

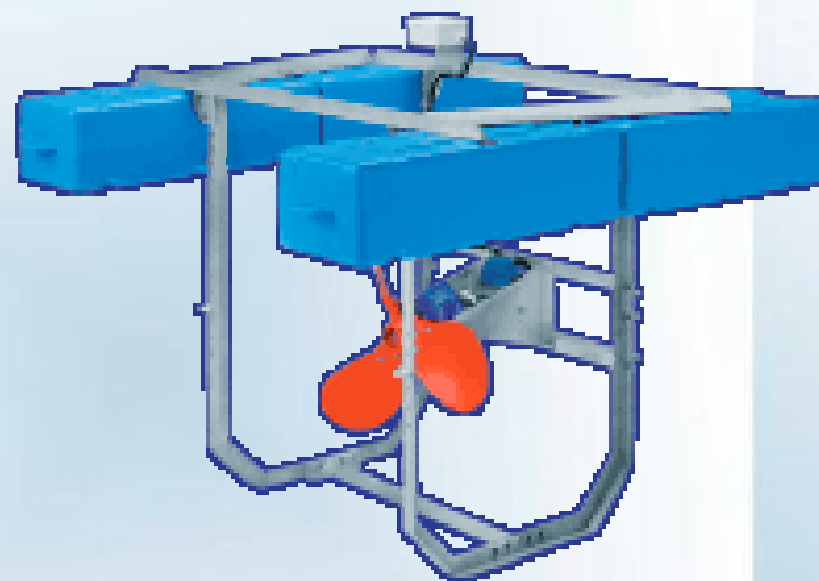
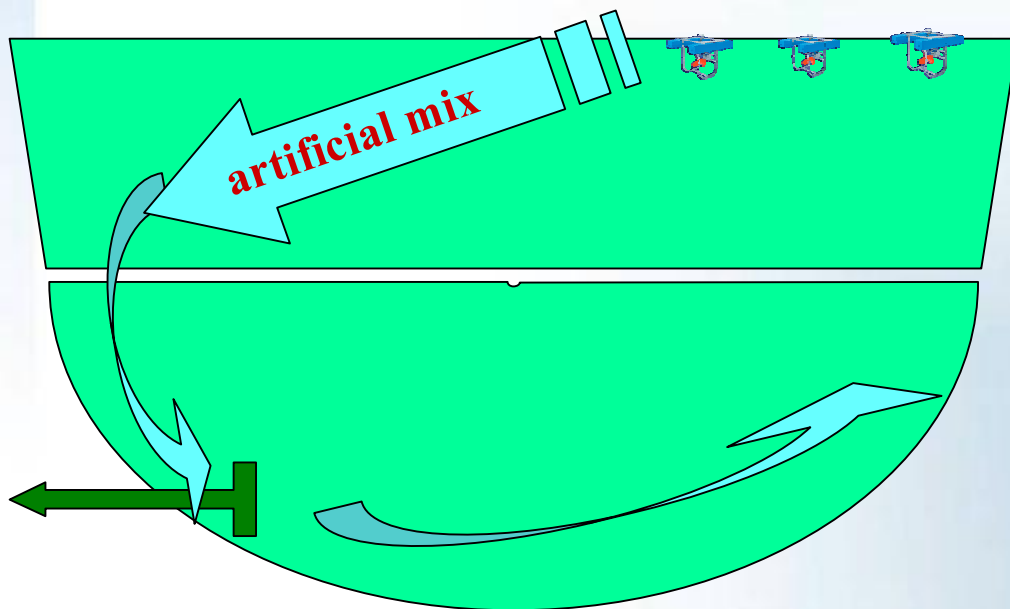
The use of the FluoroProbe in the Israeli water systems of MEKOROT

- Irrigation reservoir management –
3 case studies
- National Water Carrier monitoring

