

Fig. 49. Vertical distribution of phytoplankton in Lake Peter--27 July.

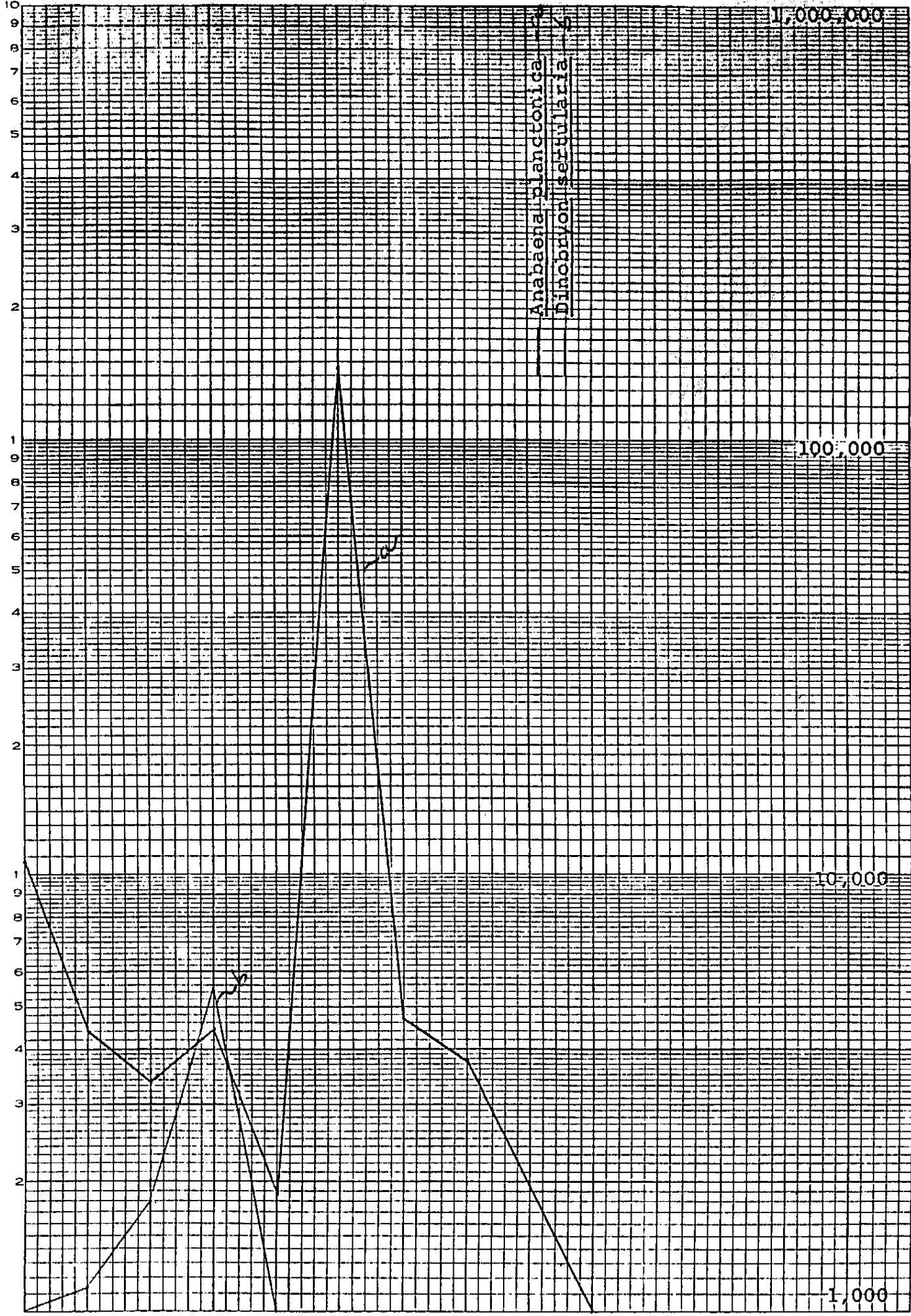


Fig. 50. Vertical distribution of phytoplankton in Lake Peter--1 August.

