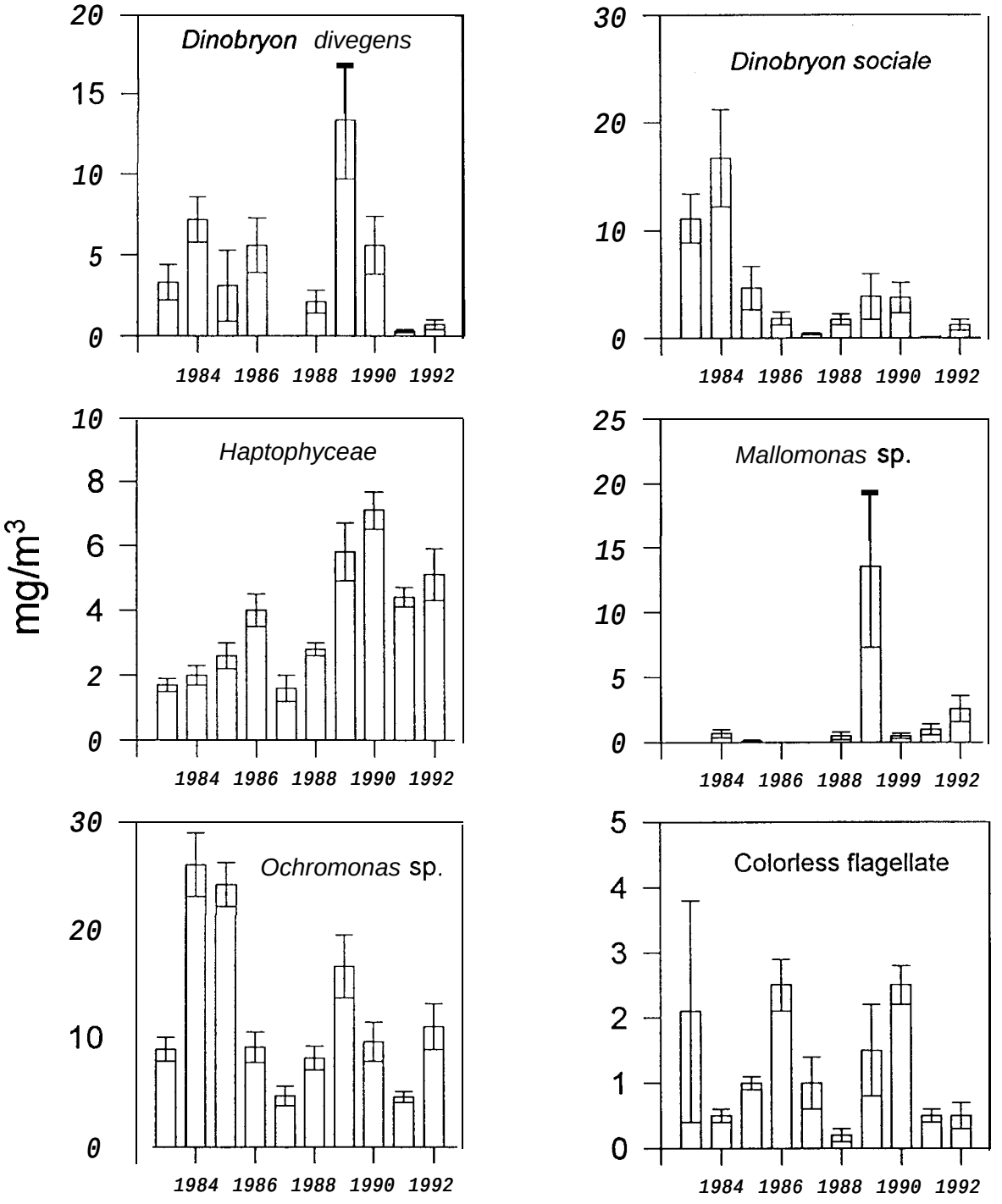

Figure 11. Mean annual biomass of phytoplankton species from 1983 to 1992 contributing greater than 3% of the algal abundance or biomass in any given year. Values are the mean±S.E.

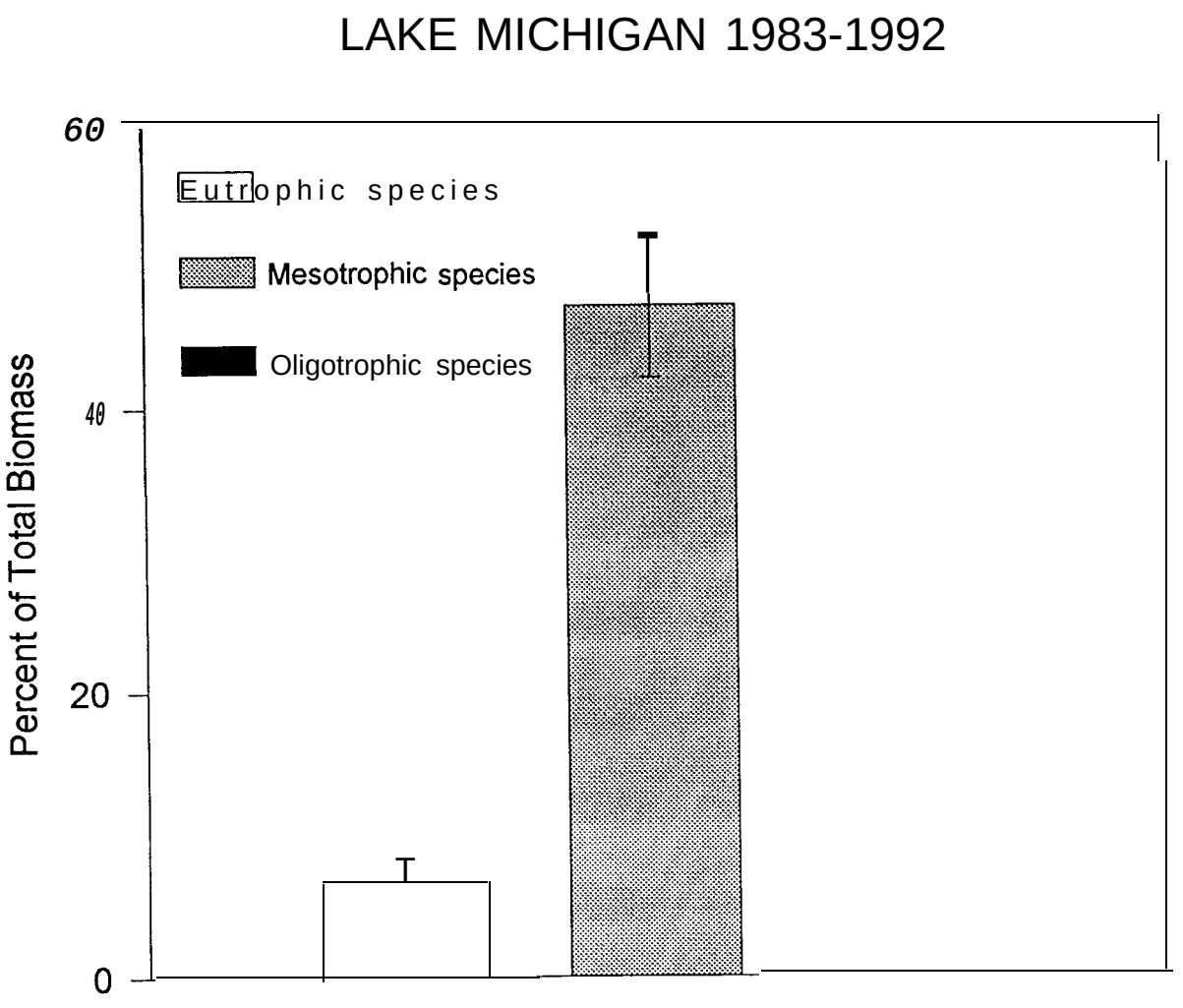

Figure 12. Percent biomass of eutrophic, mesotrophic amd oligotrophic diatom species from 1983 to 1992, Lake Michigan.

