

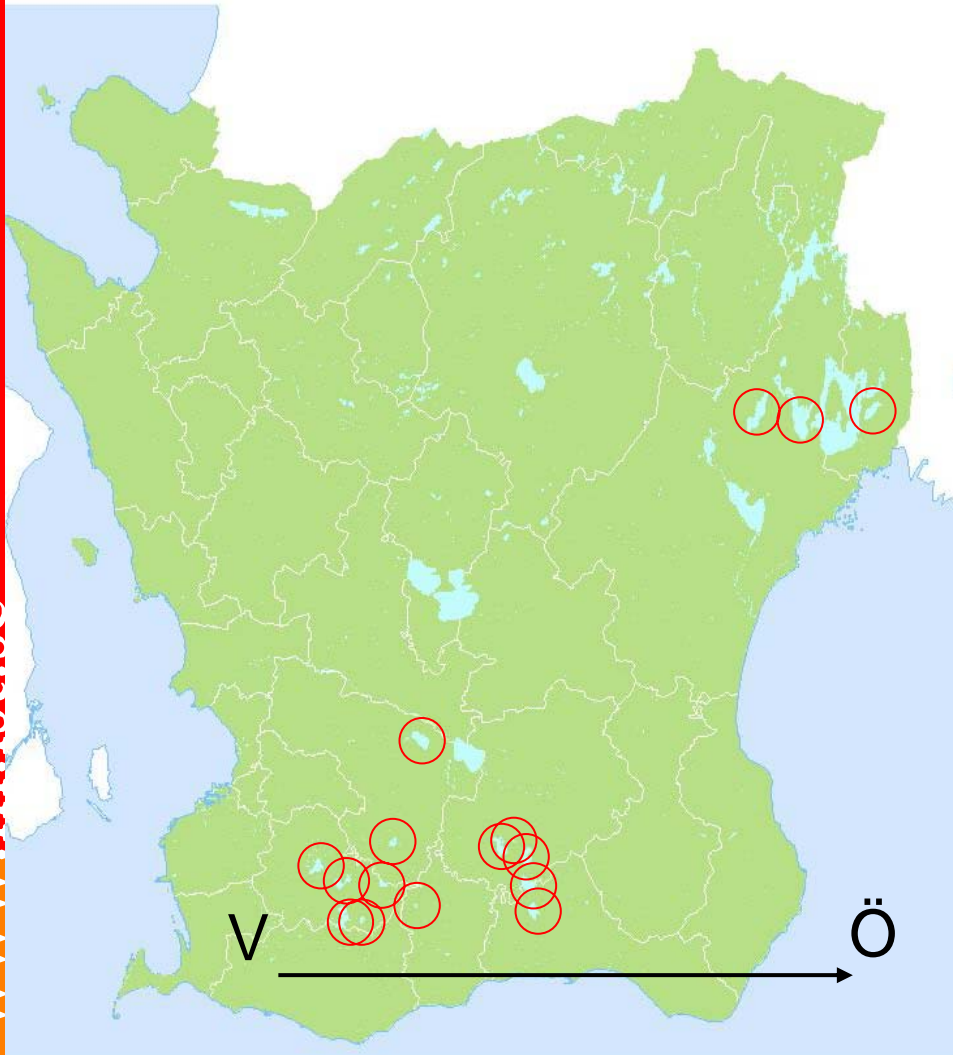
Bli r näringsrika skånska sjöar fattigare?

Data från recipientkontroll och
miljöövervakning

Anders Hargeby

Skånska sjöar i jordbruksbygd

www.m.lst.se

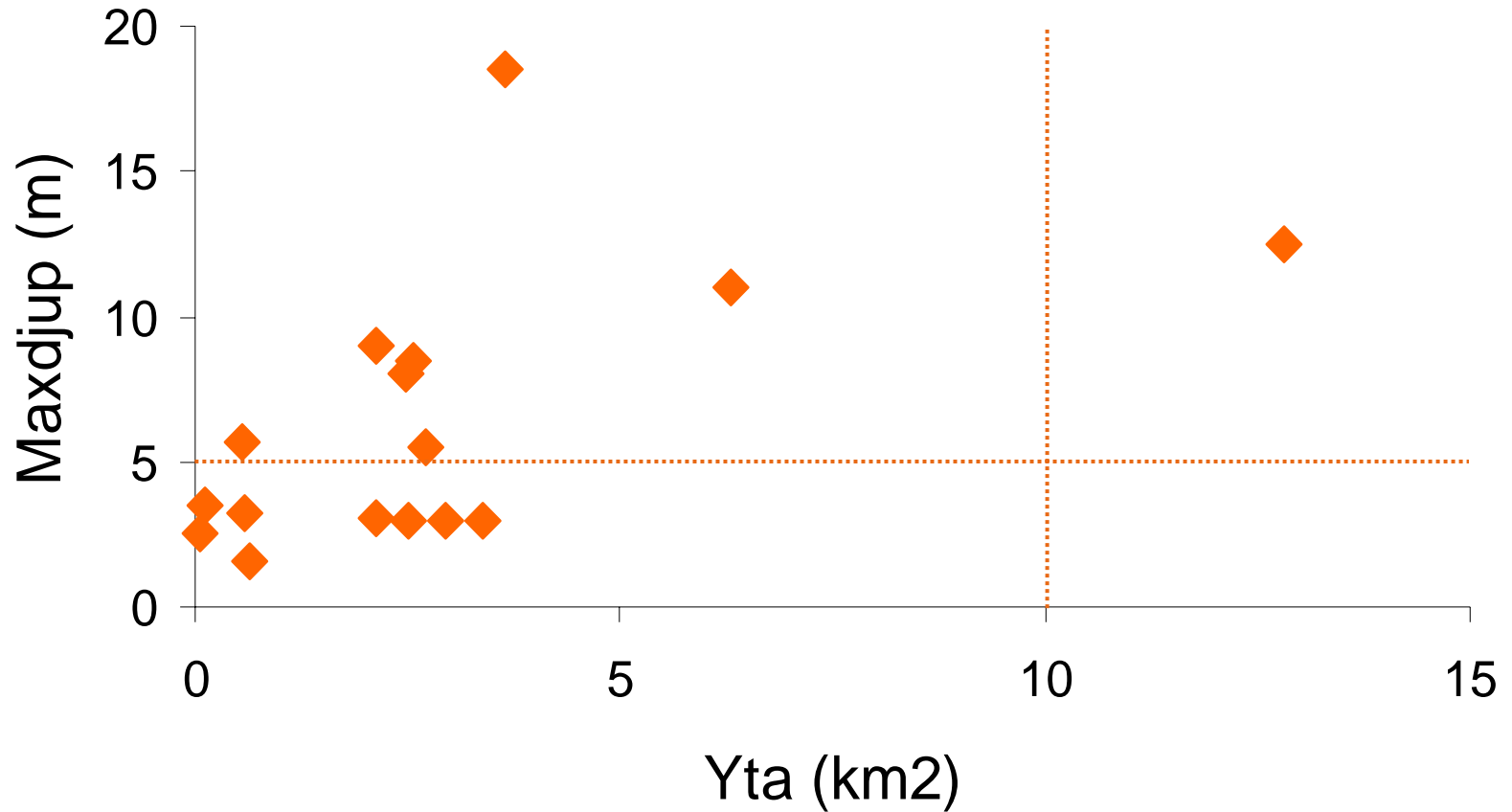


16 kalkrika slättsjöar

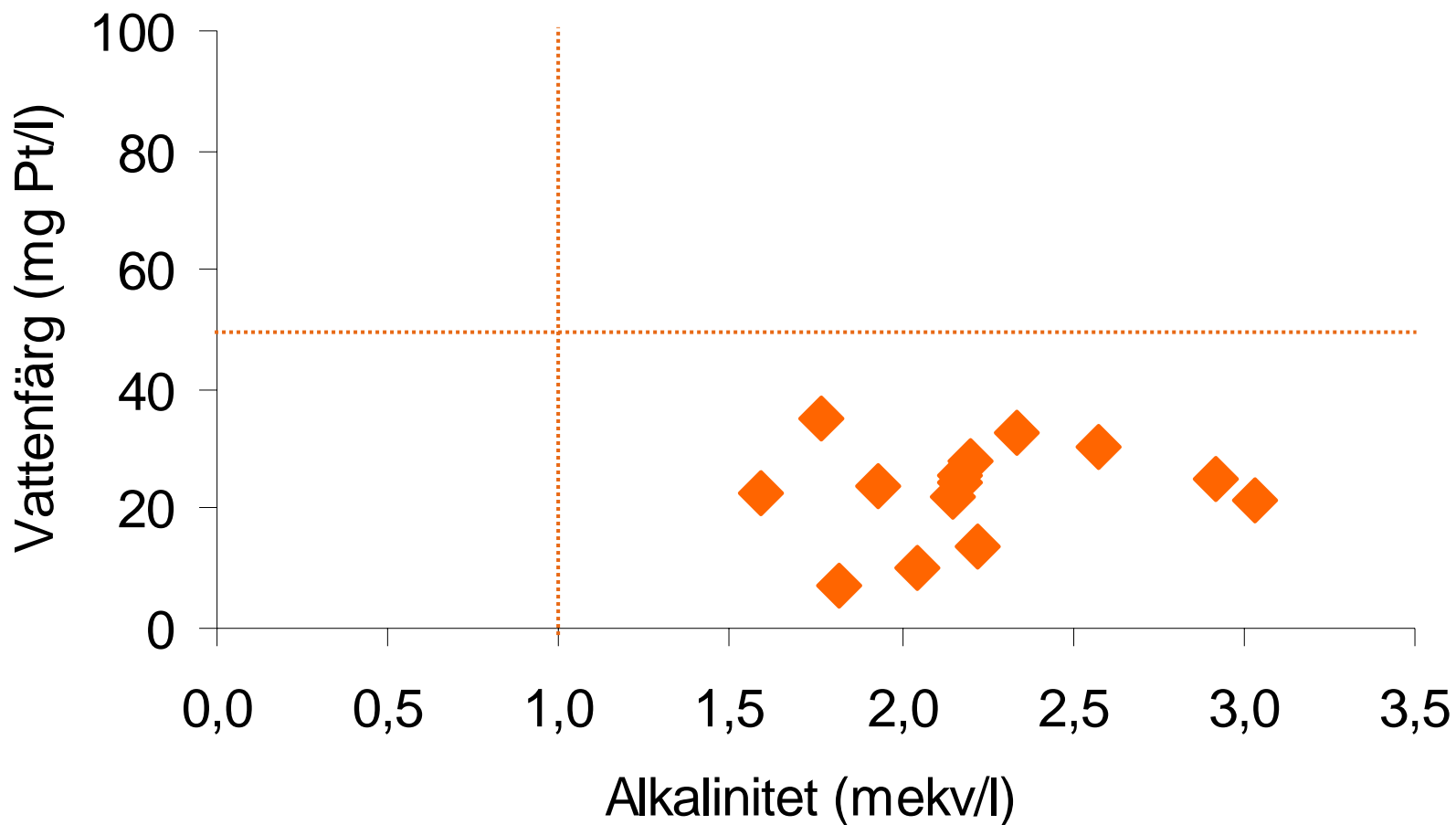
Data och frågor

- Tidsserier, kväve, fosfor & siktdjup
- Mätningar i augusti, 1967-2005
- Har det skett förändringar?
- Finns generella mönster?

Sjöarna: yta och djup (max)