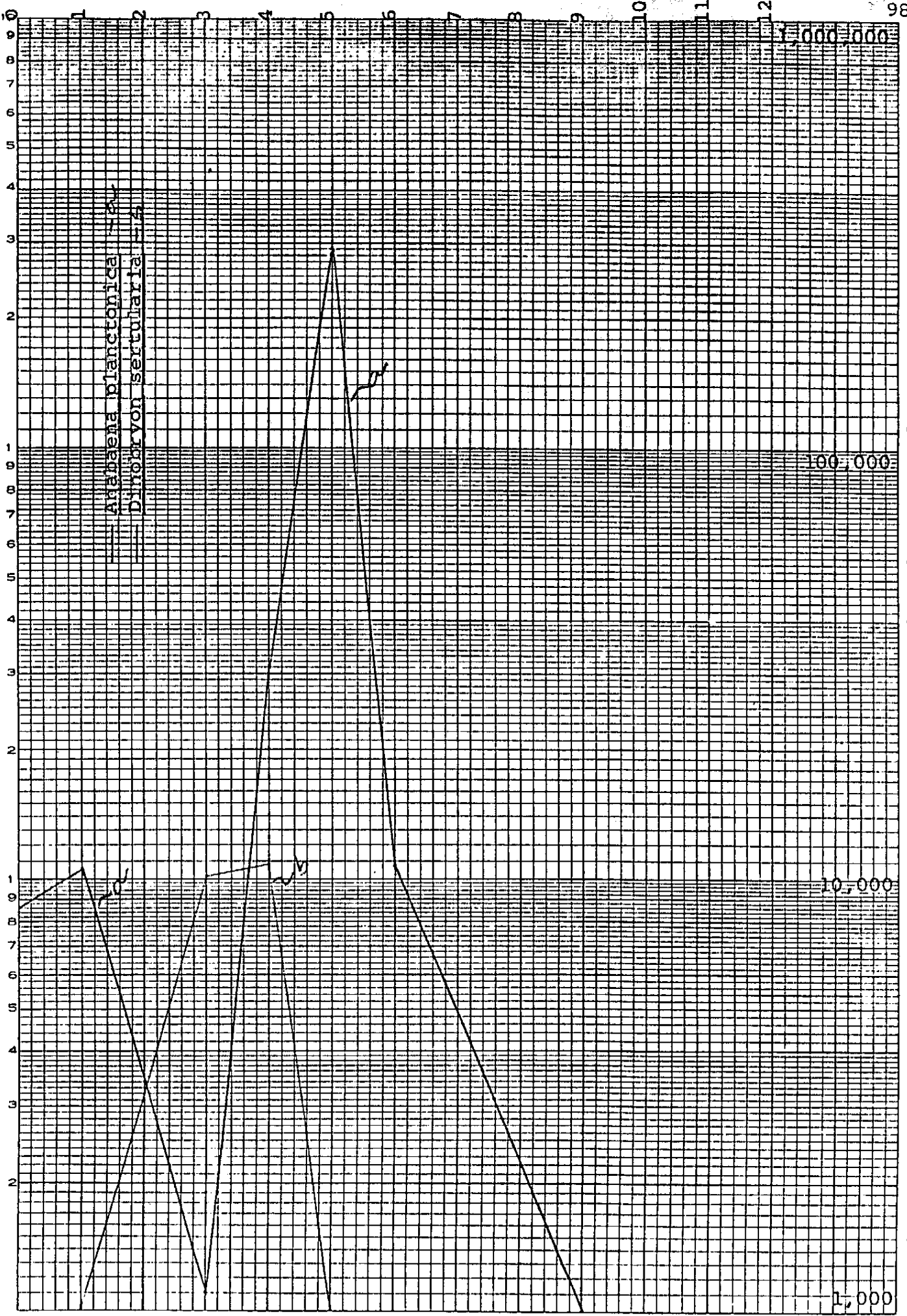


Fig. 51. Vertical distribution of phytoplankton in Lake Peter--3 August.