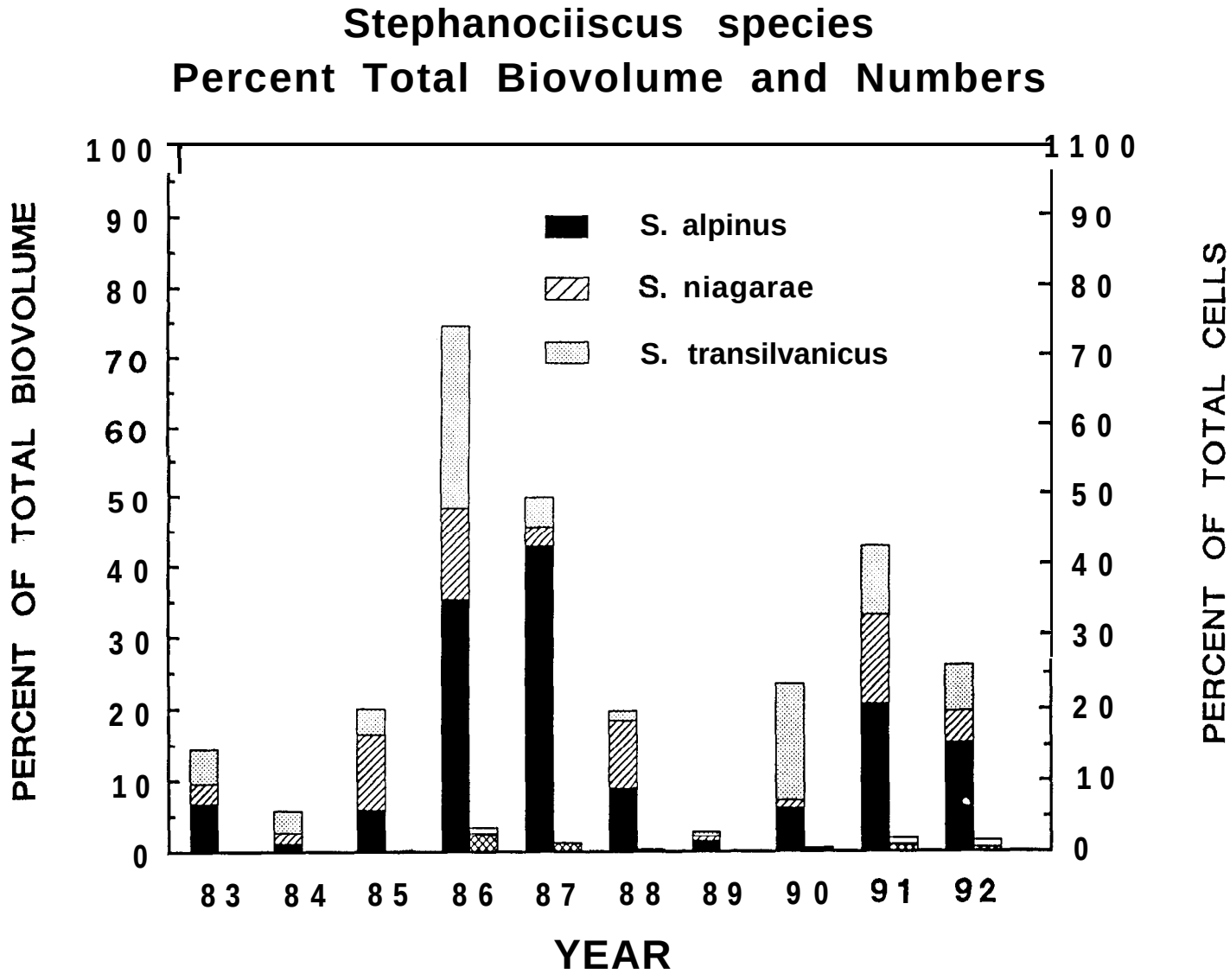

Figure 13. Annual relative abundance of Stephanodiscus spp. in Lake Michigan. Left column =Biovolume, Right column = Abundance.

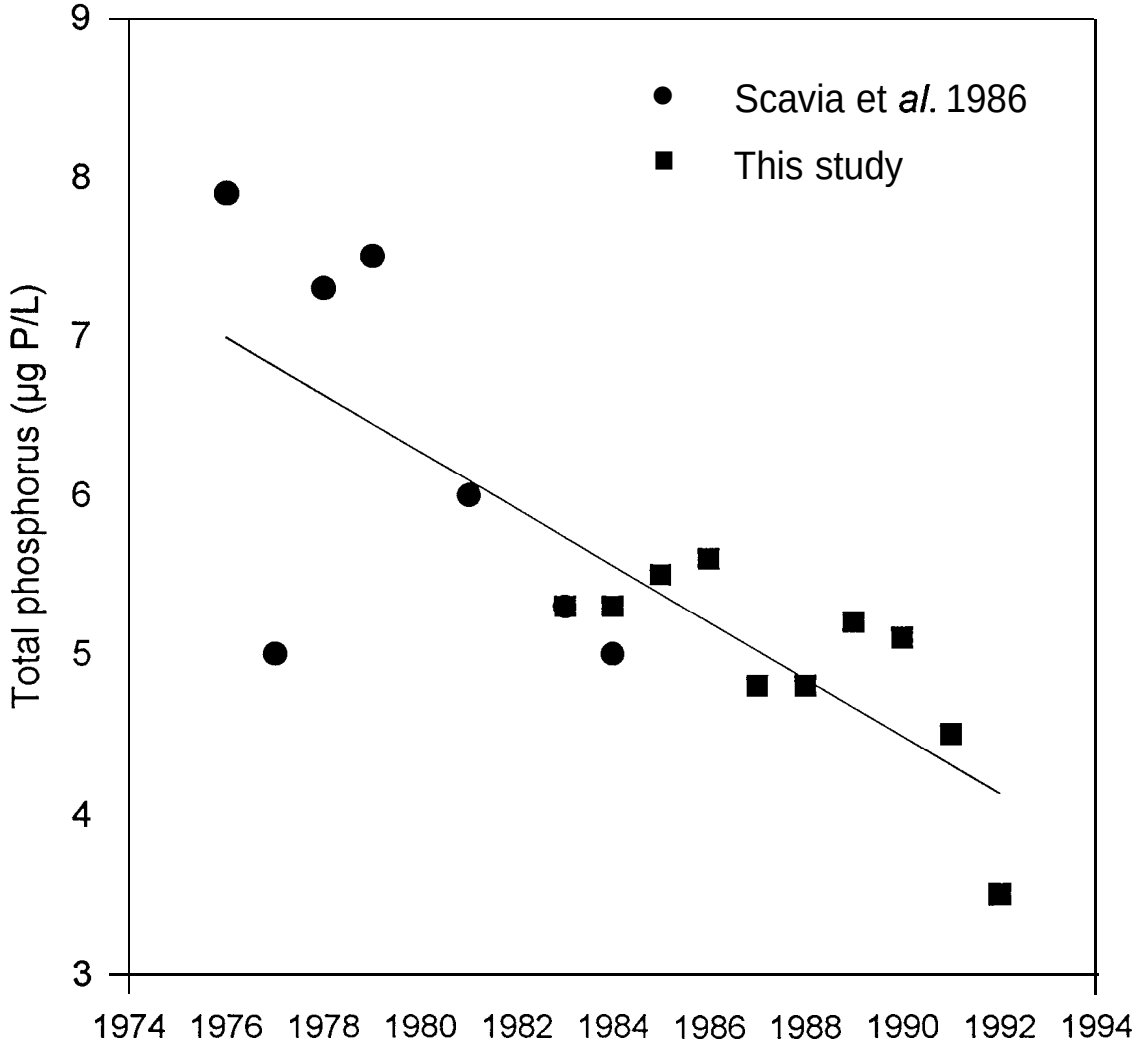

Figure 14. Spring trends (r^2 =0.62) in ambient total phosphorus concentrations in Lake Michigan. 1976-84 data (graphical accuracy) are from Scavia et al. (1986).