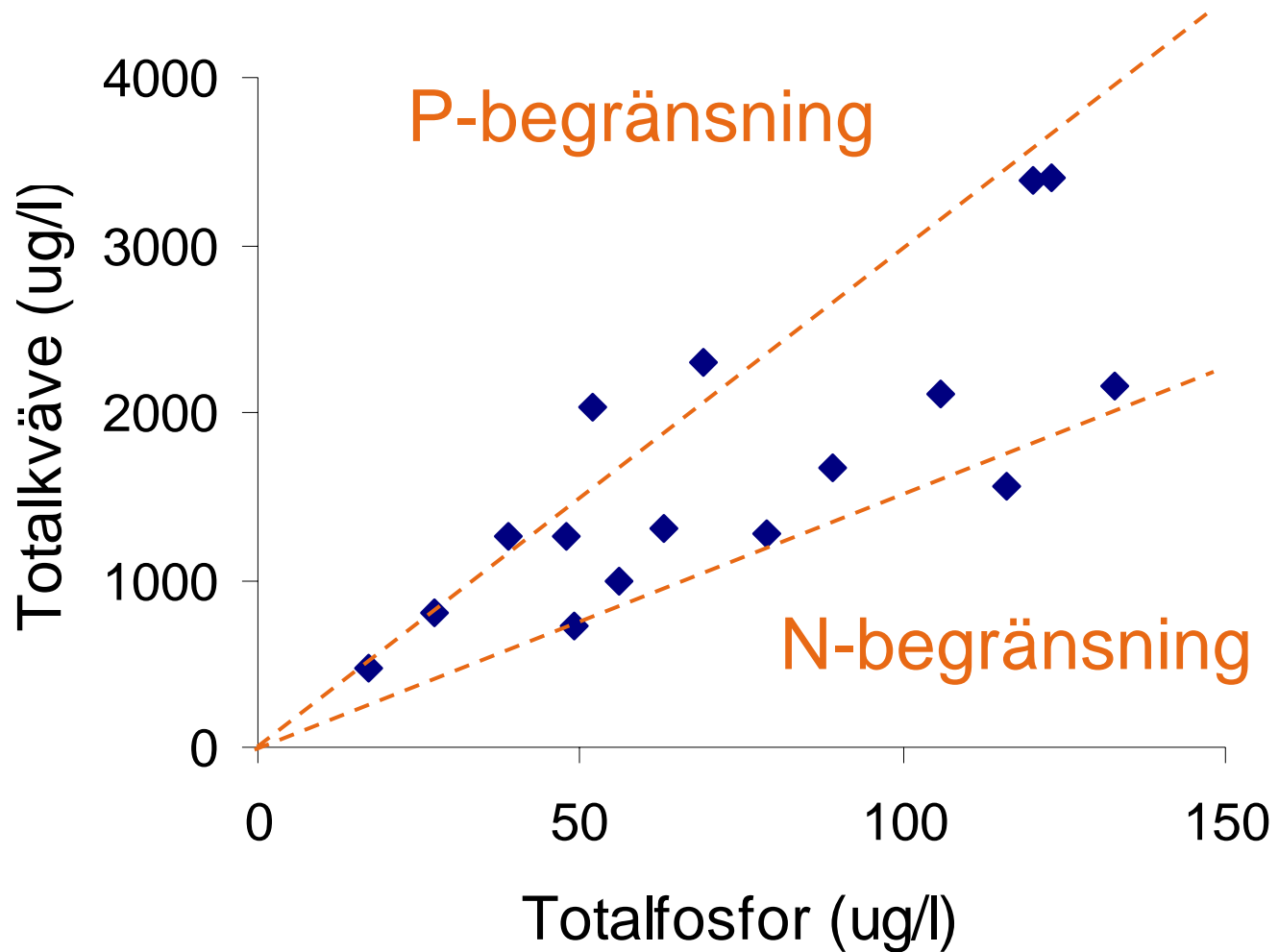


Låg humus-, hög kalkhalt



Fosfor- och kvävehalter

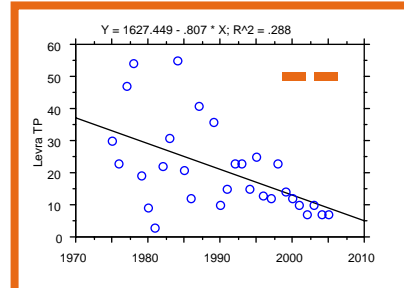
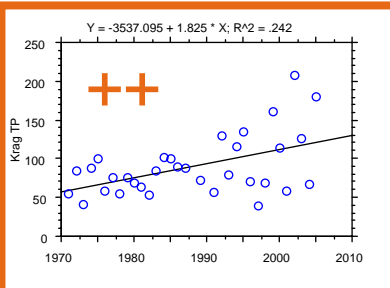
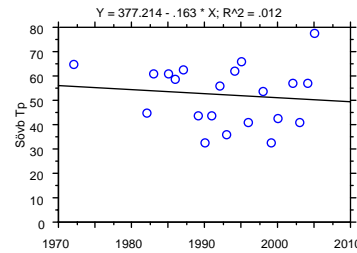
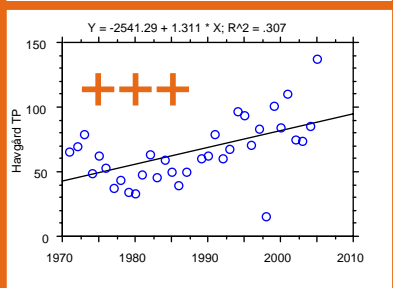
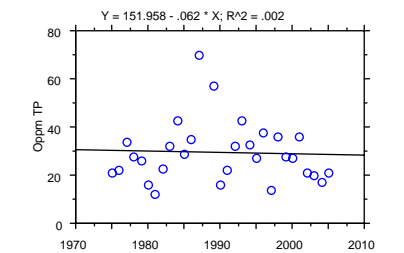
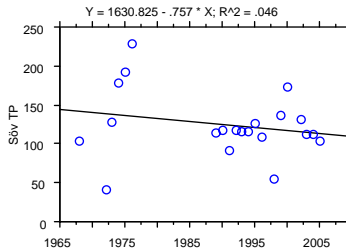
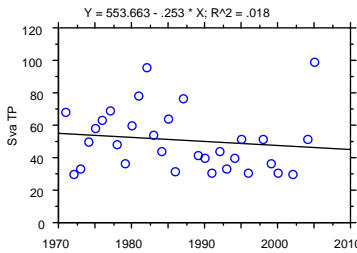
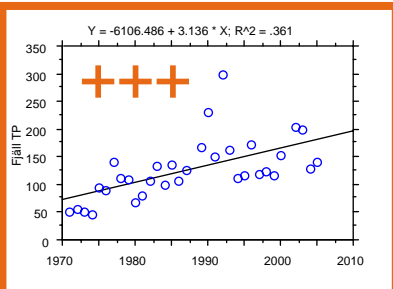
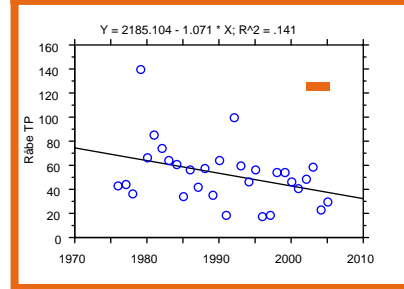
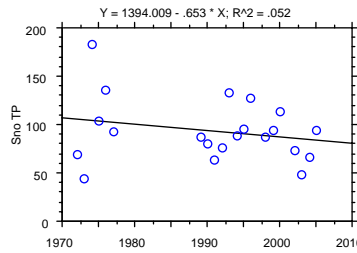
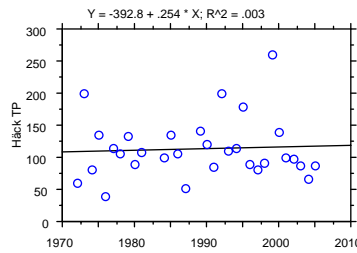
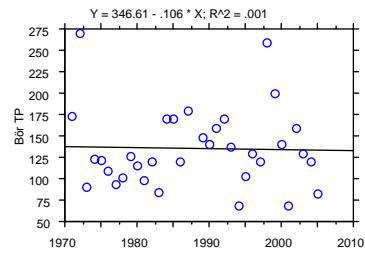
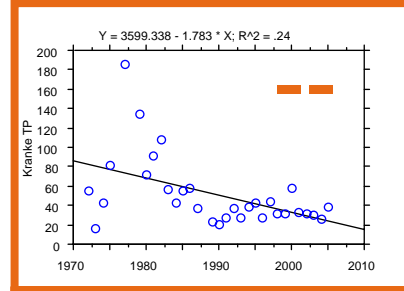
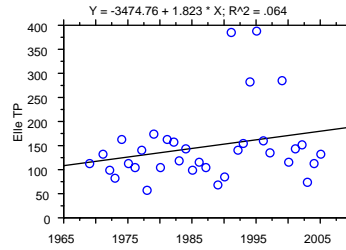
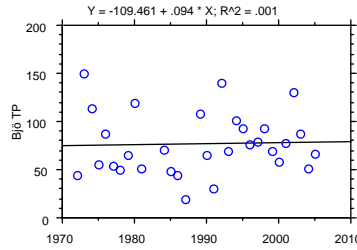
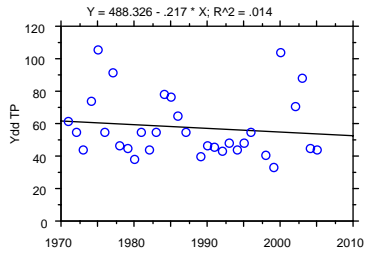
(medianvärden 1968-2005)



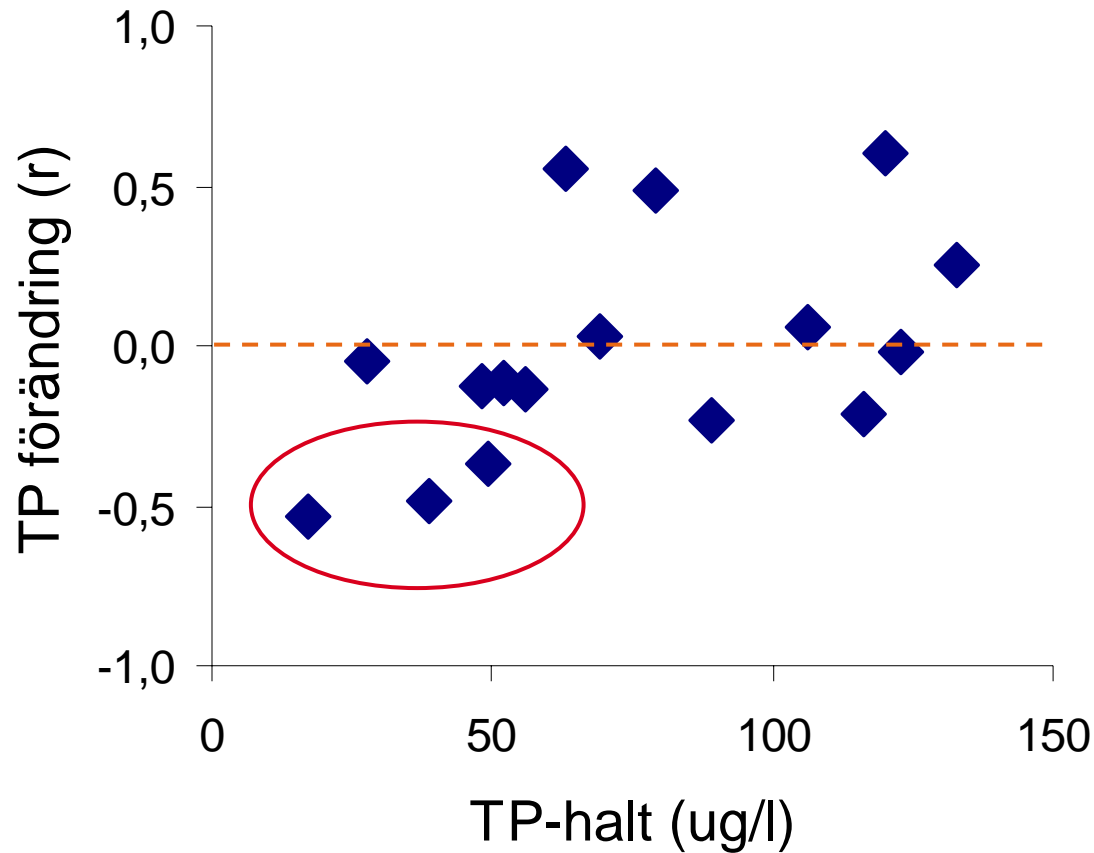
Totalfosfor 1970-2005

V

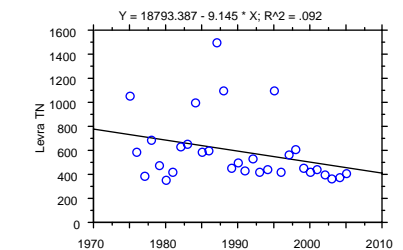
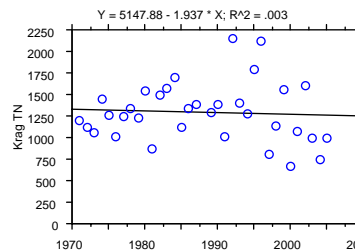
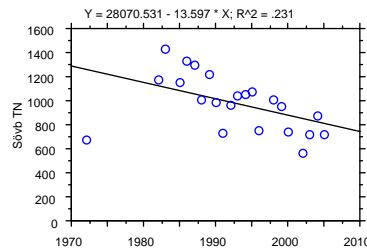
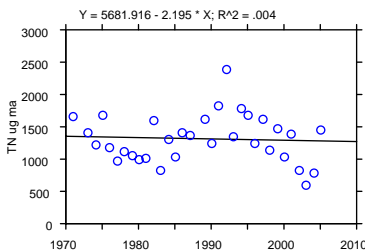
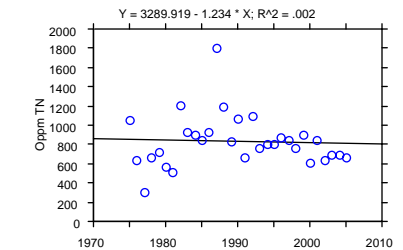
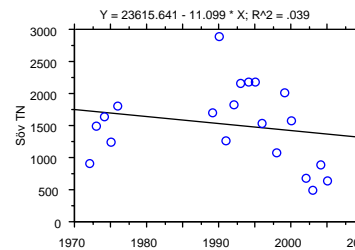
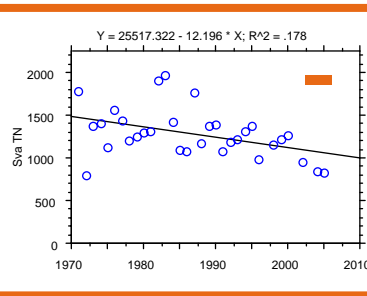
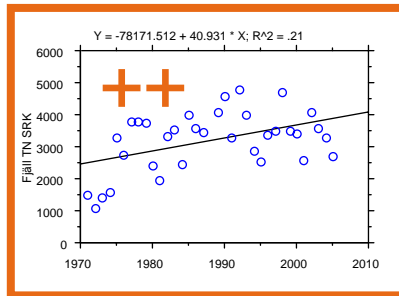
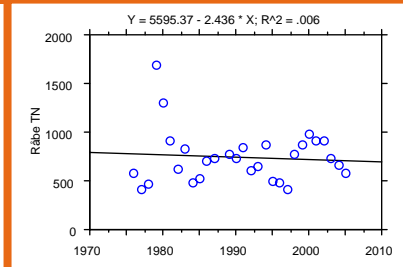
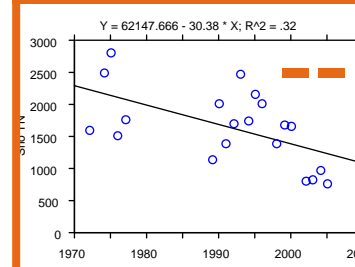
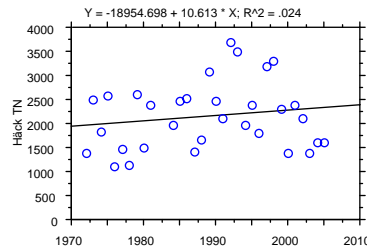
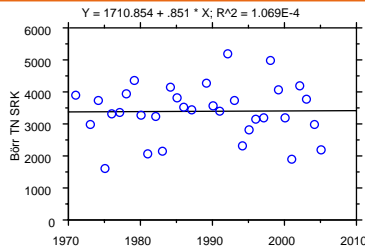
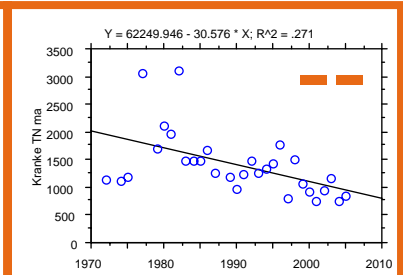
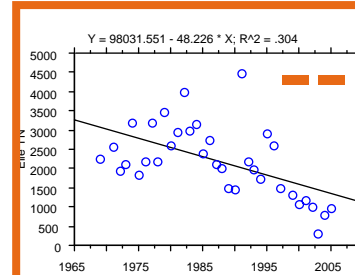
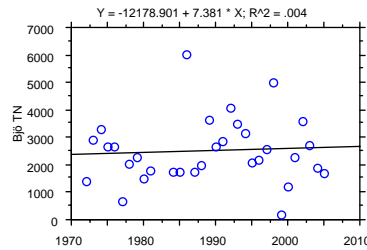
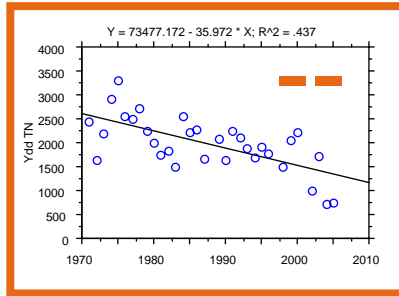
Ö