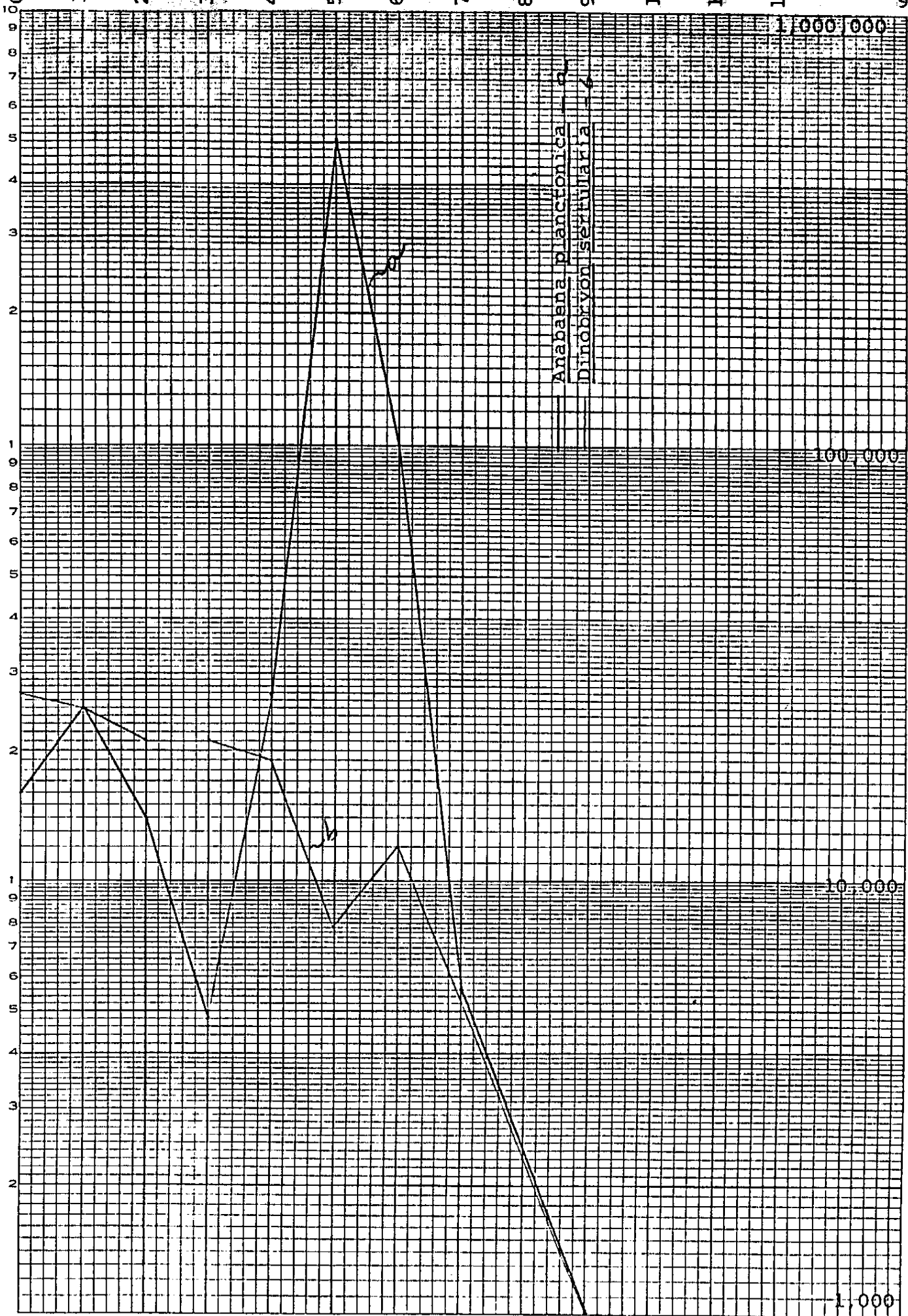


Fig. 52. Vertical distribution of phytoplankton in Lake Peter--13 August.