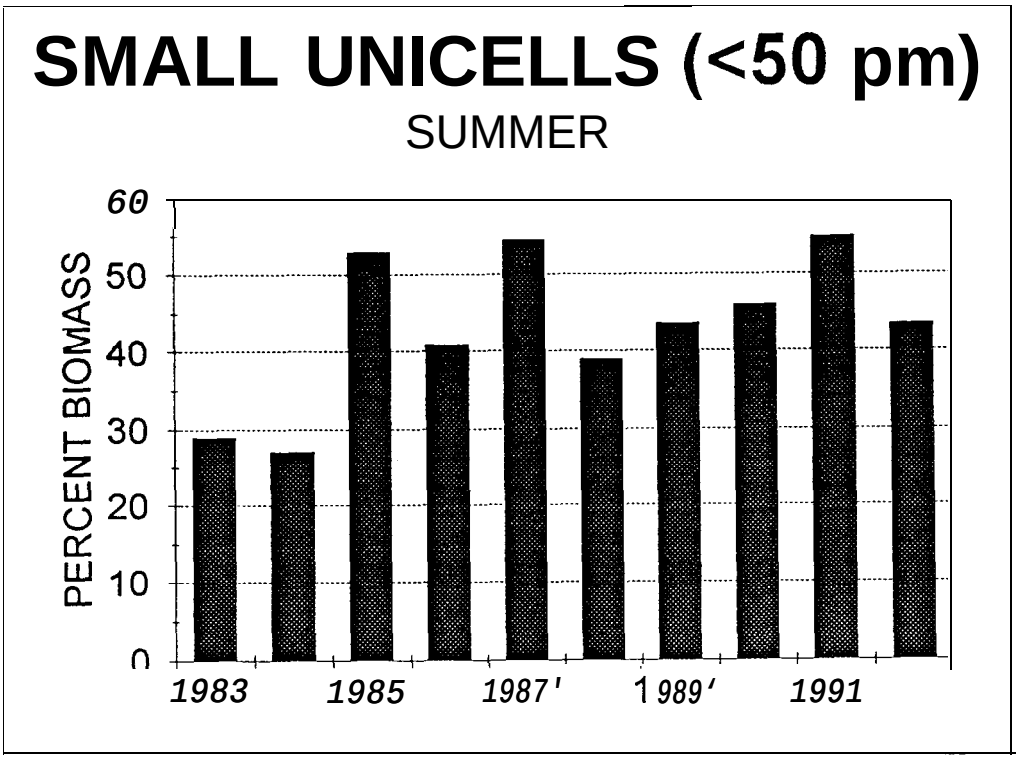

Figure 15. Relative biomass of small unicelluar algae (<50 μ) in Lake Michigan.

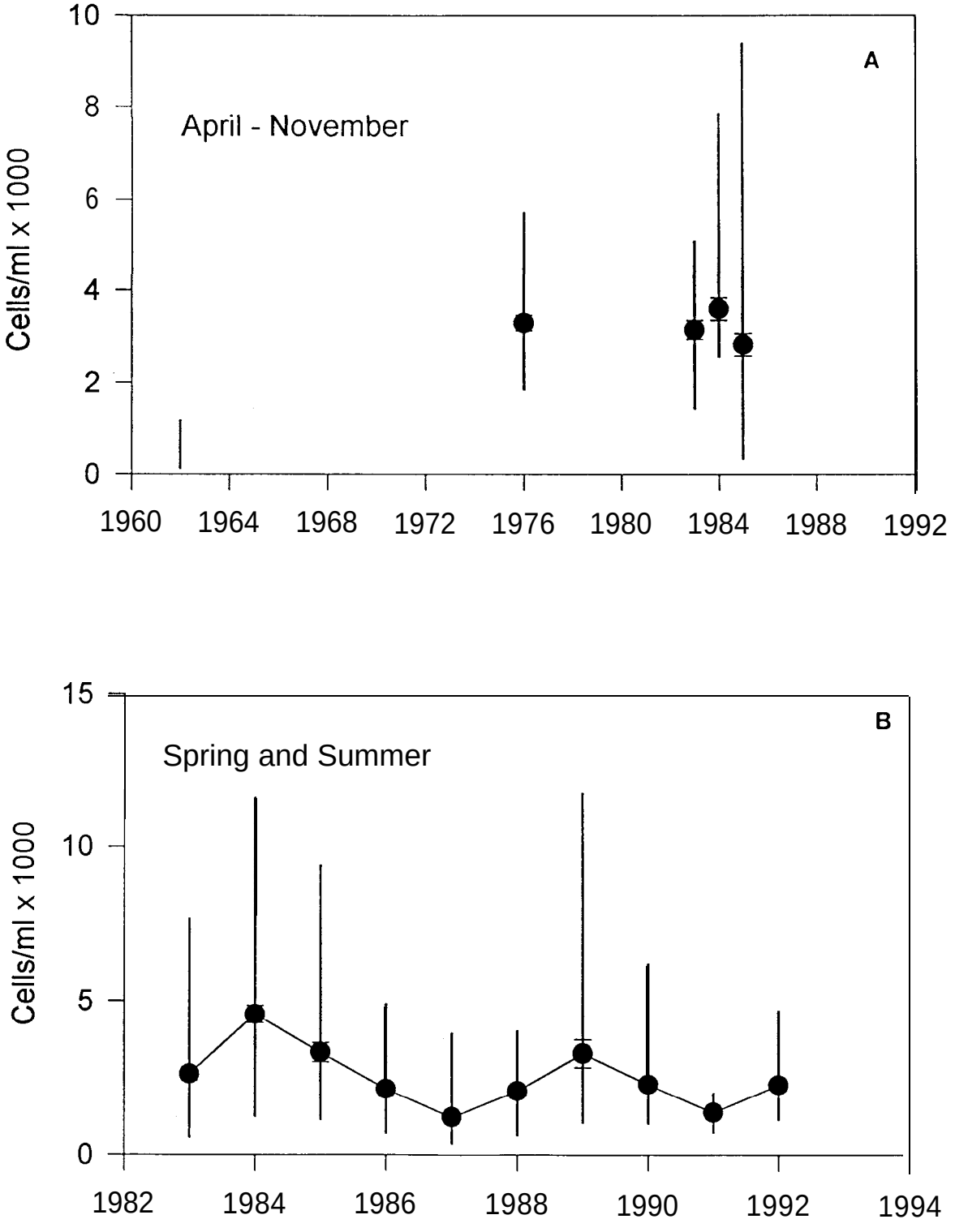

Figure 16. Historical offshore phytoplankton abundance trends in Lake Michigan (A) April - November data (B) Spring and summer data. Values are the mean±S.E. (wide vertical bar) and the range (narrow vertical bar). The 1963 and 1976 data are from Stoermer and Kopczynska (1967a and b) and Rockwell et al. (1980), respectively.