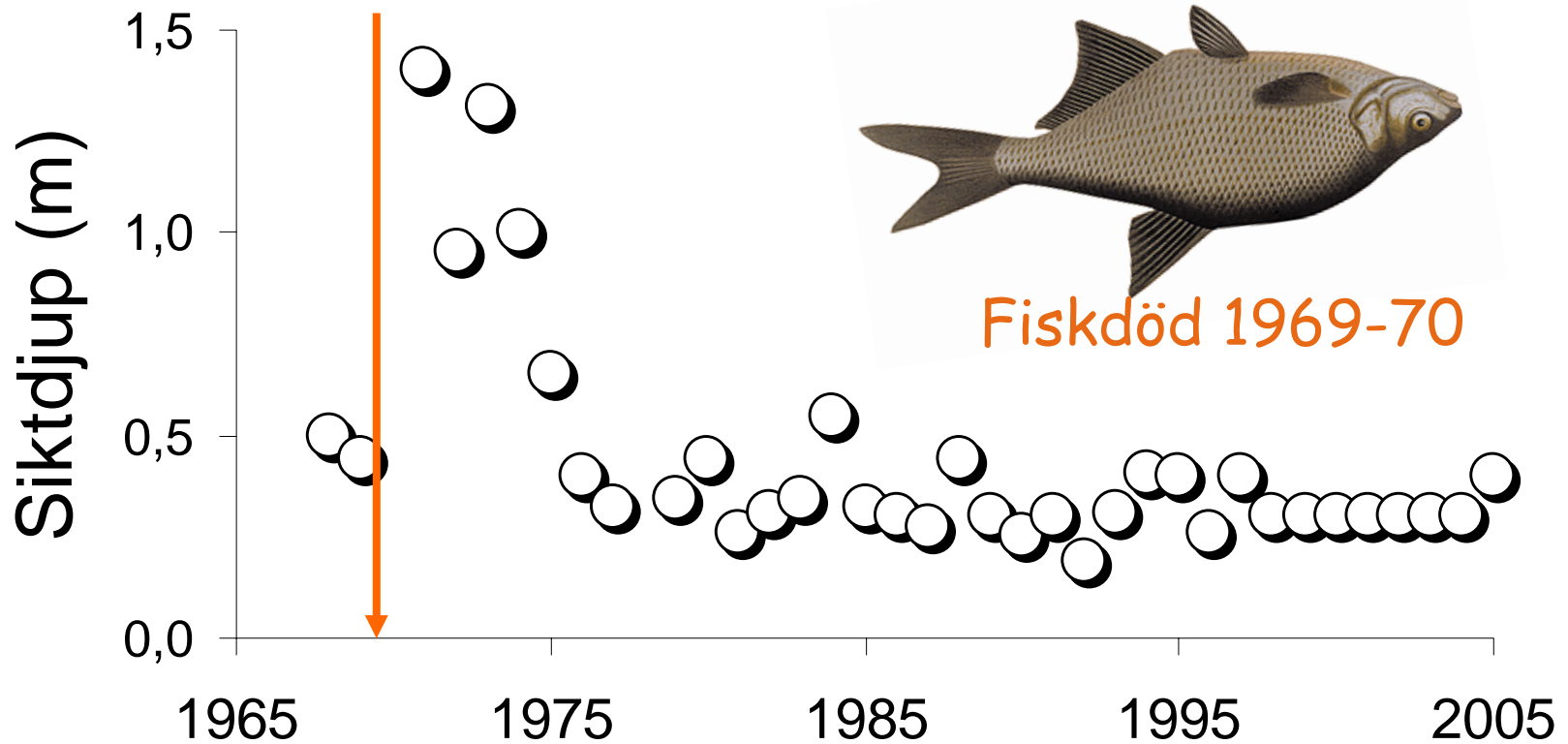
TP-halten minskade i tre sjöar med låg P-halt



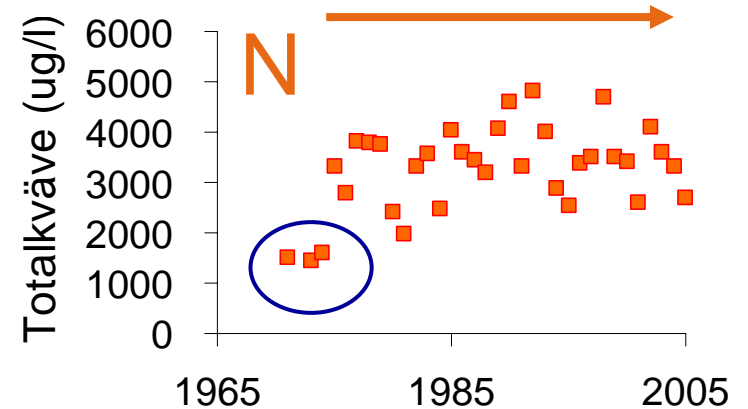
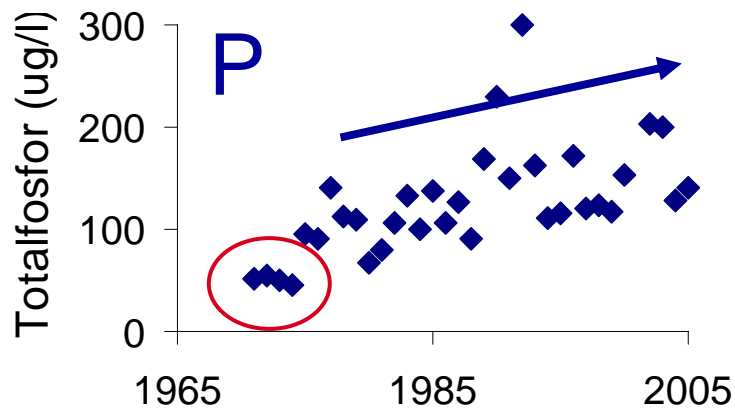
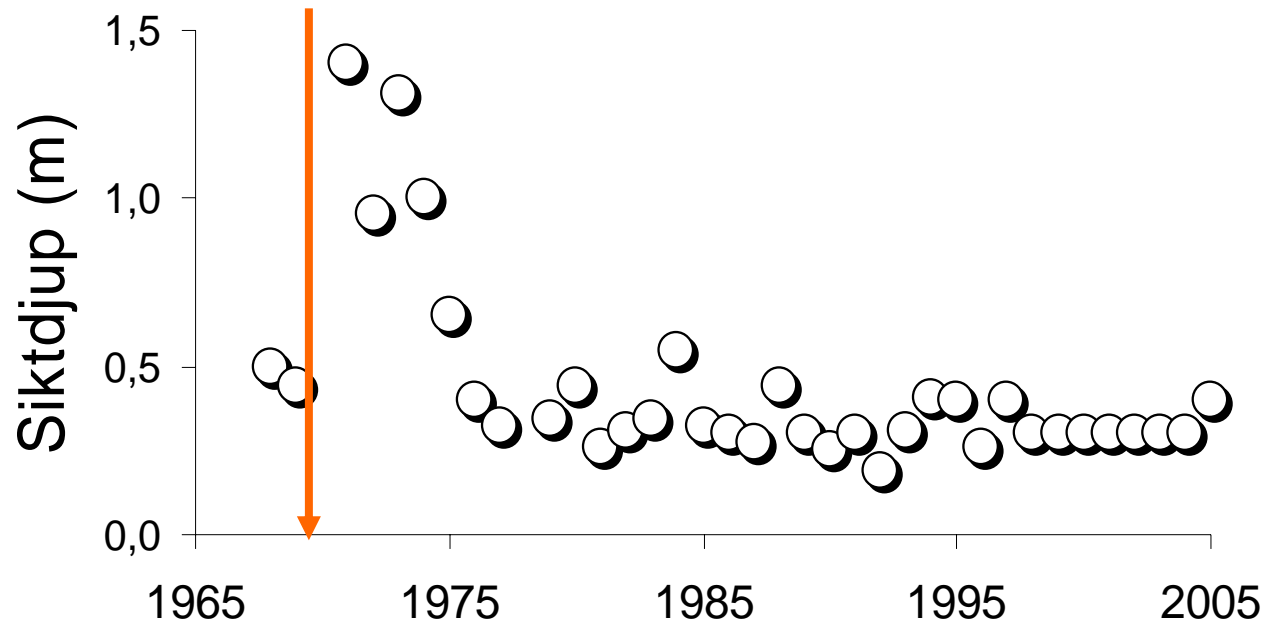
Totalkväve 1970-2005