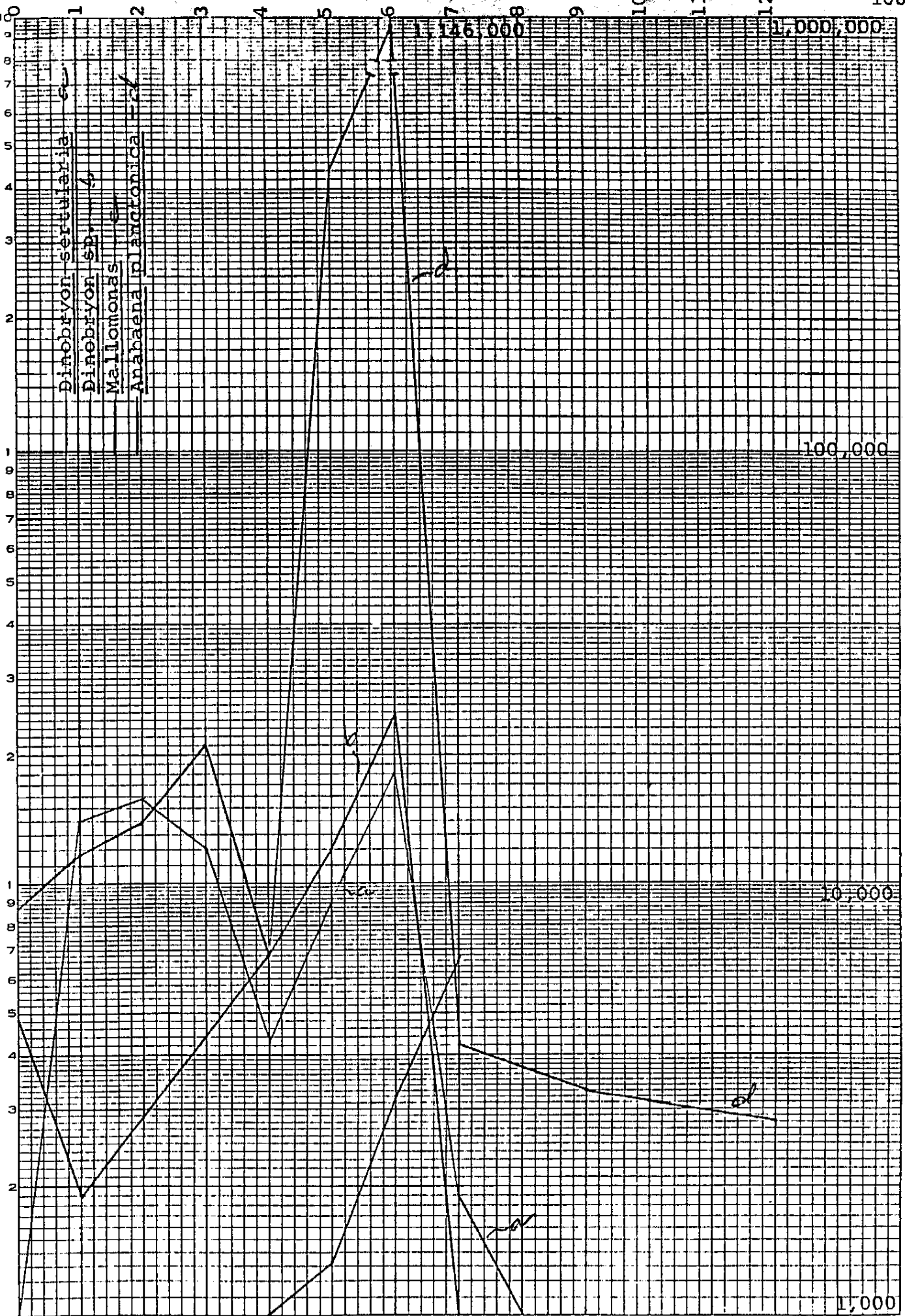


Fig. 53. Vertical distribution of phytoplankton in Lake Peter--29 August.