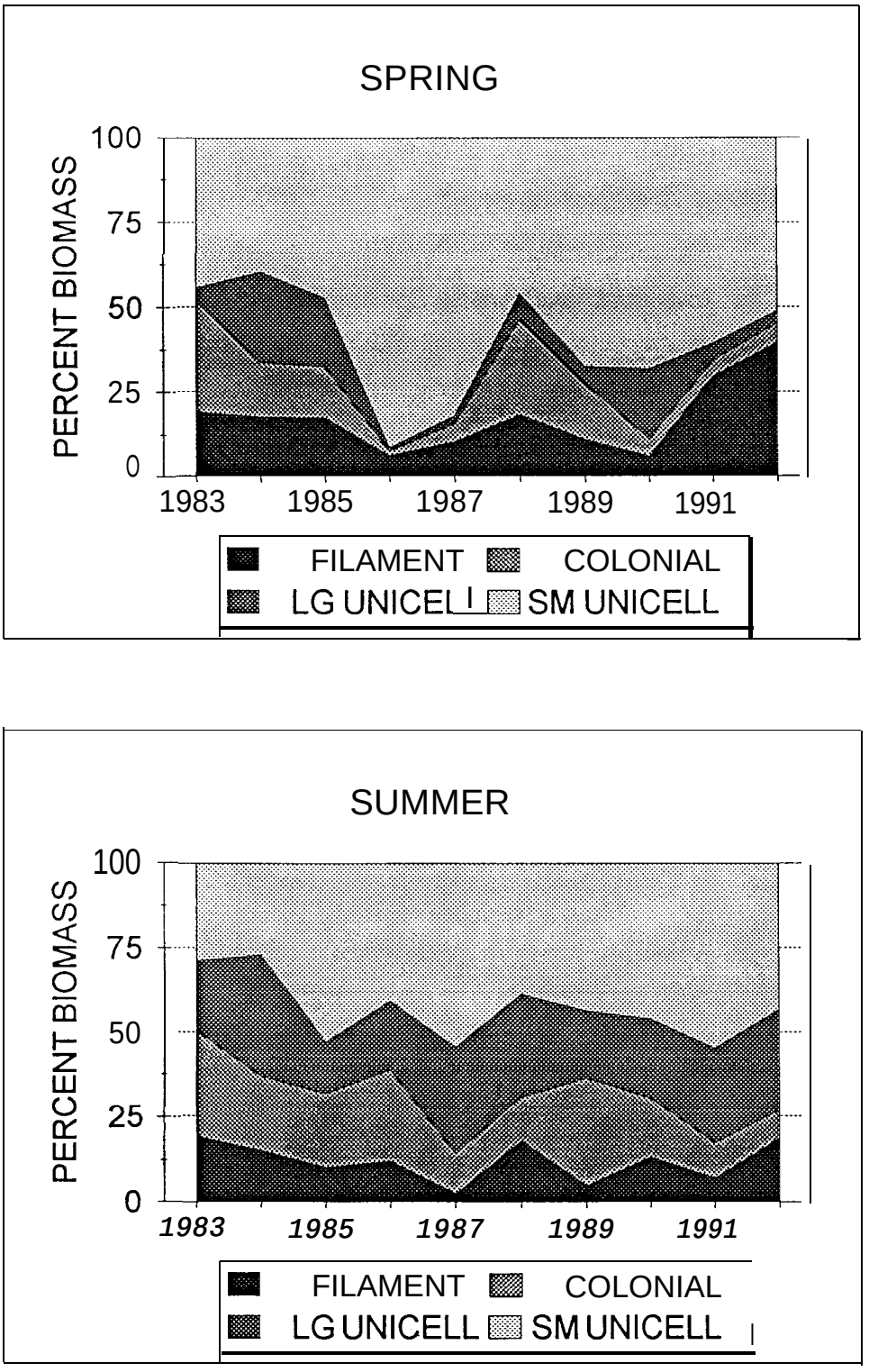

Figure 17. Relative biomass of colonial, filaments and large and small unicells in the spring and summer, Lake Michigan.

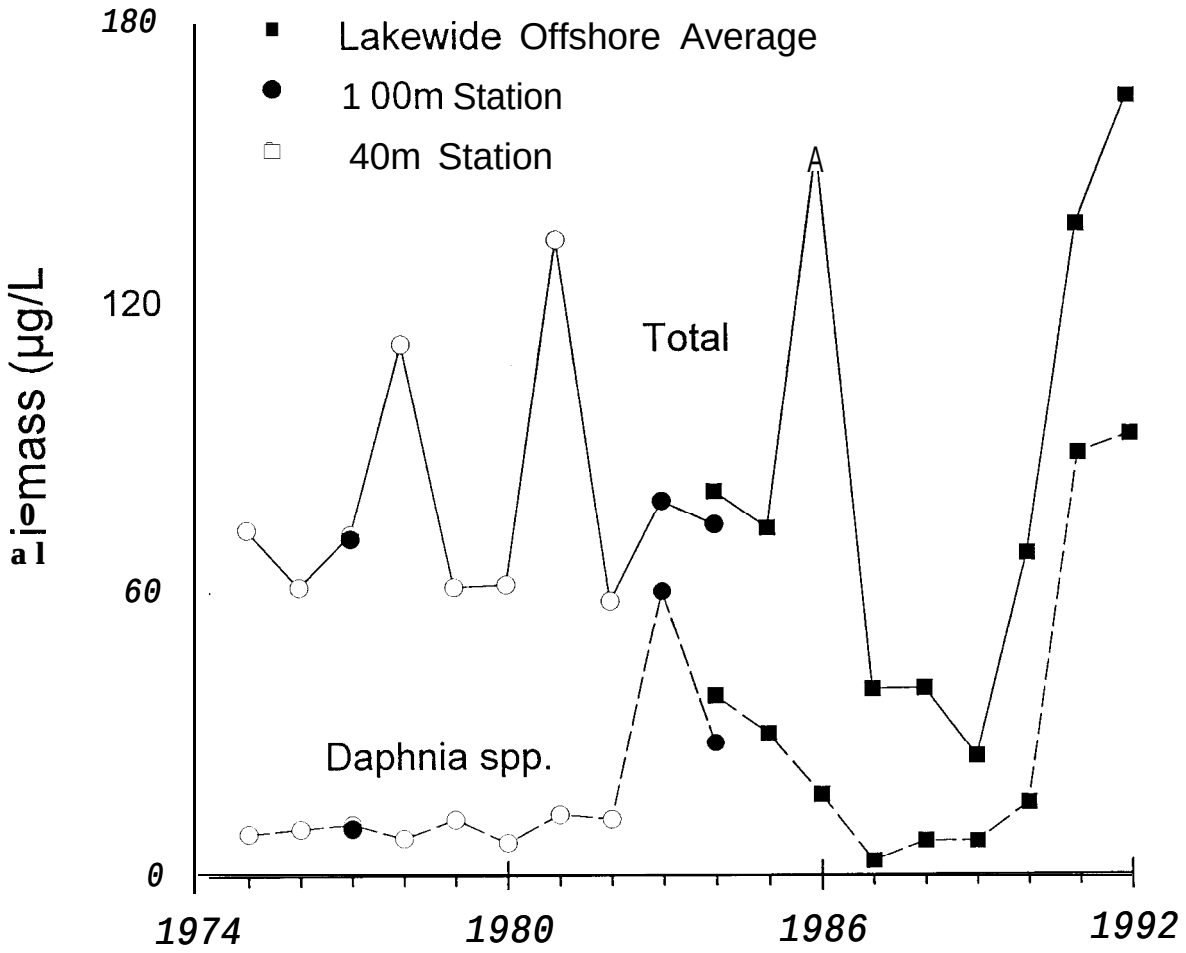

Figure 18. Historical offshore zooplankton biomass trends in Lake Michigan during July and August. Data are from Scavia et al. (1986) and this study.