Fjällfotasjön 1968-2005

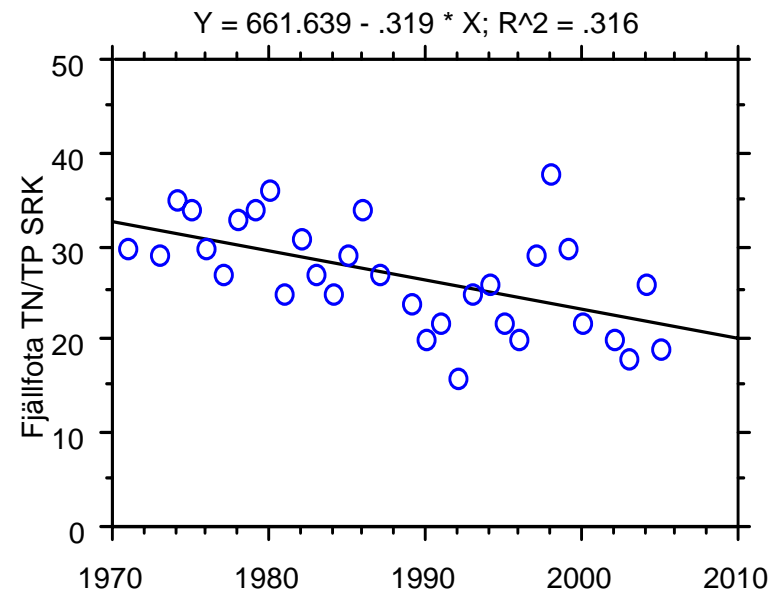


Fjällfotasjön 1968-2005

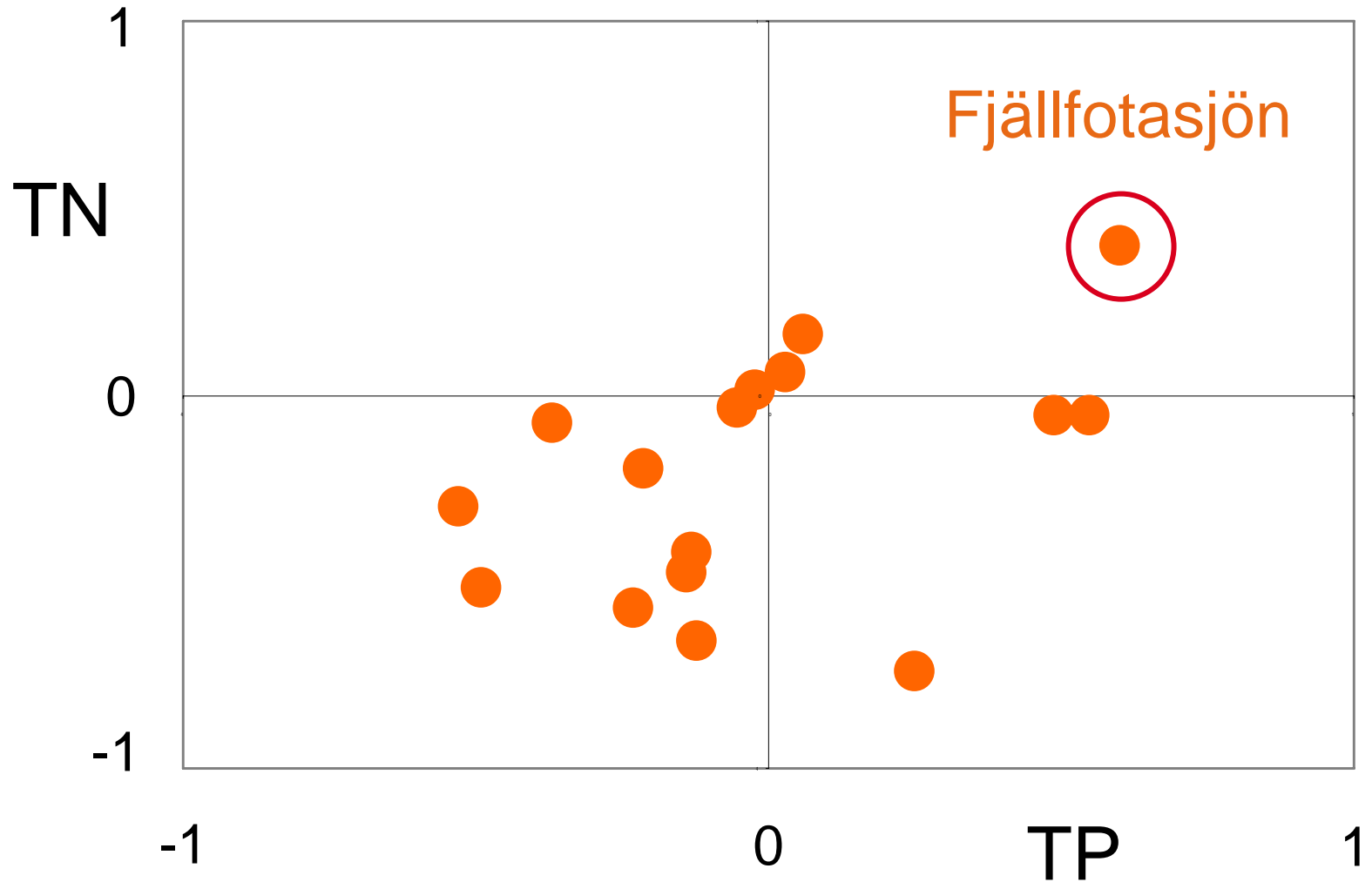


Fjällfotasjön 1968-2005

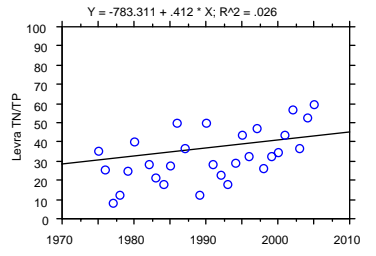
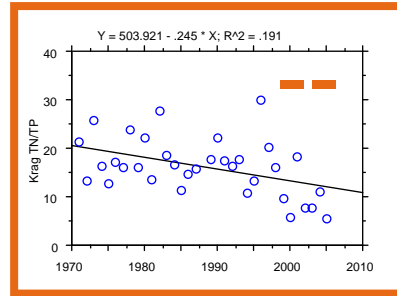
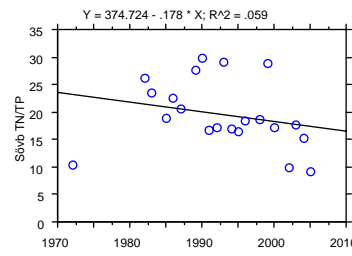
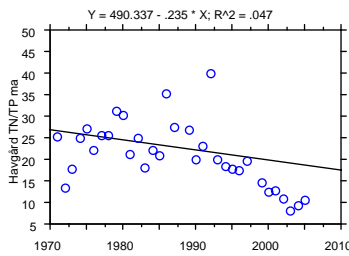
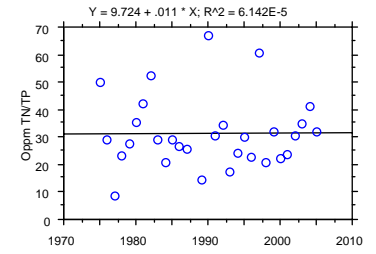
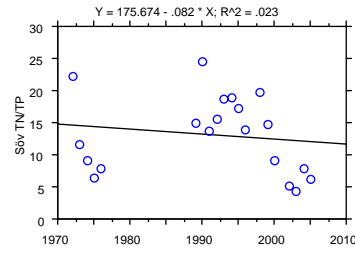
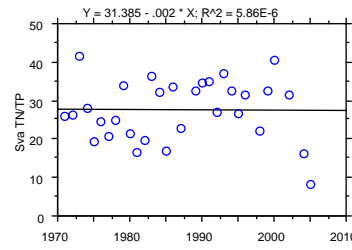
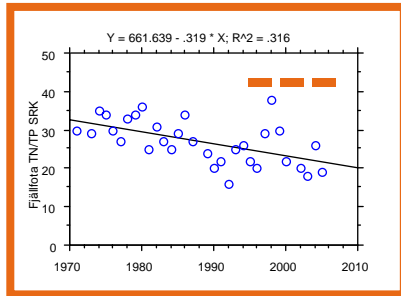
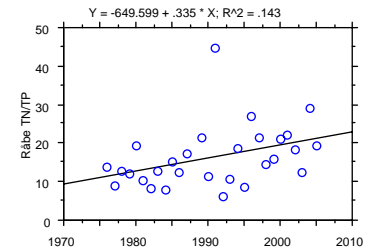
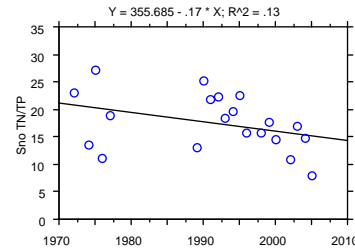
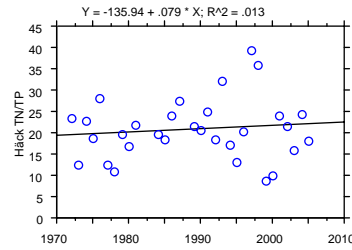
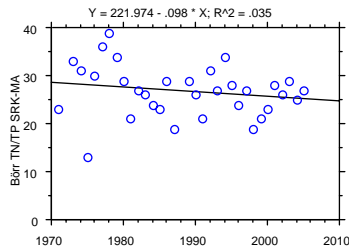
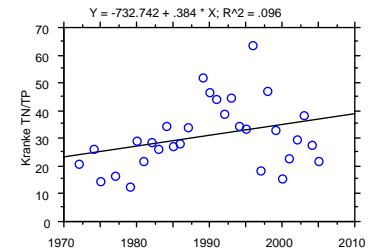
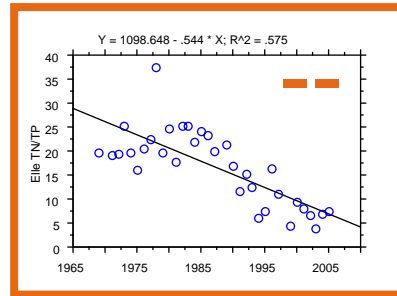
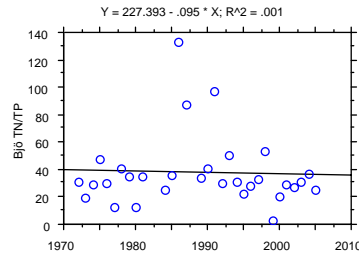
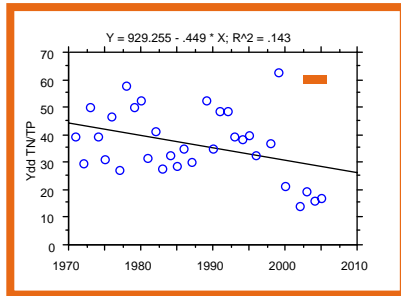
- Minskat siktdjup, ökad P- och N-halt 1970-2005, delvis p g a fiskdöd 1969-70.
- Fortsatt P-ökning 1975-2005, p g a ökad belastning?
- Ger minskad N/P-kvot



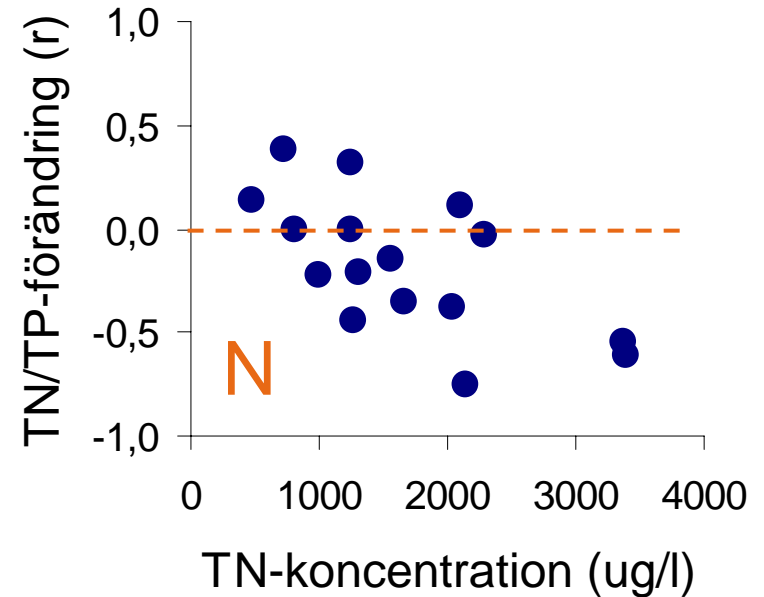
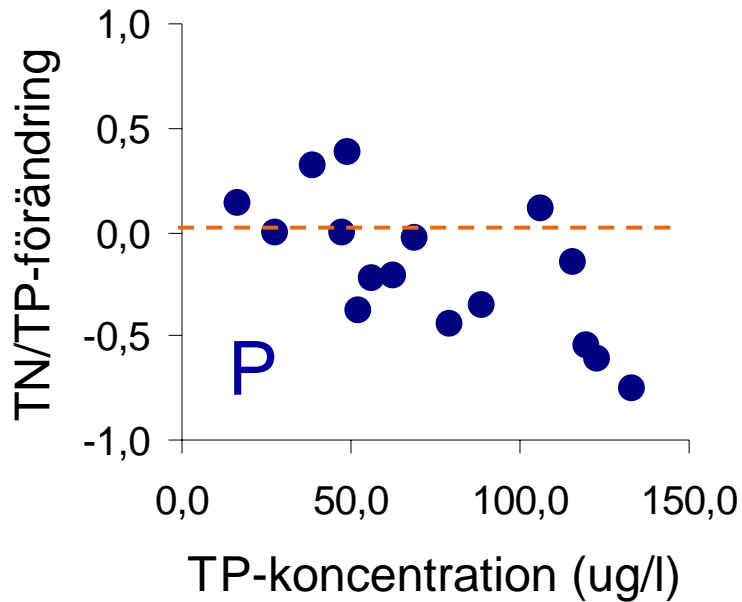
Förändring i TP och TN (r)



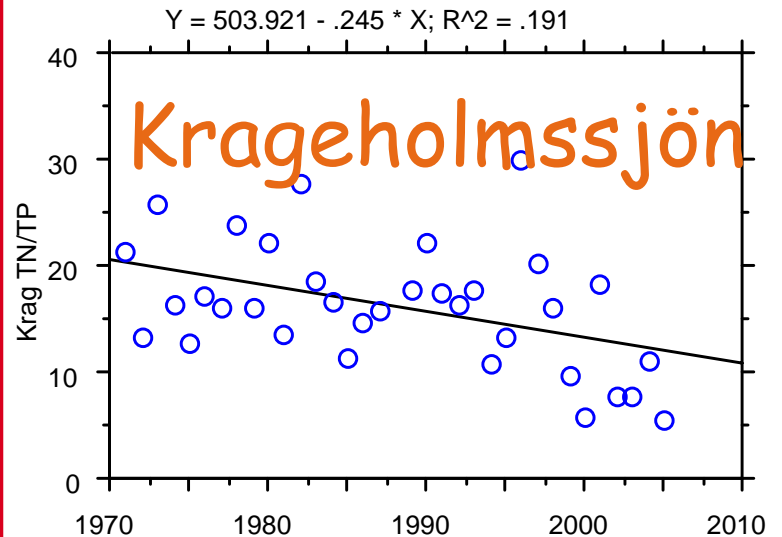
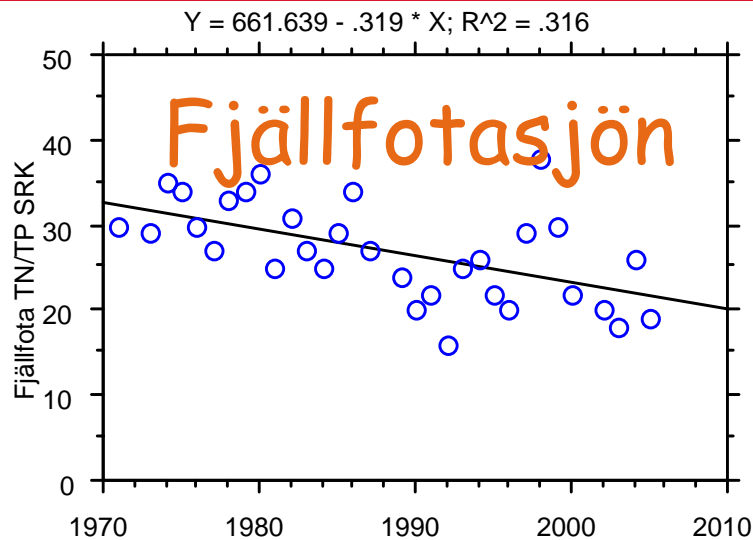
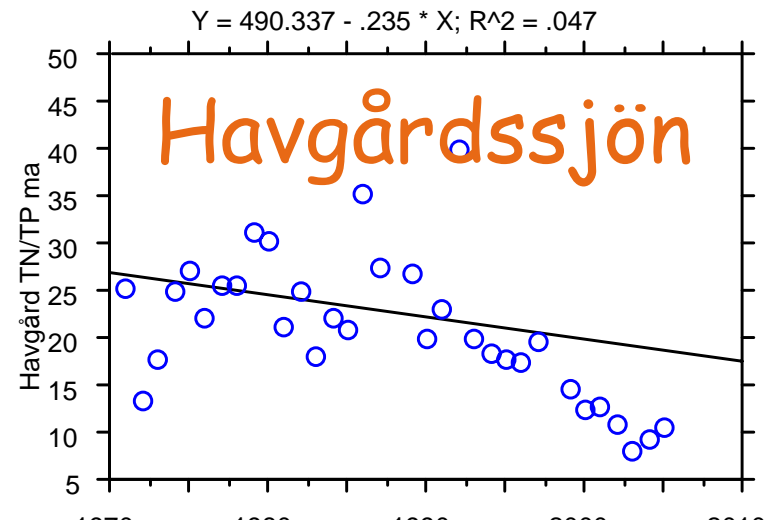
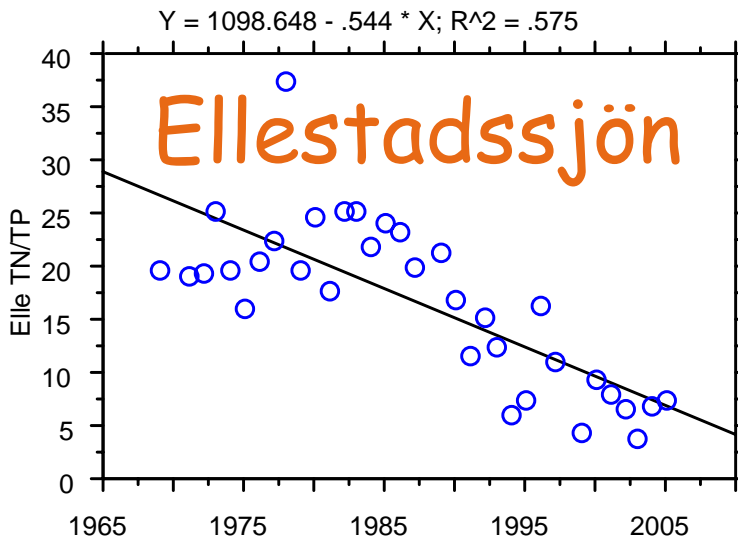
N/P-kvot 1970-2005