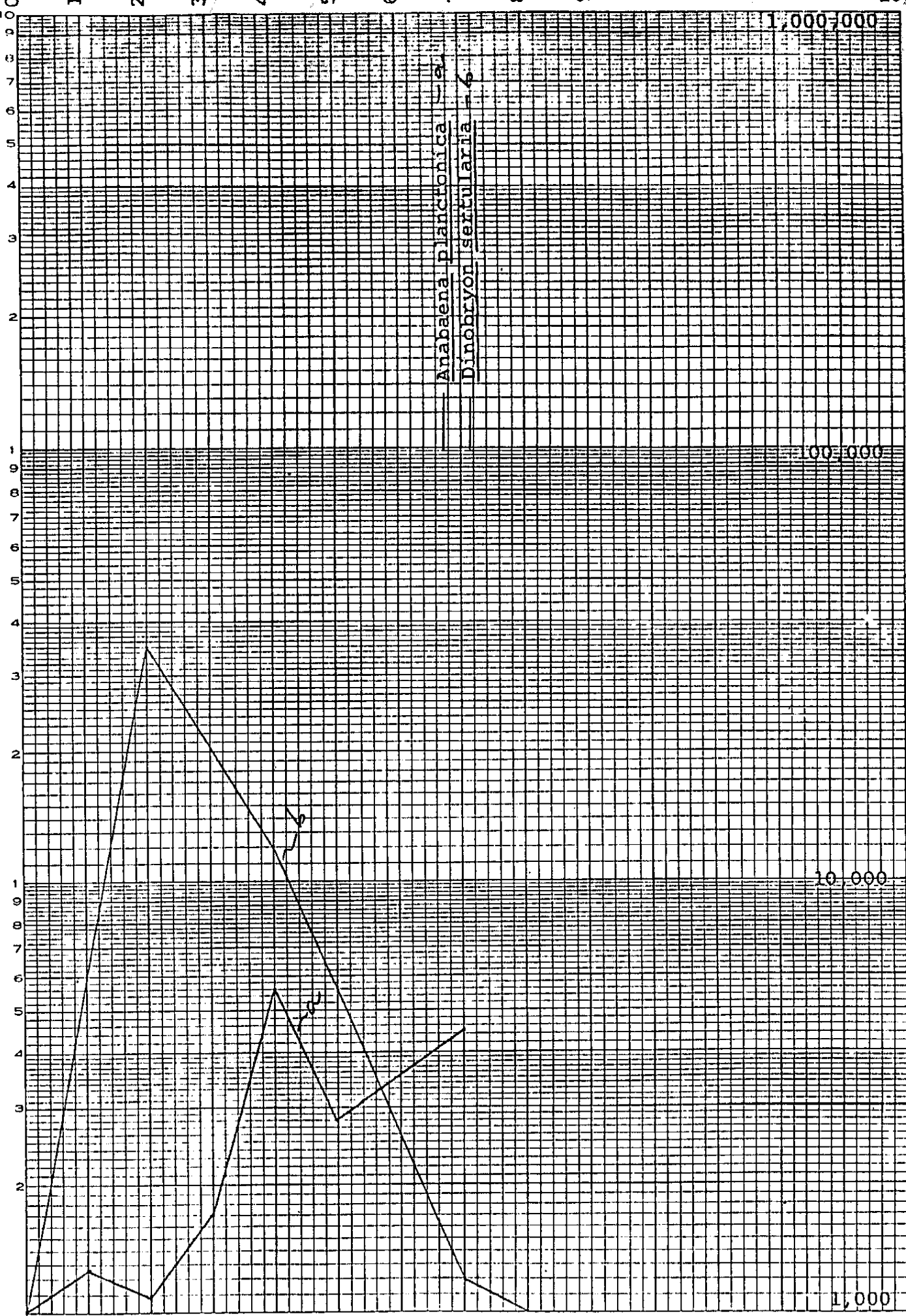


Fig. 54. Vertical distribution of phytoplankton in Lake Peter--31 August.