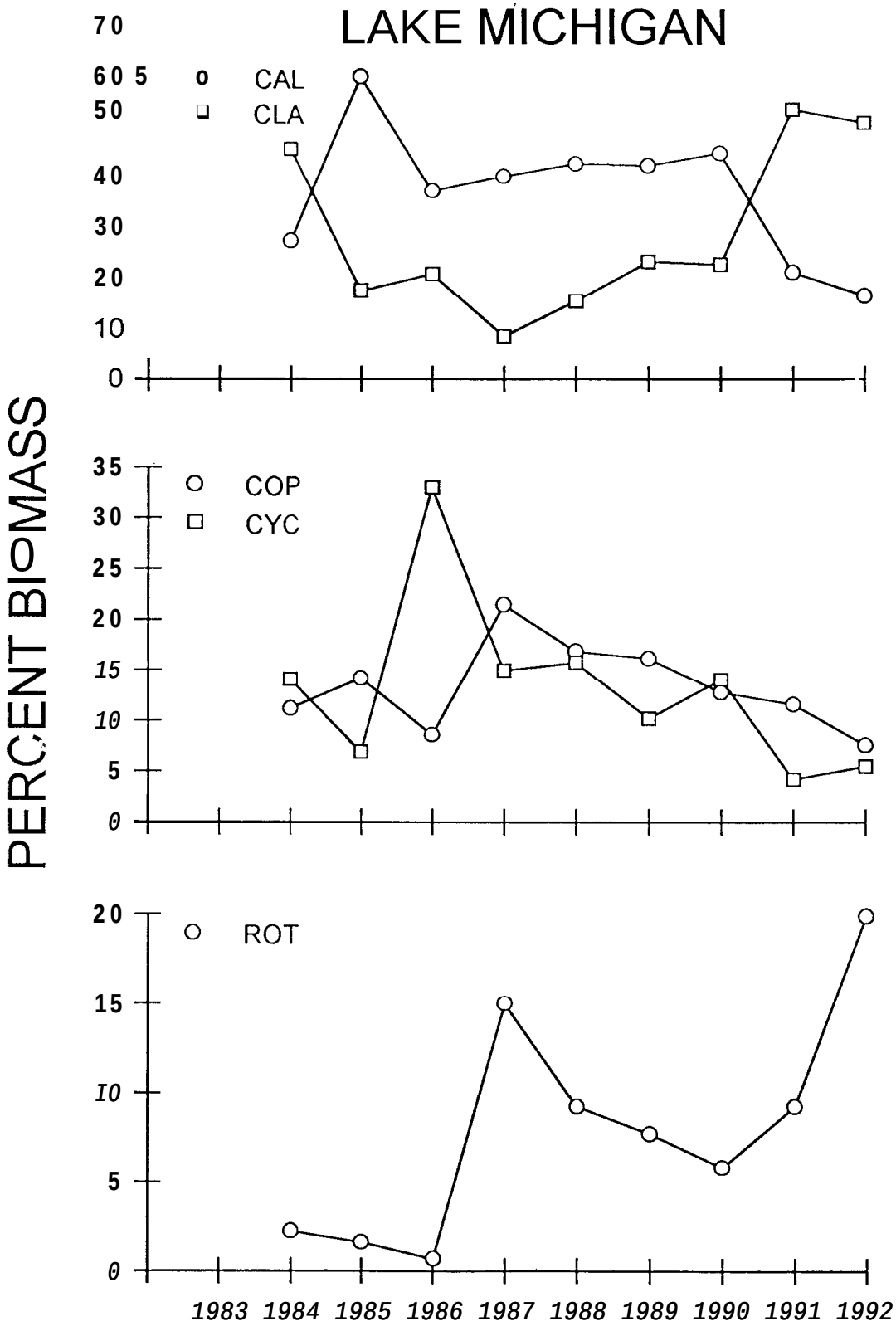

Figure 19. Yearly trends in relative biomass of selected groups of zooplankton, 1983-1992.

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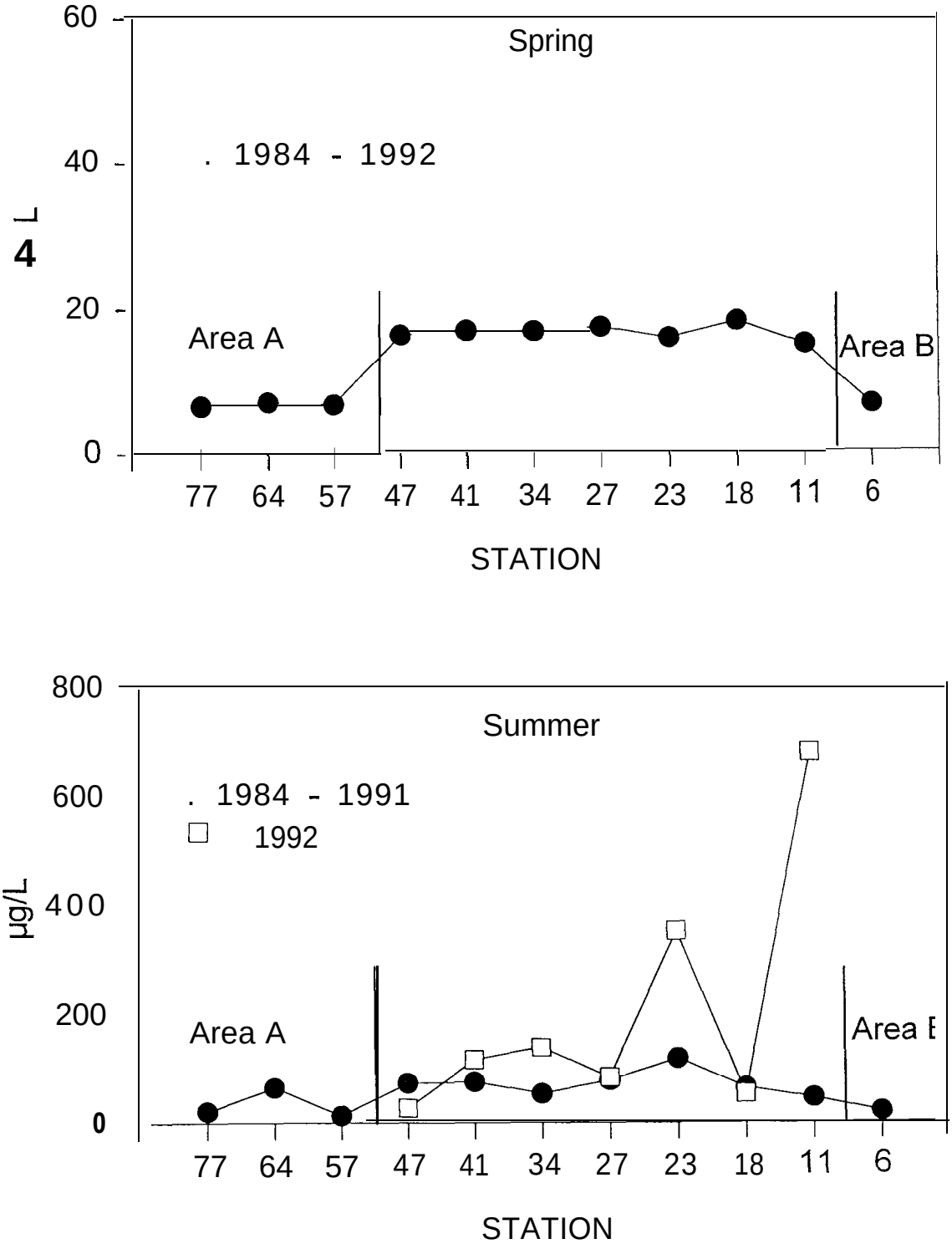


Figure 20. Geographical distribution of zooplankton biomass in Lake Michigan, 1983-92. Values are the mean ± S.E. Area A and B represents stations sampled only in 1983 and 1984.