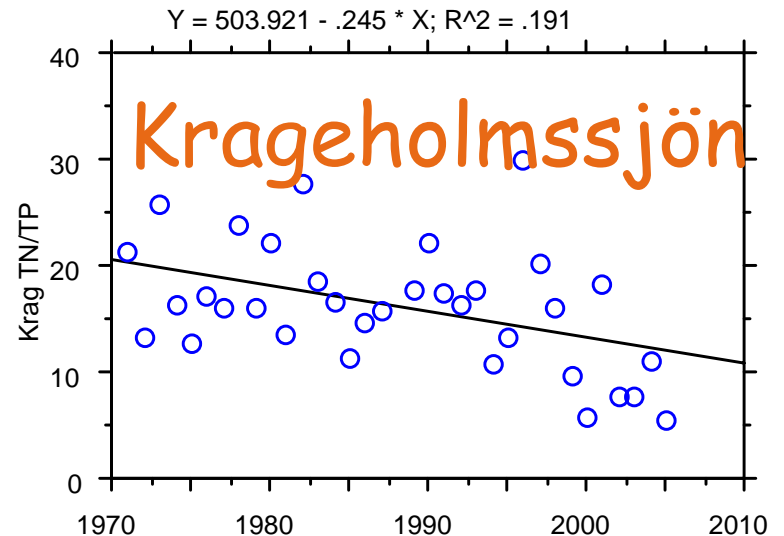
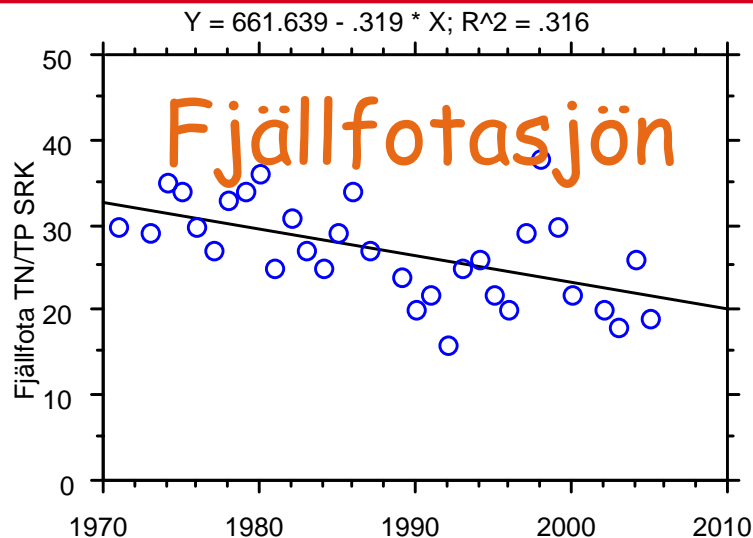
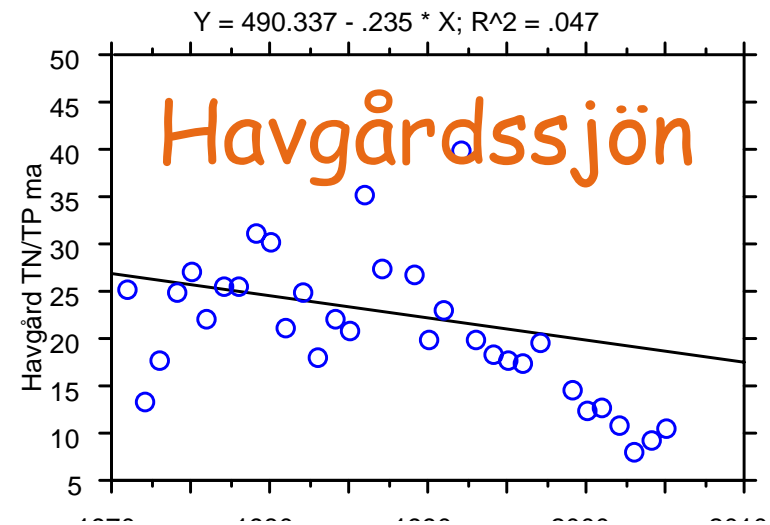
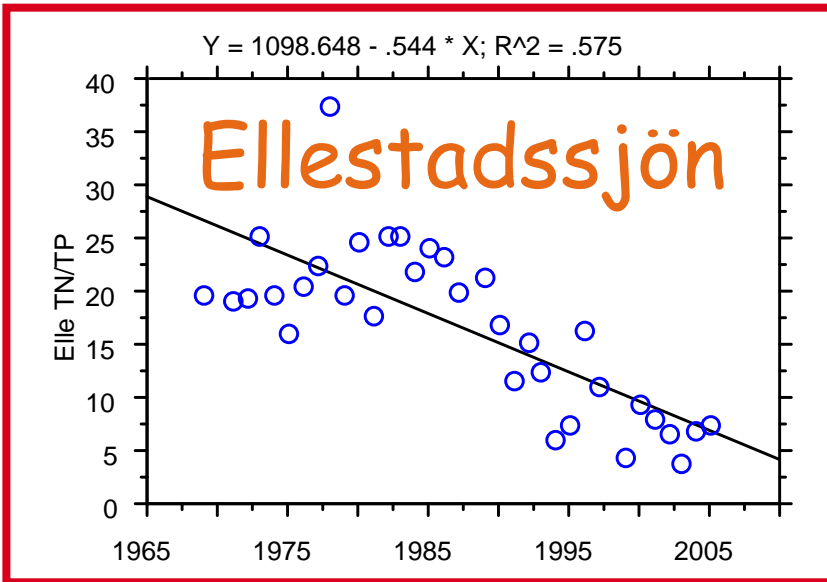
N/P-kvoten minskade tydligast i näringsrika sjöar



Sjöar med låg N/P-kvot

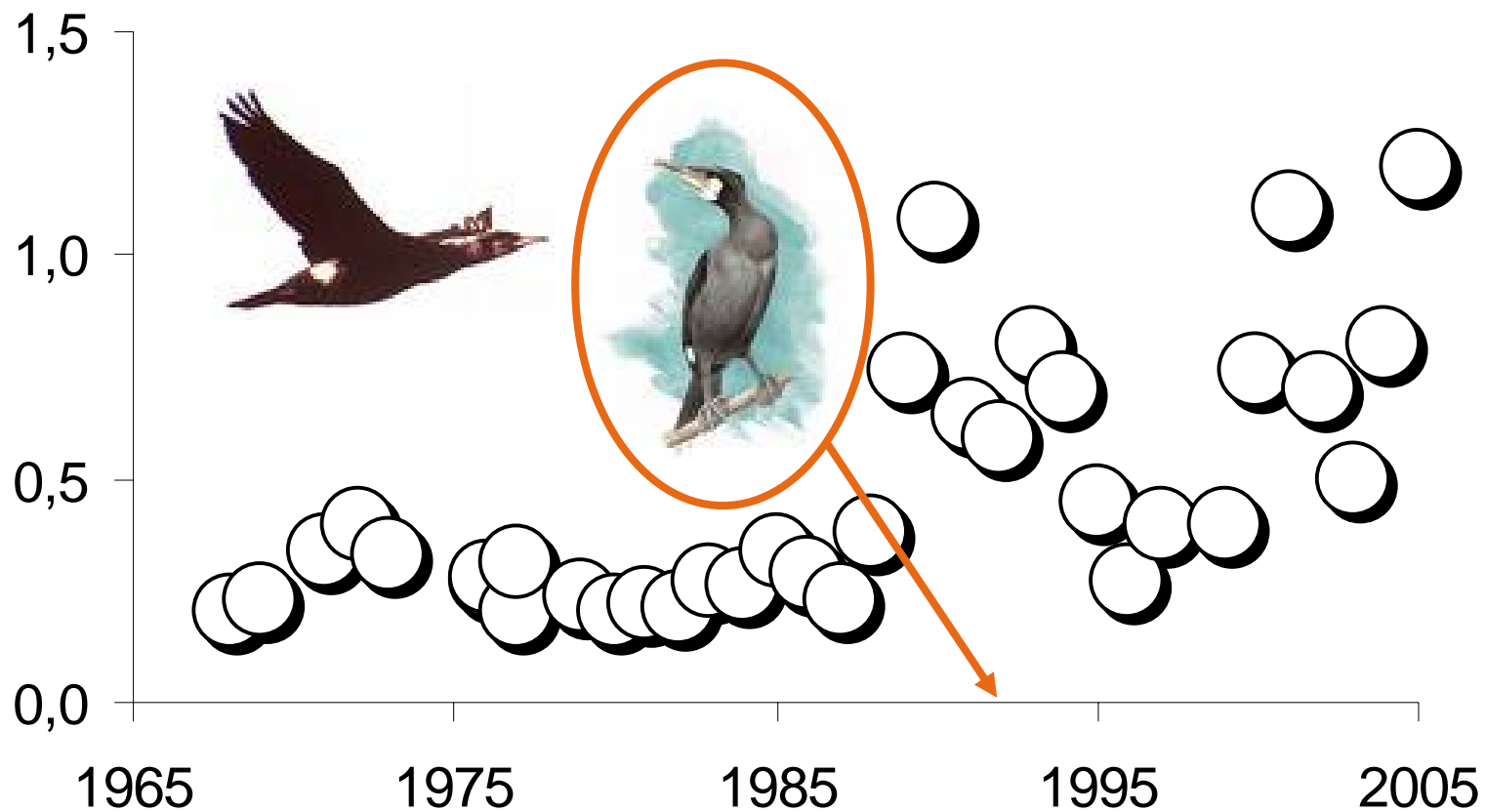


Sjöar med låg N/P-kvot

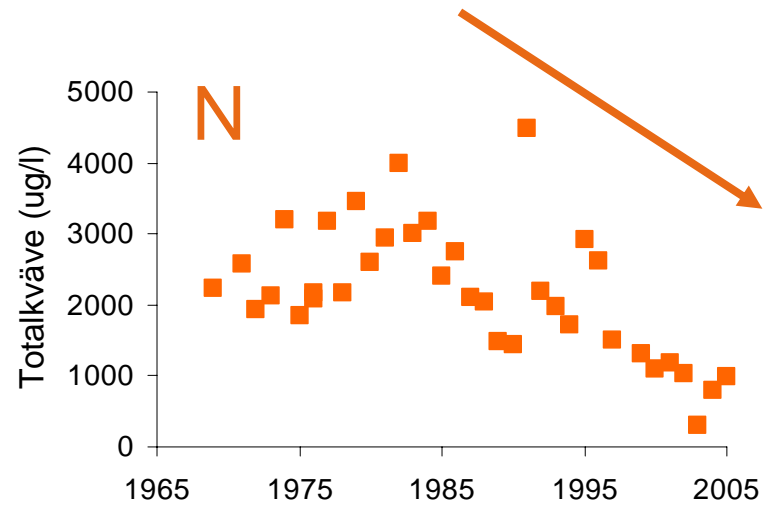
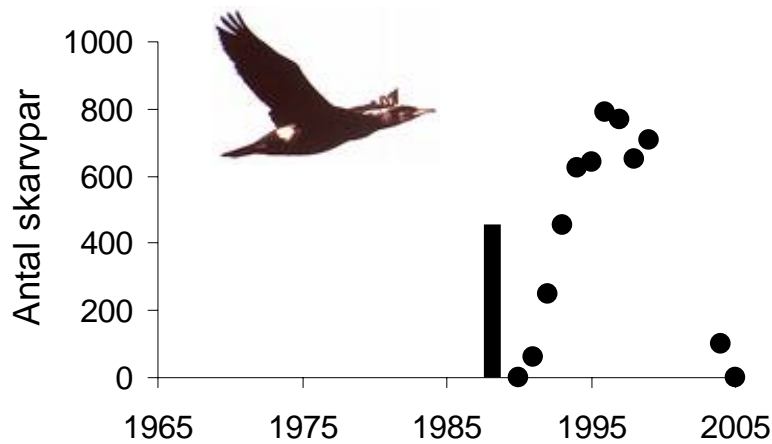
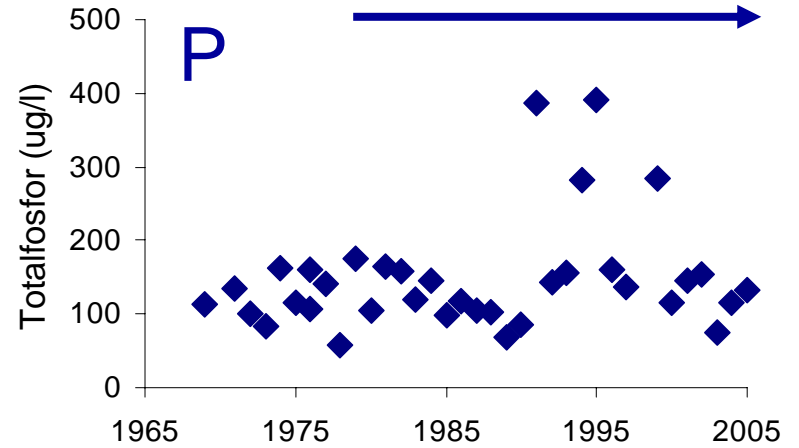
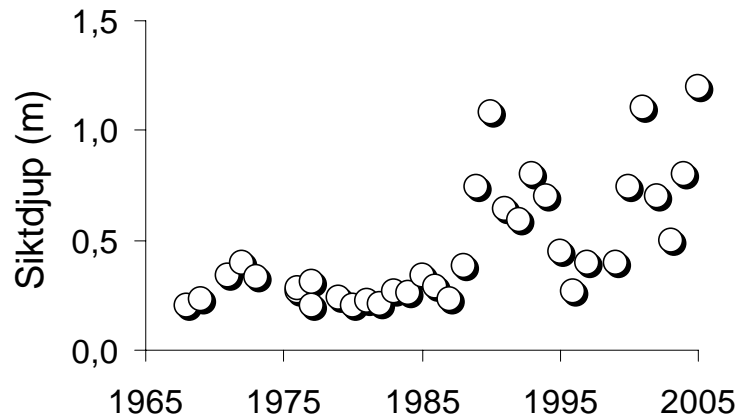


