

IMARES

SAWES: Systemanalyse Westerschelde

Accumulatie in Mossel, Wadpier en Bot
(1989-1990)

John Schobben (2009)

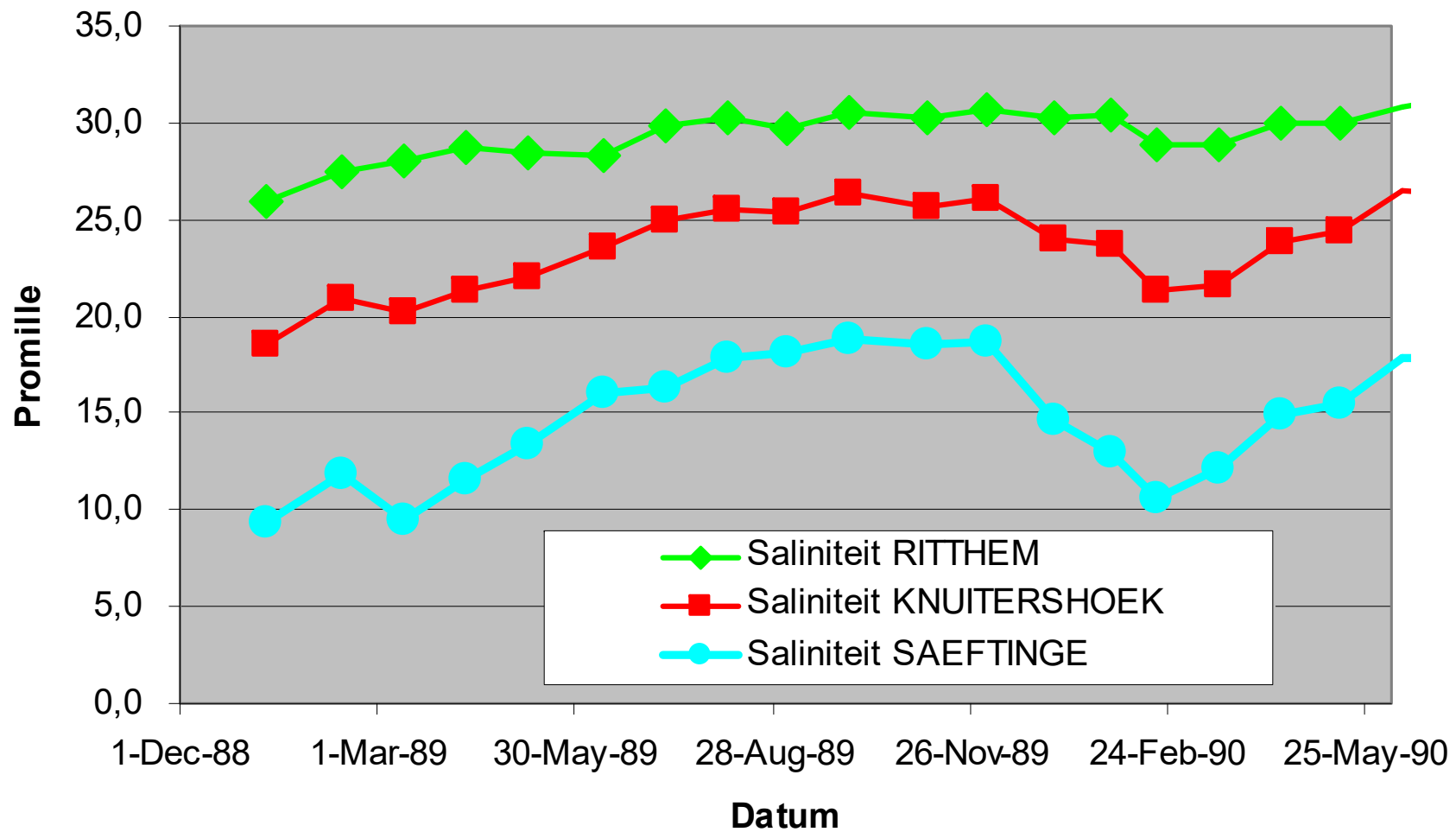




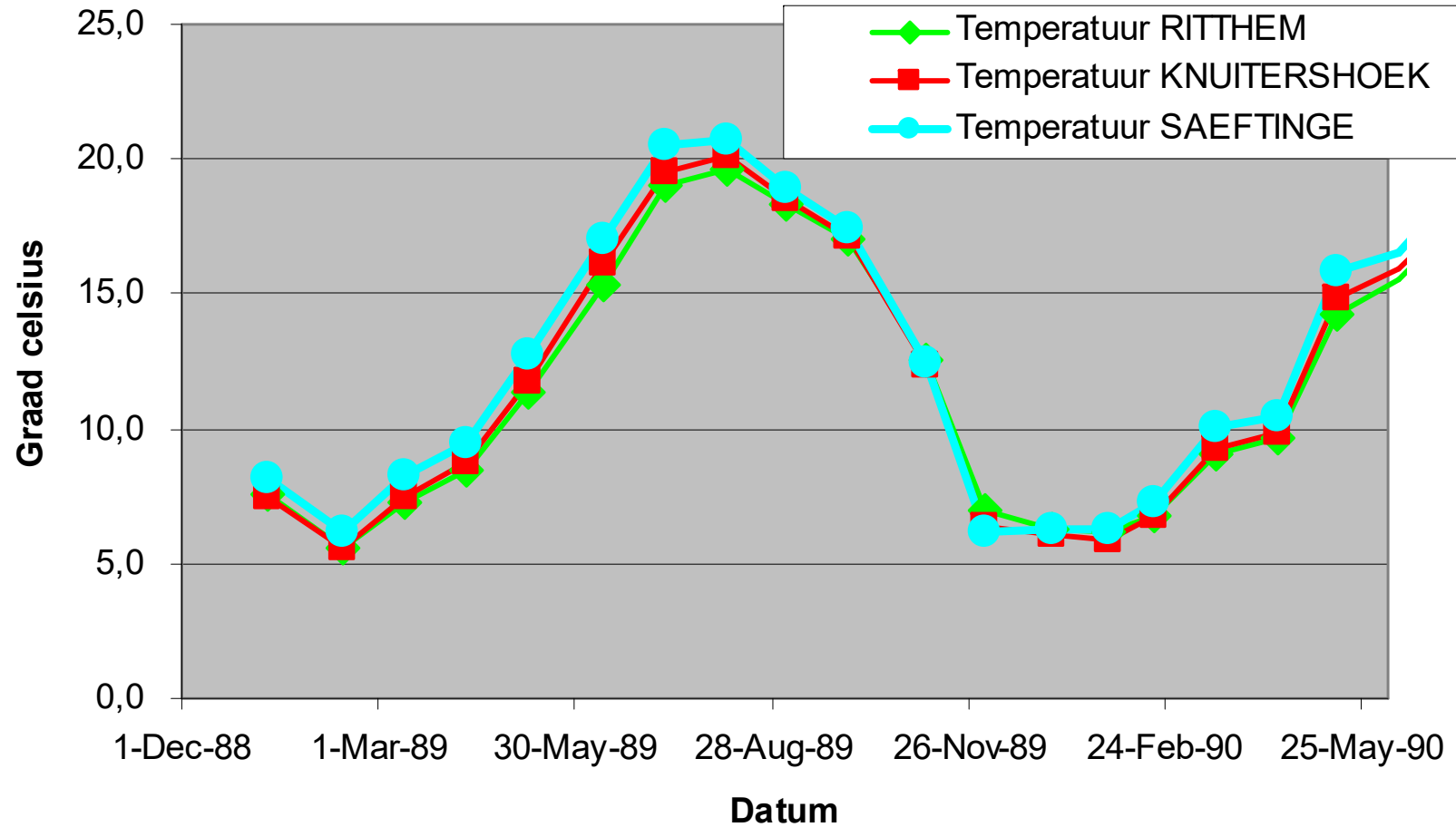
Methode mossel- en wadpierz jaarreeks

- 15 – 30 mosselen (tussen 4 en 5 cm)
- 10 – 15 wadpieren (ongeveer 4 gram per stuk?)
- meestal verwaterd
- 4 metalen, 13 PAK's en 13 PCB's

