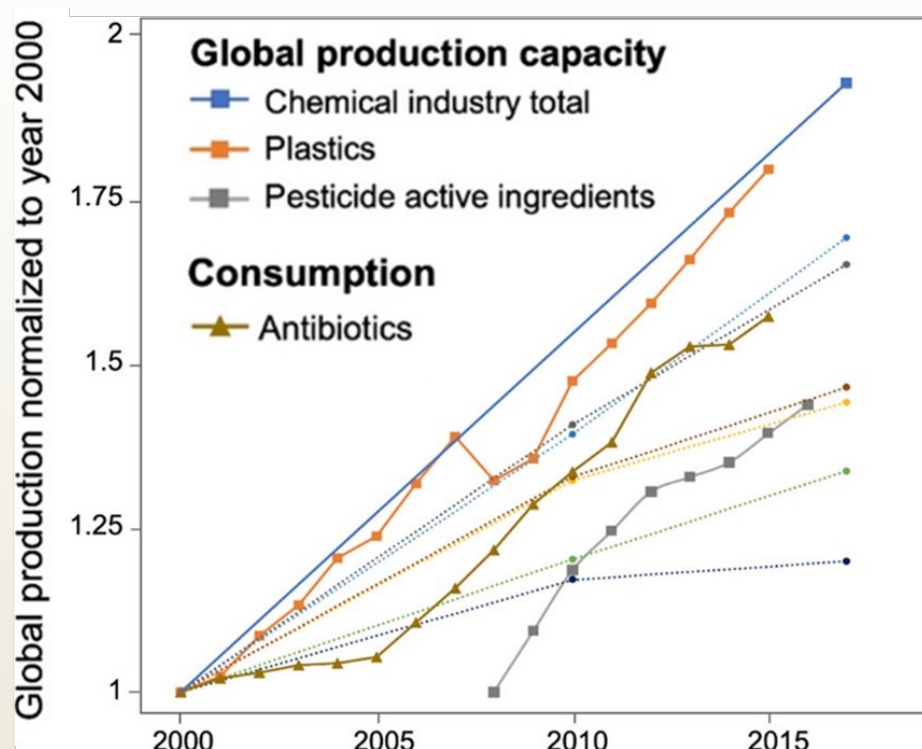


Pesticides et médicaments :