Ellestadssjön 1968-2005

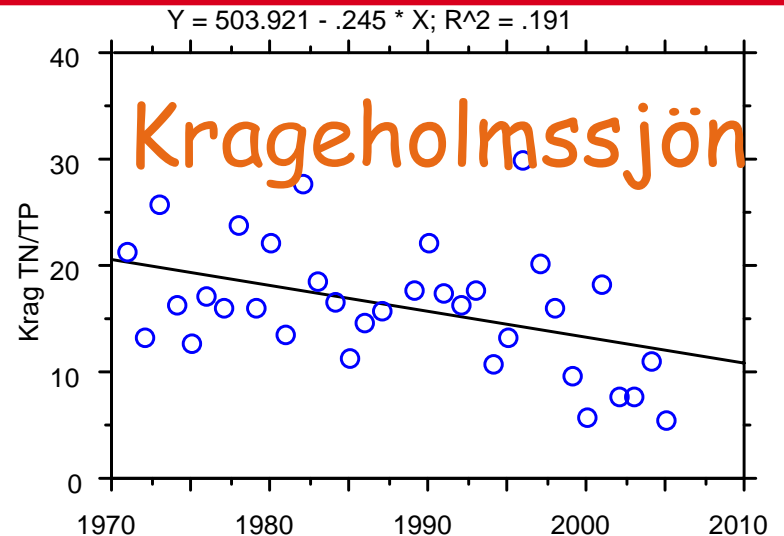
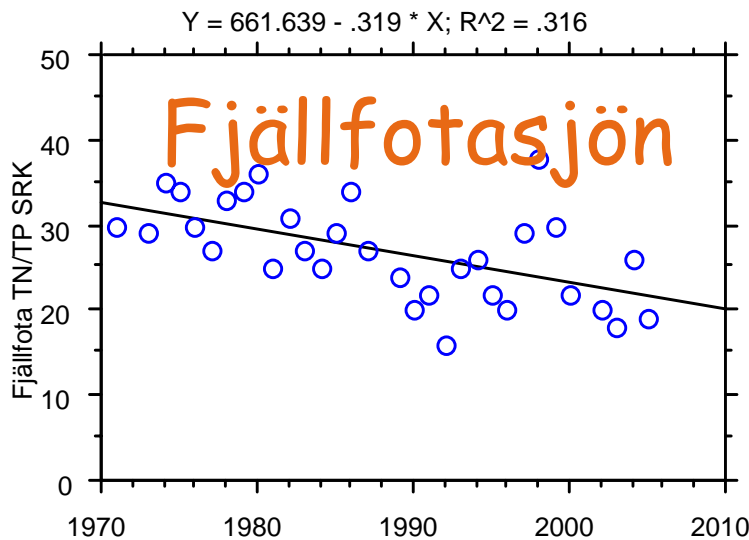
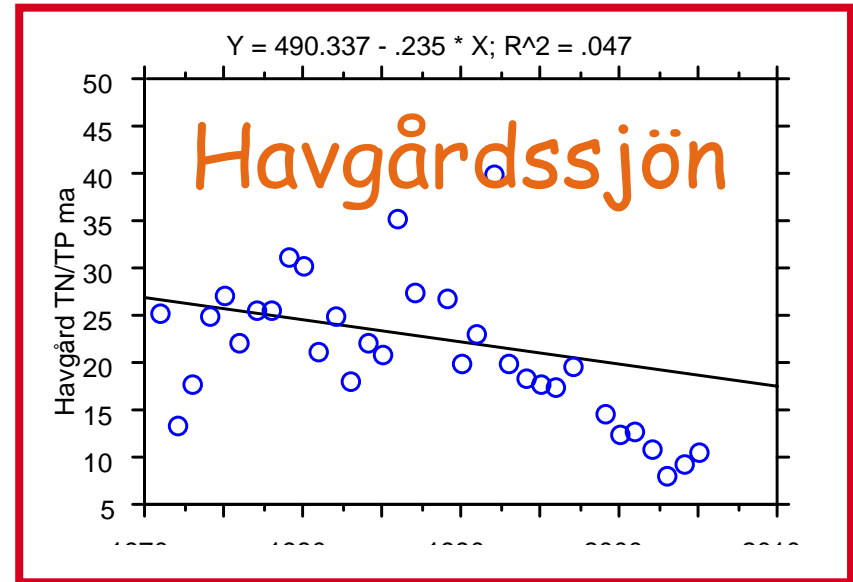
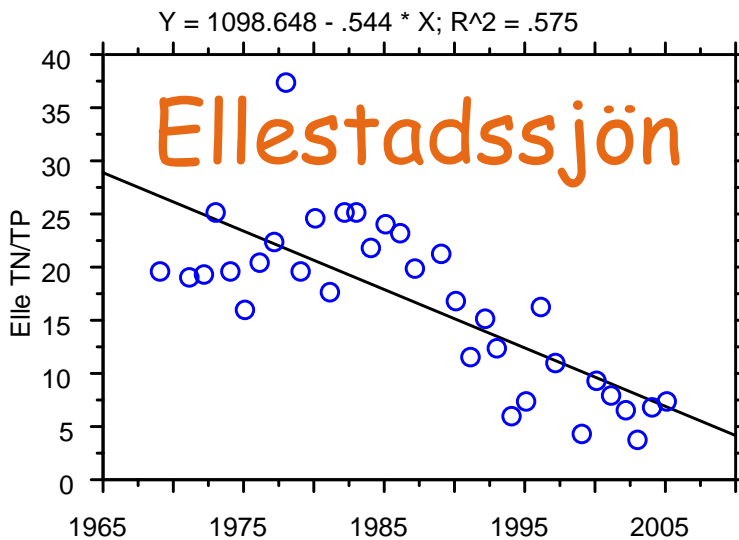
Siktdjup (m)



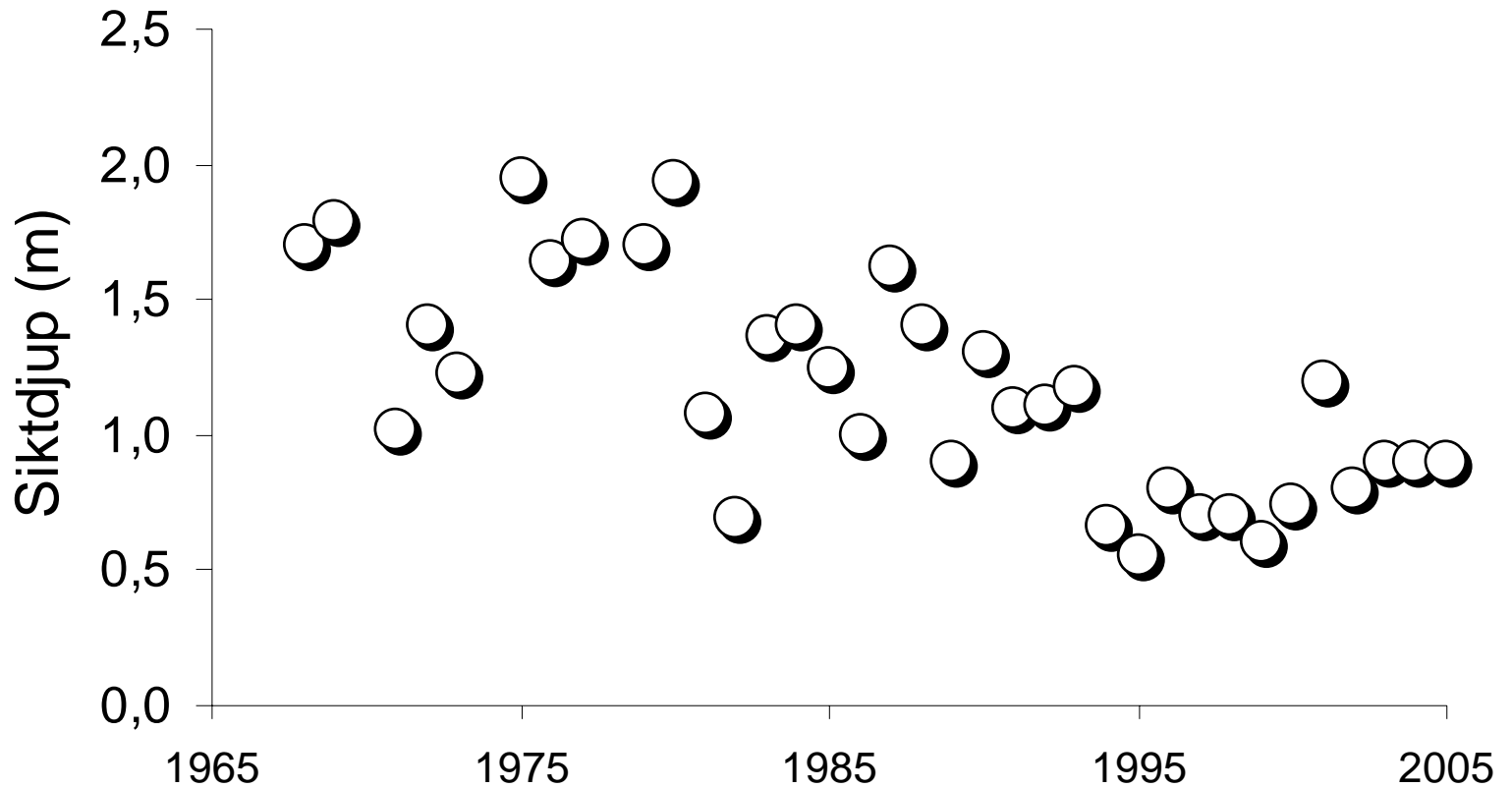
Ellestadssjön 1968-2005



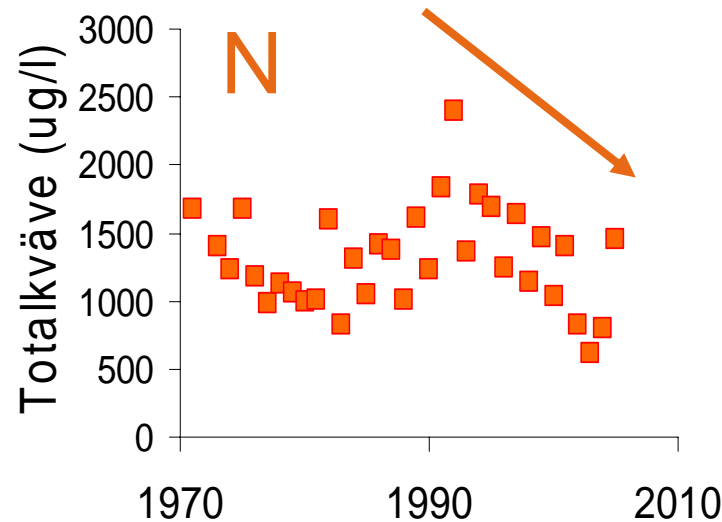
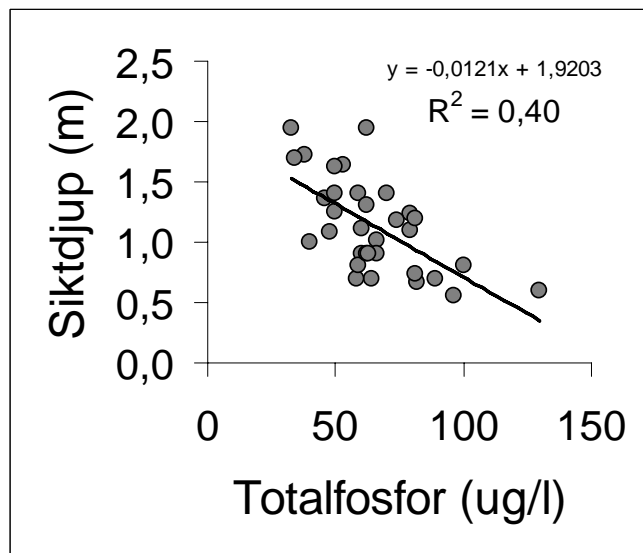
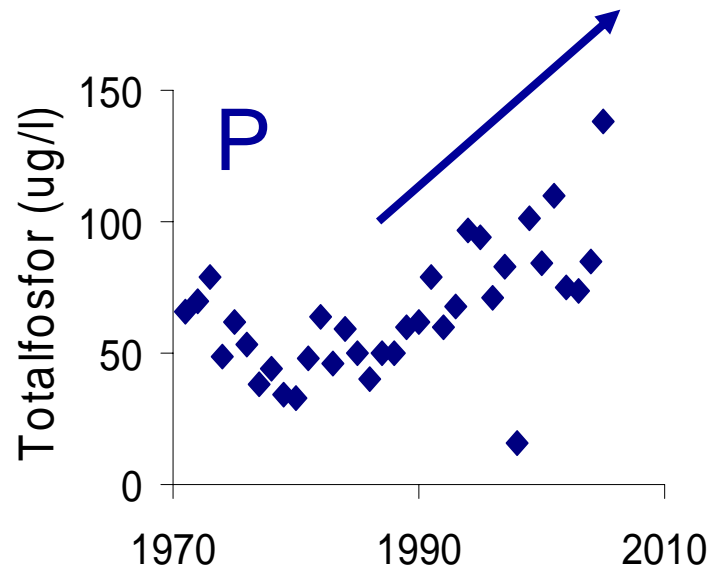
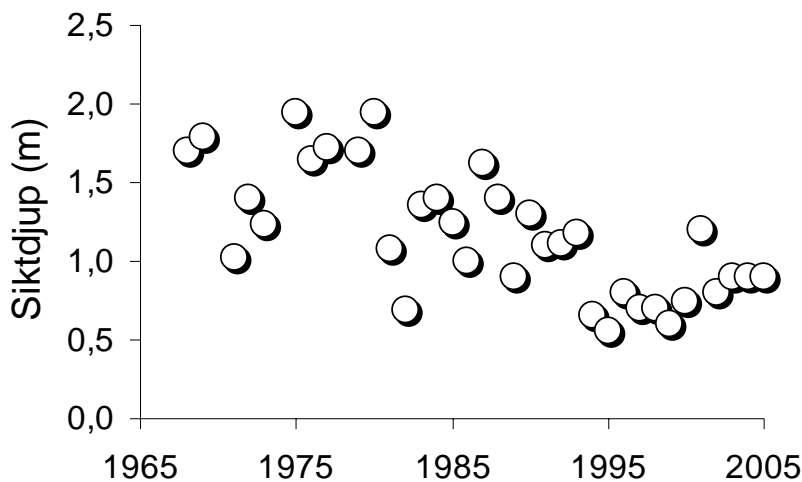
Sjöar med låg N/P-kvot