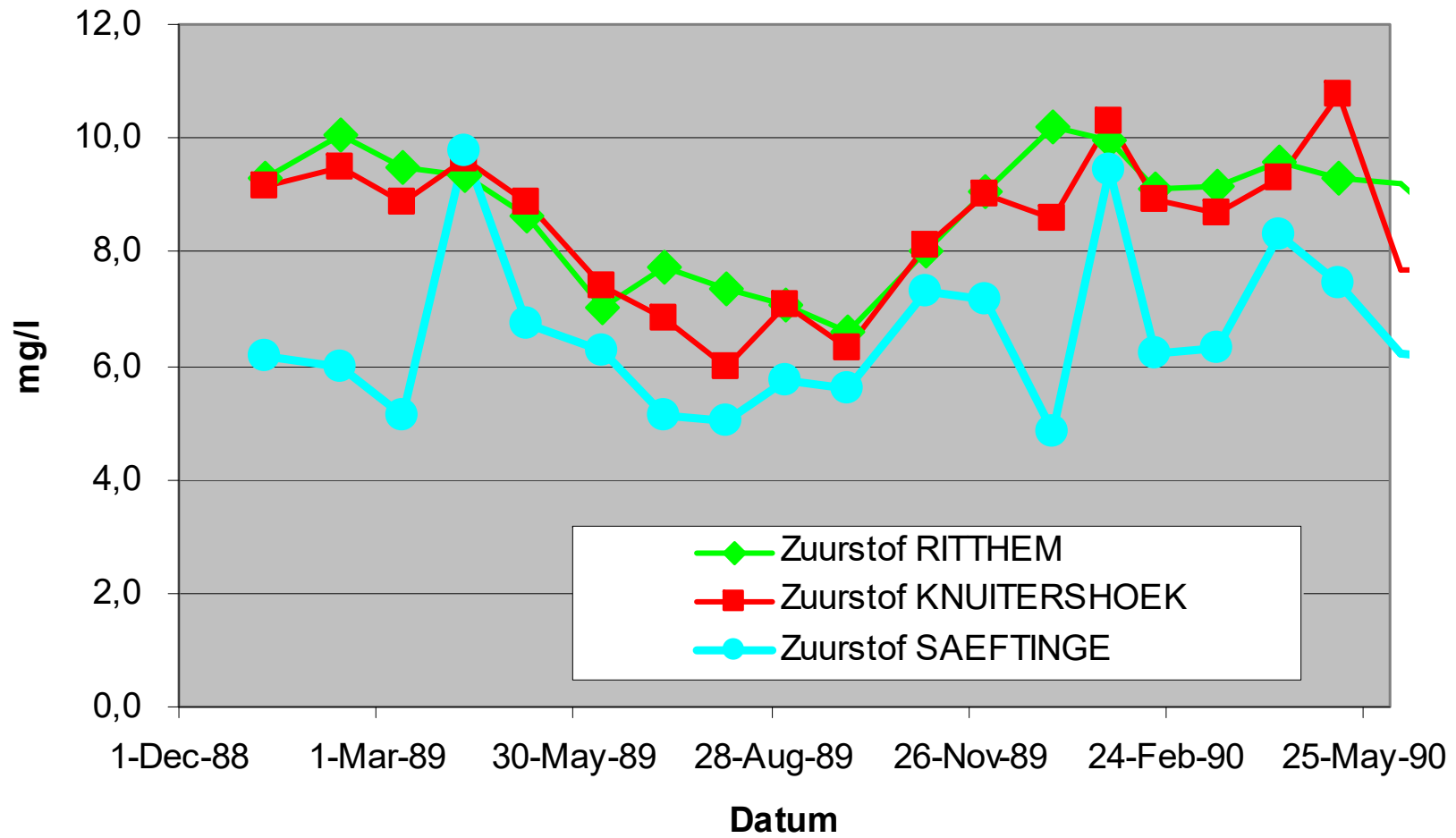
Saliniteit in water



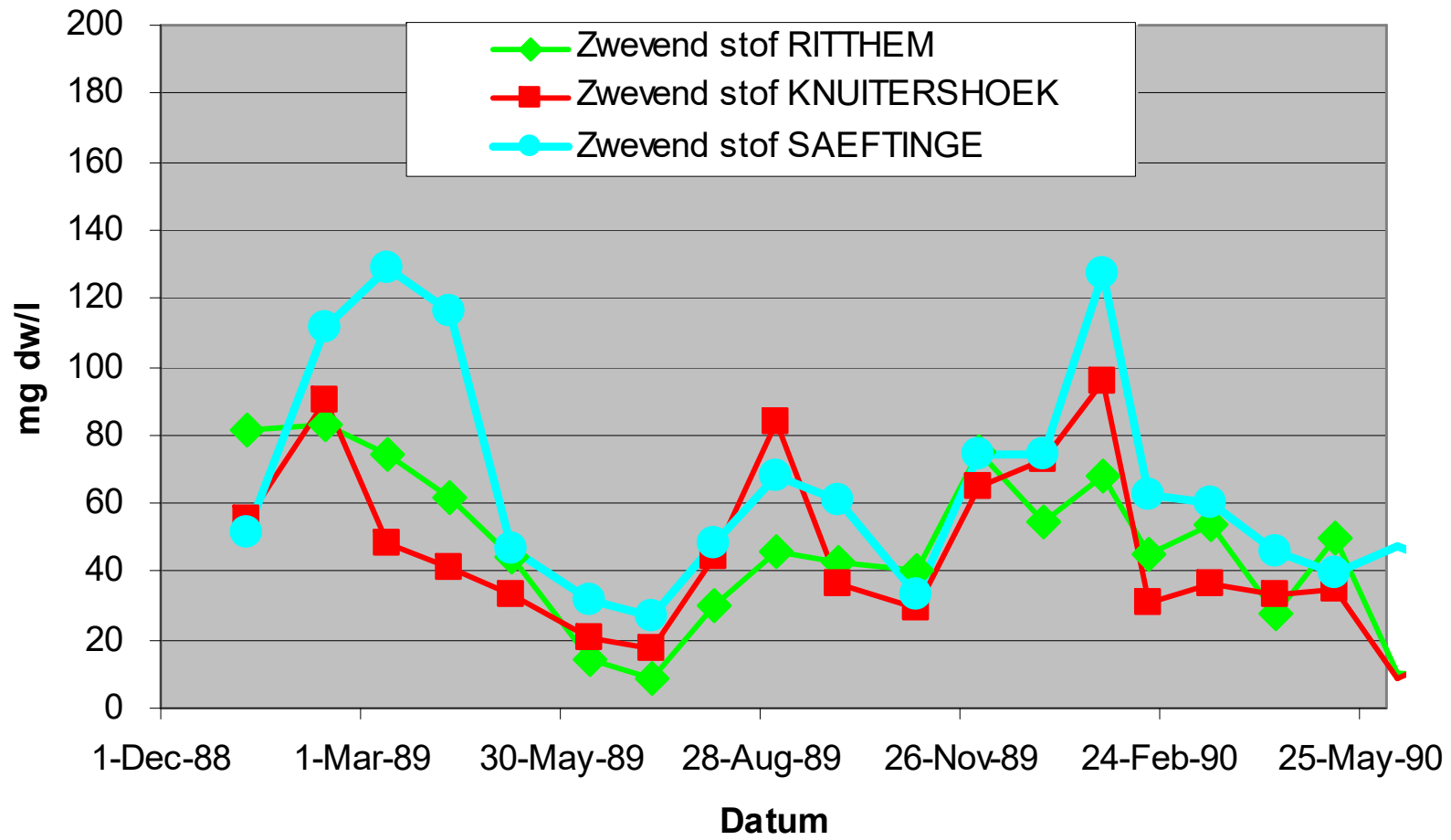
Temperatuur in water



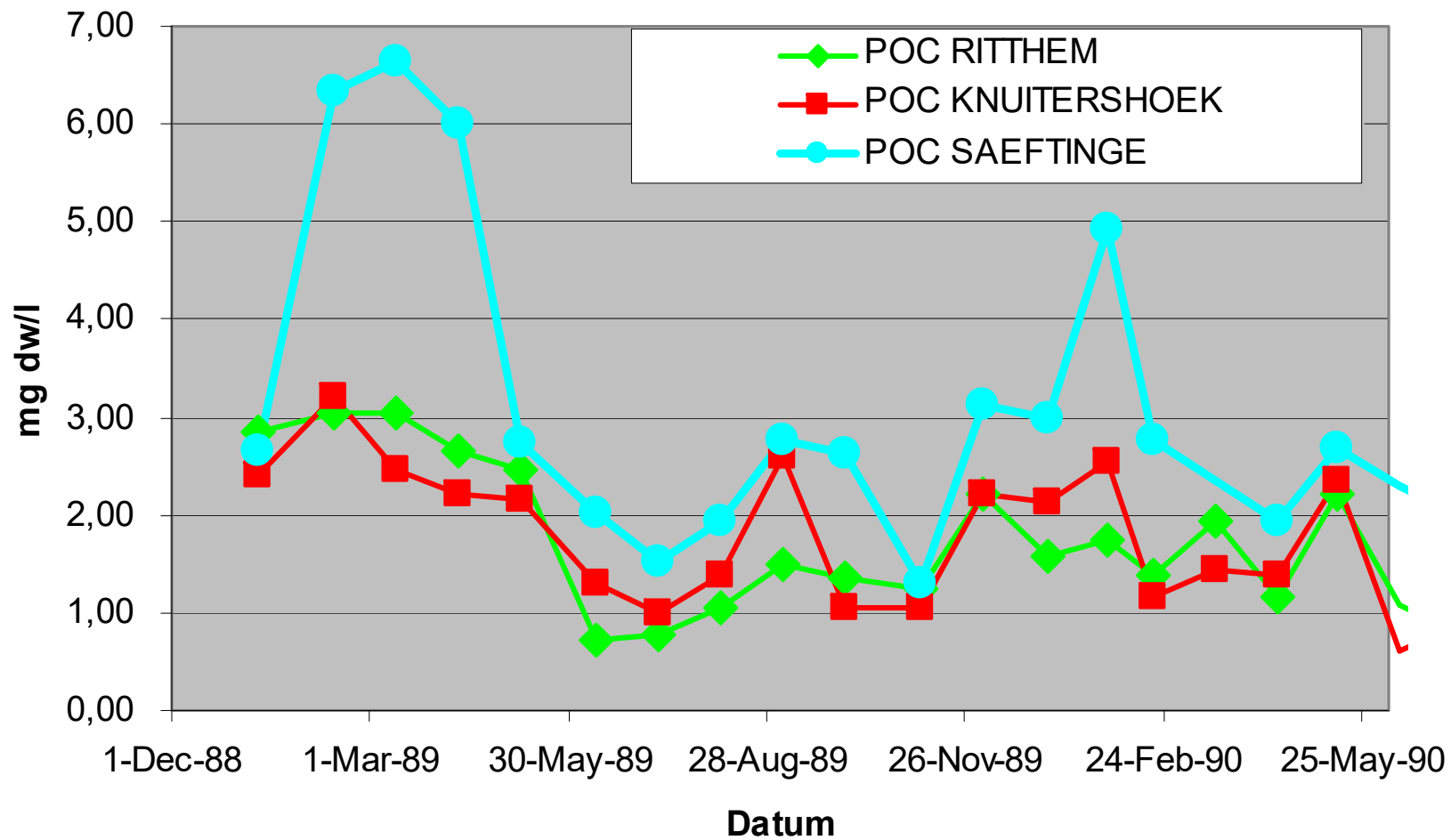
Zuurstof in water

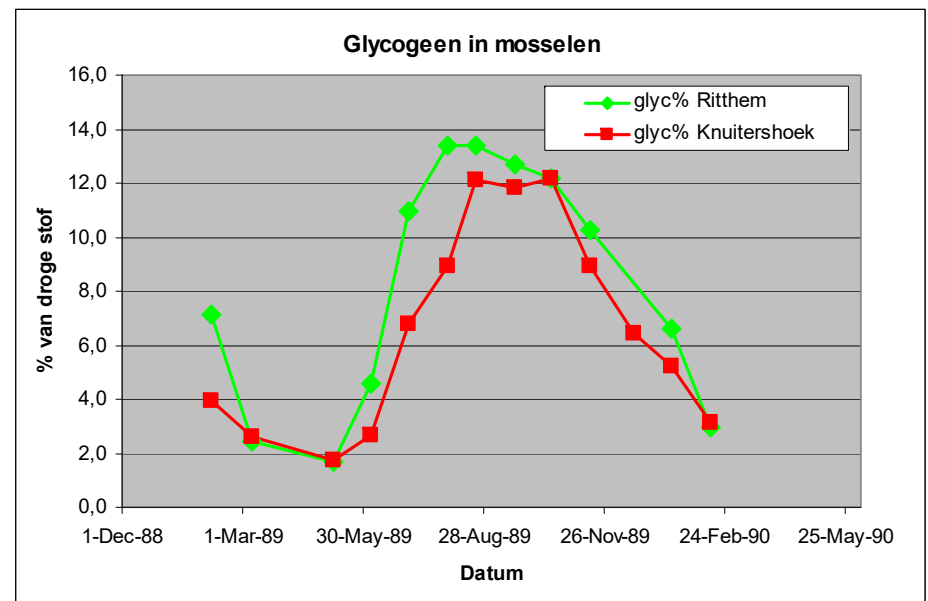
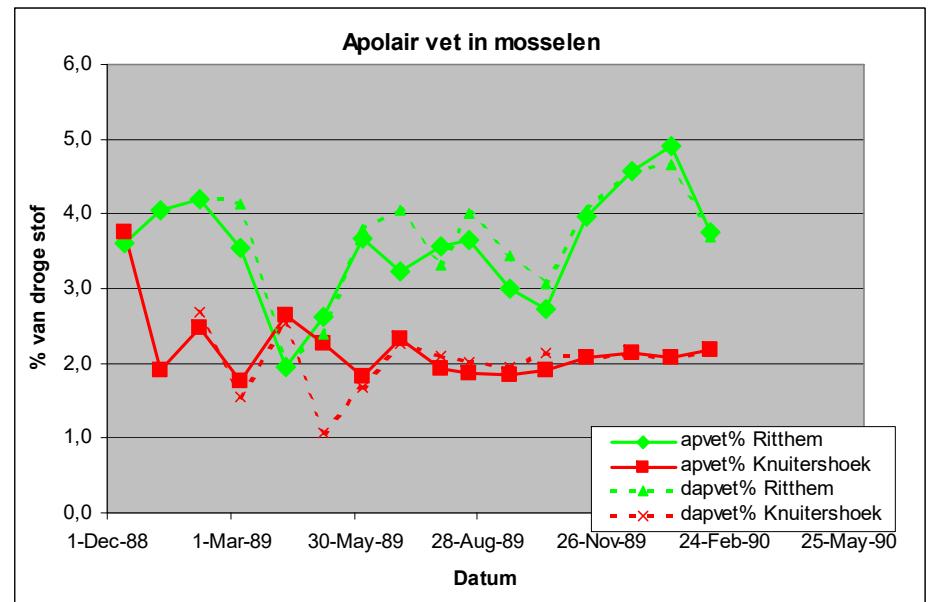
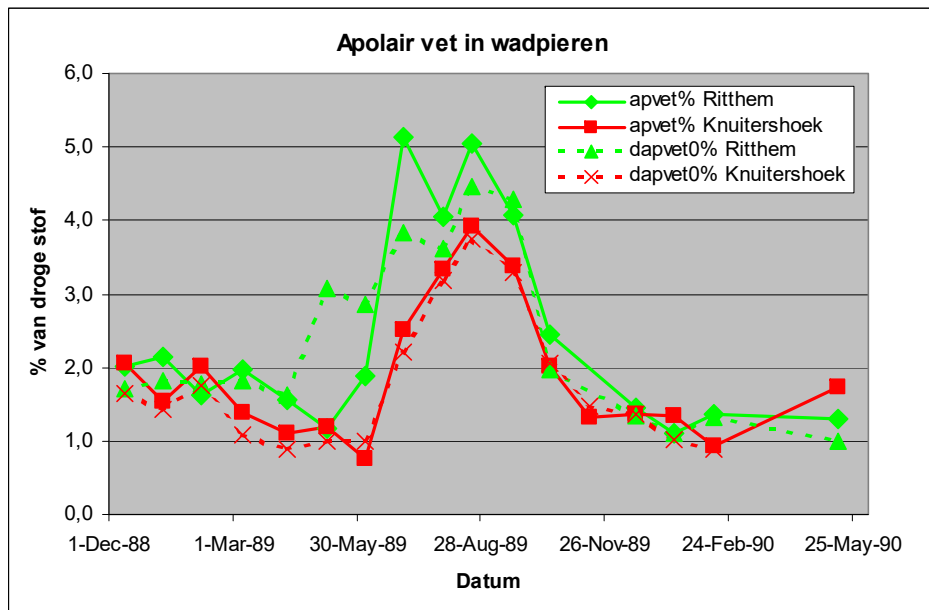


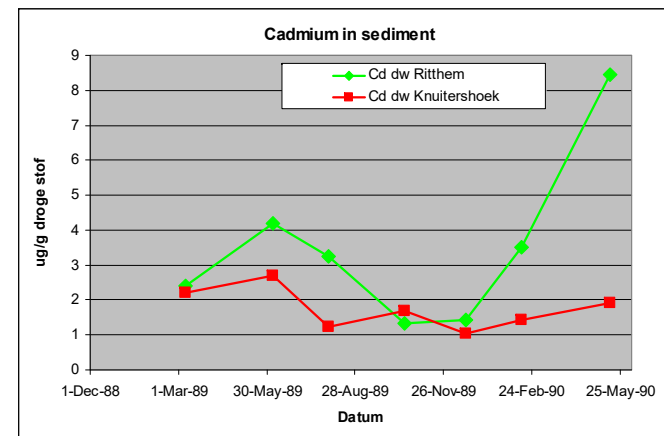
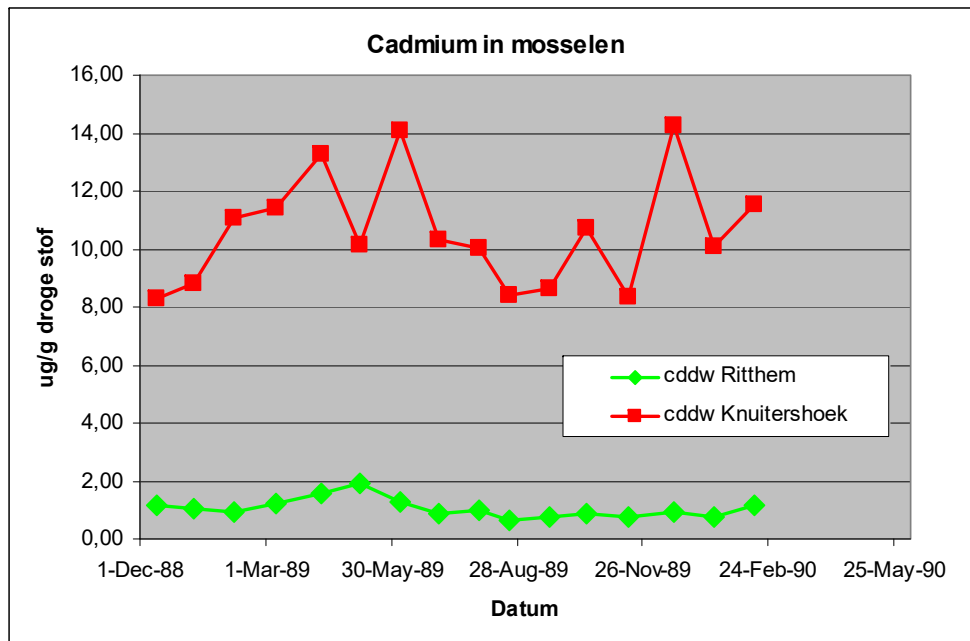
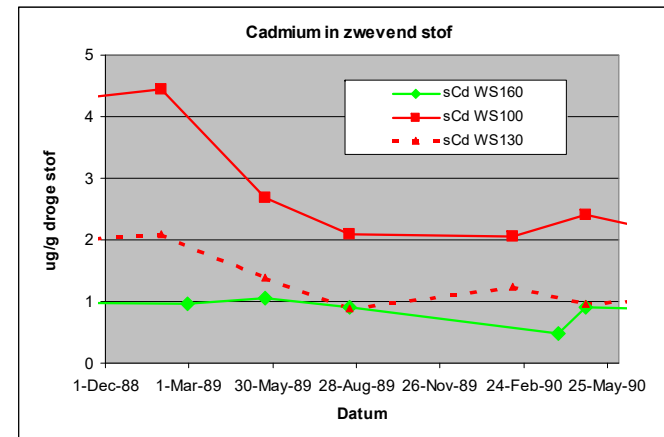
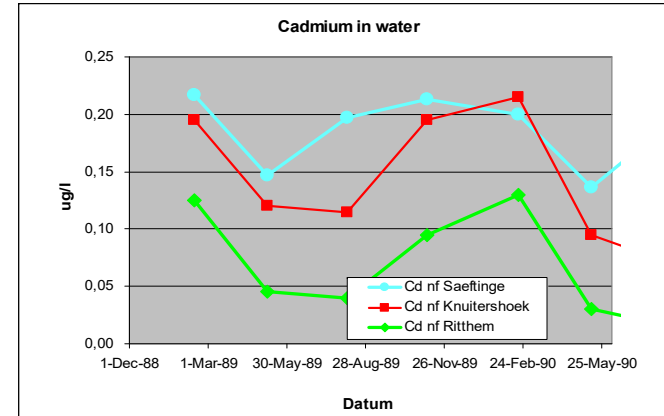
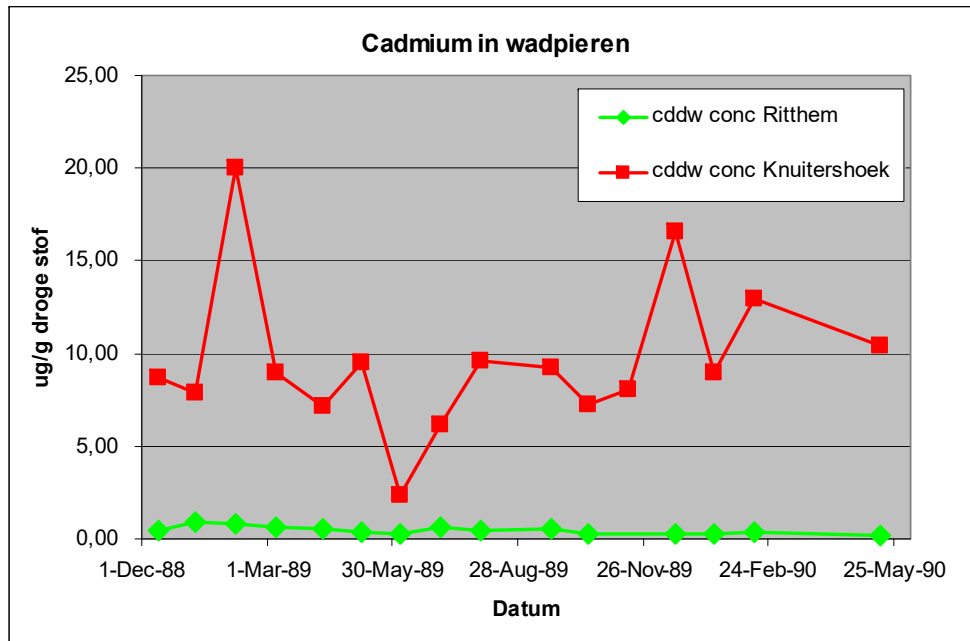
Zwevend stof in water

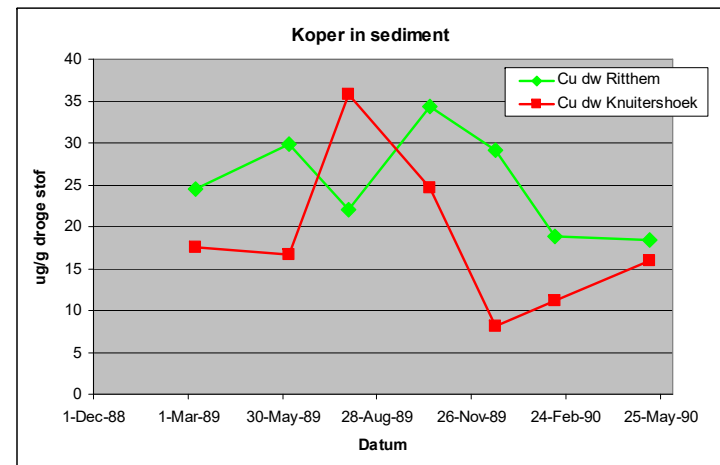
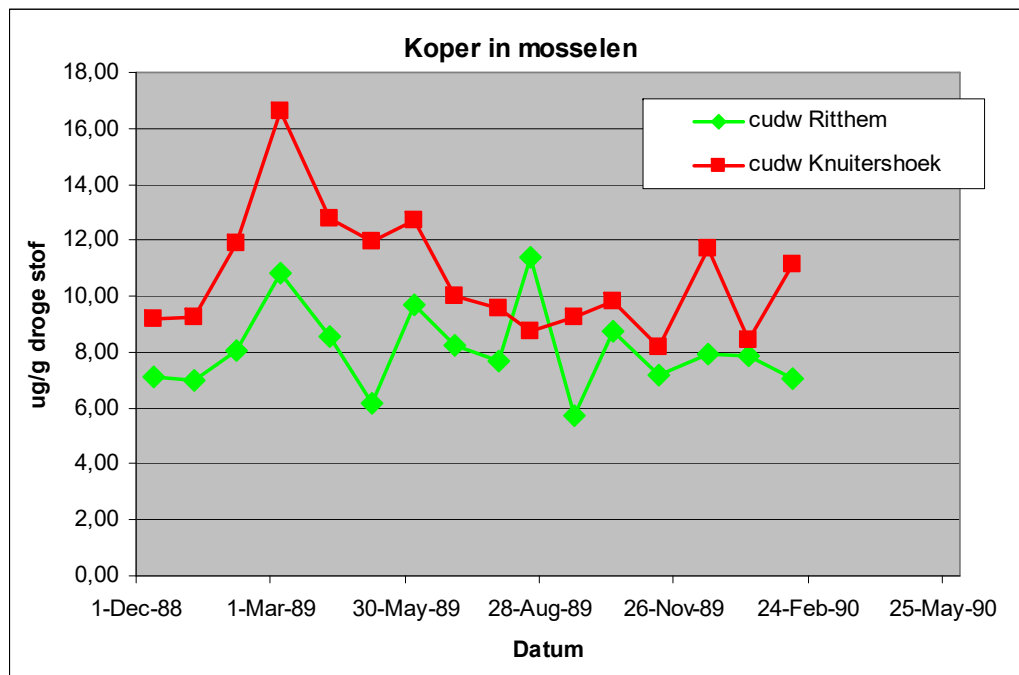
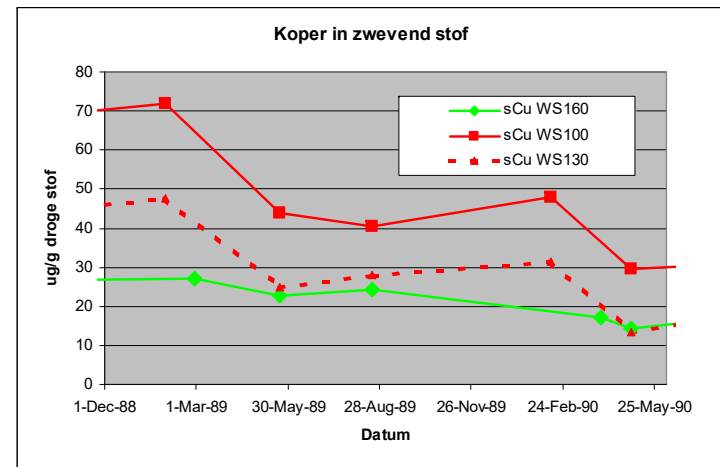
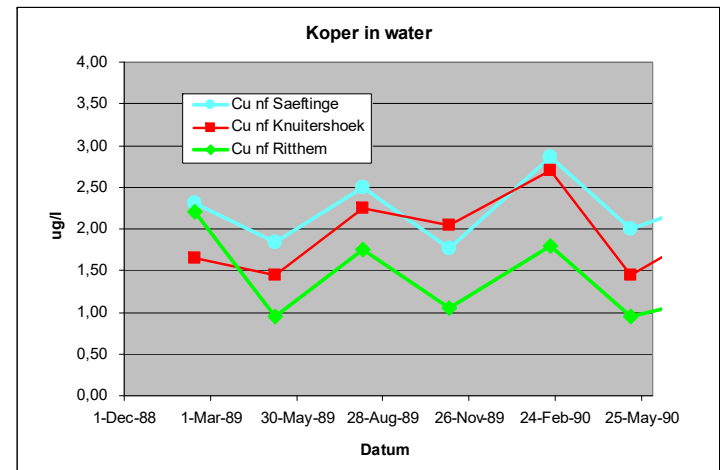
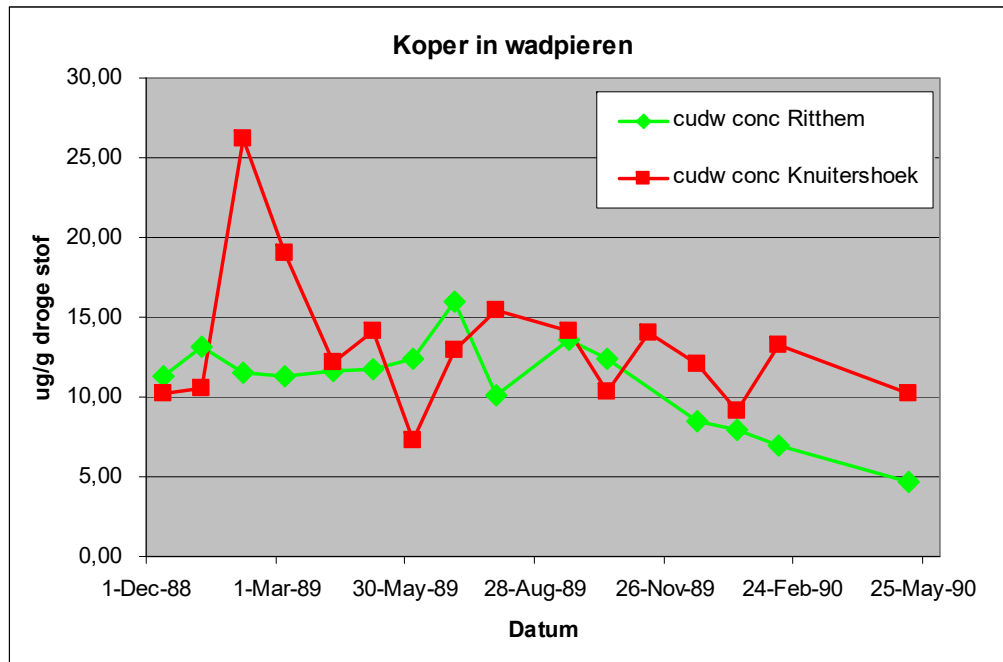