Gadi Zeira, Reservoir Biologist



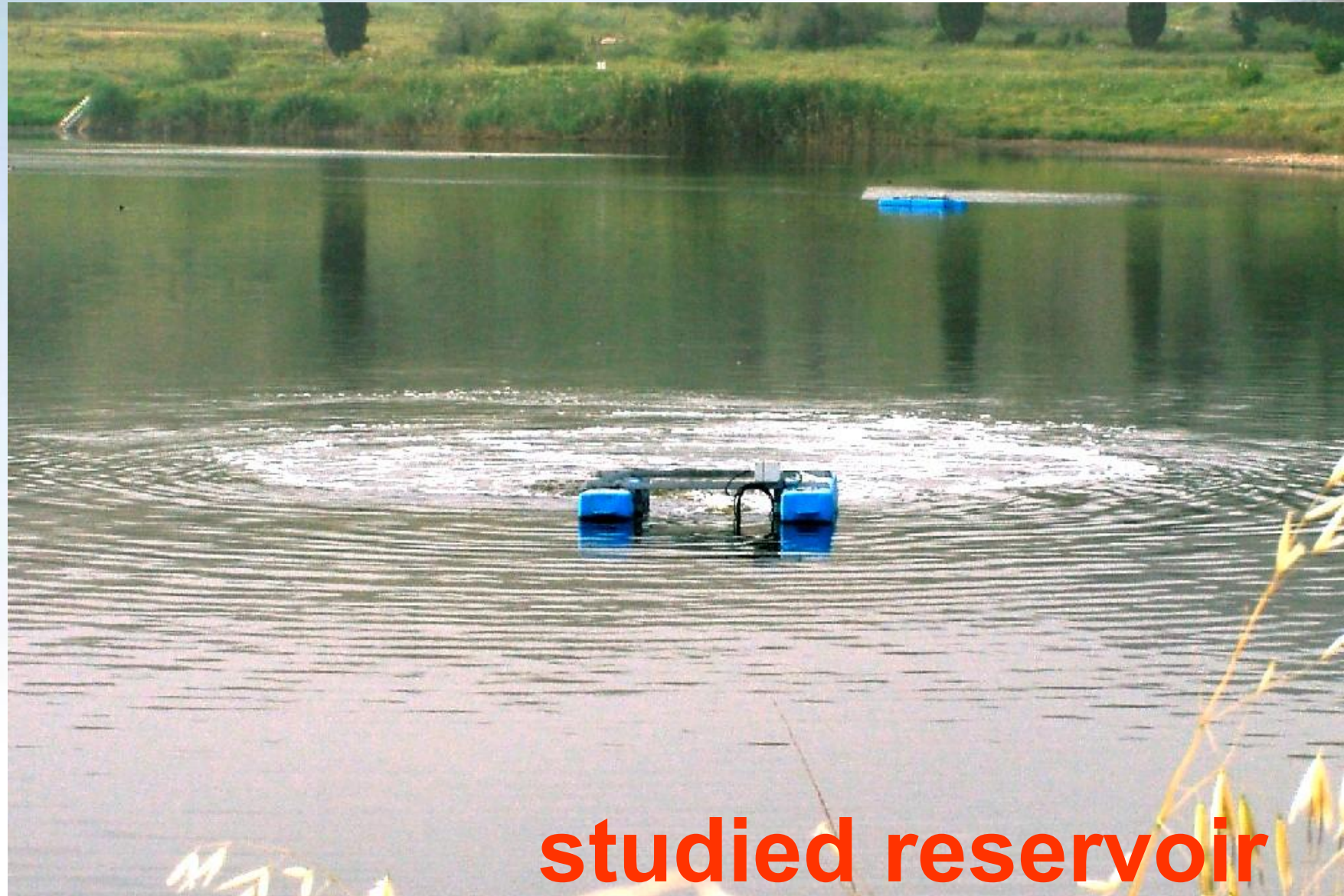
Case Study 1 – de-stratification of sewage irrigation reservoirs – using water jets