Devenir dans les chevesnes et leurs parasites
acanthocéphales

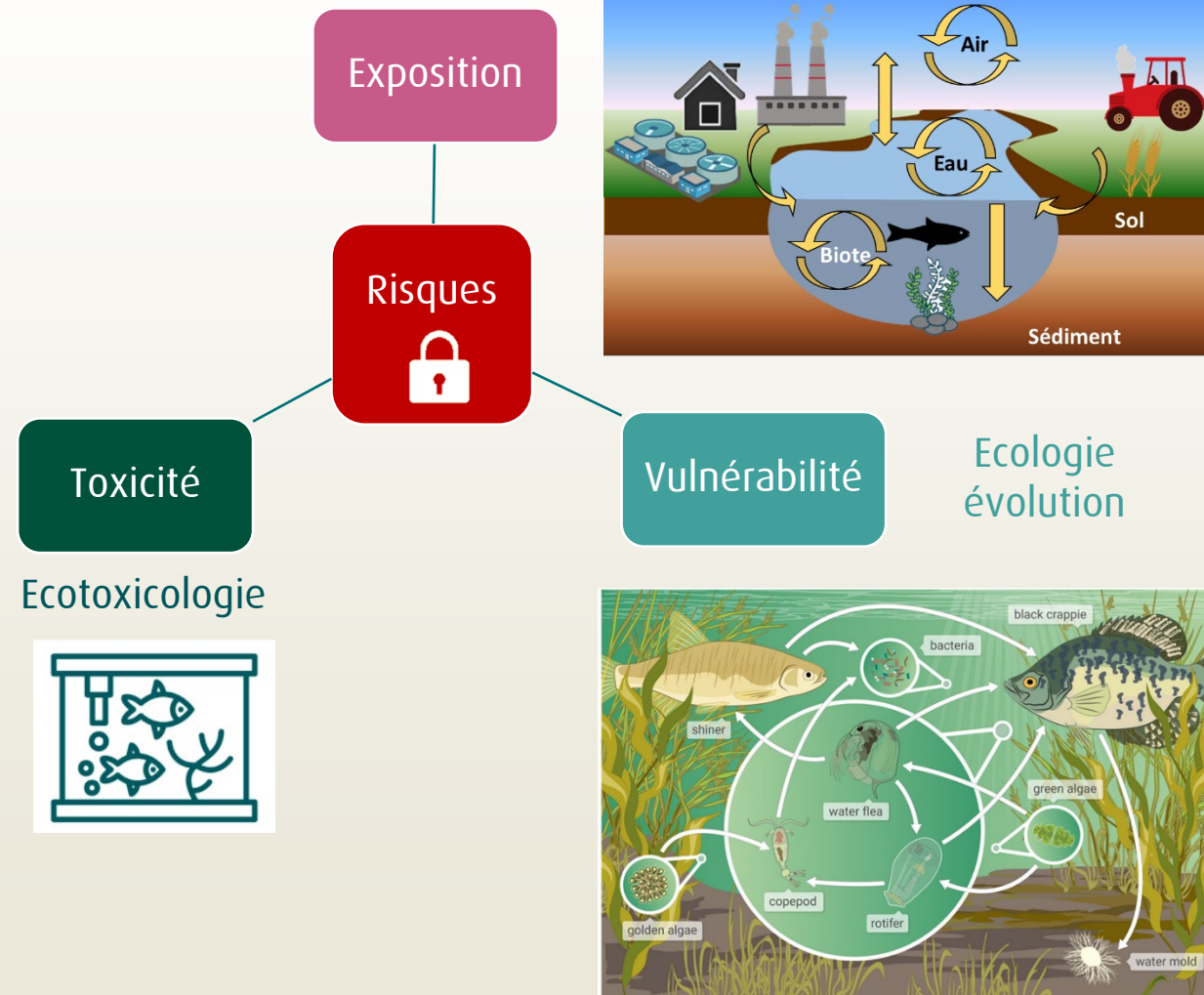
Léa Lorrain-Soligon, Eva Pignoux, Fabrice Alliot, Sira Traore, Simon Agostini, Aurélie Goutte