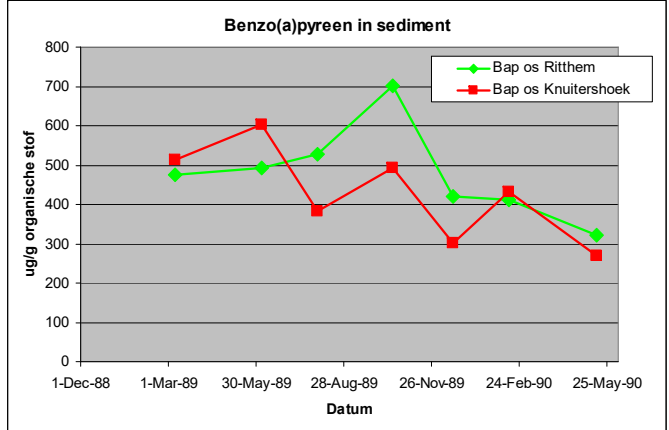
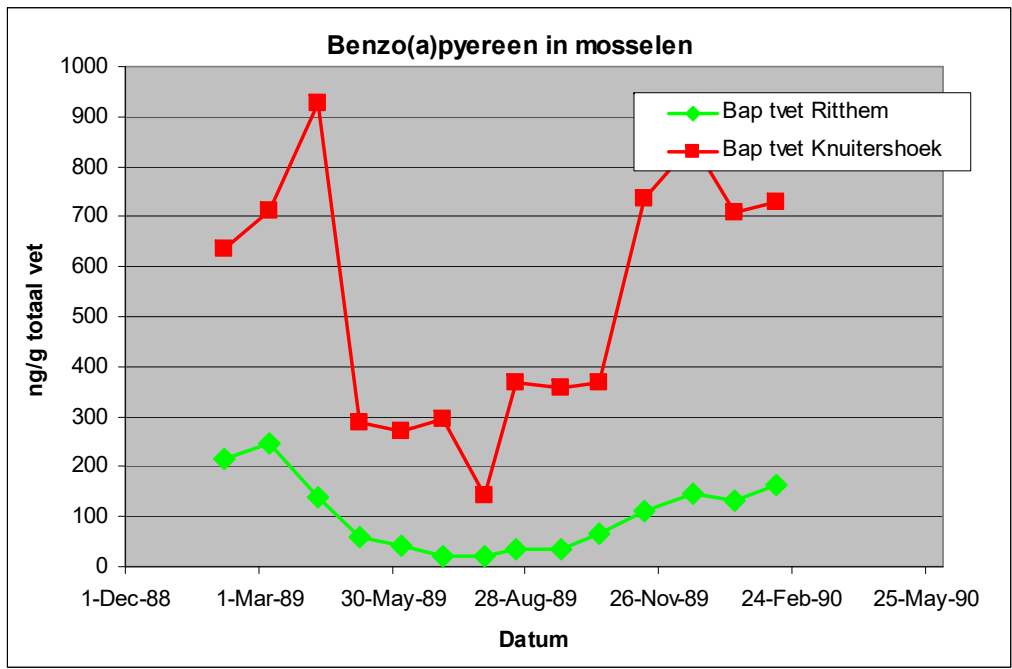
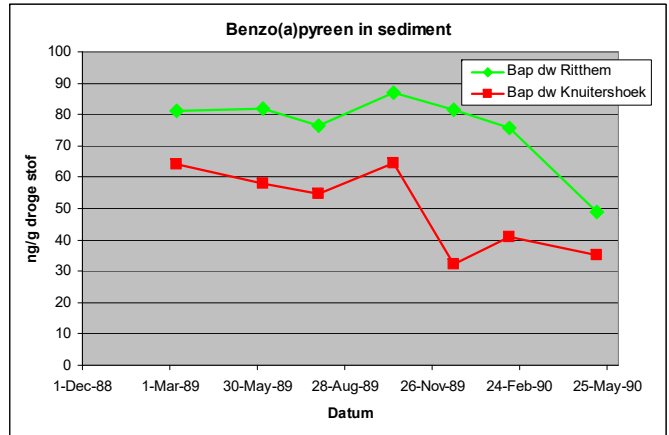
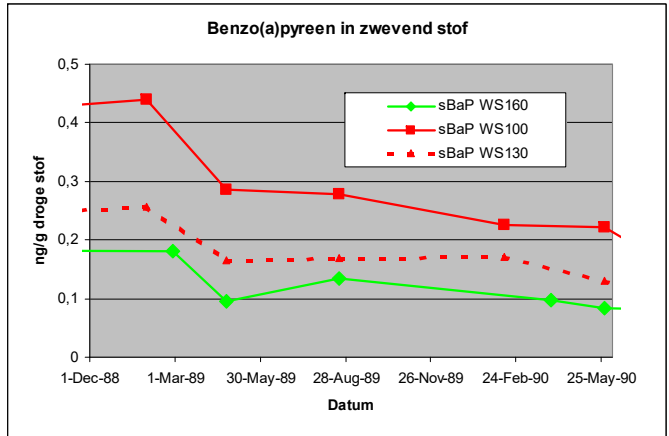
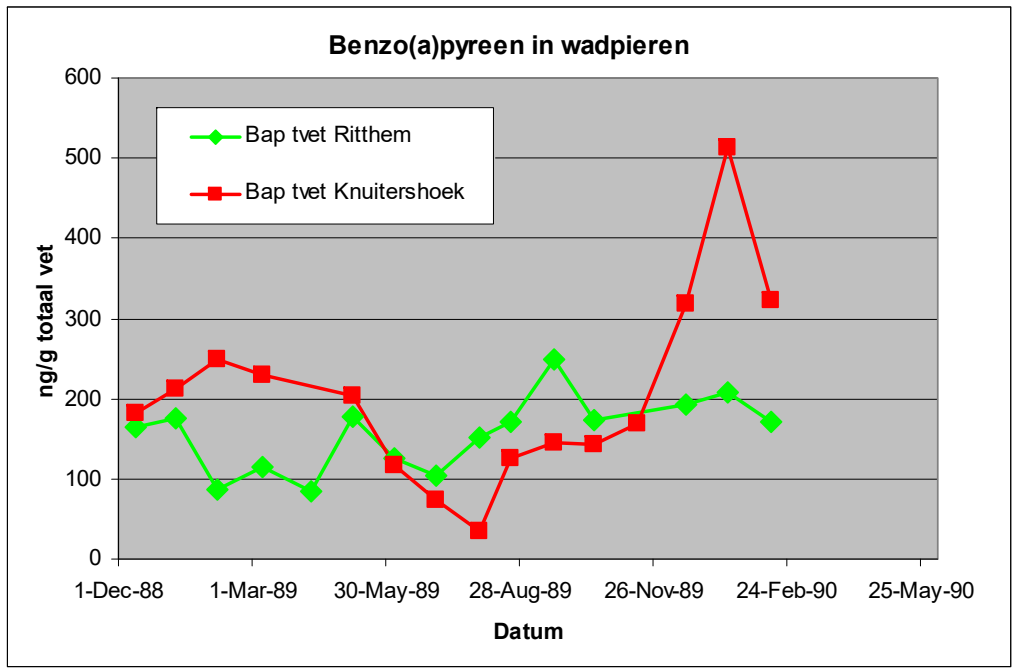
POC in water

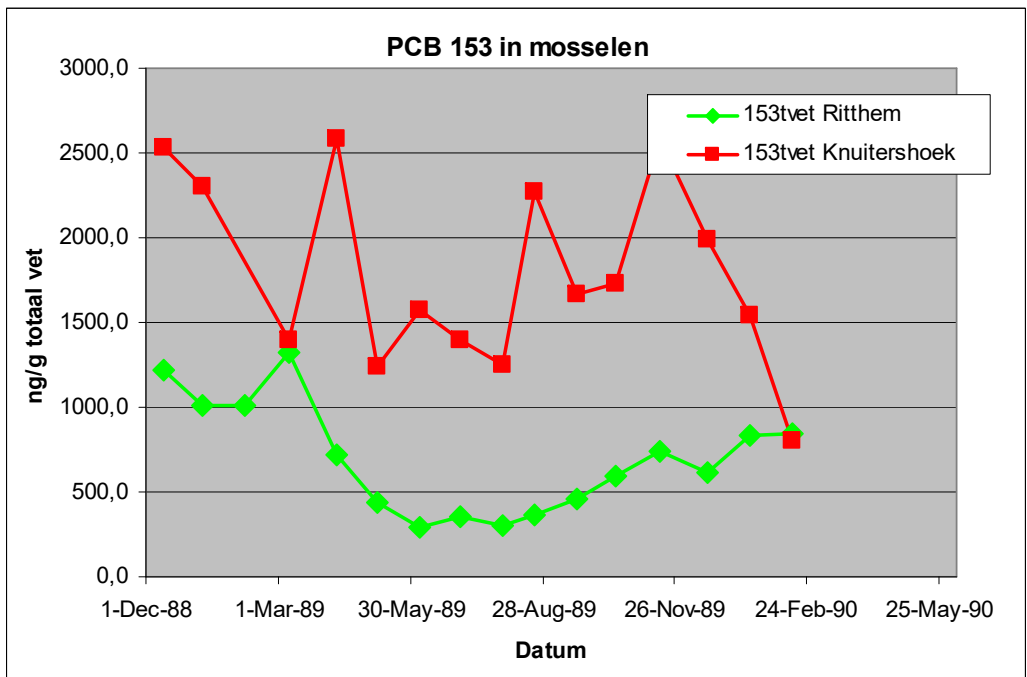
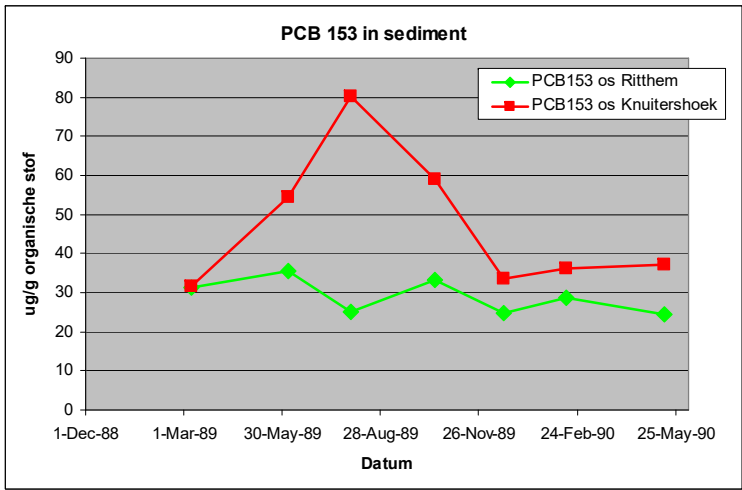
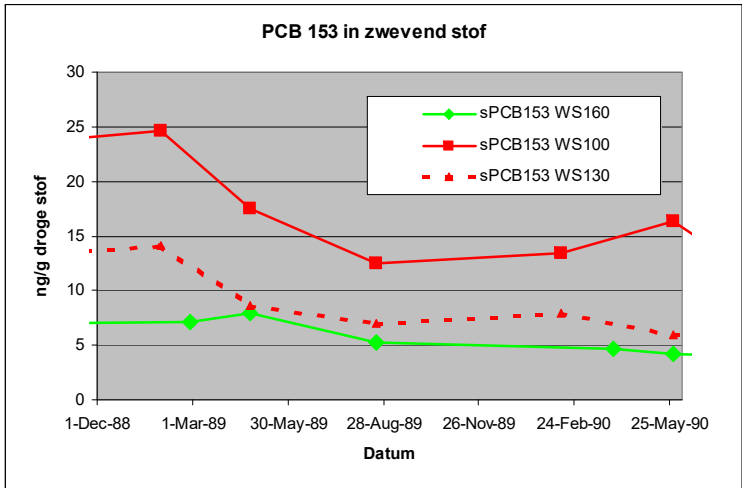
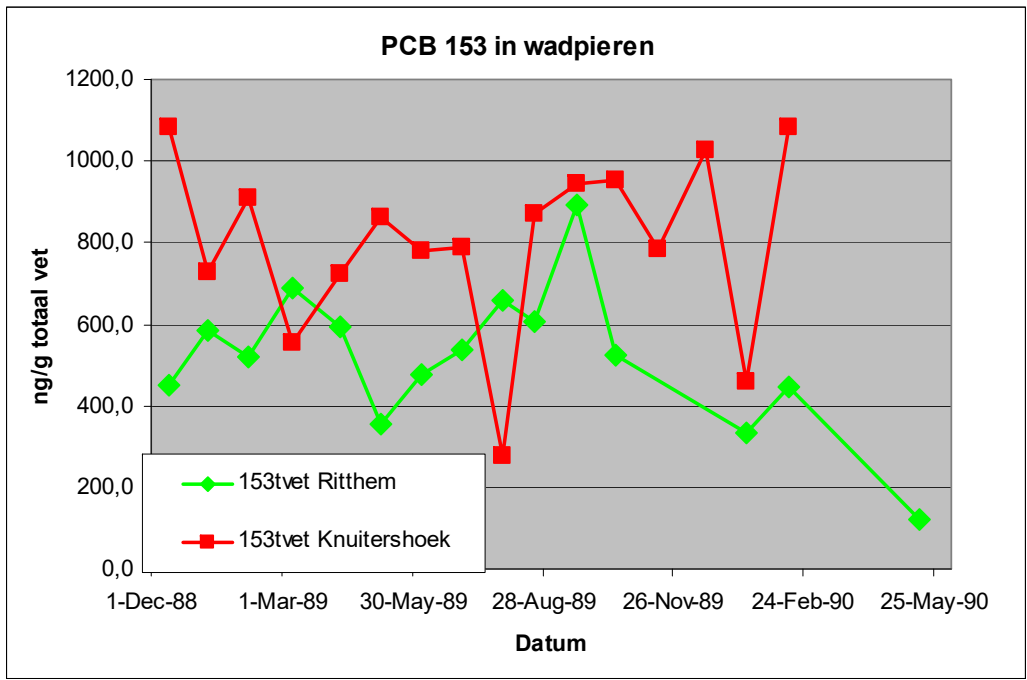