"rio" by *acquaeco*

Stratified
reservoir

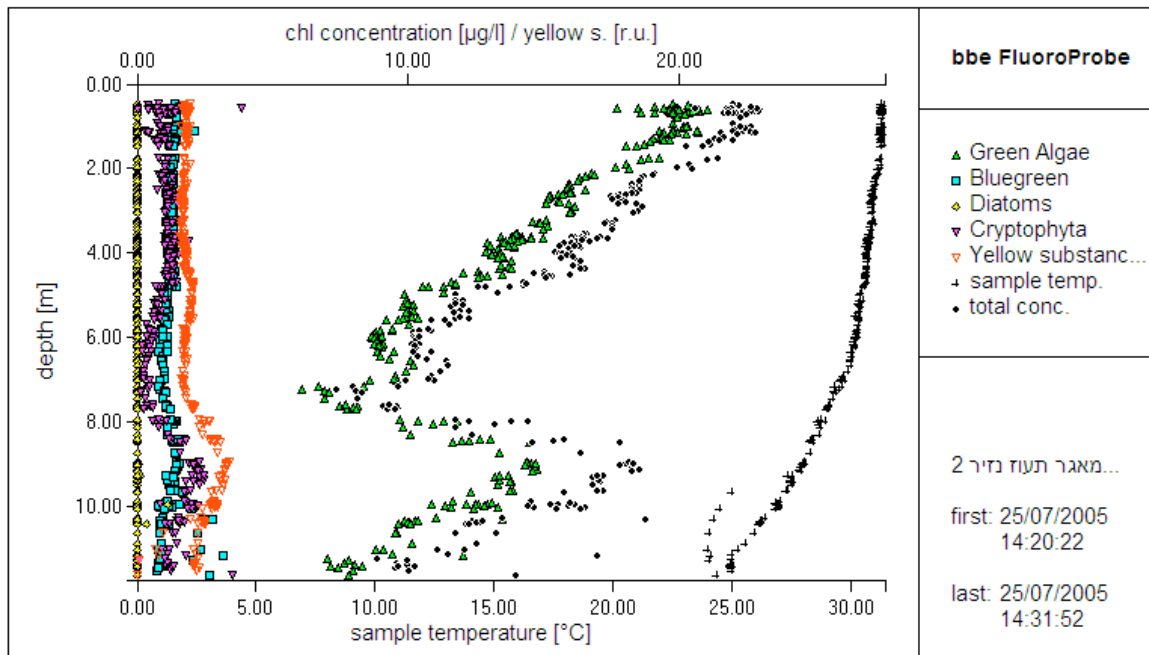




studied reservoir

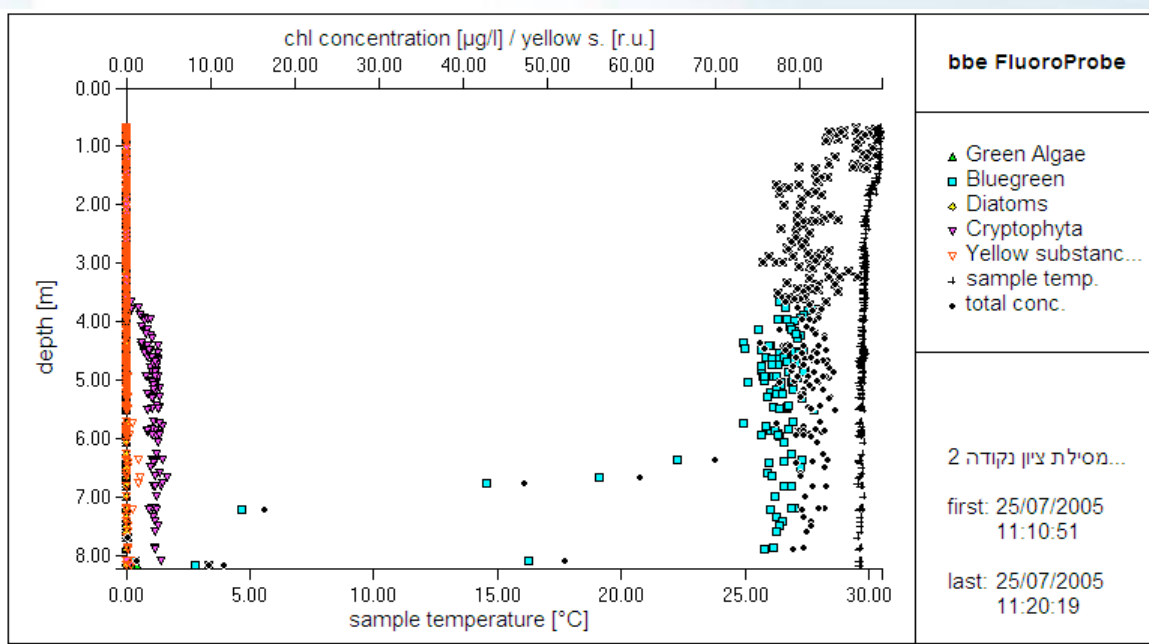
Zion Reservoir - May 2005





Sewage effluent irrigation reservoir - Control.