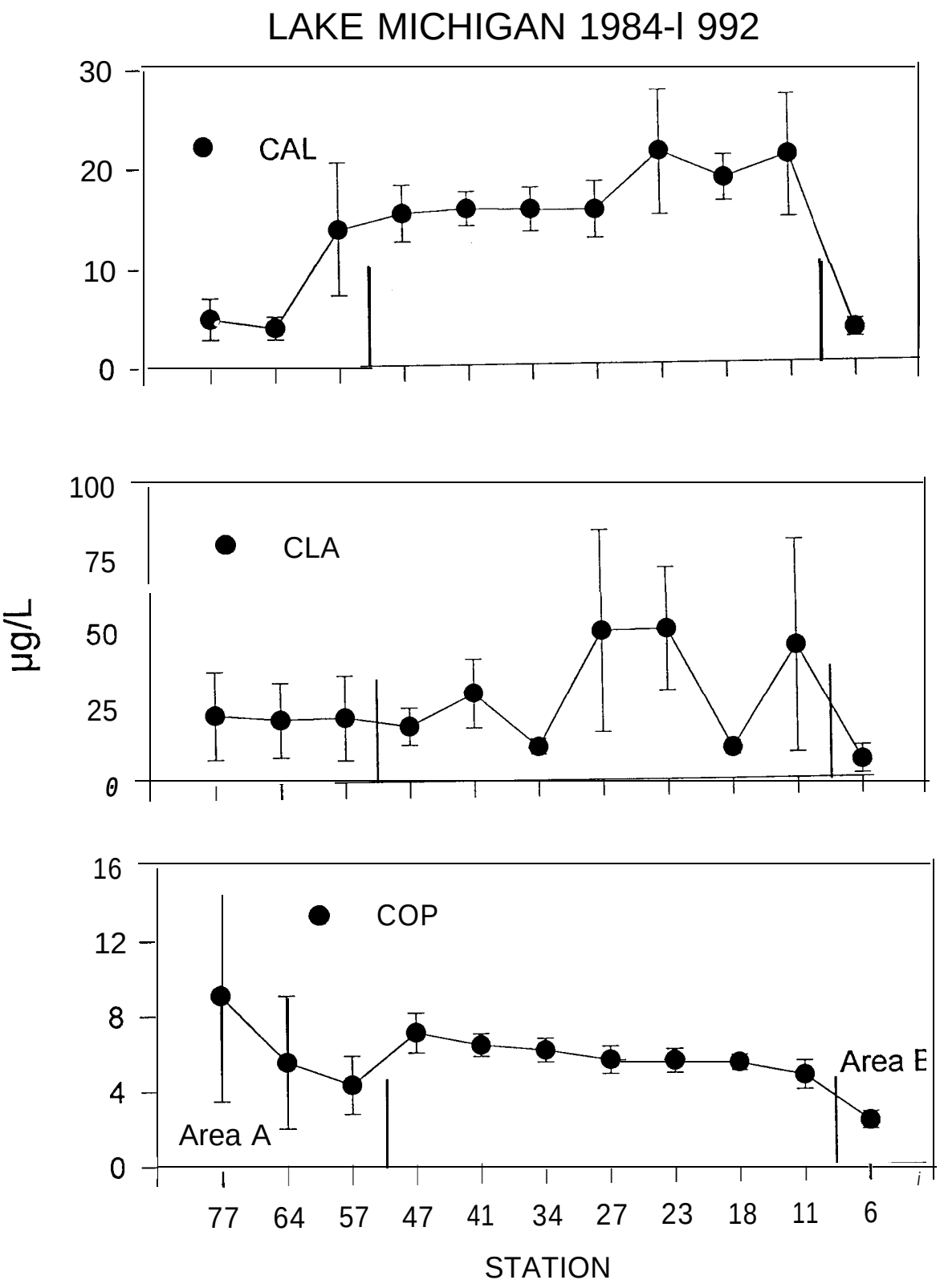


Figure 21. Geographical distribution of Cladocera (CLA), Calanoida (CAL) and Copepoda nauplius (COP) biomass in Lake Michigan, 1983-92. Spring and summer data only. Values are the mena+S.E. Area A and B represents stations sampled only in 1983 and 1984.

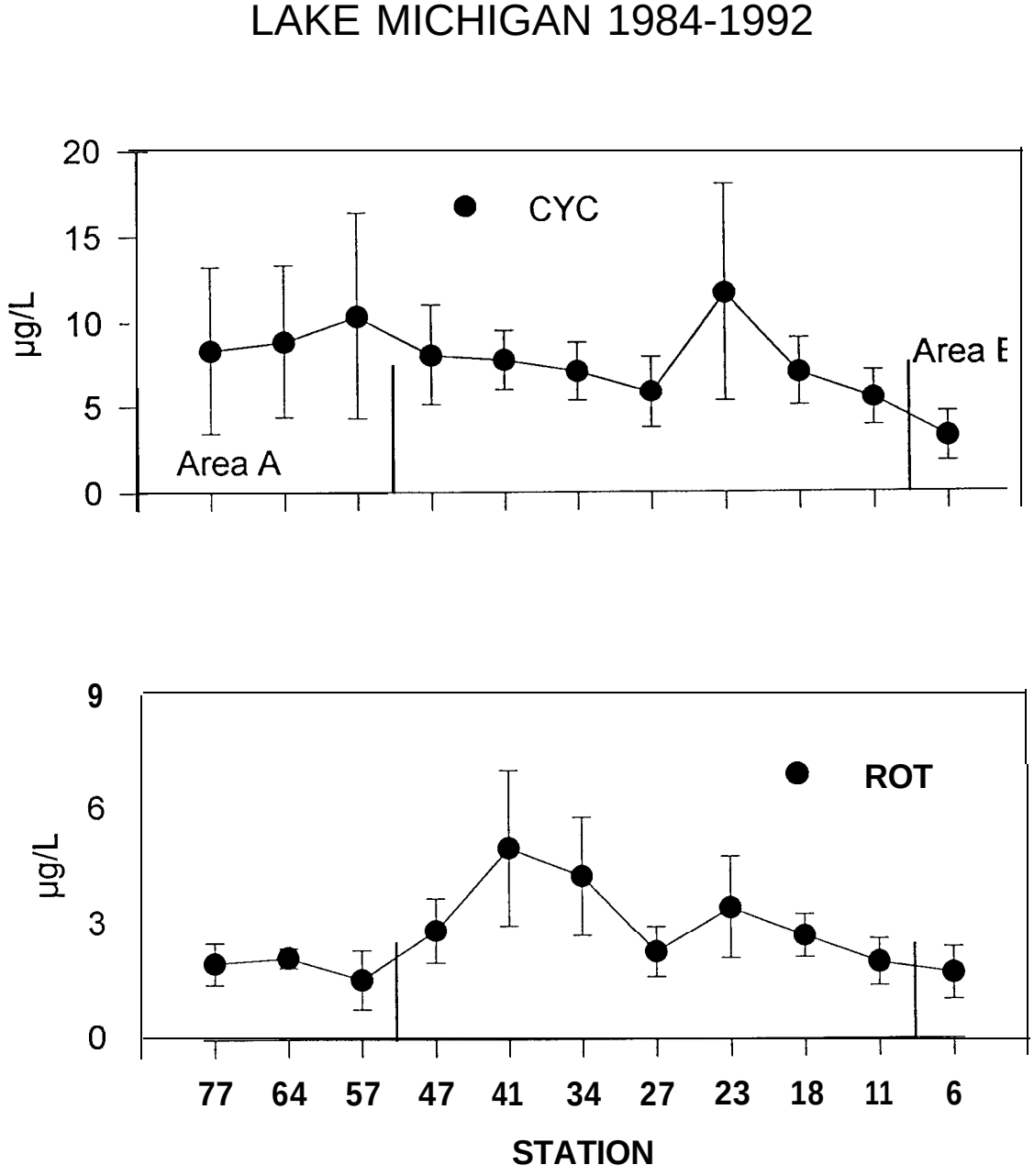


Figure 22. Geographical distribution of Rotifera (ROT) and Cyclopoida (CYC) biomass in Lake Michigan, (1983-92) Spring and summer data only. Values are the mean±S.E. Area A and B represents stations sampled only in 1983 and 1984.