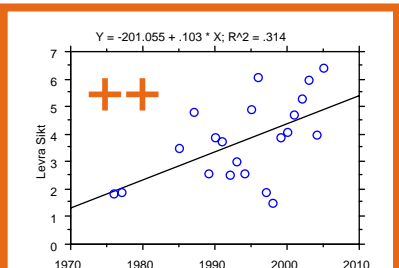
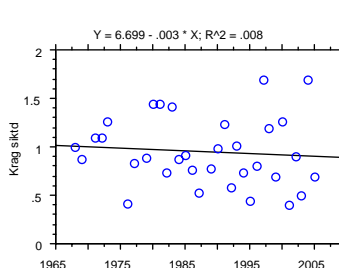
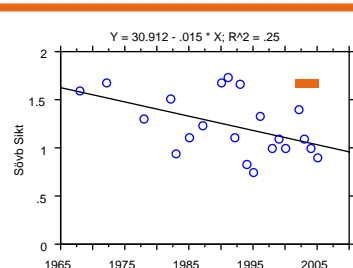
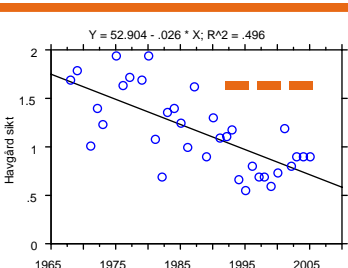
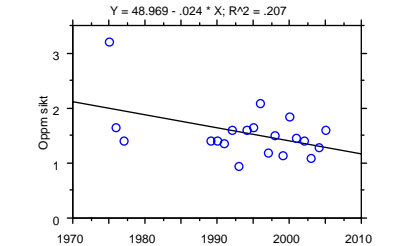
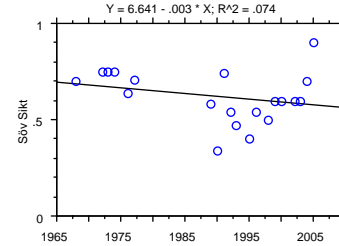
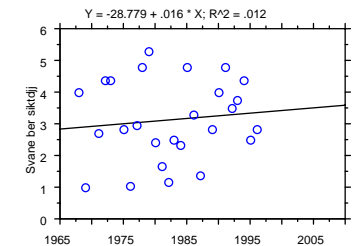
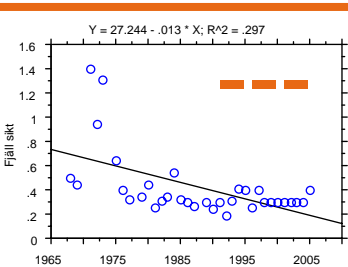
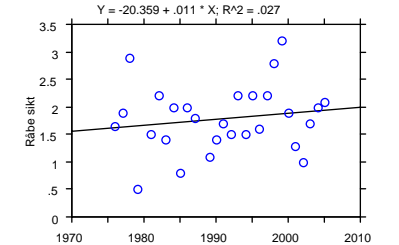
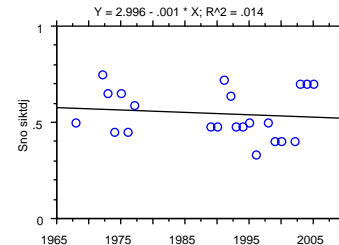
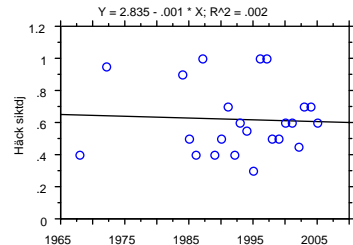
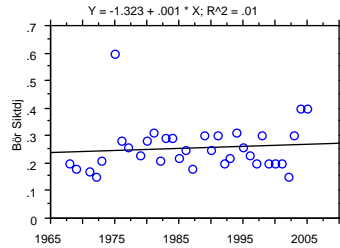
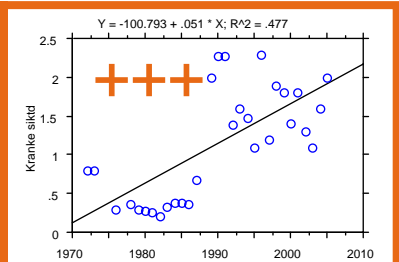
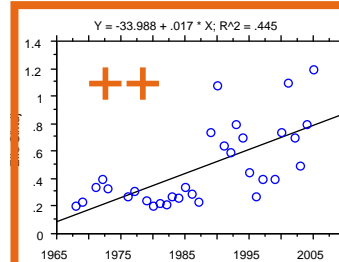
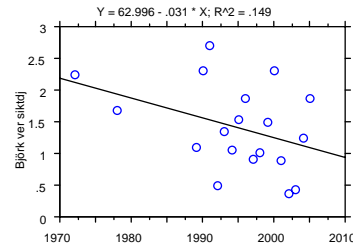
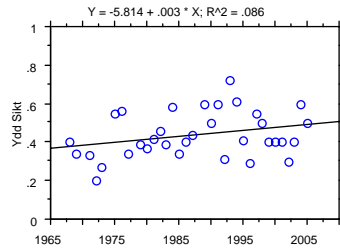
Havgårdssjön 1968-2005



Havgårdssjön 1968-2005



Siktdjup 1965-2005



Blir sjöarna fattigare? (sammanfattning)

- Ingen generell trend i N, P eller siktdjup
- ...men minskad TN-halt och N/P-kvot i några näringsrika sjöar
- ...och minskad TP-halt i rel. P-fattiga
- Exempel på både successiva förändringar, vid ändrad belastning,
- ...och abrupta, p g a födovävseffekter



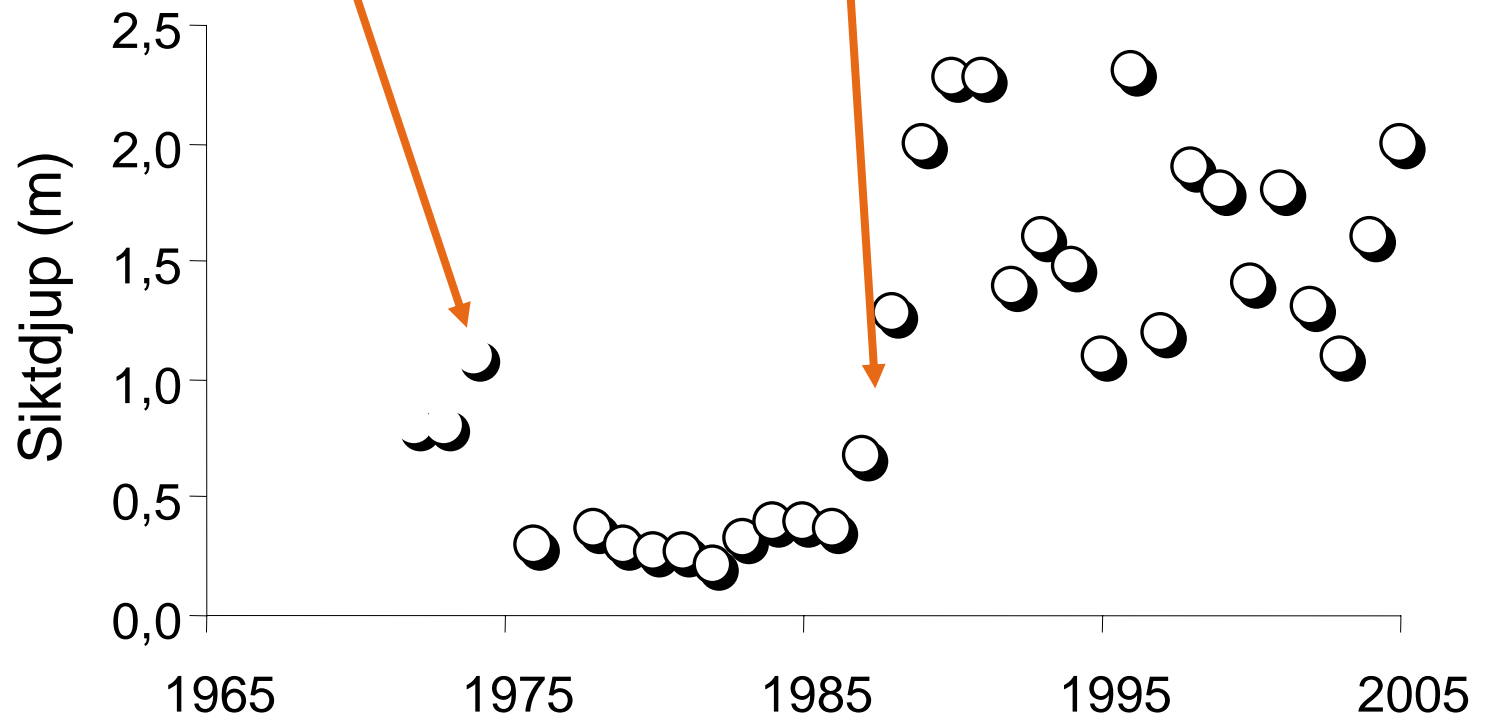
Tack!



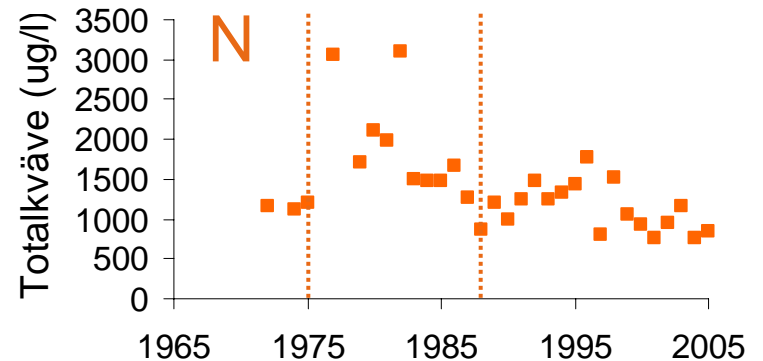
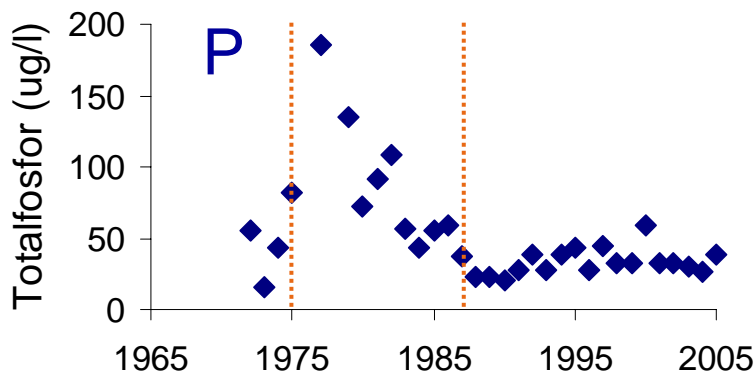
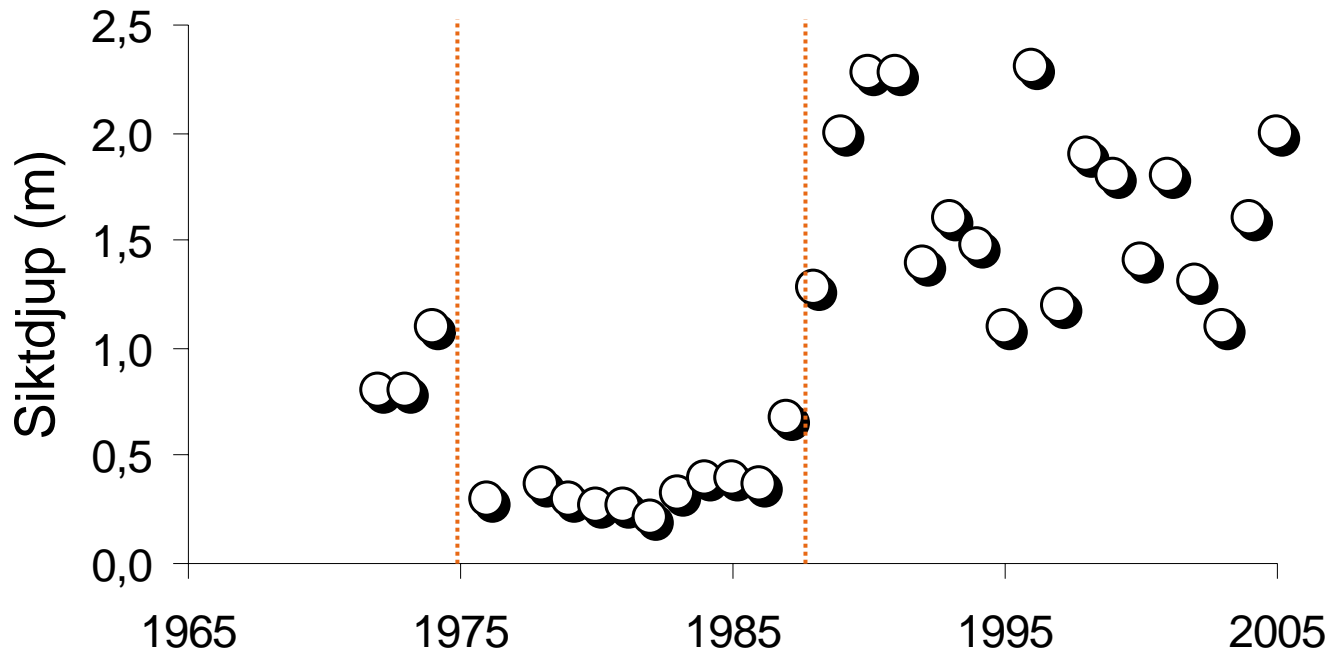
Krankesjön 1972-2005