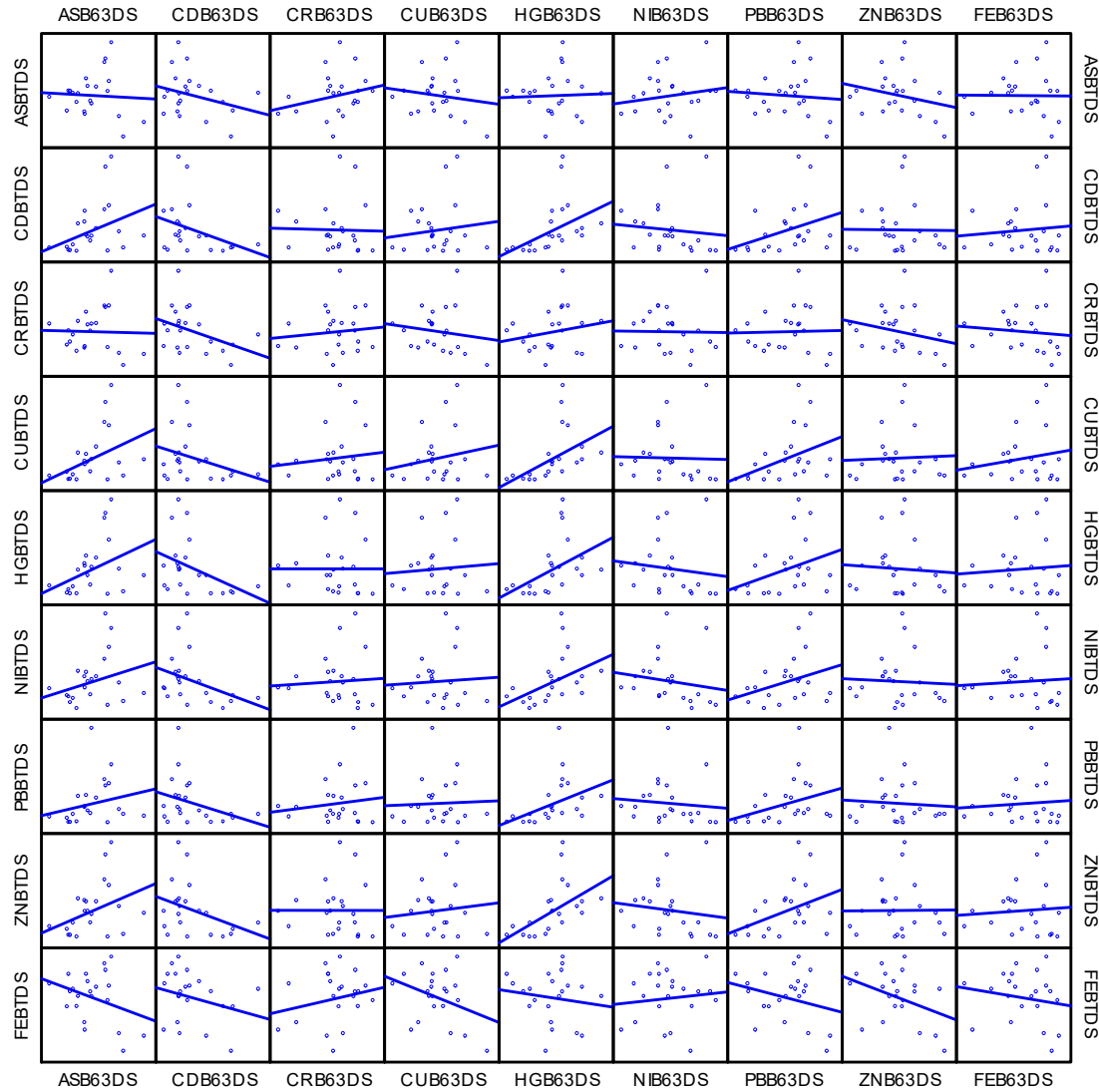




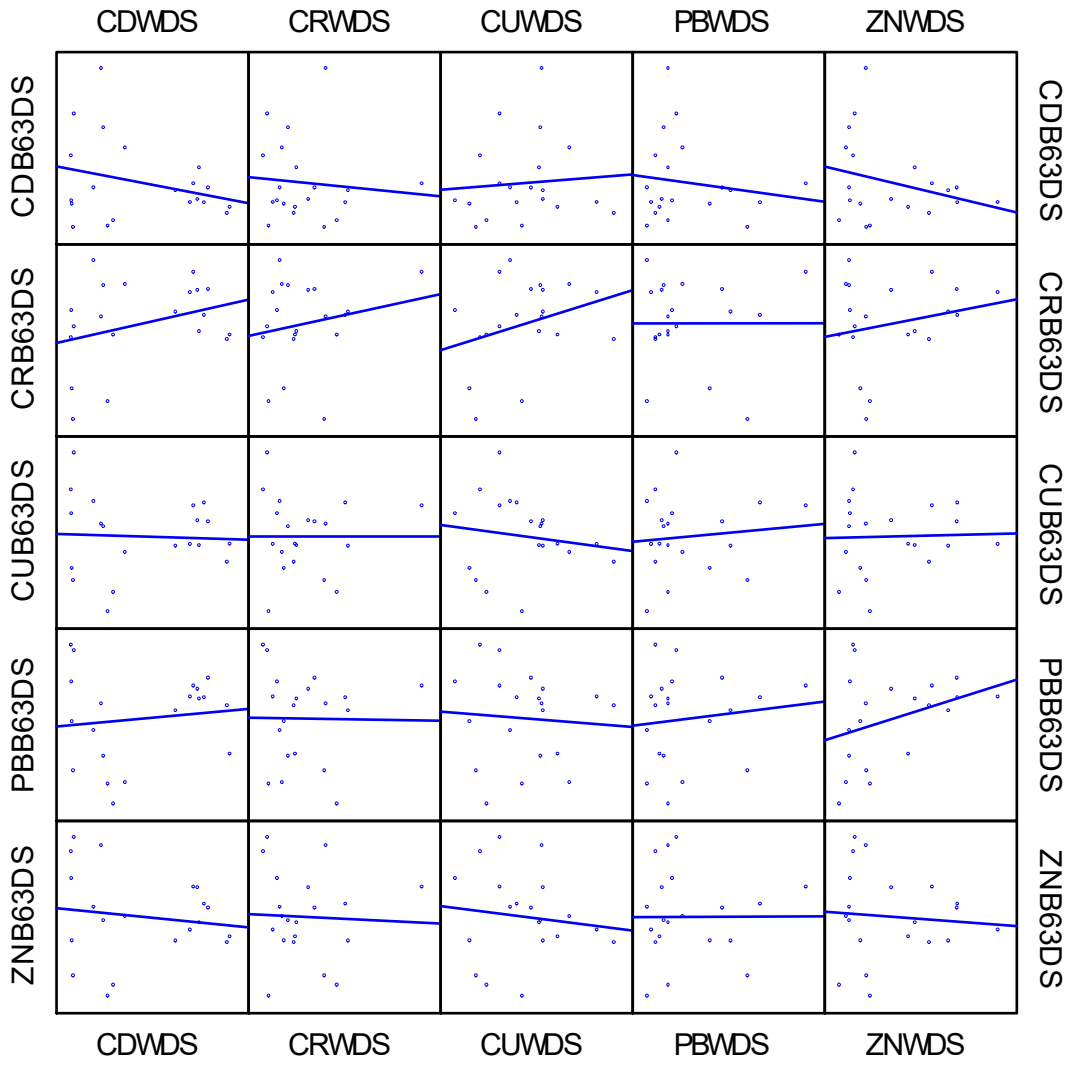
Aanvullend onderzoek

- 17 locaties
- relatie bodem (bovenste cm) en wadpier
- metalen + PAK's
- Oosterschelde + Westerschelde

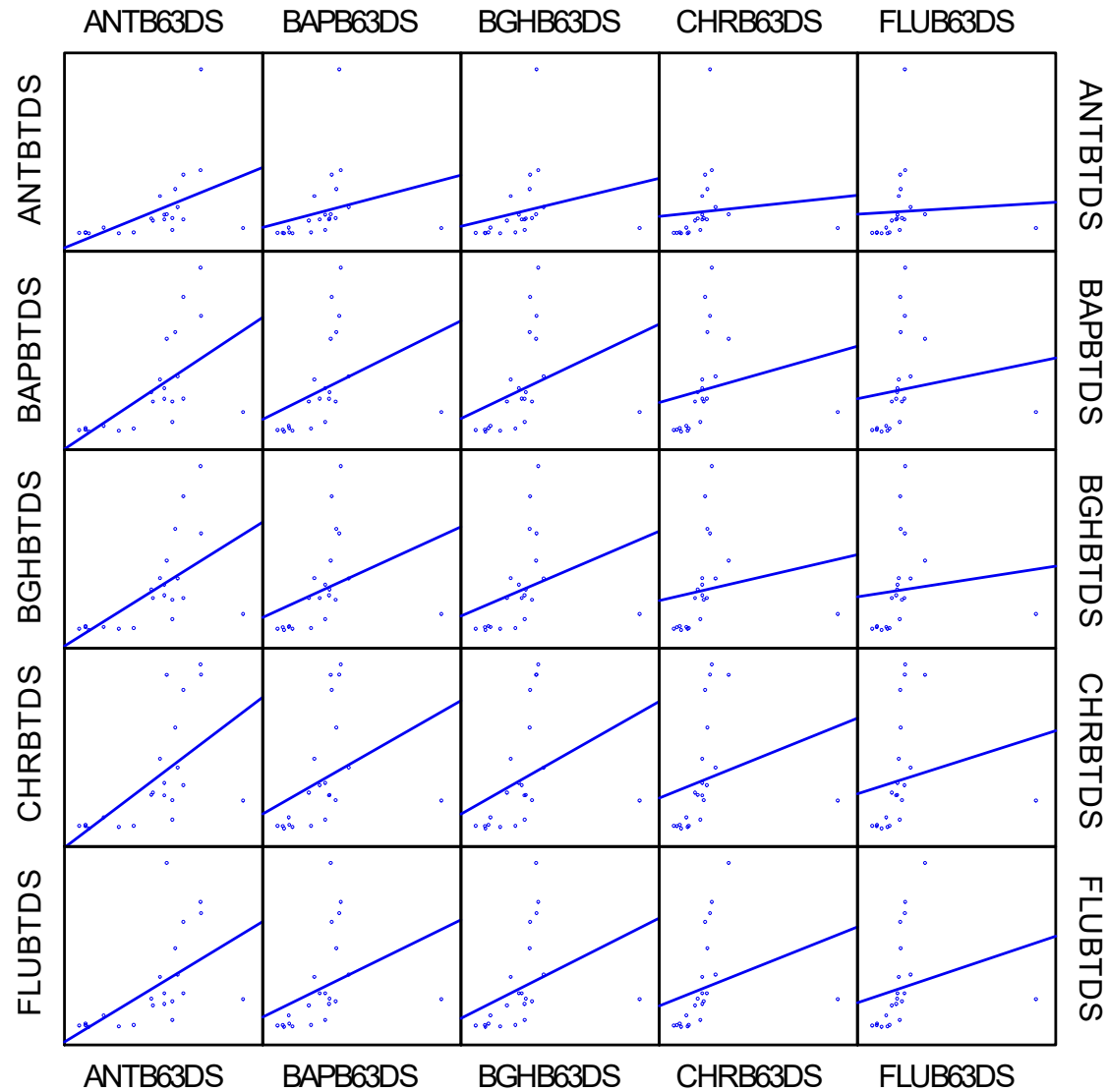
Metalen in bodem totaal en 63 um-fractie



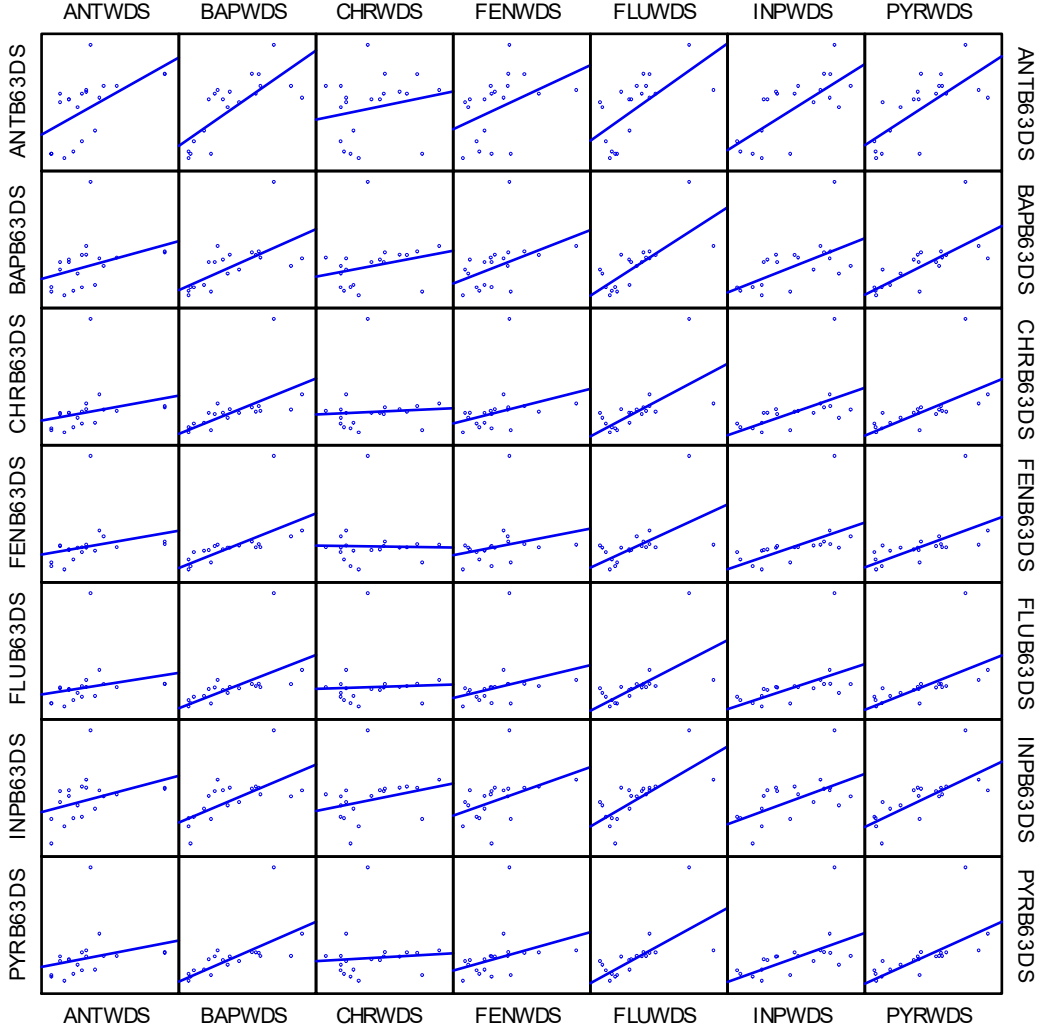
Metalen Wadpier en 63 um-fractie



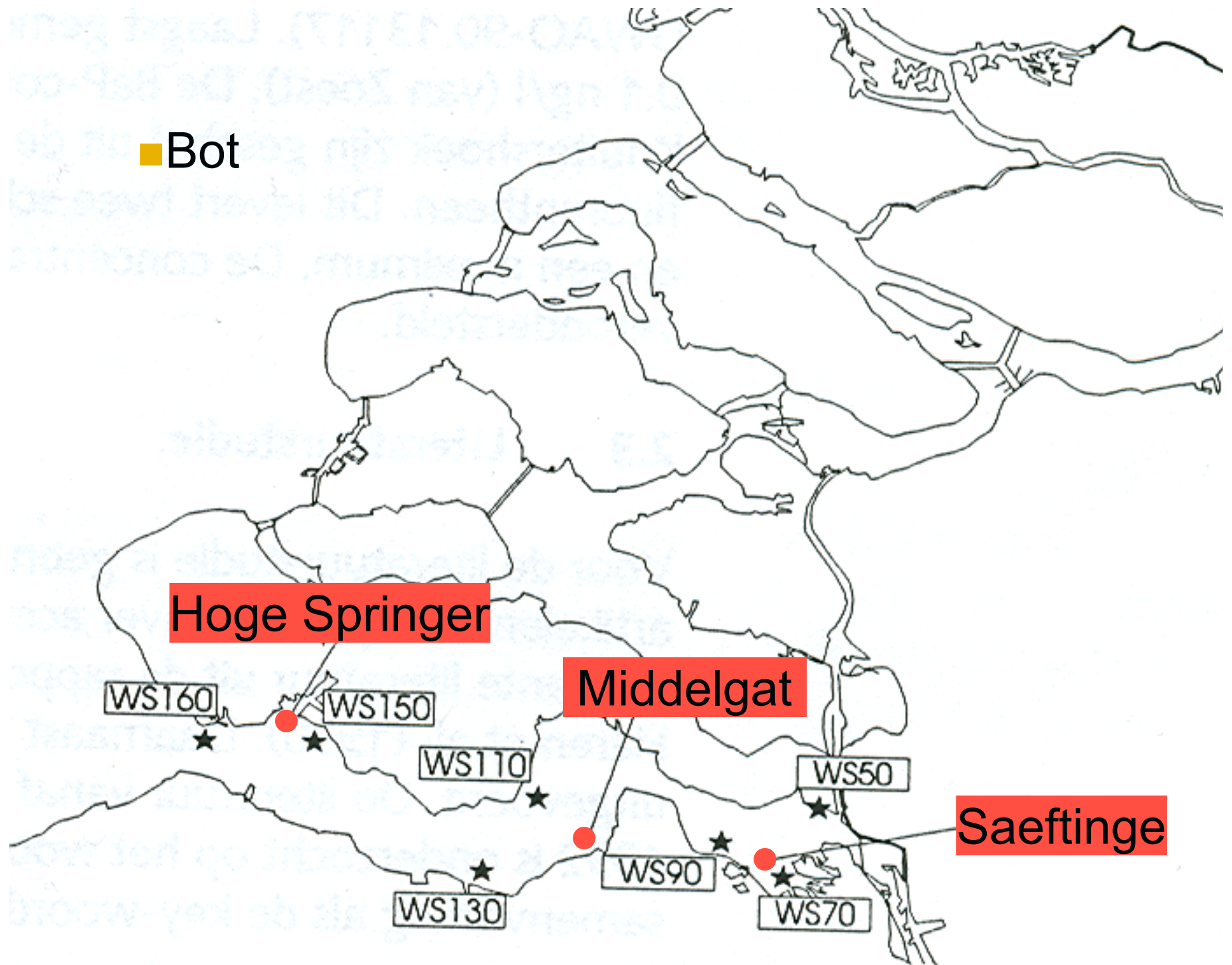
PAK's in bodem totaal en 63 um-fractie



PAK's Wadpier en 63 um-fractie



■ Bot

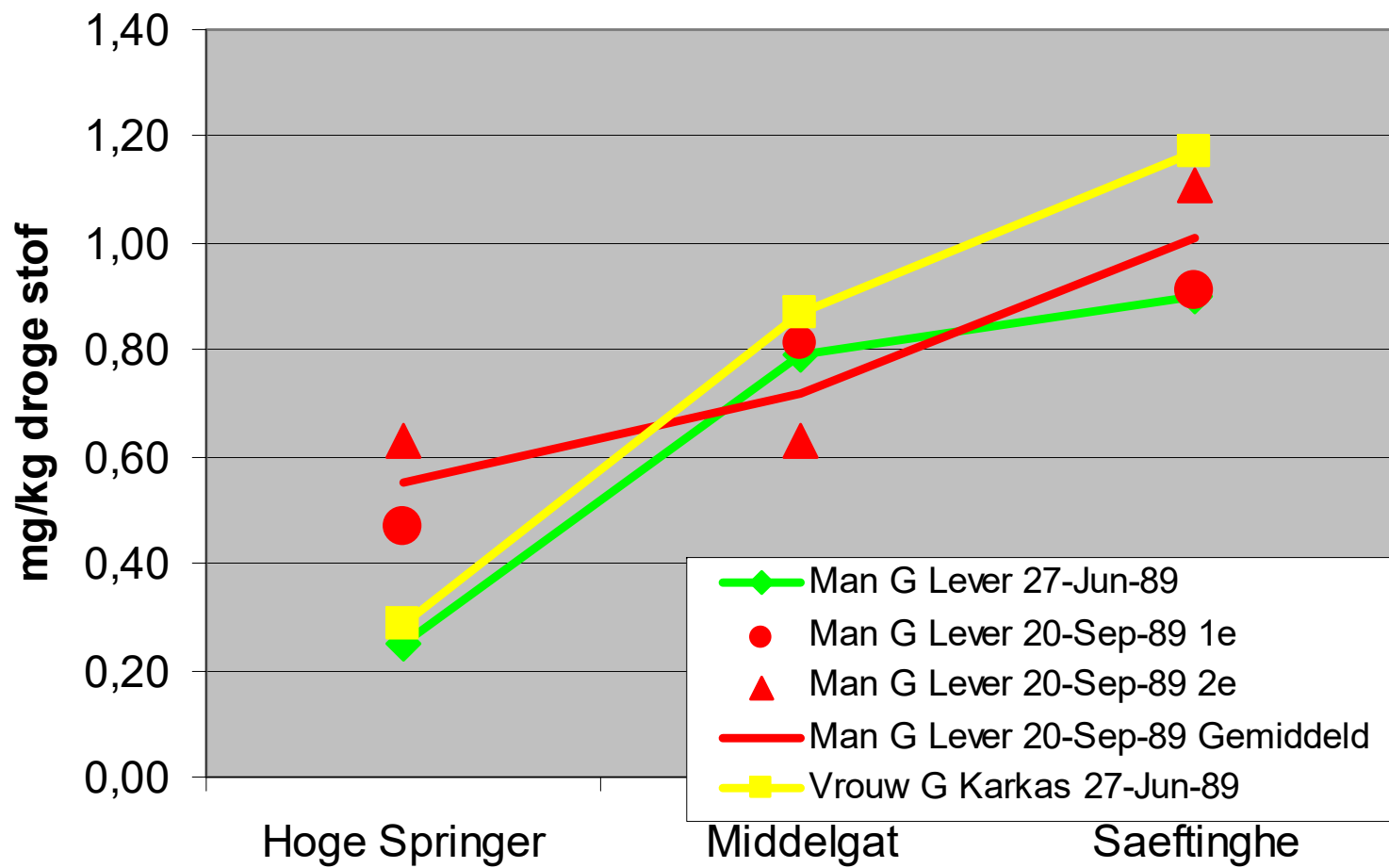


Veldonderzoek botten:

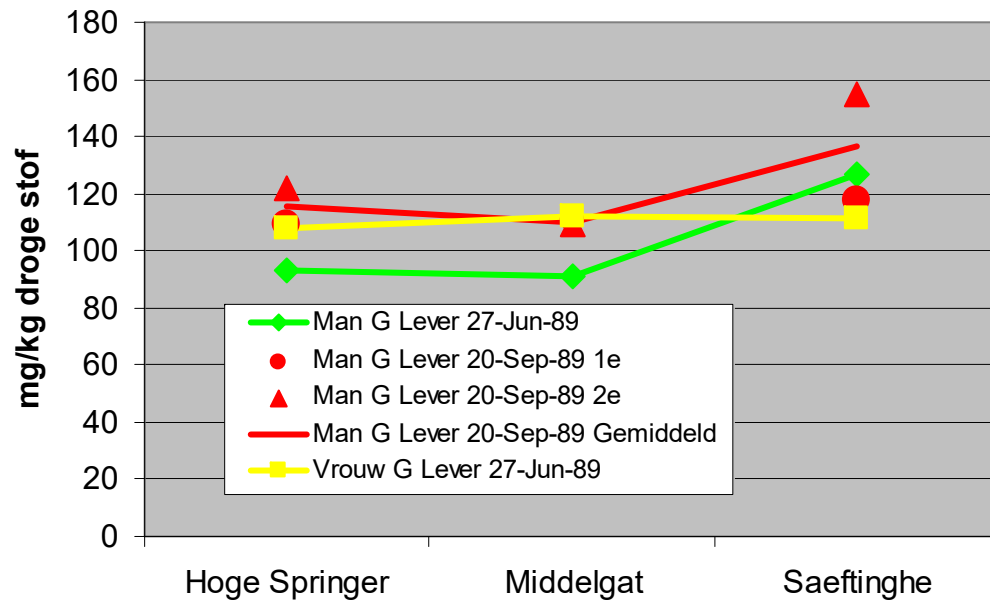
- 3 locaties
- man + vrouw
- iedere drie maanden – 6 x
- volwassen + juveniel
- karkas, lever, gonaden (kieuw, nier)

- 10 botten per monster (in duplo)
- 4 metalen, 13 PAK's, 13 PCB's

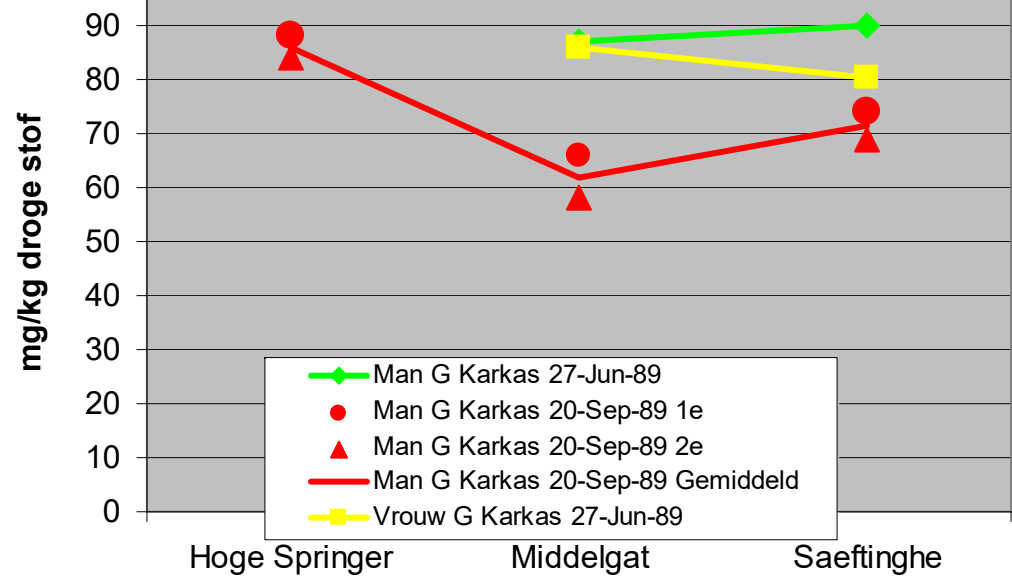
Cadmium in lever



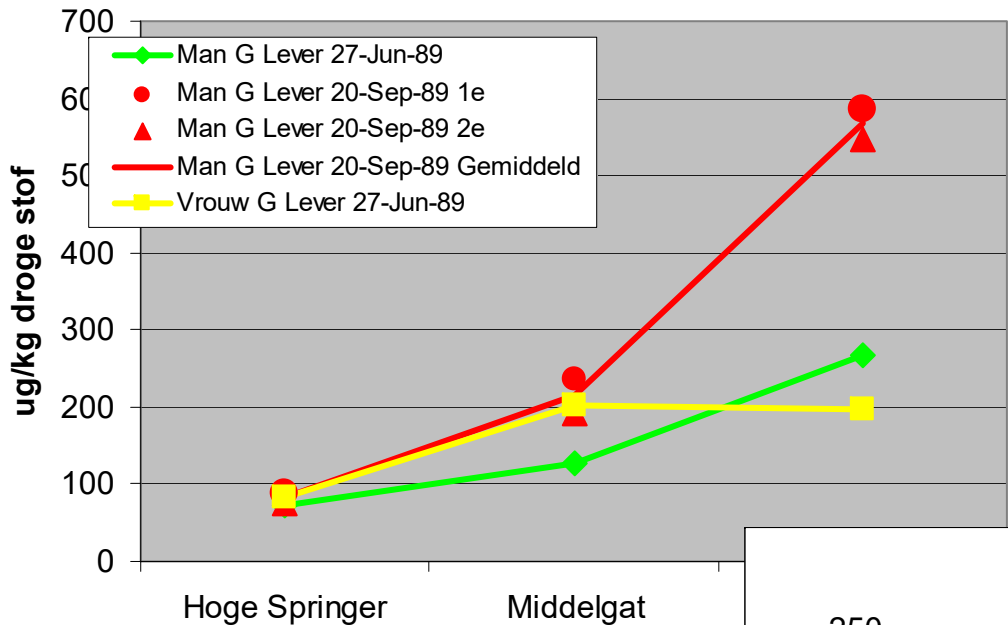
Zink in lever



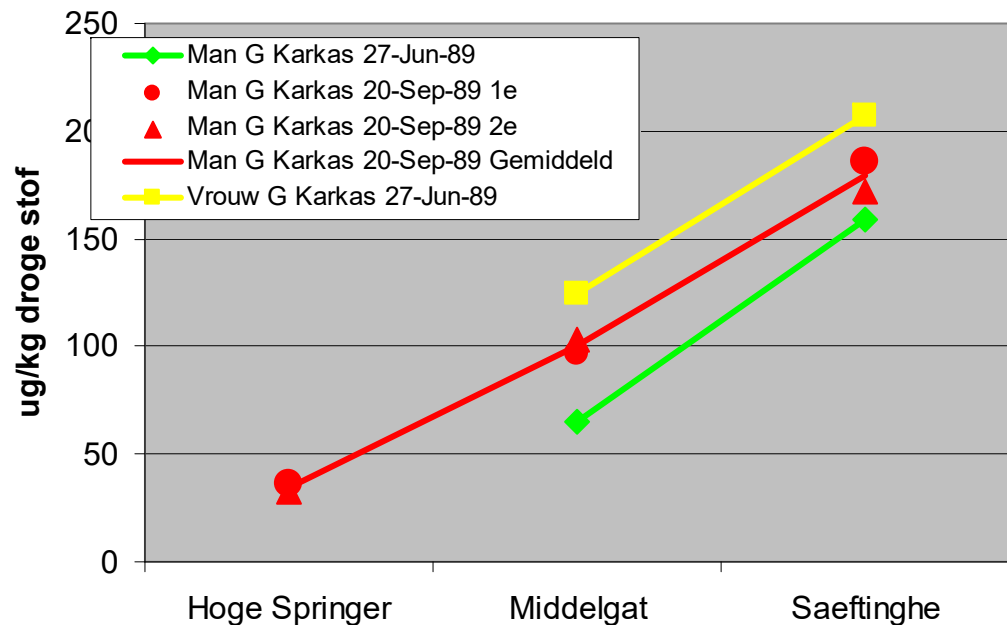
Zink in karkas



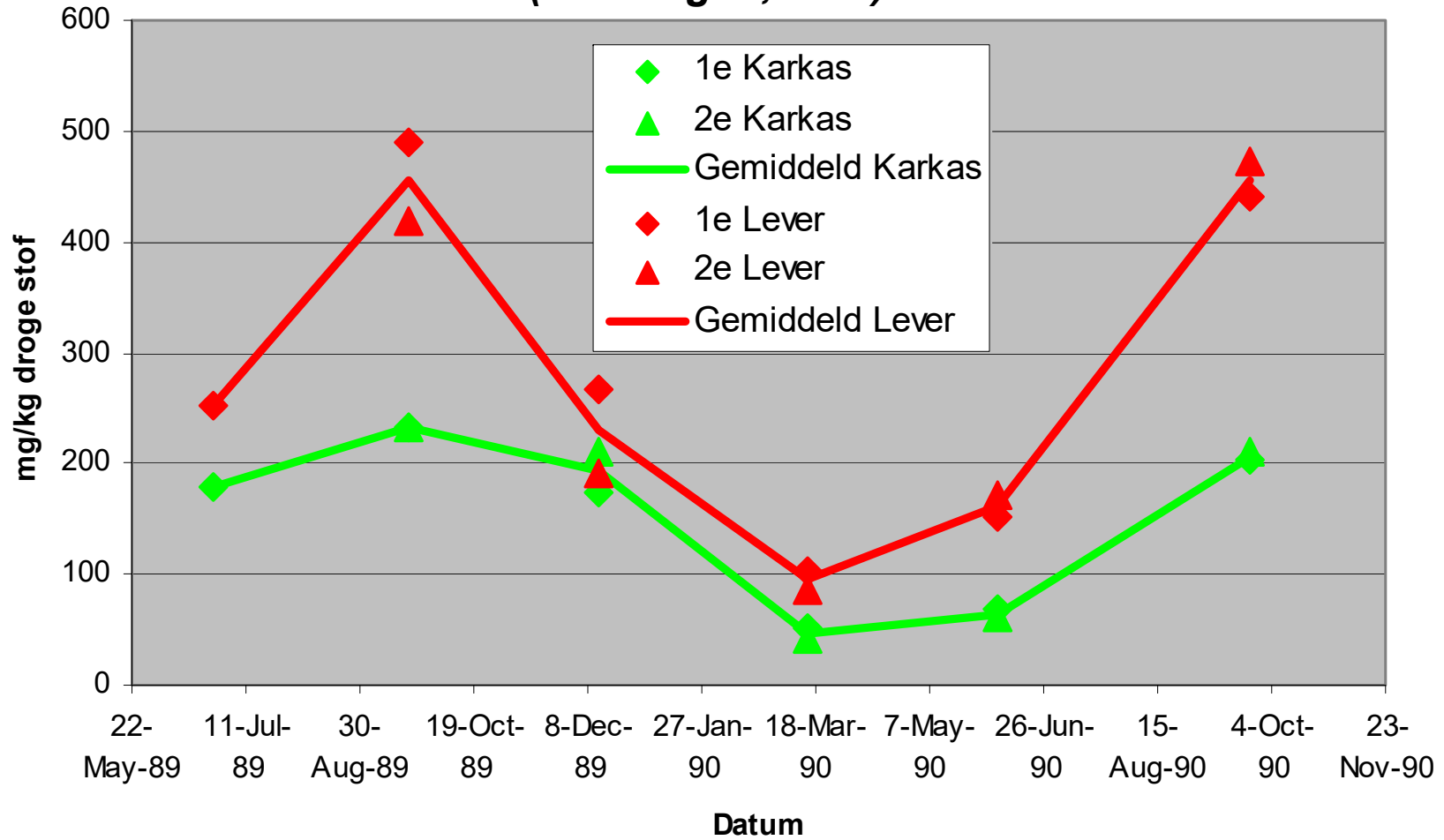
PCB 52 in lever



PCB 52 in karkas

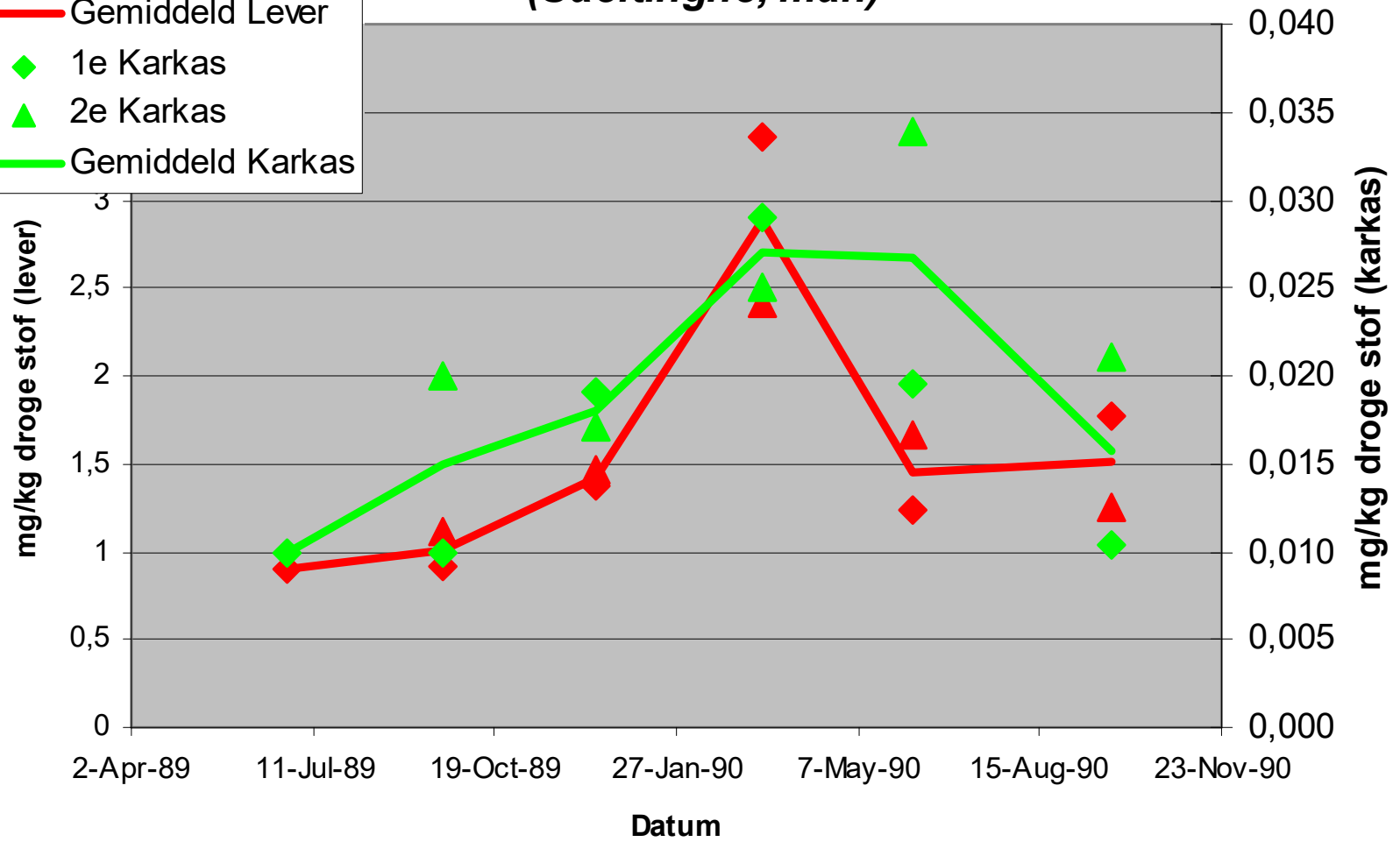


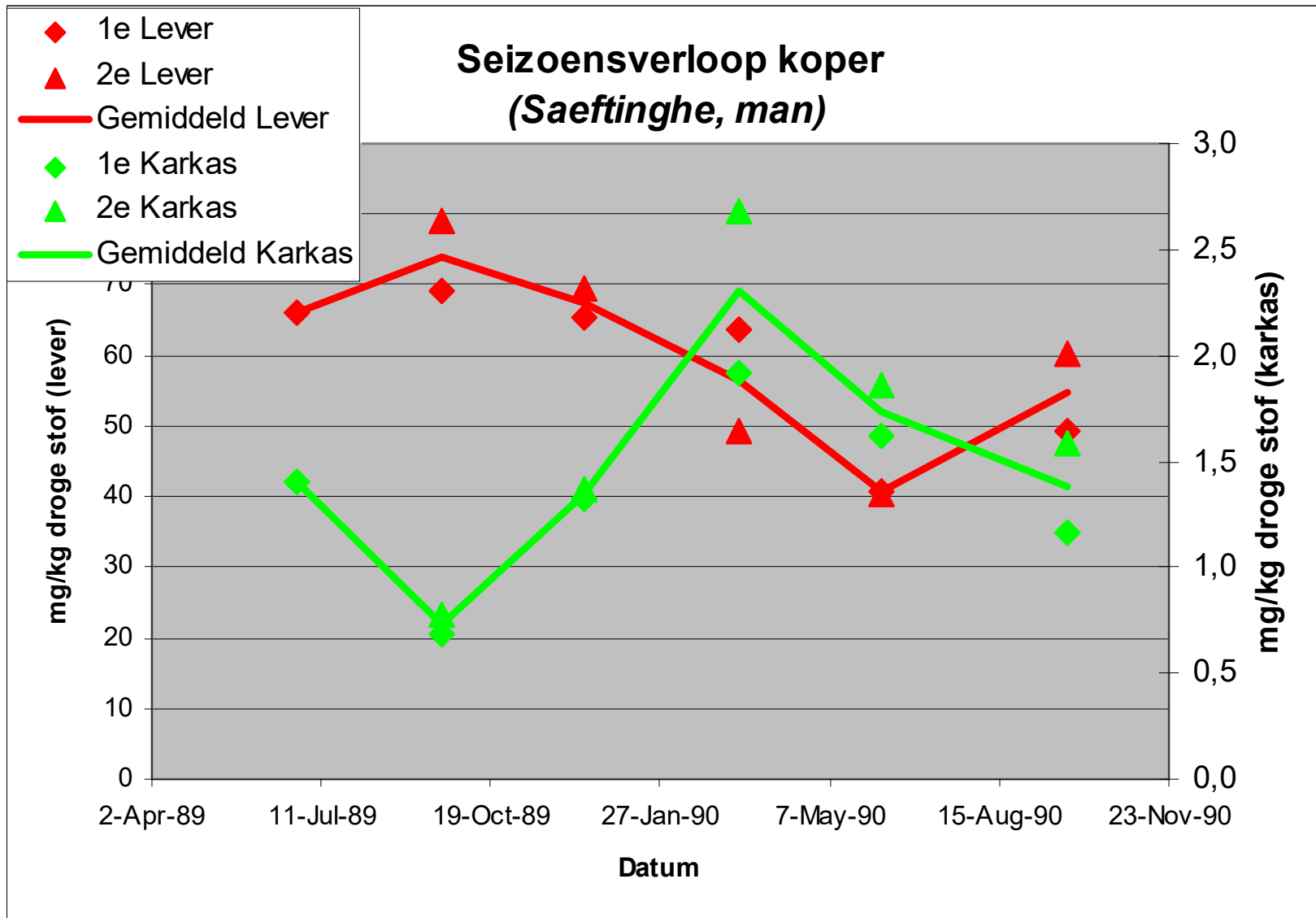
Seizoensverloop a-polair vet (*Saeftinghe, man*)