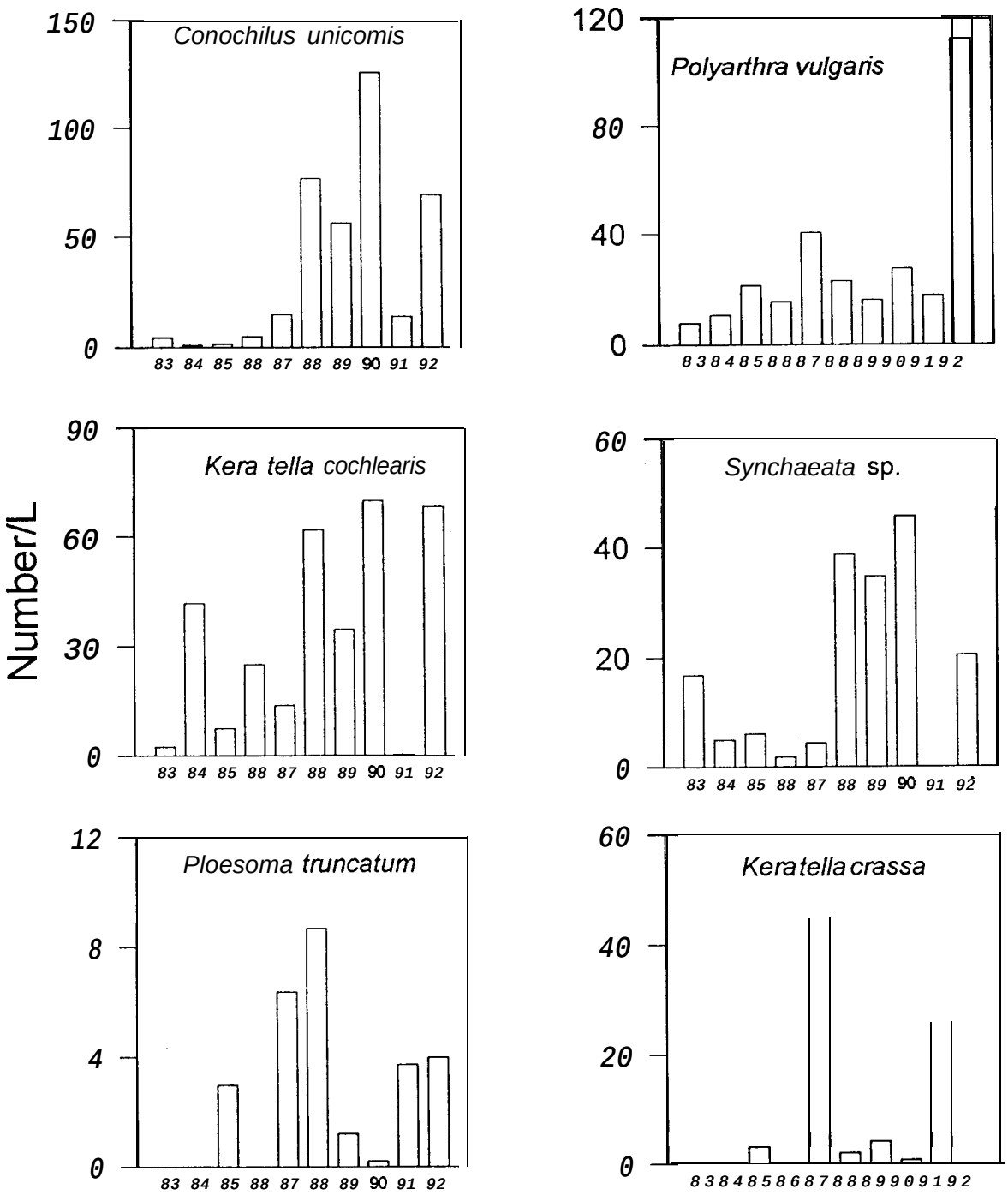


Figure 23, Yearly abundance trench of common Rotifera species, 1983-92.

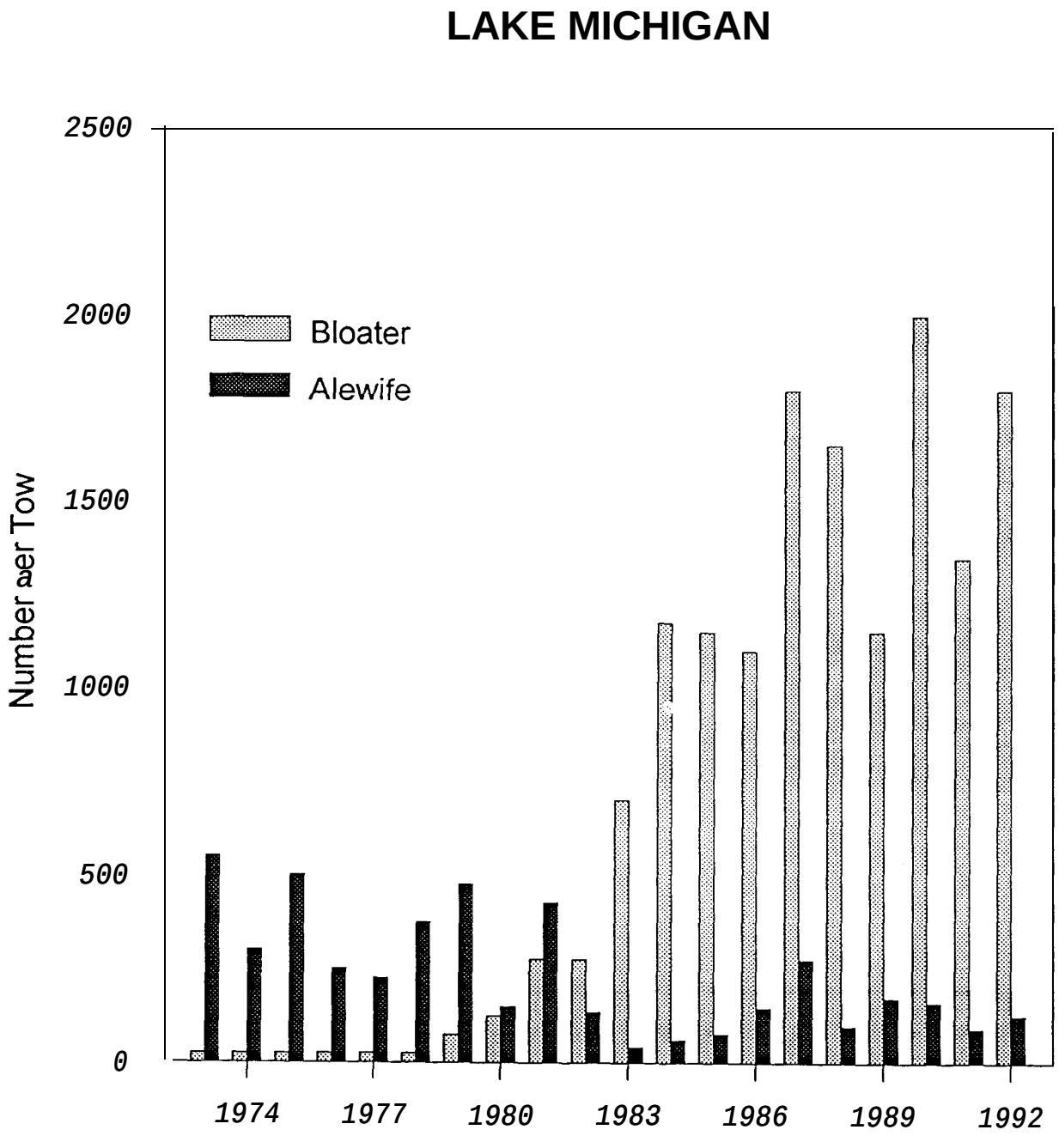


Figure 24. Annual relative abundance (catch per unit effort) of Coregonus hoyi and Alosa pseudoharengus. Data from F. Brown (Personal communication, National Biological Survey, Ann Arbor, MI).