Kollaps av
U-vegetation

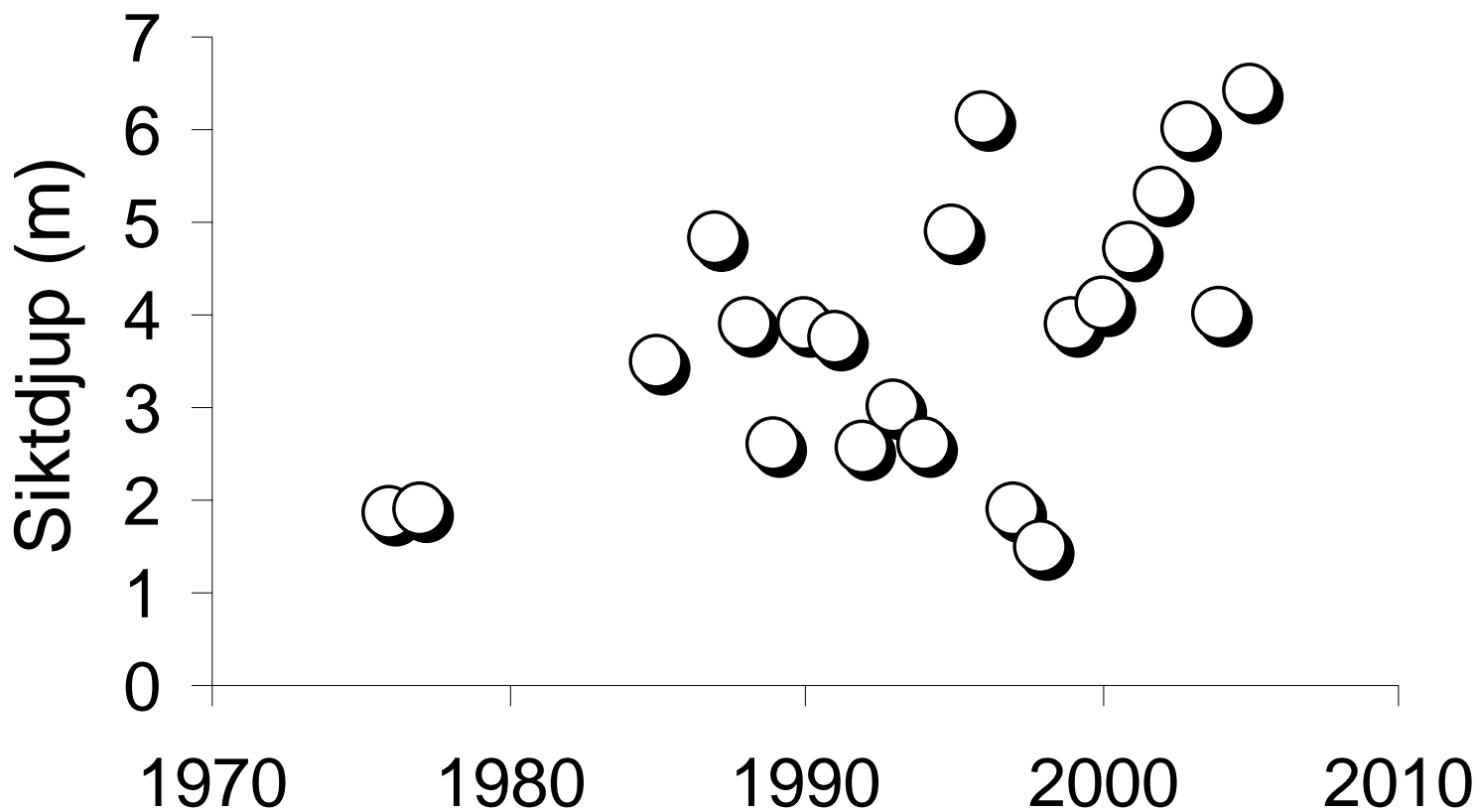
Återkomst av
U-vegetation



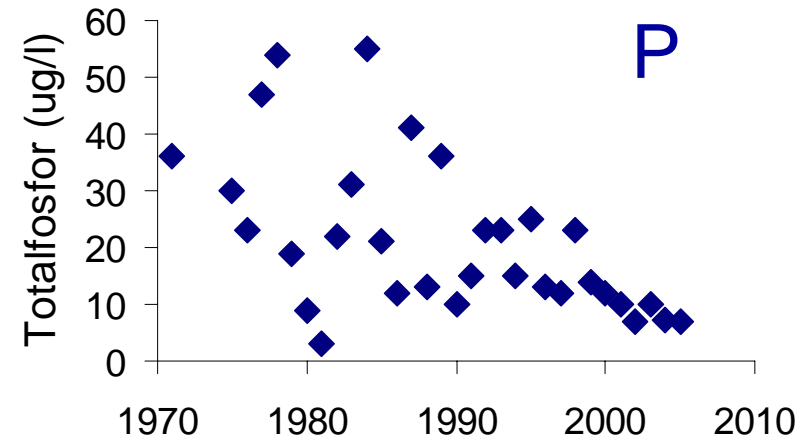
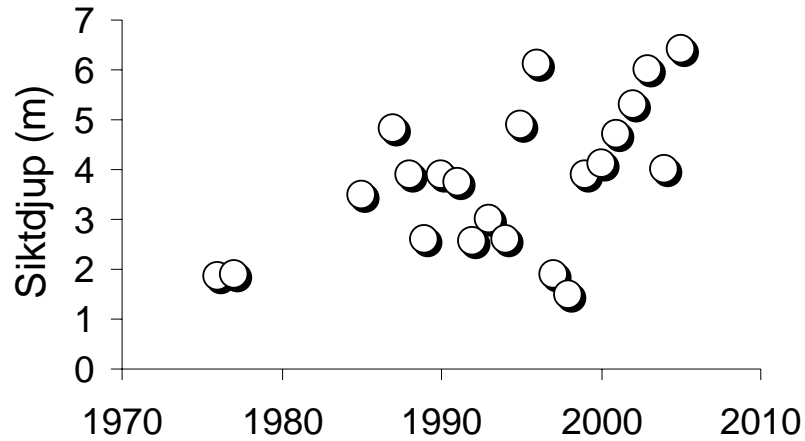
Krankesjön 1965-2005



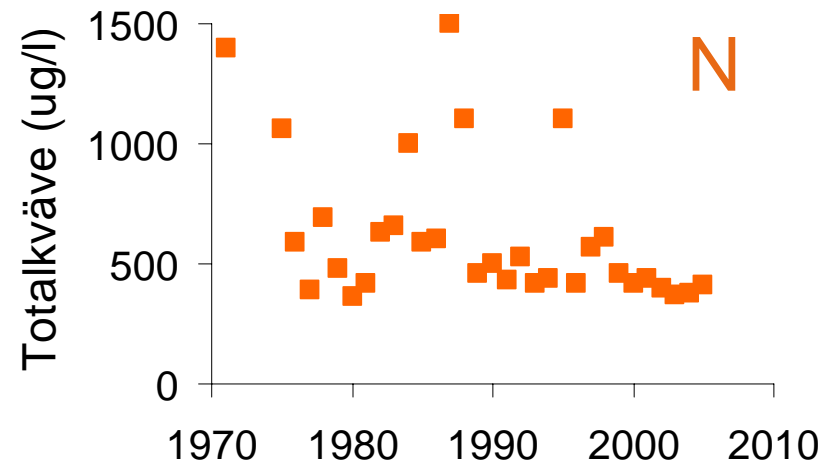
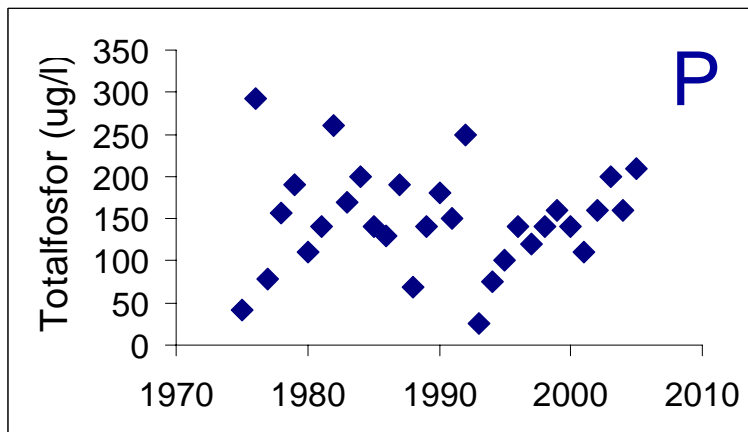
Levrasjön 1971-2005



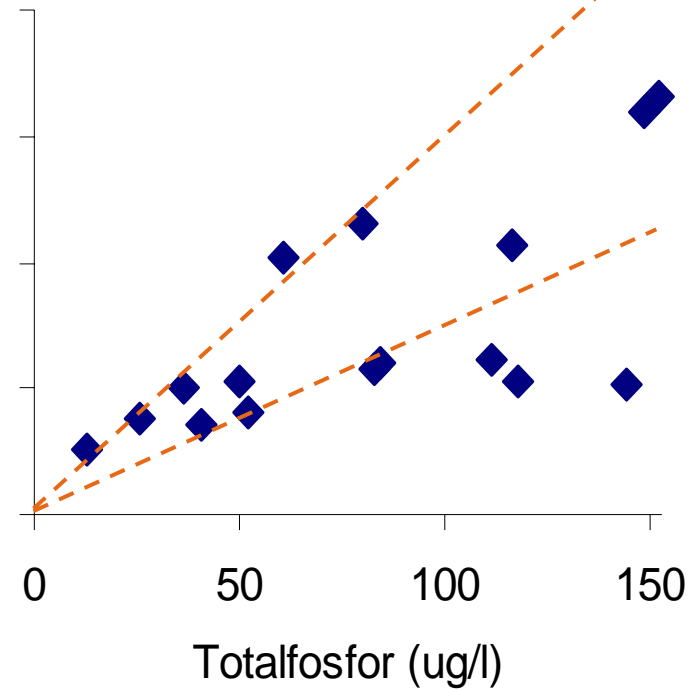
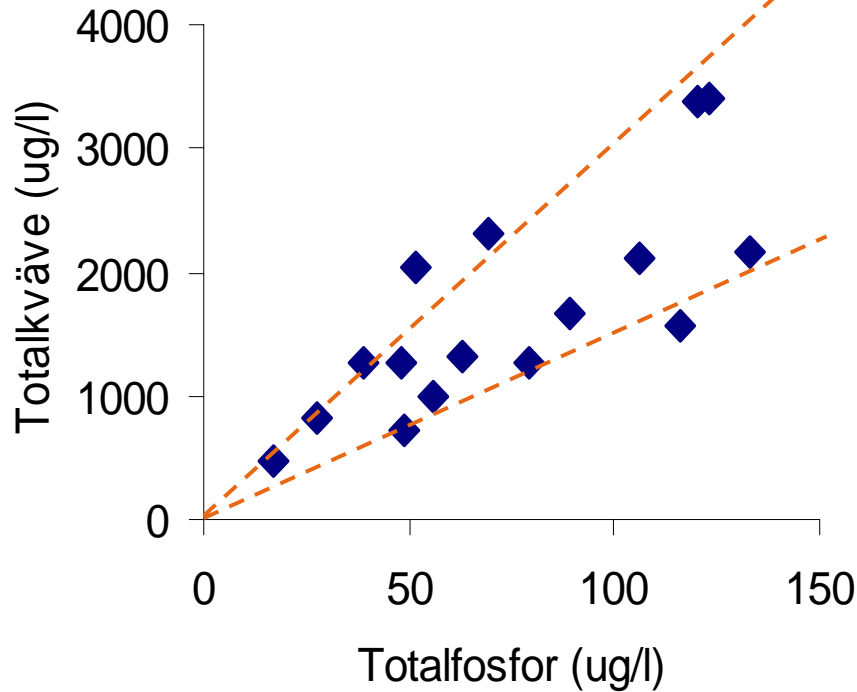
Levrasjön 1971-2005



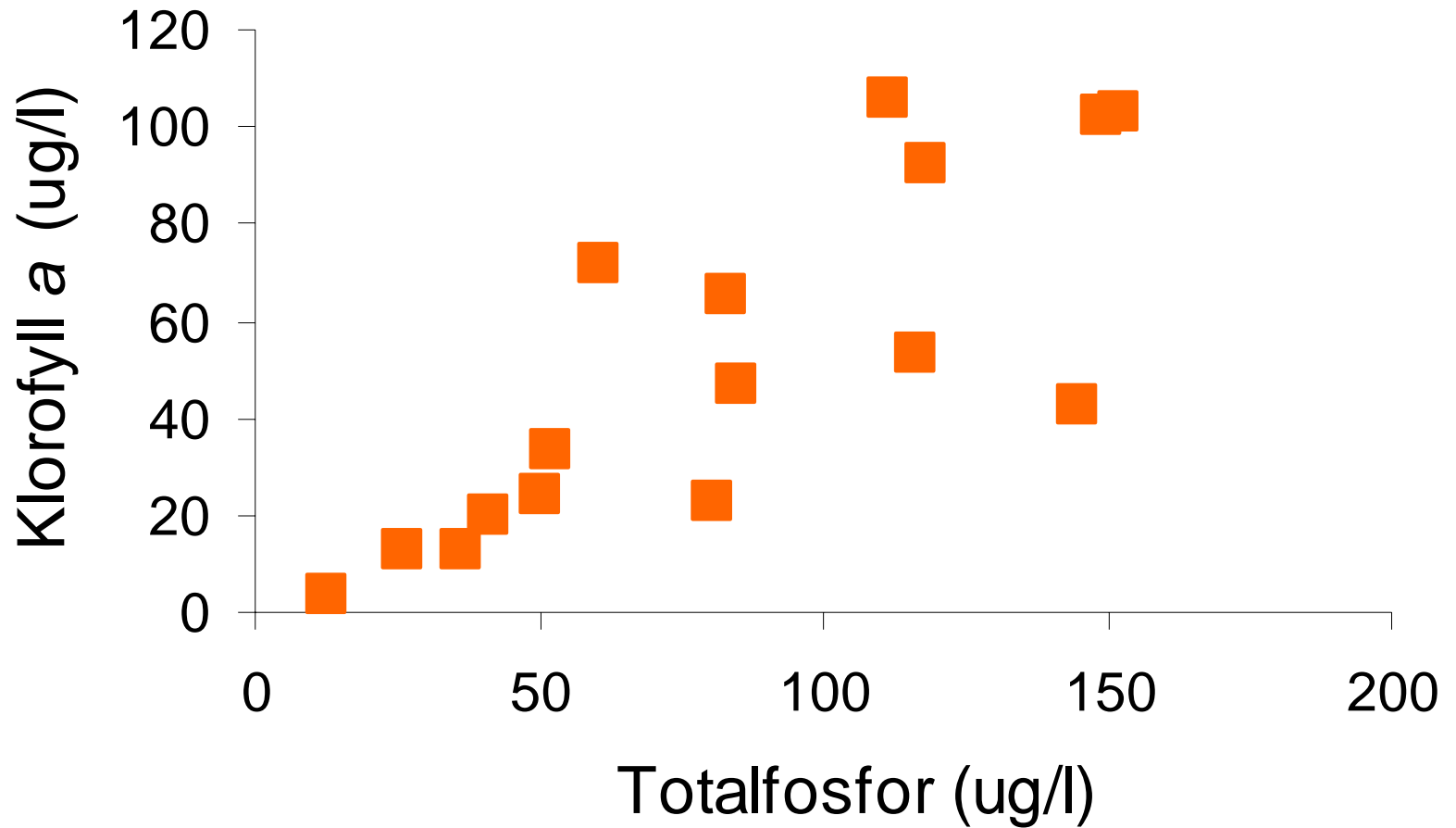
Bottenvatten



Fosfor- och kvävehalter



Växtplankton (kl *a*) och totalfosfor



Växtplankton (kl *a*) och totalfosfor