Seizoensverloop cadmium (Saeftinghe, man)

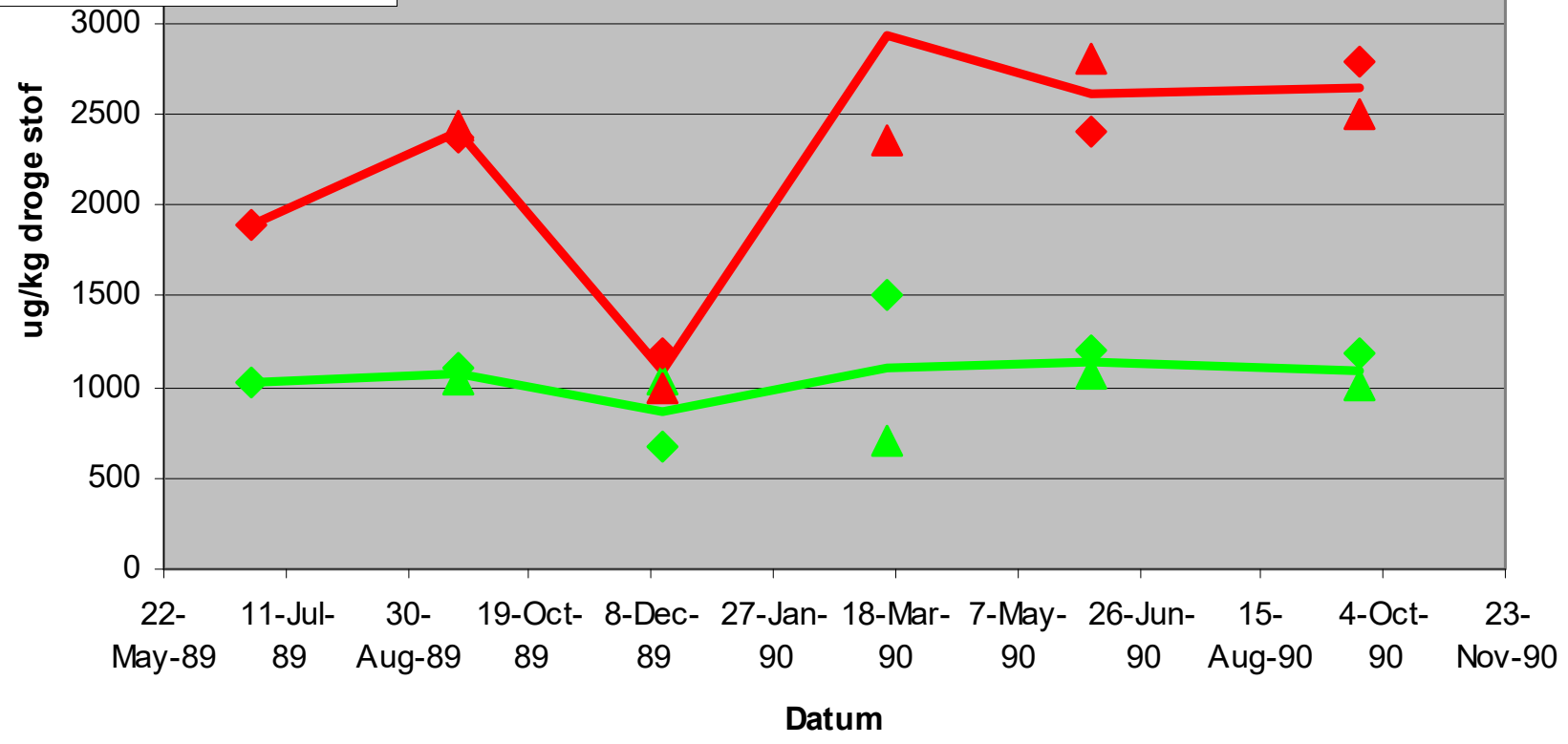
- ◆ 1e Lever
- ▲ 2e Lever
- Gemiddeld Lever
- ◆ 1e Karkas
- ▲ 2e Karkas
- Gemiddeld Karkas



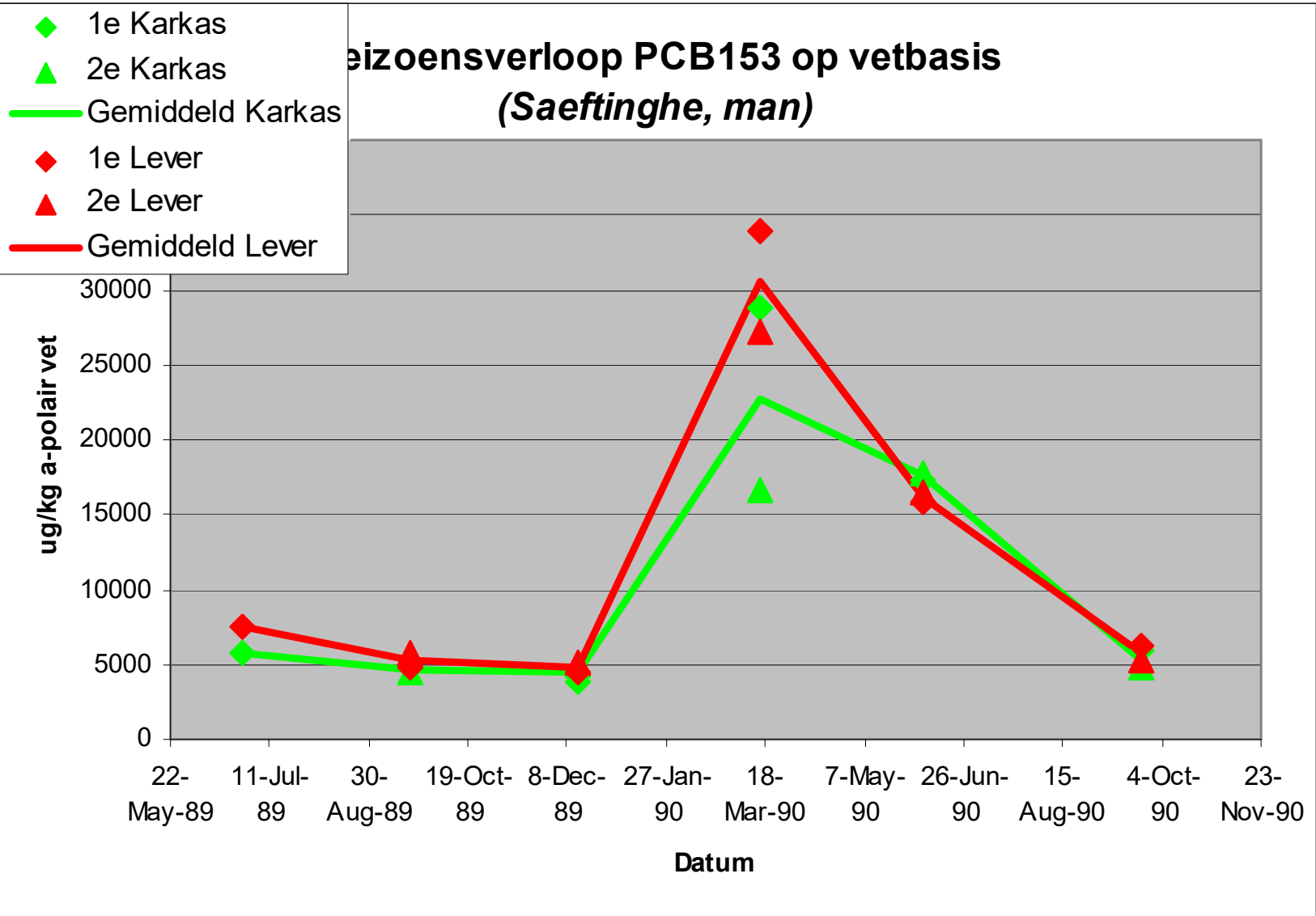


Seizoensverloop PCB153 (Saeftinghe, man)

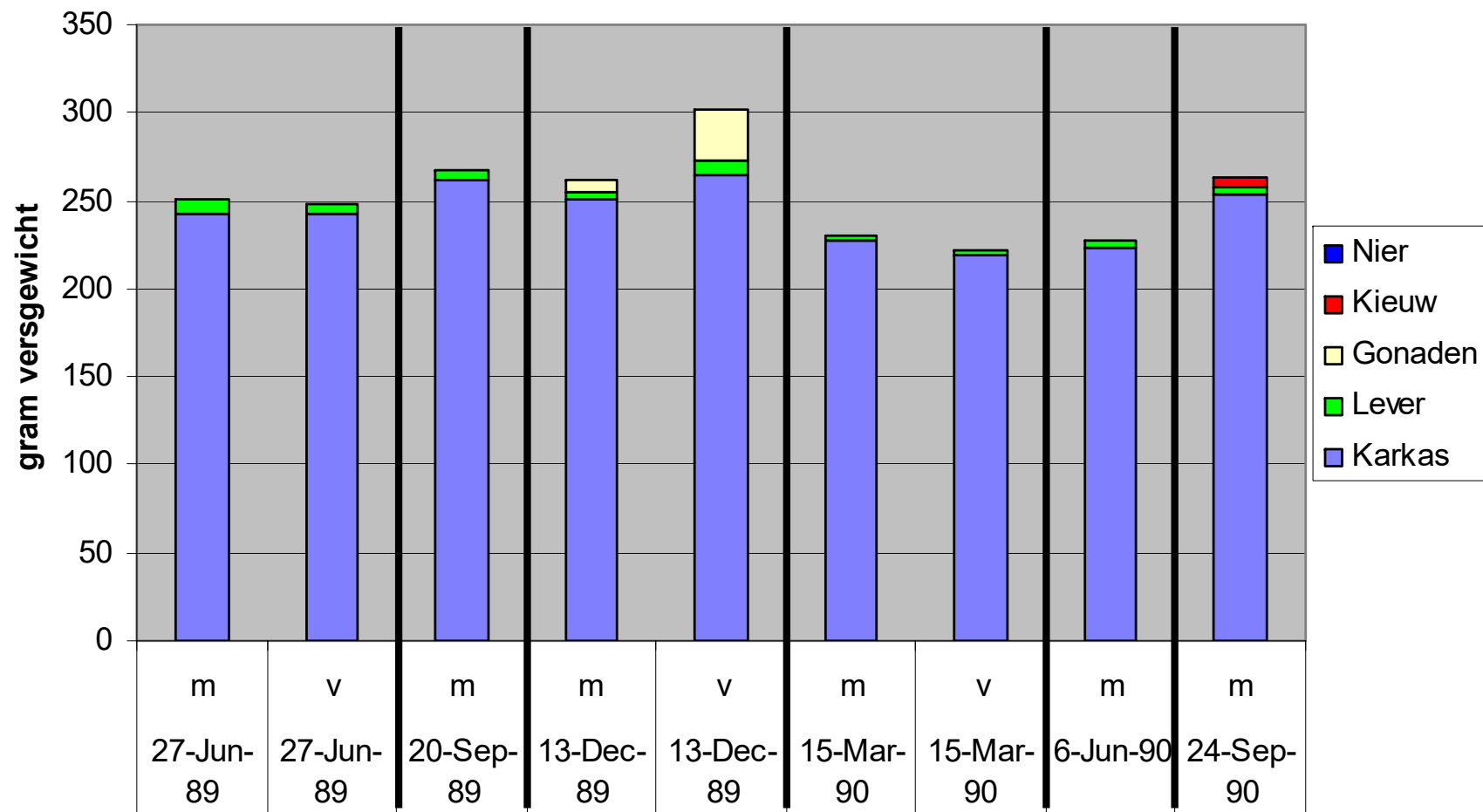
- ◆ 1e Karkas
- ▲ 2e Karkas
- Gemiddeld Karkas
- ◆ 1e Lever
- ▲ 2e Lever
- Gemiddeld Lever



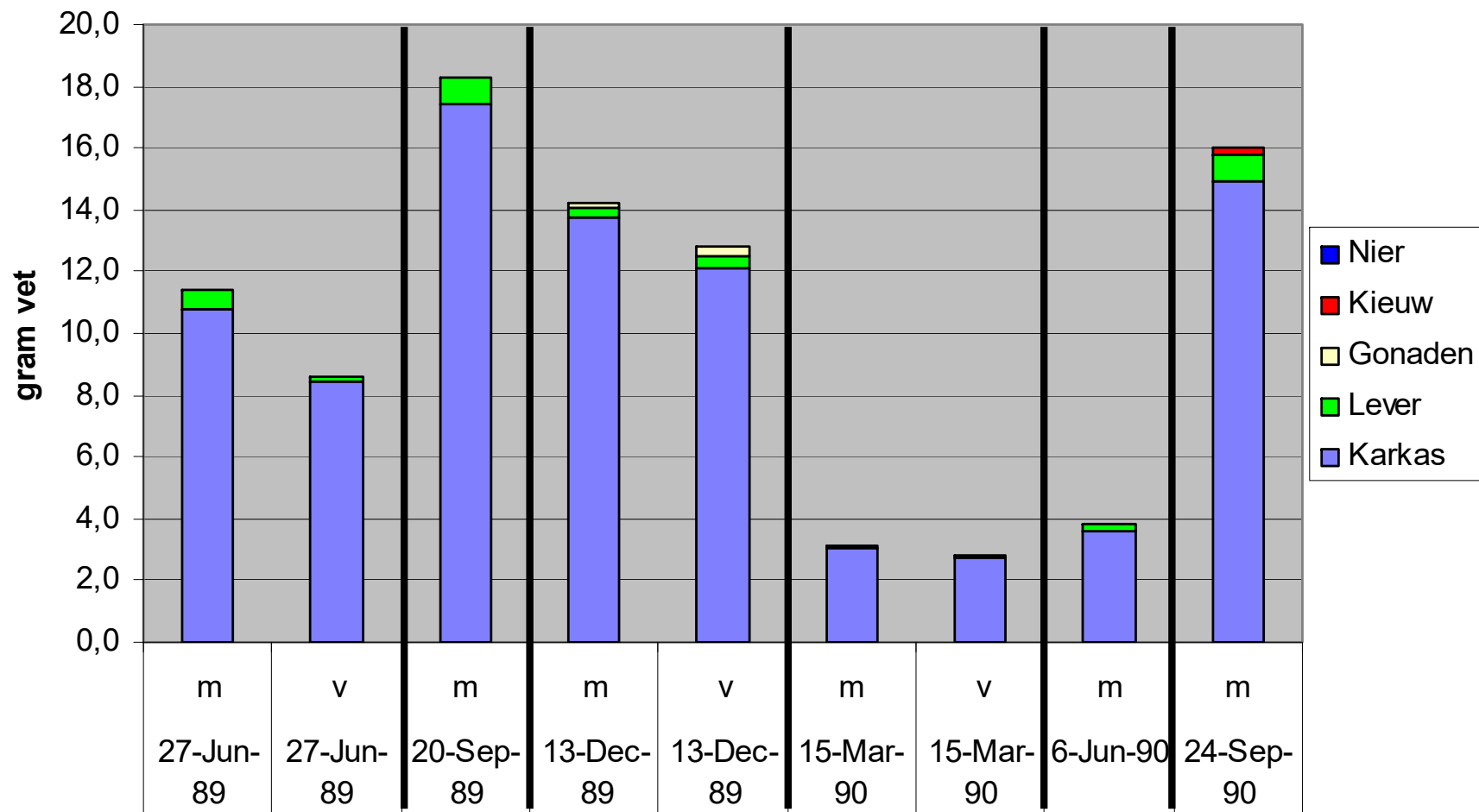
Seizoensverloop PCB153 op vetbasis (Saeftinghe, man)