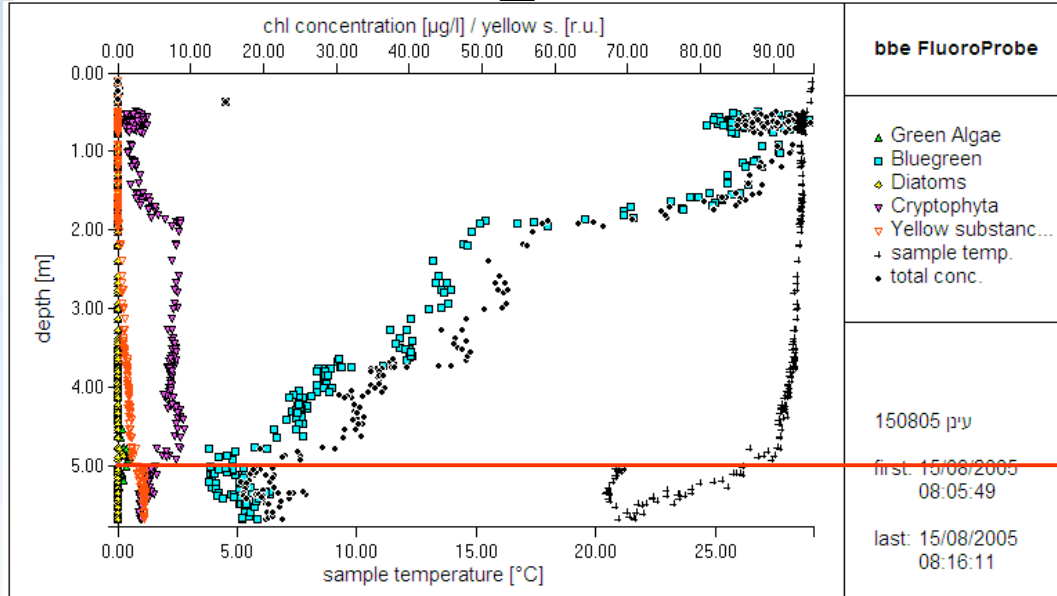
Taoz 25.07.05



De-stratified by 3 Jets Experimental reservoir.