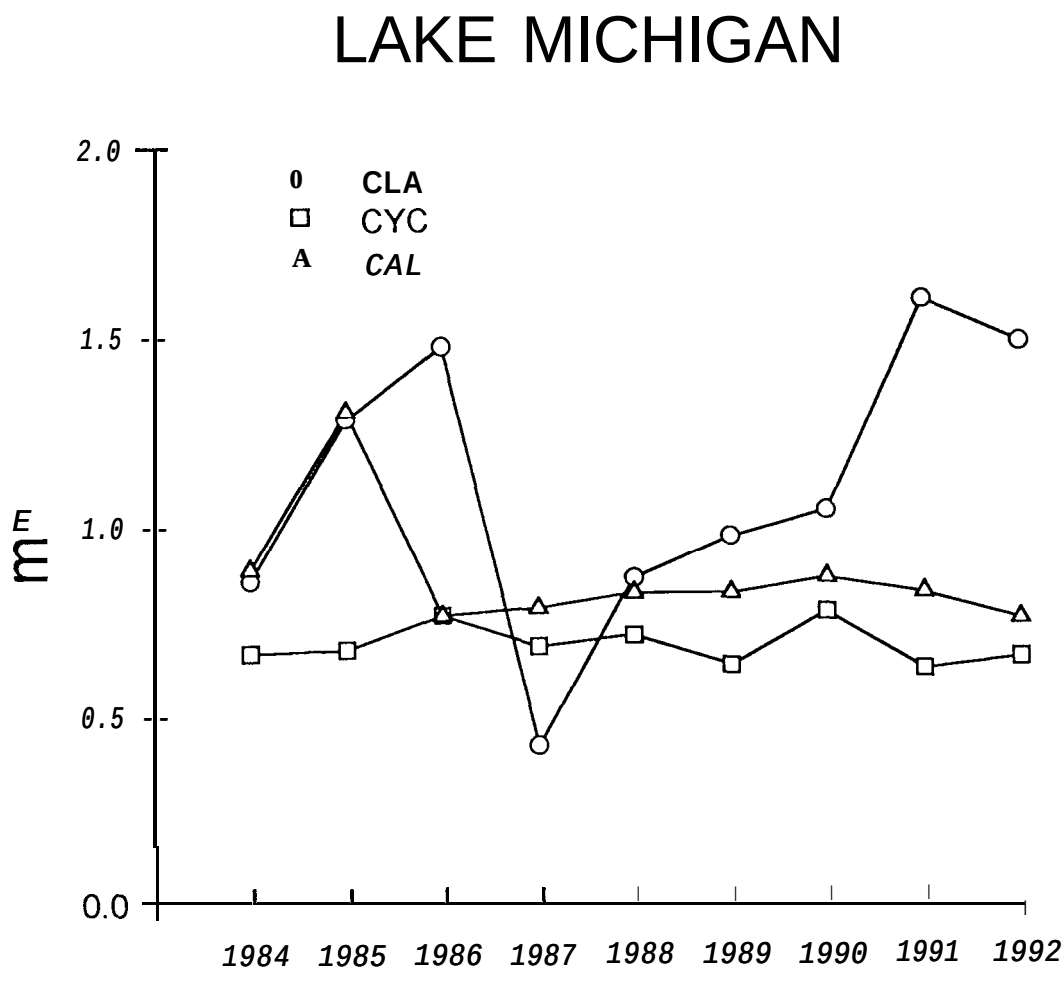
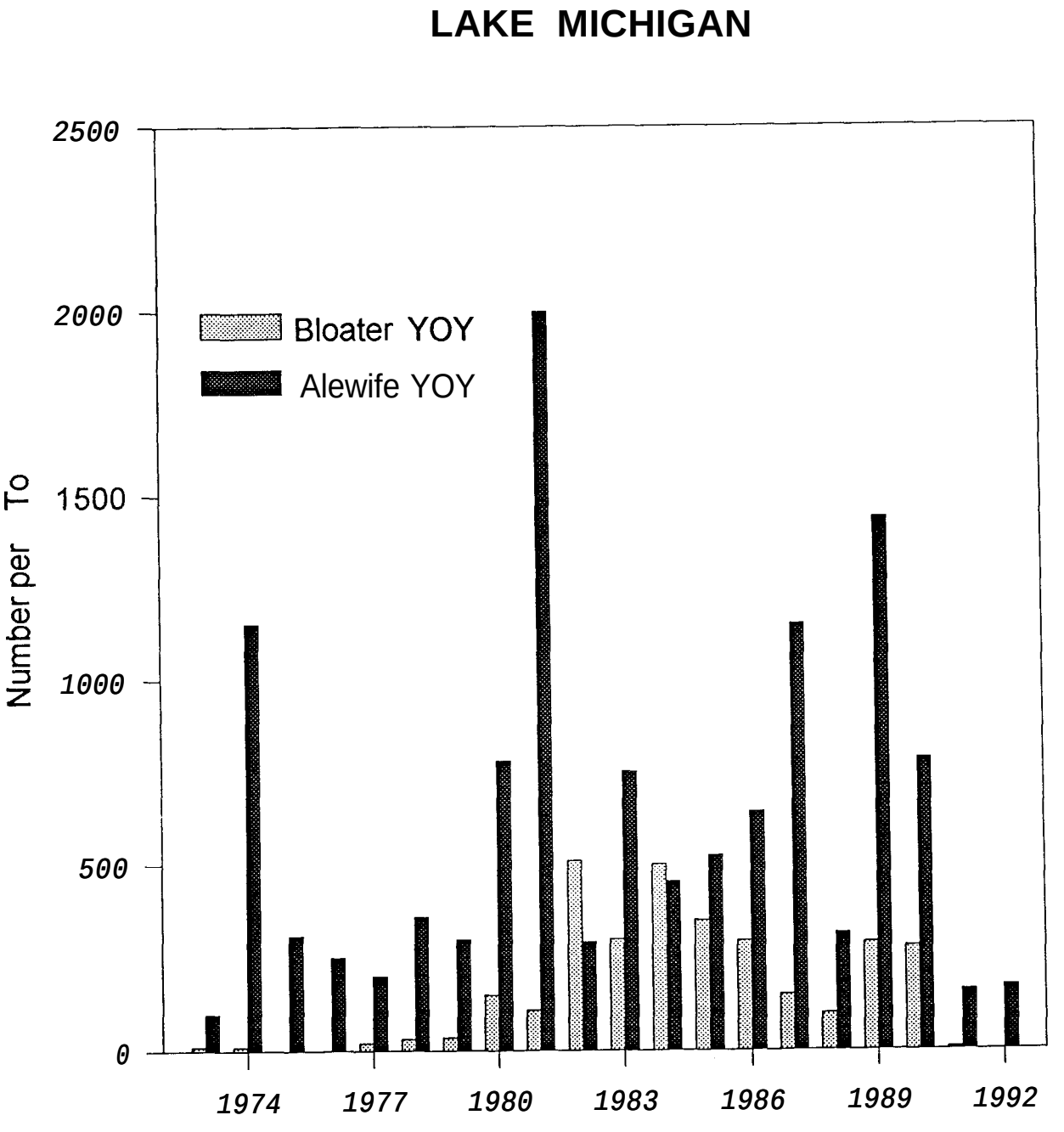


Figure 25. Annual weighted mean length of Cladocera (CLA) , Cyclopoida (CYC) and Calanoida (CAL) in Lake Michigan, 1983-92. Bythotrephes cederstroemi is not included in the Cladocera measurements.



Figuire 26. Annual relative abundance (catch per unit effort) of young-of-the year Coregonus hoyi and Alosa pseudoharengus shown (Personal communication, National Biological Survey, Ann Arbor, MI).