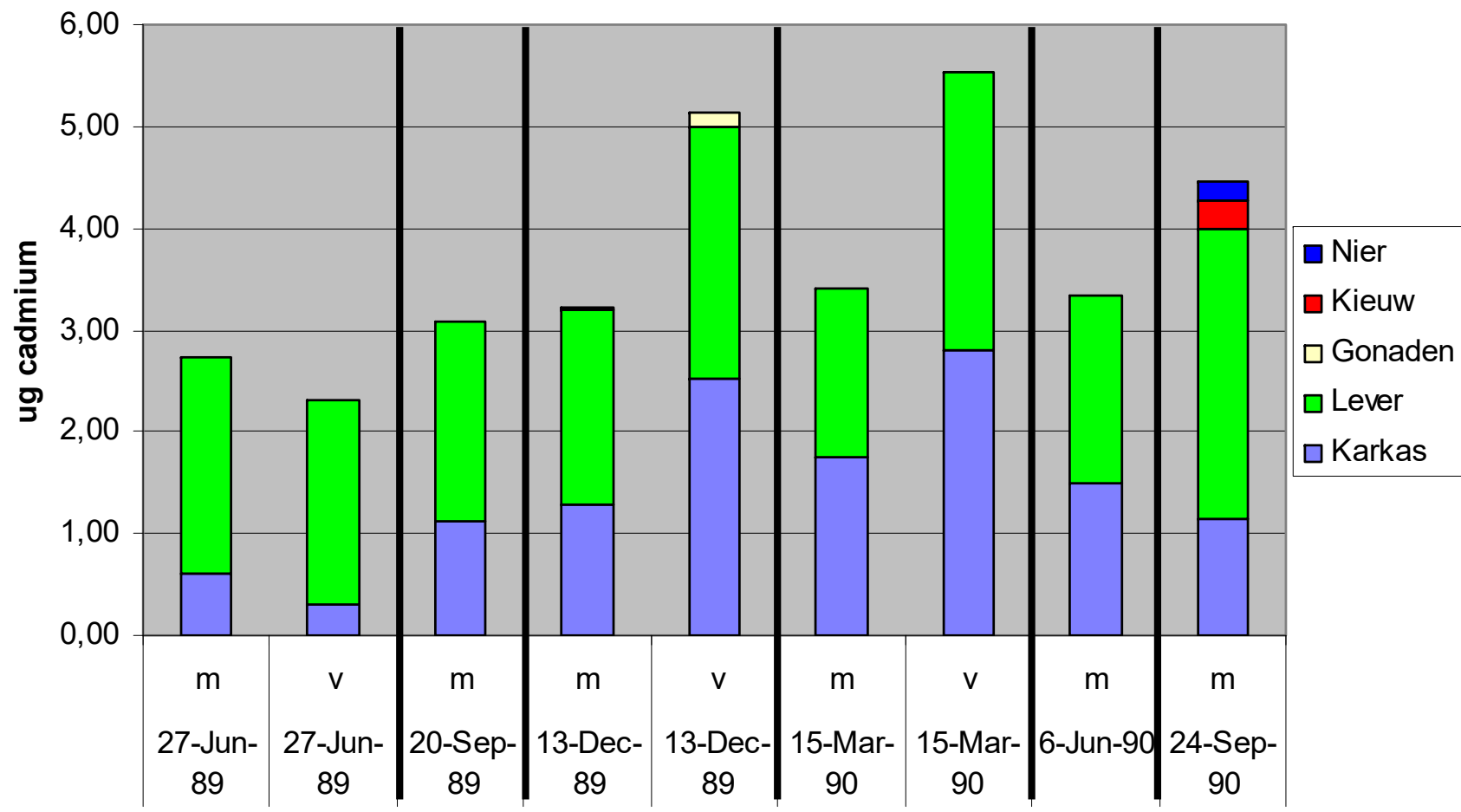
Versgewicht botten (*Saeftinge*)



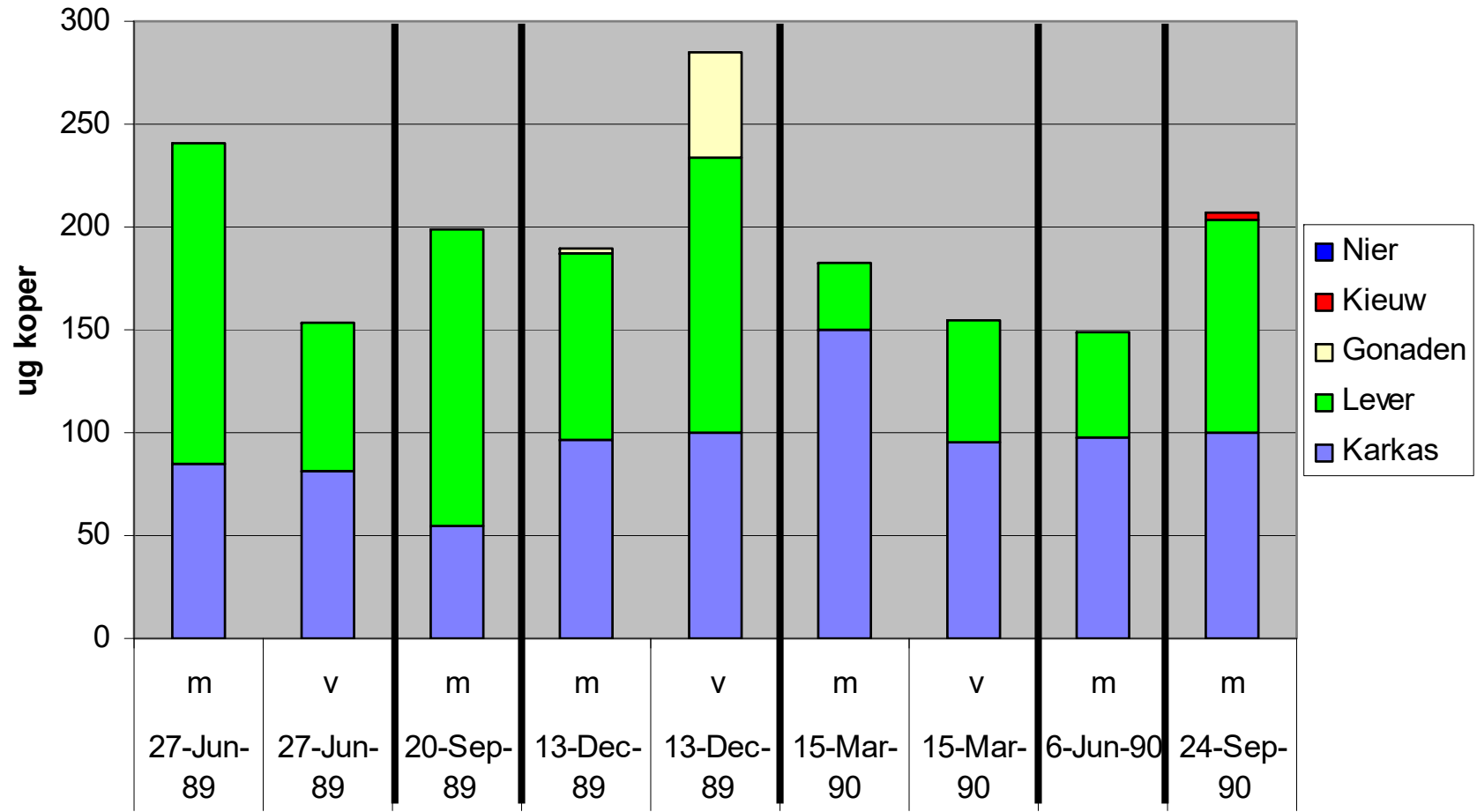
Apolair vet botten (Saeftinge)



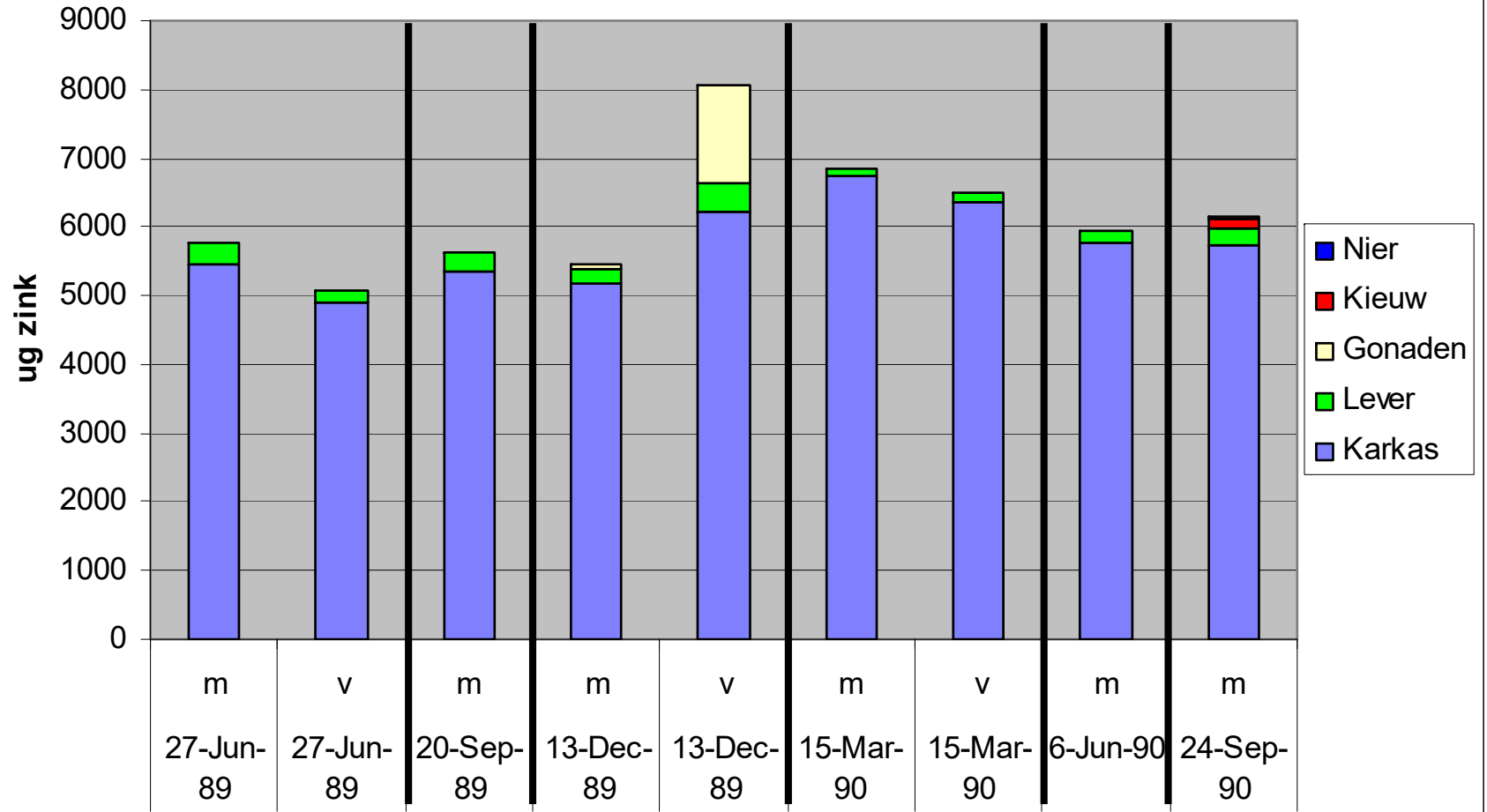
Body burden cadmium (*Saeftinge*)



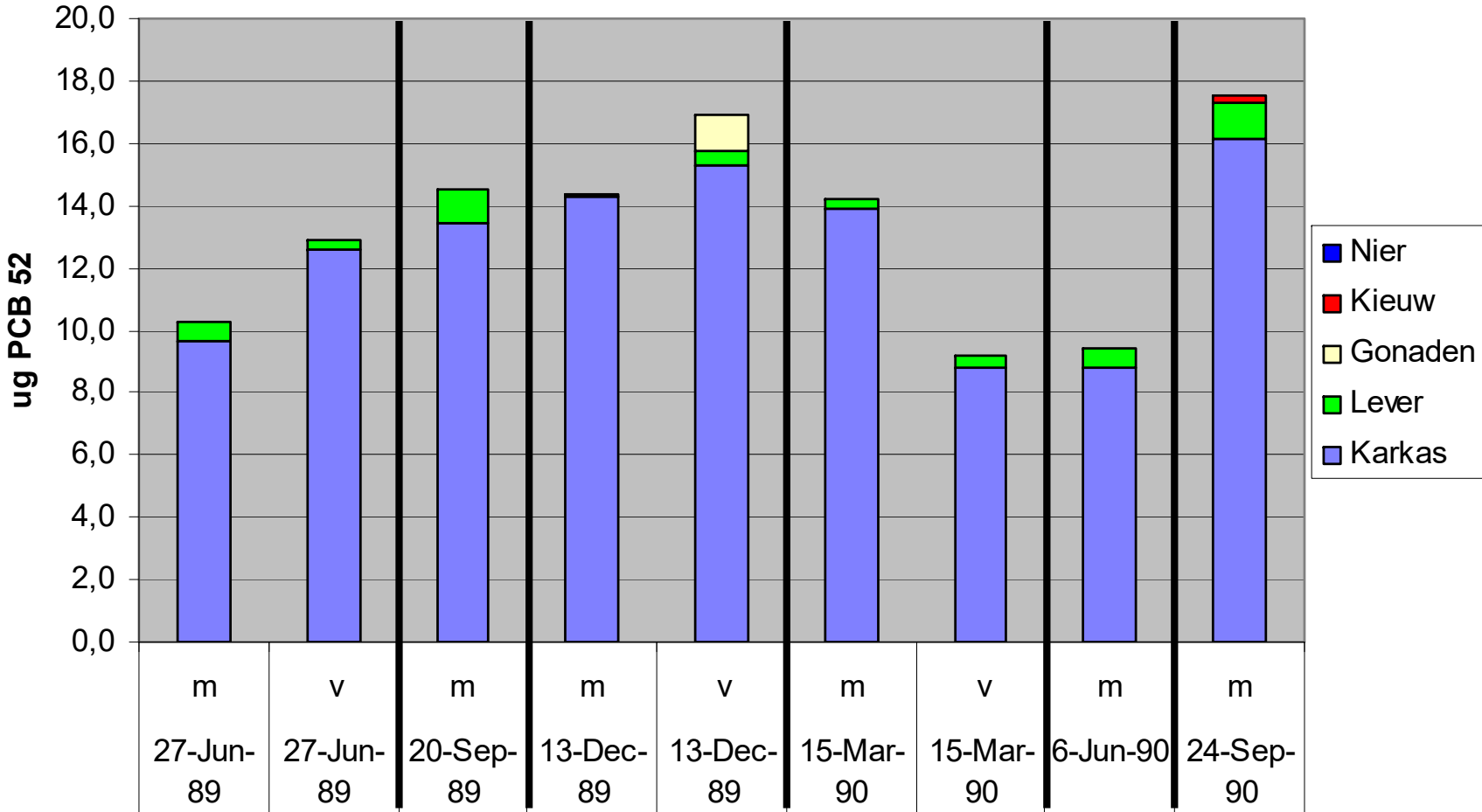
Body burden koper (*Saefting*)



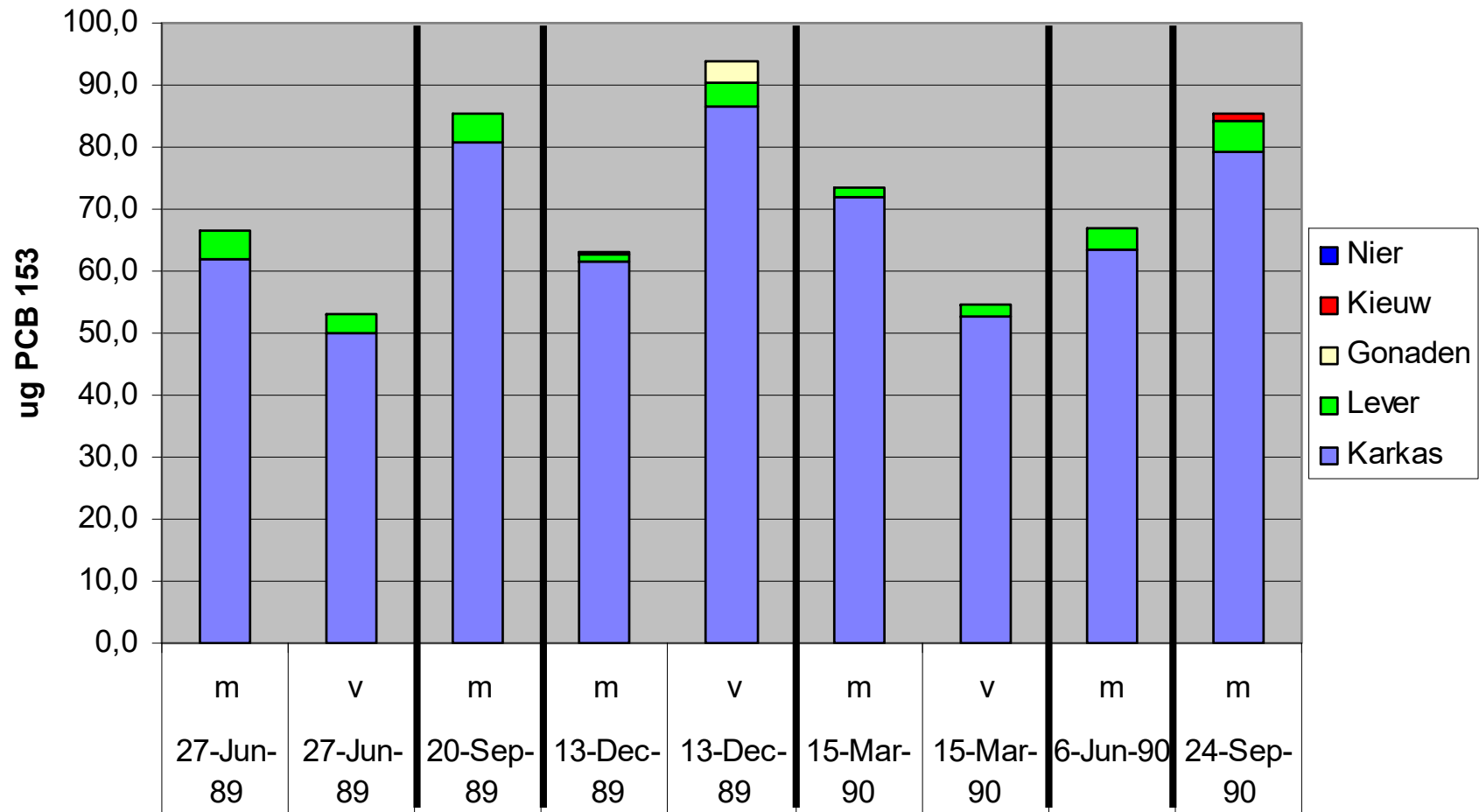
Body burden zink (*Saeftinge*)