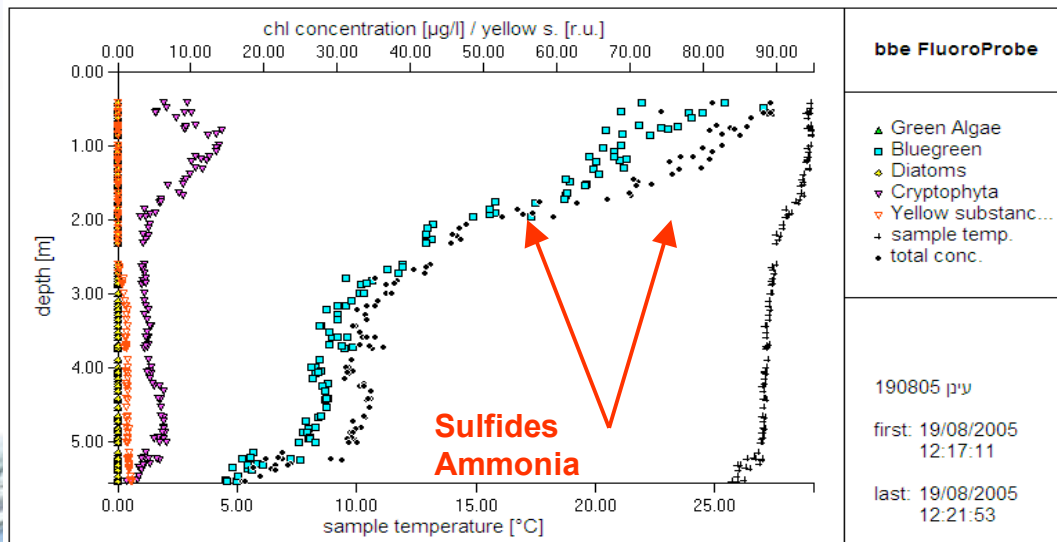
Zion 25.07.05

Case Study 2 – natural de-stratification of irrigation – fish reservoir



15/8/08- Einan reservoir

Anoxic- ammonia, sulfides



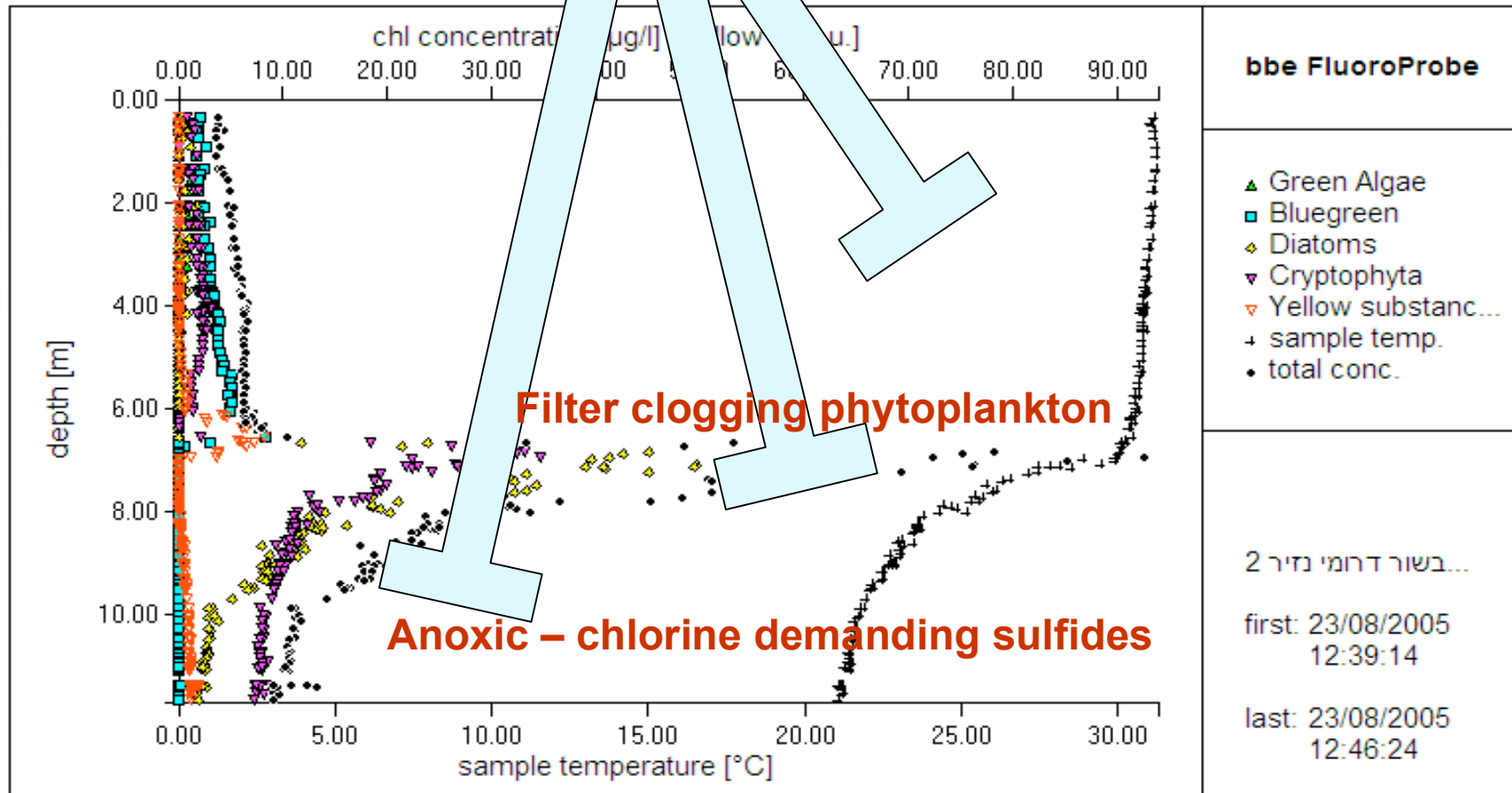
4 days later - fish stress de-stratification