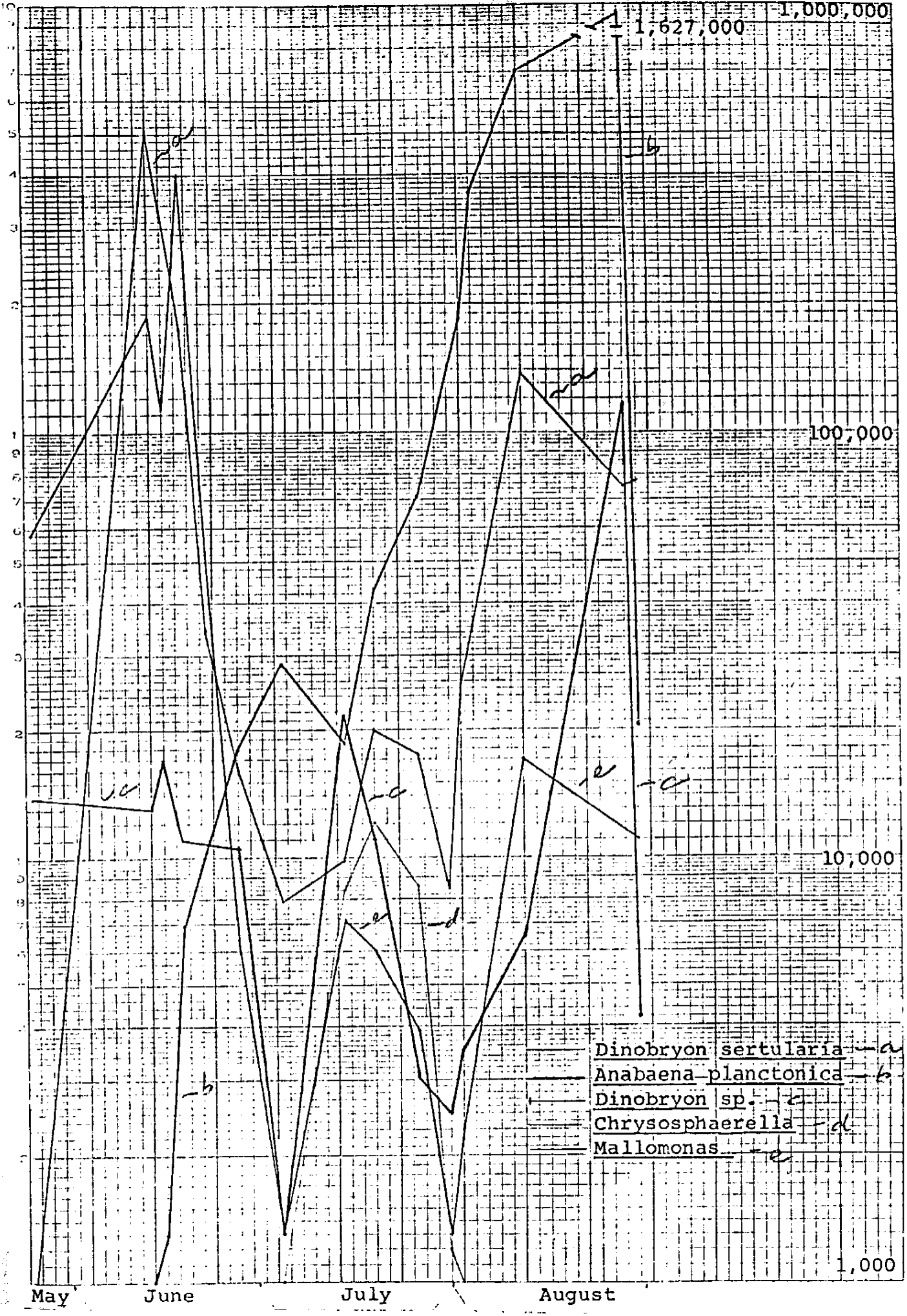


Fig. 55. Total phytoplankton population in Lake Peter during the summer.

1962 - Green algae dominated Peter lake  
 including *Mougeotia* & *Chlorella* b13  
 b15 b6

Contents

- Dike built in May
- history of lime application 1951-7 continuous, 1957+62
- Damage to log old Peter
- increase due to food buildup. All goes into Peter
- 1962 photo - can't see thru road. Also macroalgae
- Partial bog mat around all of both lakes

1962 - Paul lake O<sub>2</sub> maximum @ 3m May-July  
 Not observed second yrs. 14% O<sub>2</sub> saturation  
 Not present after July. Peter L. O<sub>2</sub> max @  
 4.5m till end July then partly gone  
 In Aug - Bloom of *Anabaena* 129% O<sub>2</sub> saturation  
 Occurred 3rd after liming

- Paul hypolimn anoxic 4.5-5.5m down. From May-Oct  
 Peter than 3rd June on but at greater depth

1962 Light penetration  
 w + w/out filter } Paul 4.4m for 1% light  
 Peter 7.5m for 1% light  
 Note huge effect of season on 1% light

1959 vs 1962 Macrophytes  
 1959 - thick bed of *Potamogeton* in Peter 1/2-2m  
 gone in 1962. Note no consistency in macro  
 - Filters indicate Paul lake detritus ↑↑ w depth

1962 - Paul L. Deep Dinobryon + *Mallomonas* spp  
 Also *Chrysochlorella* (esp at 7-8m)  
 VIP most of summer  
 - Peter - *Mallomonas* + Dinobryon. Deep  
*Anabaena* sp, *Mallomonas* max at 9m  
 Also *Chrysochlorella*, *Anabaena* always in  
 fur bloom 4+6m. No BG in Paul, lots in Peter

- Compares to Johnson 1953 w/RT size spring & fall blooms

WARM CALM SPRINGS CAUSES GOOD PETA BLOOM  
 - Spring warm in 1962 - REASON for Deep Blooms?