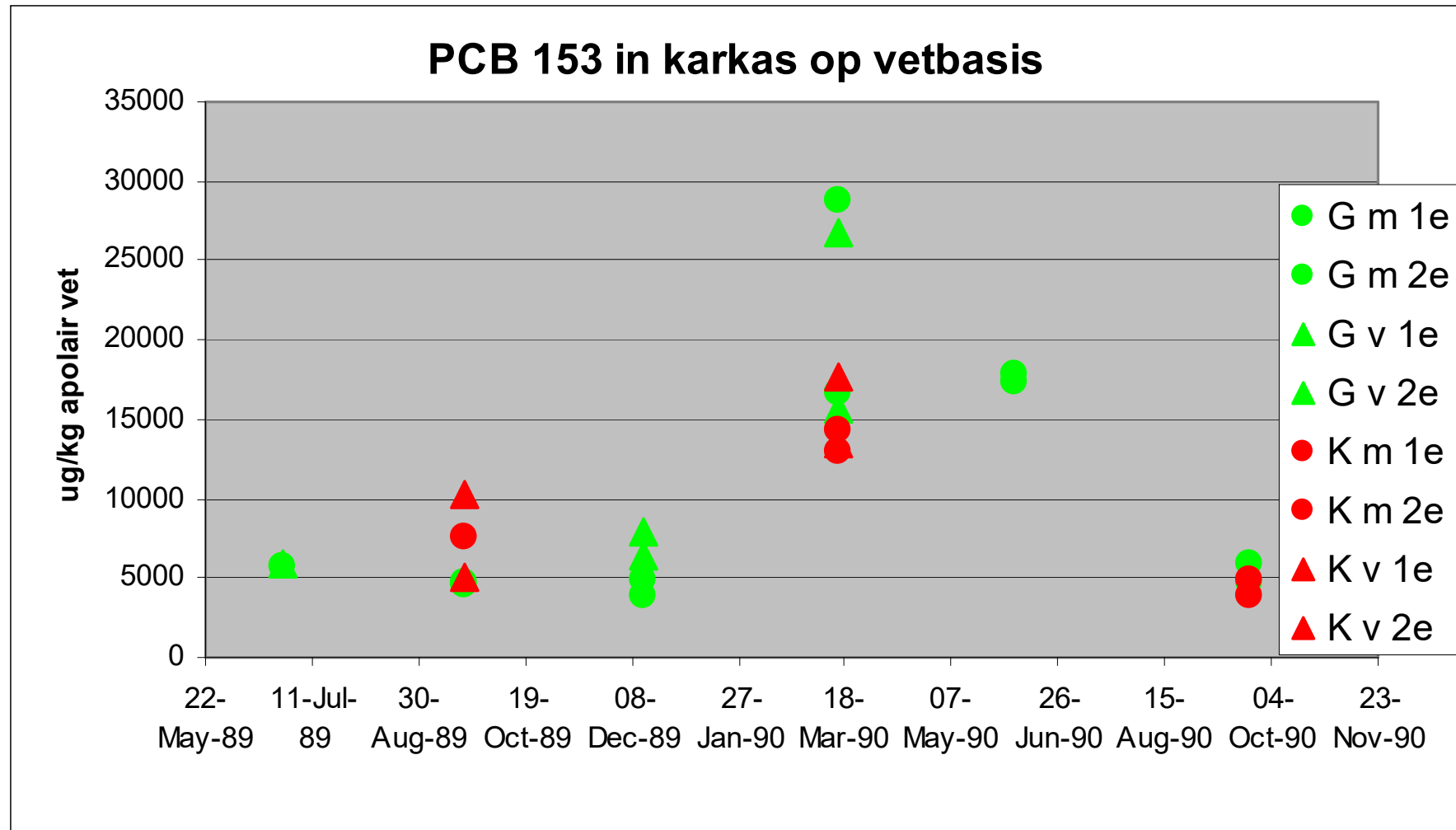
Body burden PCB 52 (*Saeftinge*)



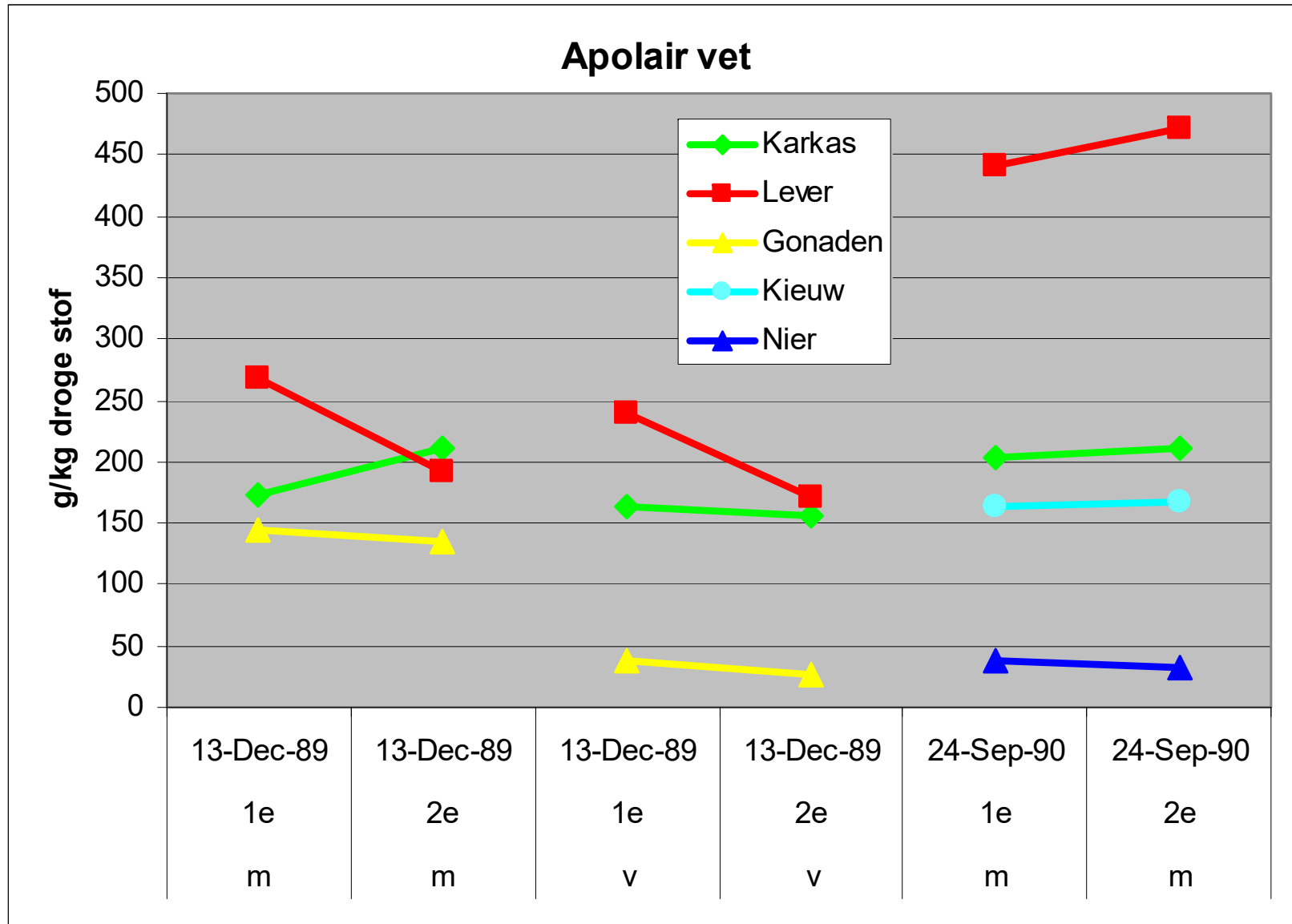
Body burden PCB 153 (*Saeftinge*)



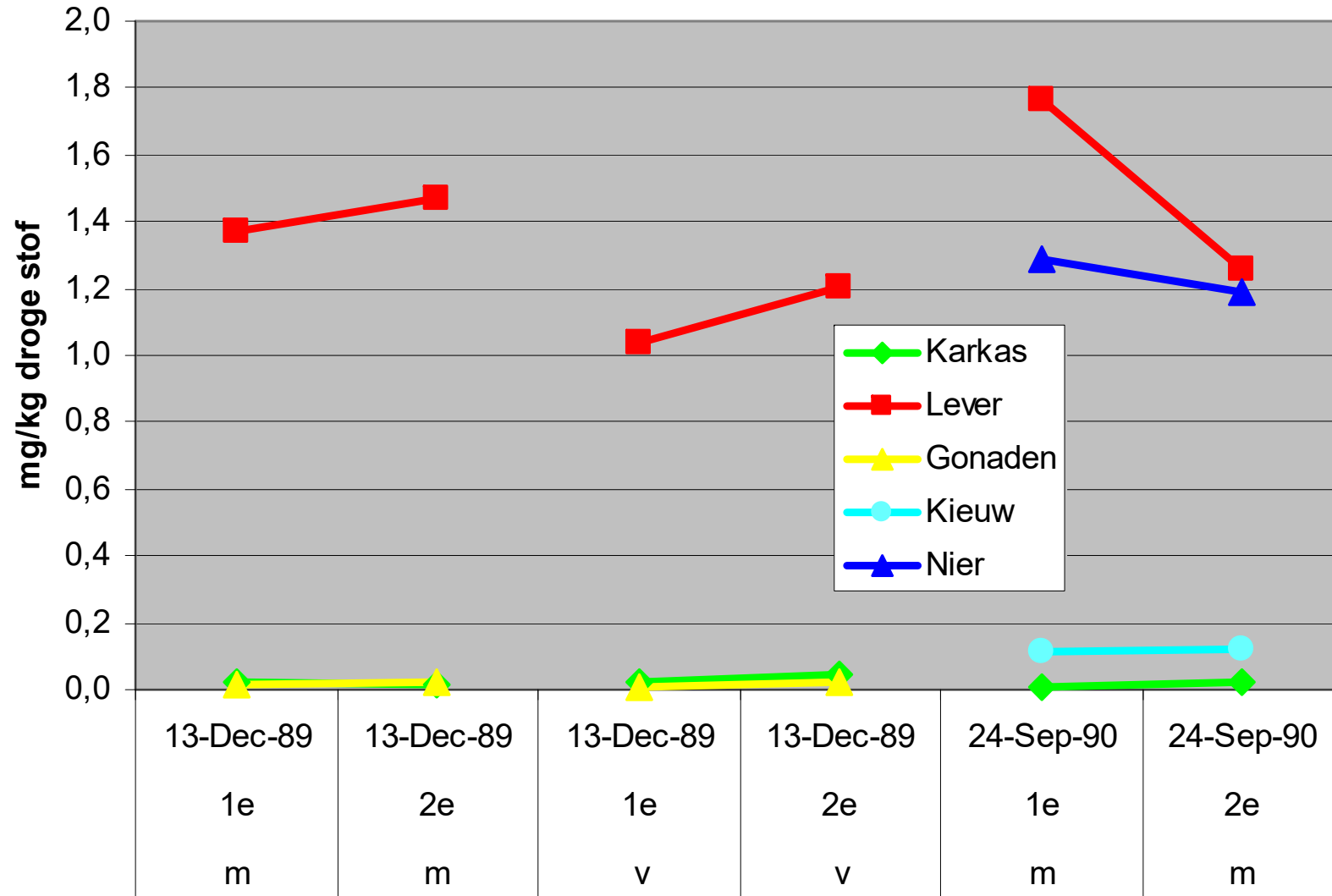
Verschil tussen grote en kleine vis



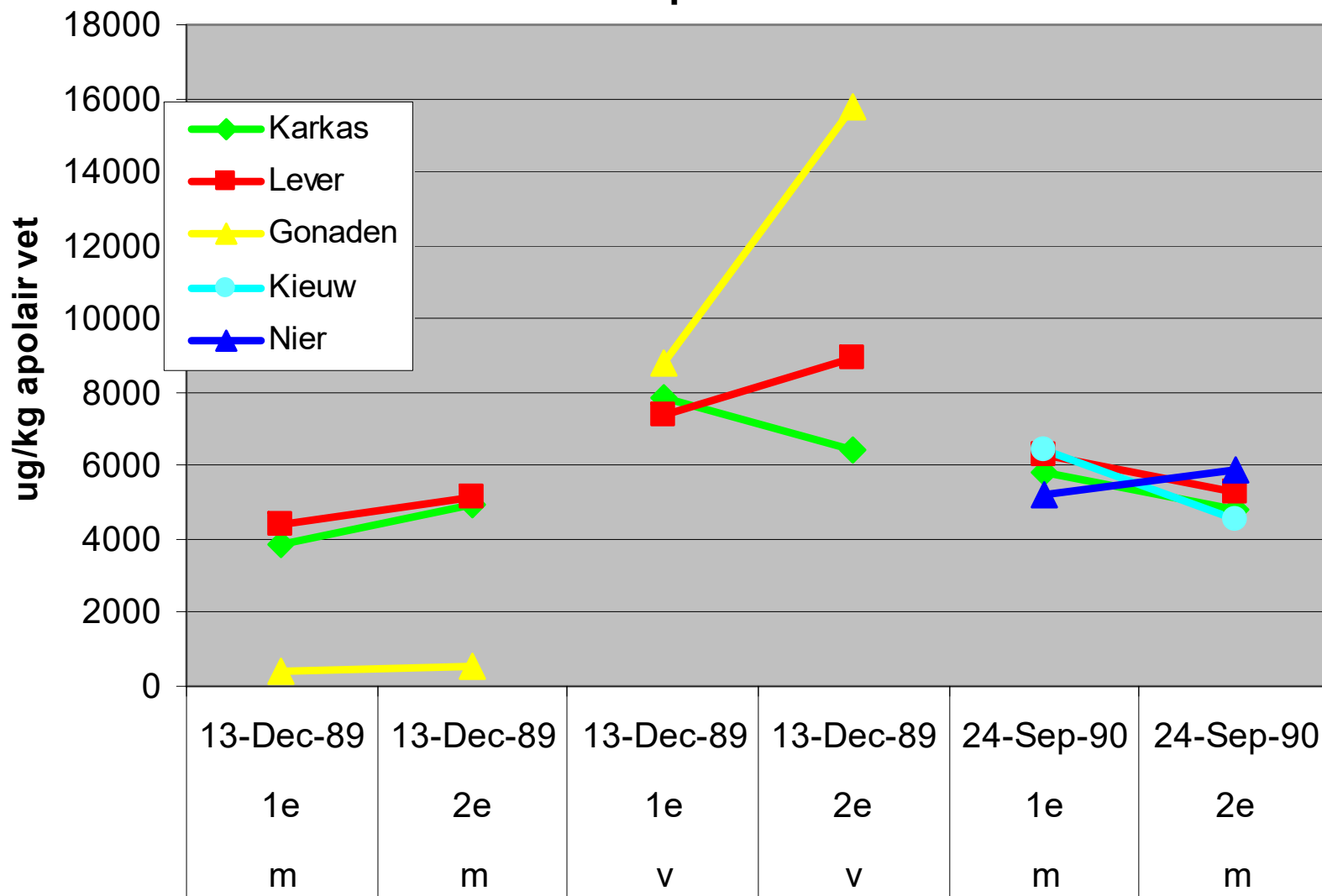
Verschil tussen organen



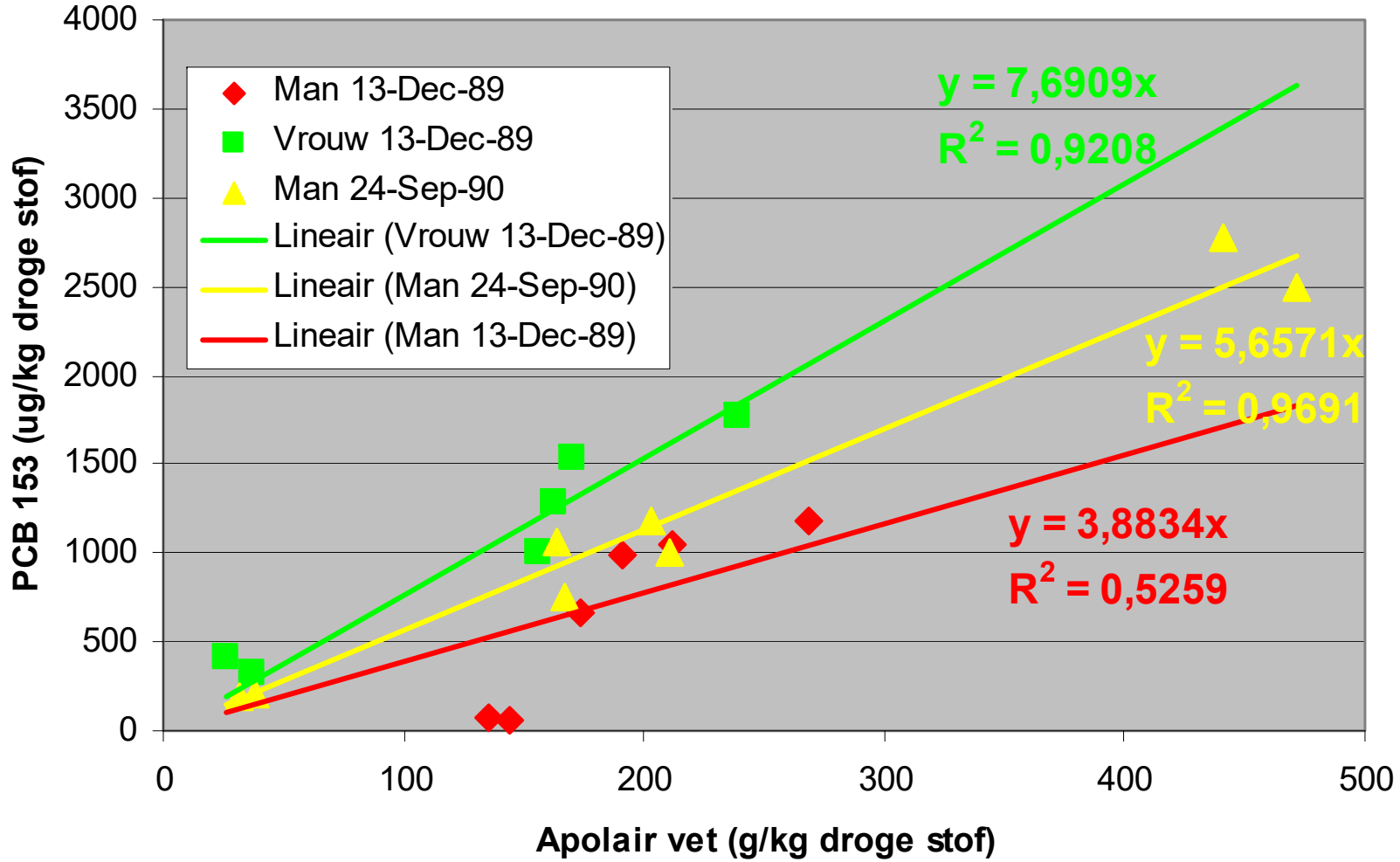
Cadmium



PCB 153 op vetbasis



Relatie vet en PCB 153



Conclusie:

- Variatie is groot
- Variatie deels verklaarbaar, deels niet
- Verklaring over soorten en stoffen heen is complex