Einan 19/8/05 – Saving the fish

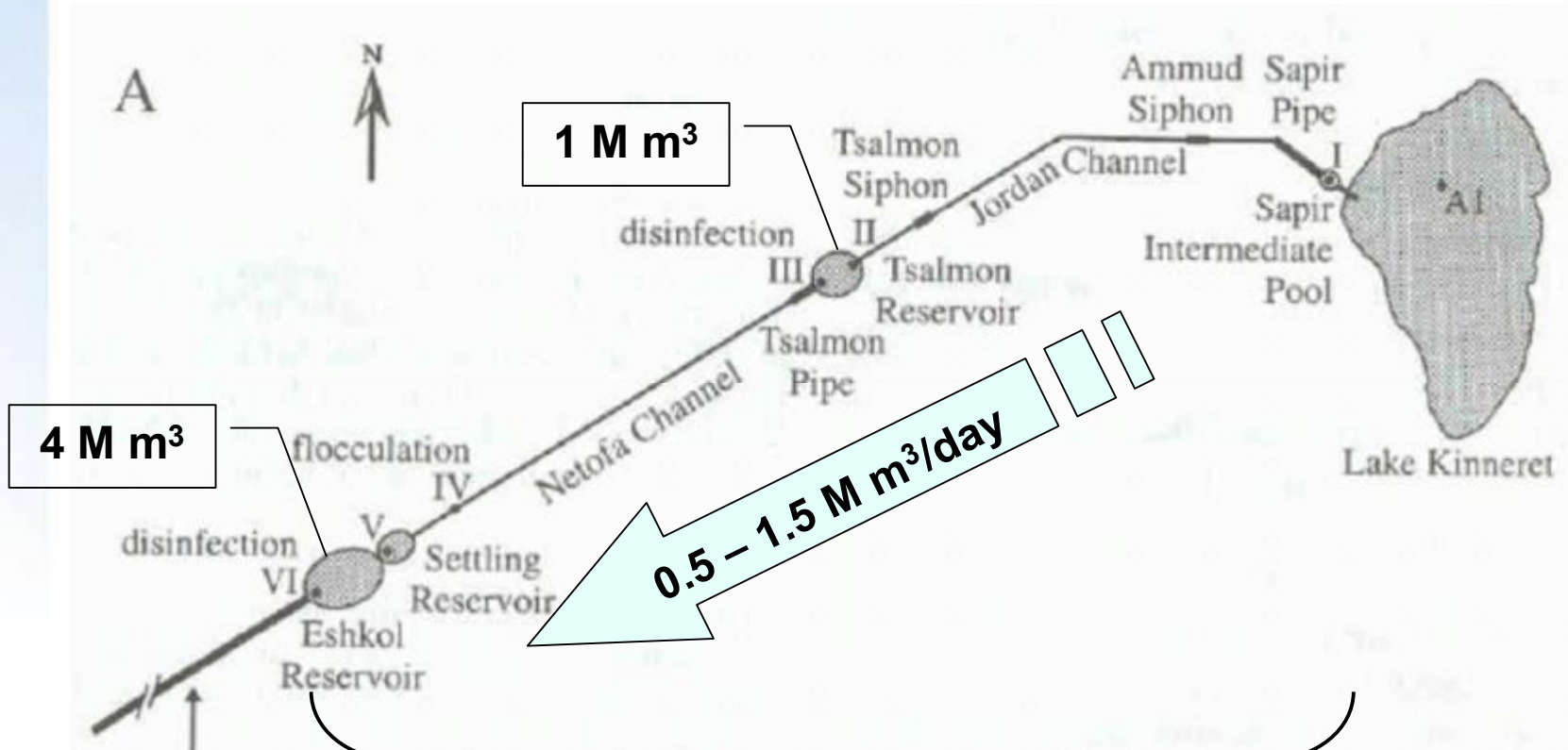


Case Study 3 – depth-adjustable extraction unit



Bsor
-23.8.05

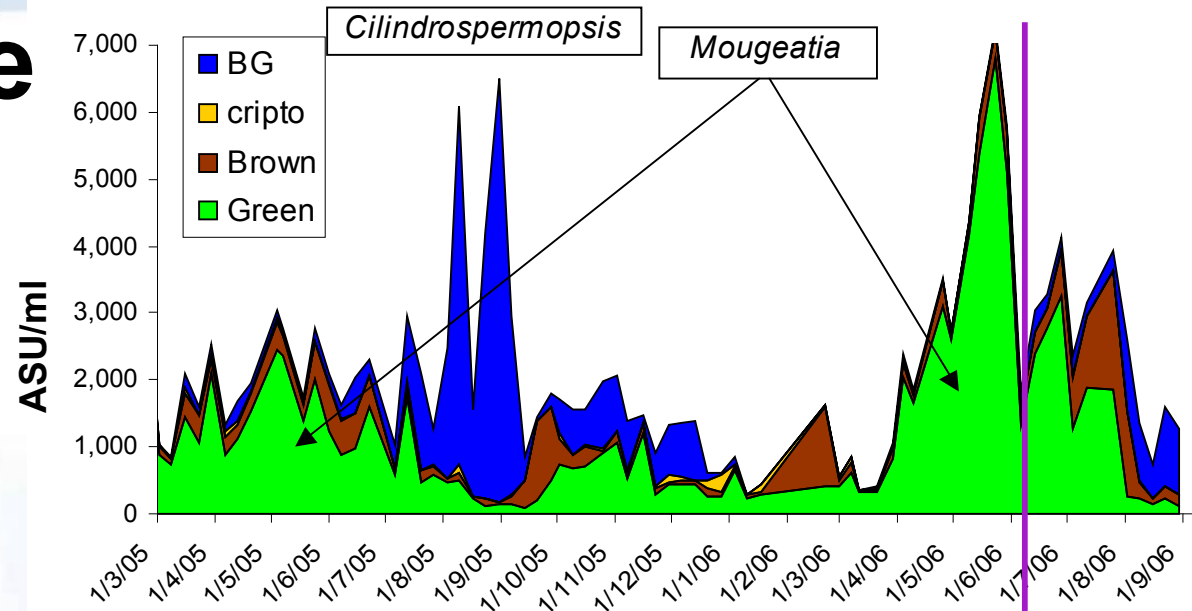
Israel Water Carrier monitoring



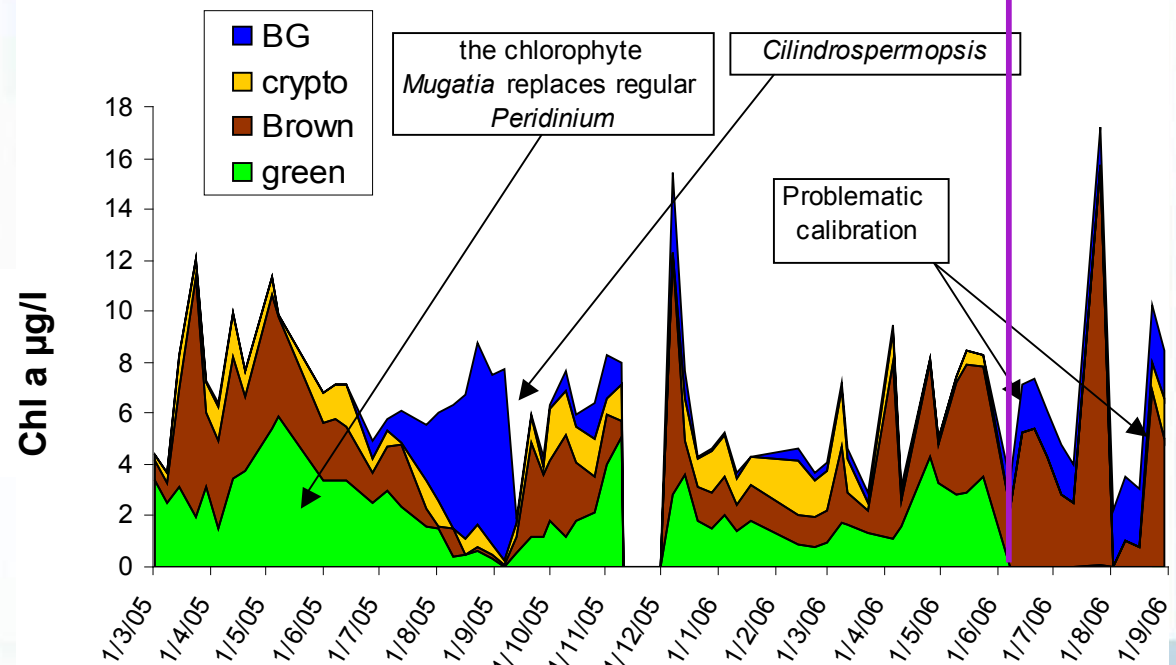
Open section 35 km

NWC intake from Lake Kinneret