La pollution environnementale : des enjeux cruciaux



- 350 000 substances chimiques répertoriées
- 300 millions de tonnes / an

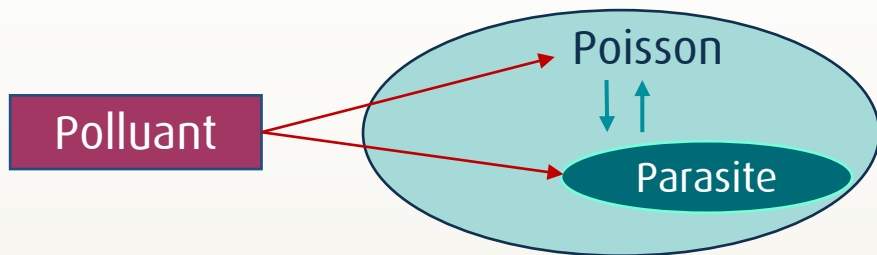
Wang et al. 2020; Persson et al. 2022



Sigmund et al. 2023

Interactions hôte-parasites en milieux pollués

➔ Coévolution des hôtes et des parasites

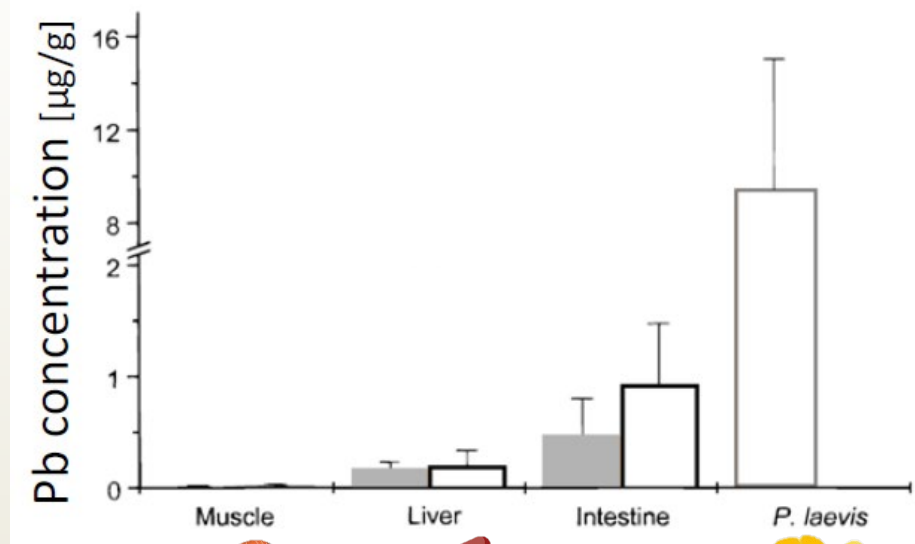


Décrit chez les chevesnes - acanthocéphales mais aussi observé chez d'autres taxons



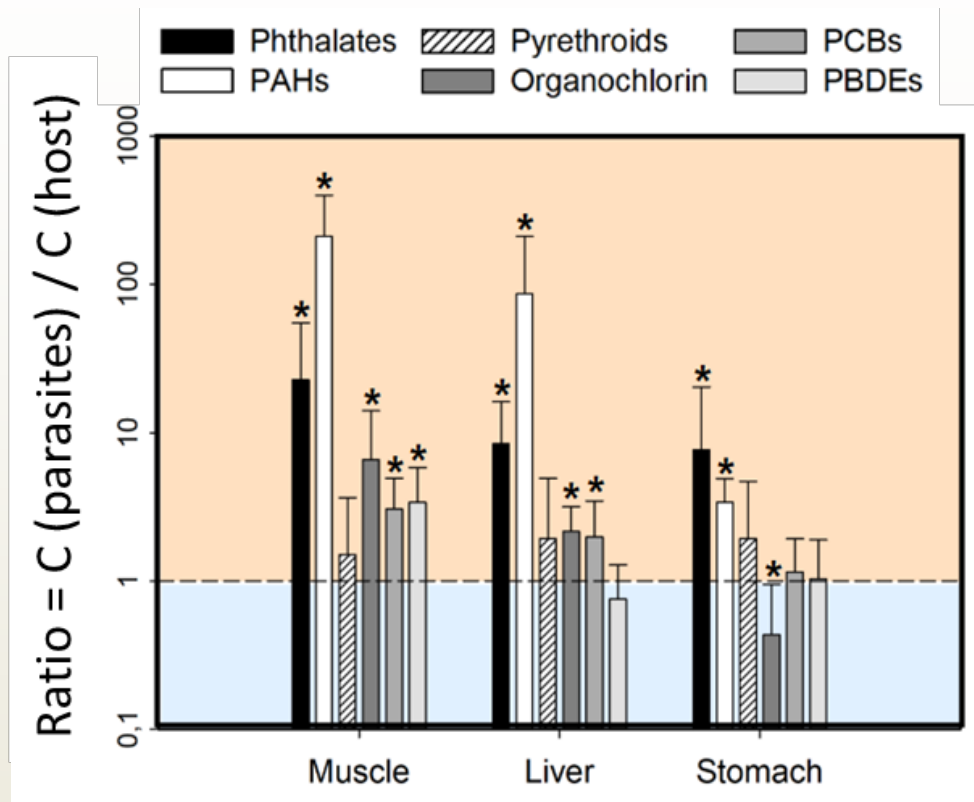
Review, Goutte et Molbert 2022

- Accumulation dans les parasites
- Baisse de contamination des poissons

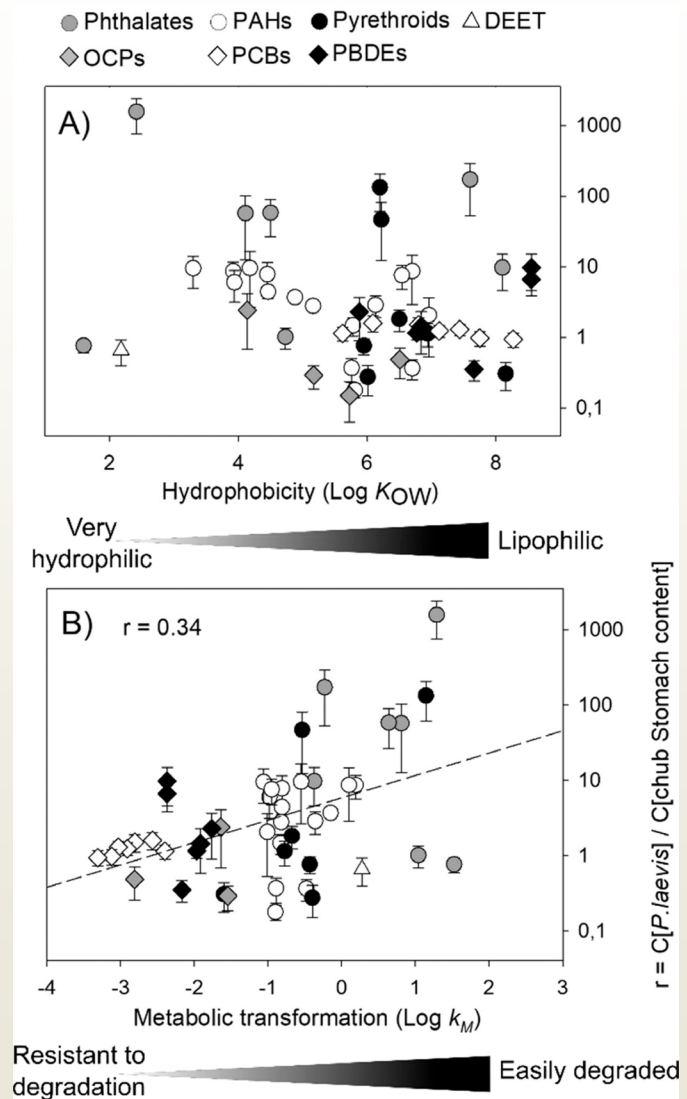


Sures et al., 1994
Sures and Sidall 1999;

Séquestration de polluants organiques par les parasites



(Molbert et al. 2020)