microscope counts

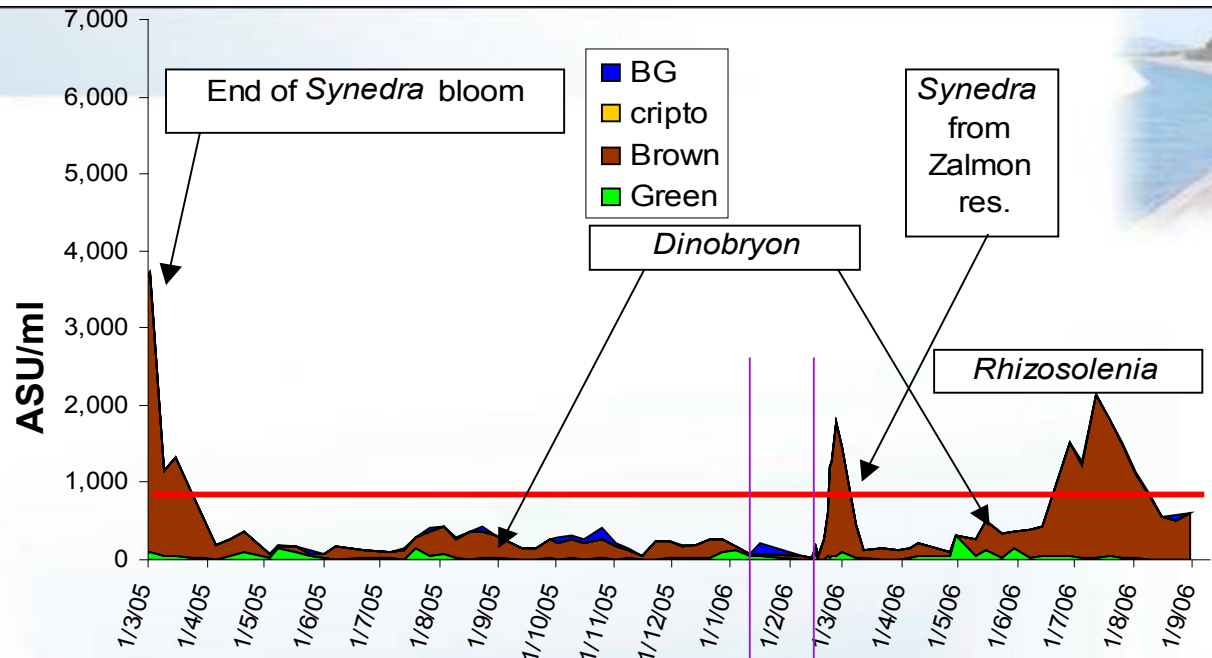


FluoroProbe measurements

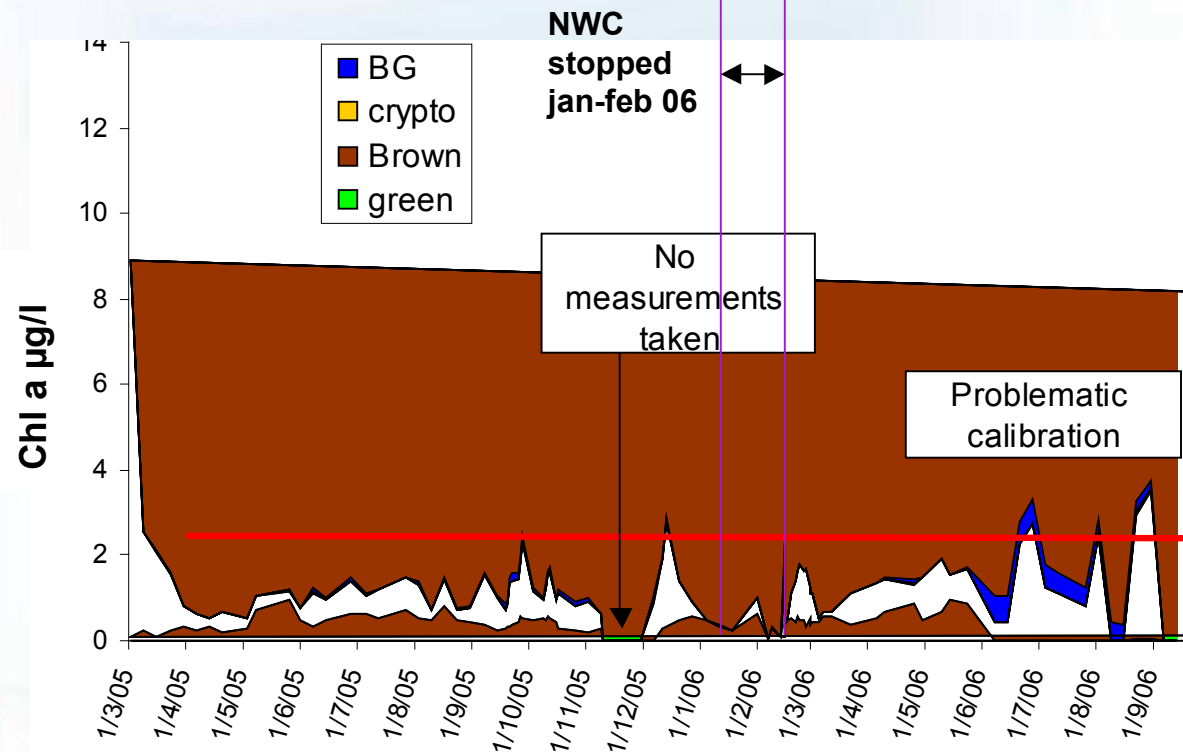


Operational reservoir

microscope counts



FluoroProbe measurement

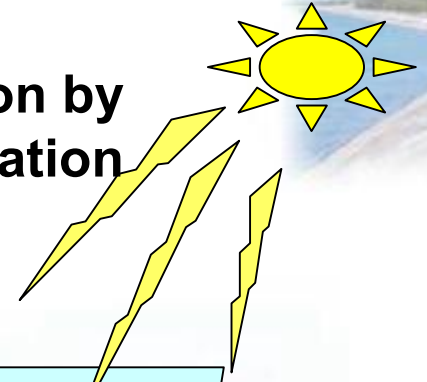


Thank you



summer: reservoir is stratified

Stabilization by
sun irradiation



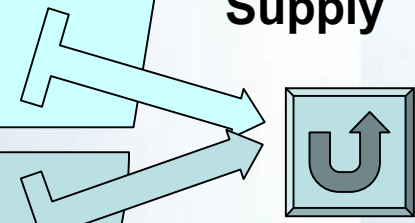
Epilimnion

Ammonia consumption,
oxygen production

Temperature ↓, ↑
Algae ↓, ↑
 H_2S ↑, NH_3 , O_2 , ↑

Thermocline

Supply



Hypolimnion

, Temperature ↑, ↓
Algae ↓, ↑
 H_2S ↓, NH_3 , O_2 , ↓

Anoxic- Ammonia &
sulfide production