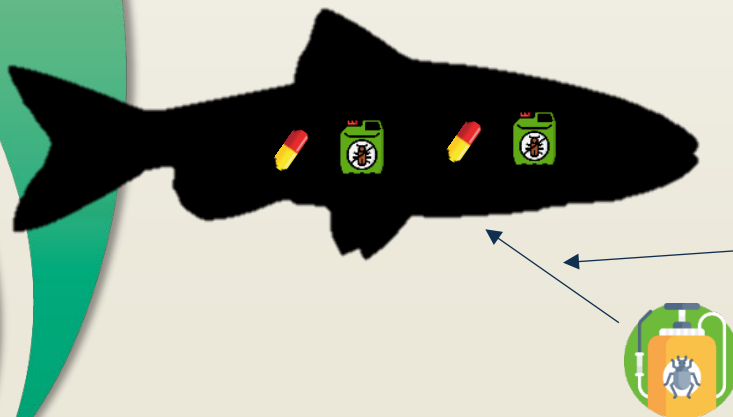




1 Focus sur les pesticides et résidus de médicaments (substances hydrophiles et rapidement dégradées)



2 Devenir depuis l'eau, vers les chevesnes et jusqu'aux parasites



3 Mitigation des niveaux de polluant par les parasites ?

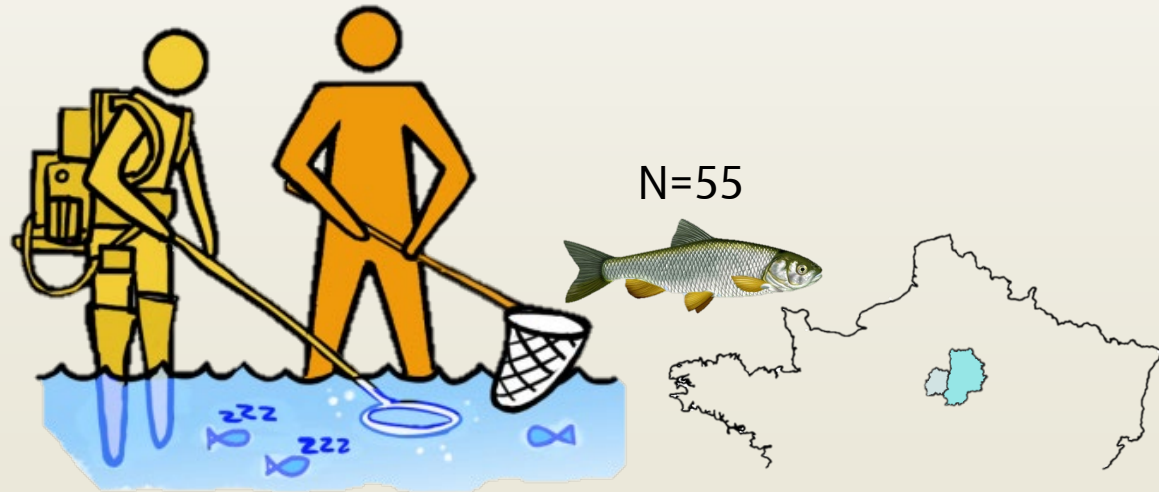




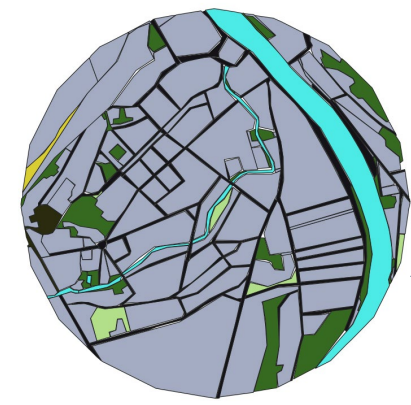
Squalius cephalus



Acanthocephala



Corbeil Essonne

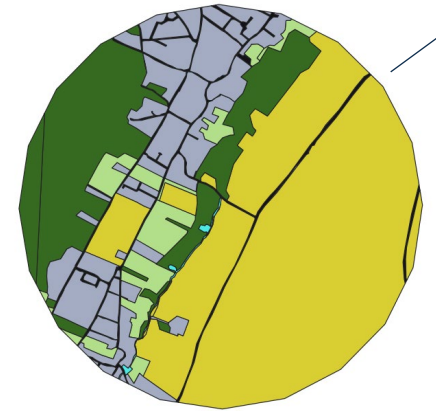


N=13 sites

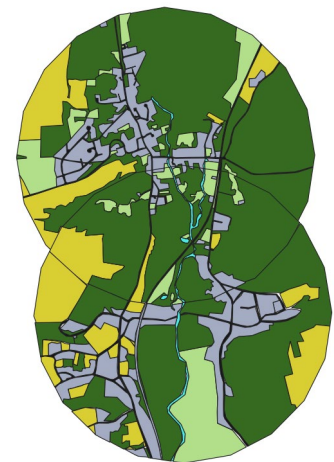


- Habitat
- Batiments
 - Champs
 - Eau
 - Forêts
 - Prairies
 - Routes

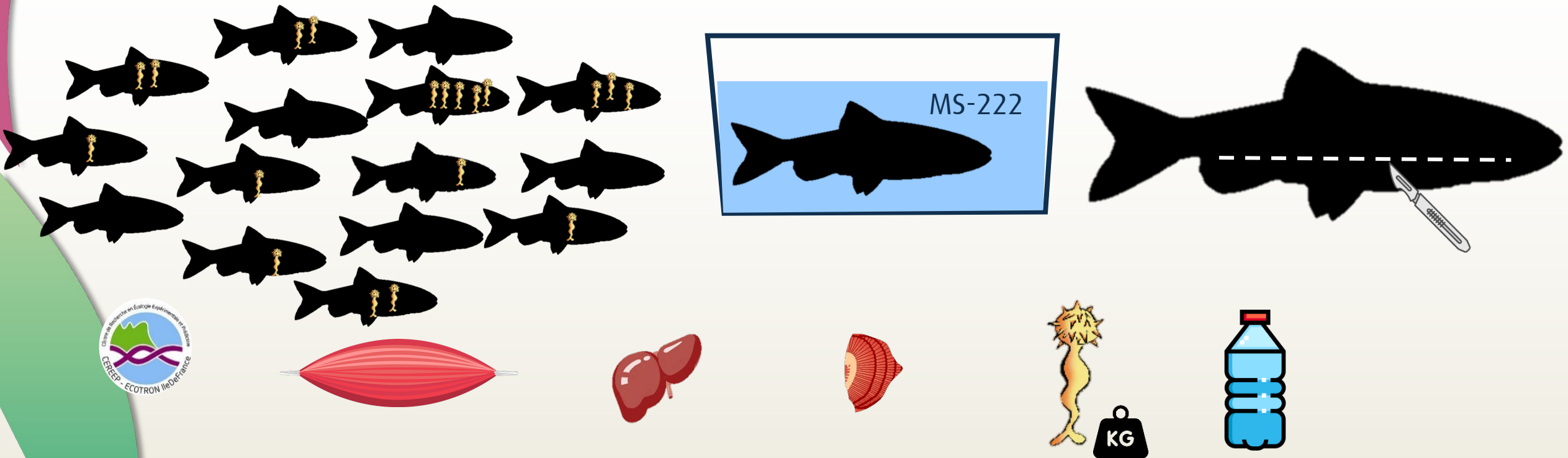
Cerny



Gironville



Buno Boneveau





Amoxicilline 522.8 ng.L⁻¹



Paracétamol 38.9 ng.g⁻¹



Diclofénac 87.0 ng.g⁻¹



Diclofénac 65.3 ng.g⁻¹



Paracétamol 16.9 ng.g⁻¹

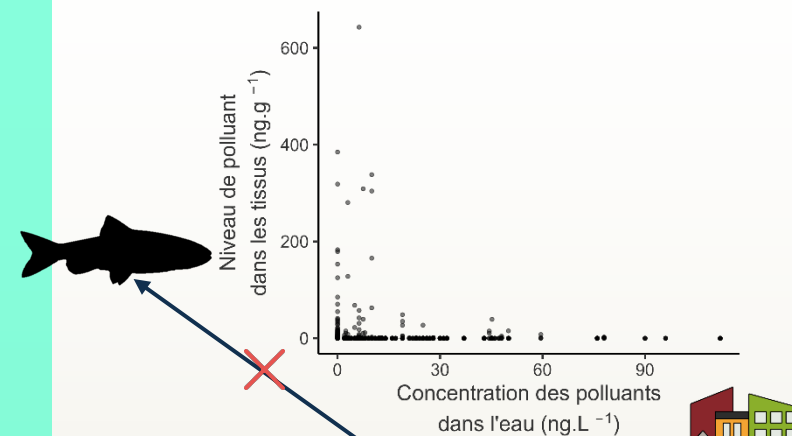


Diflufenican

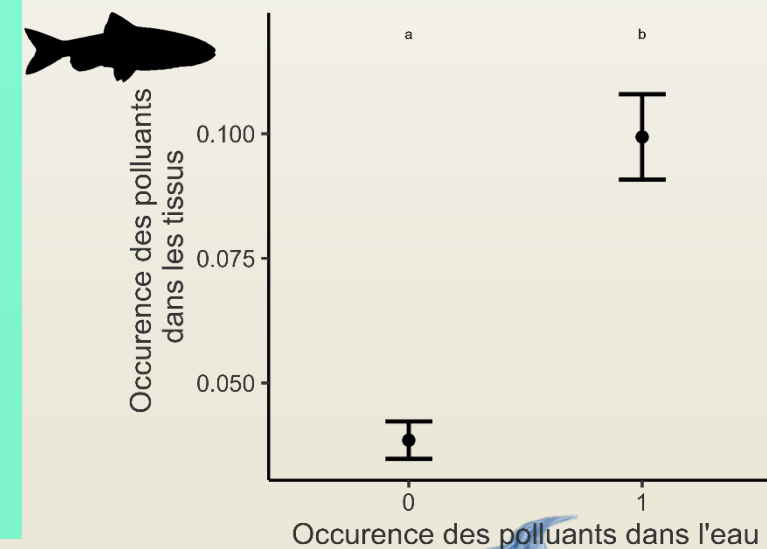
Paracétamol

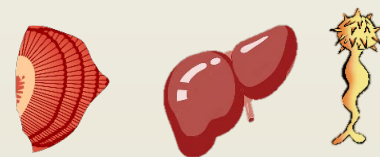
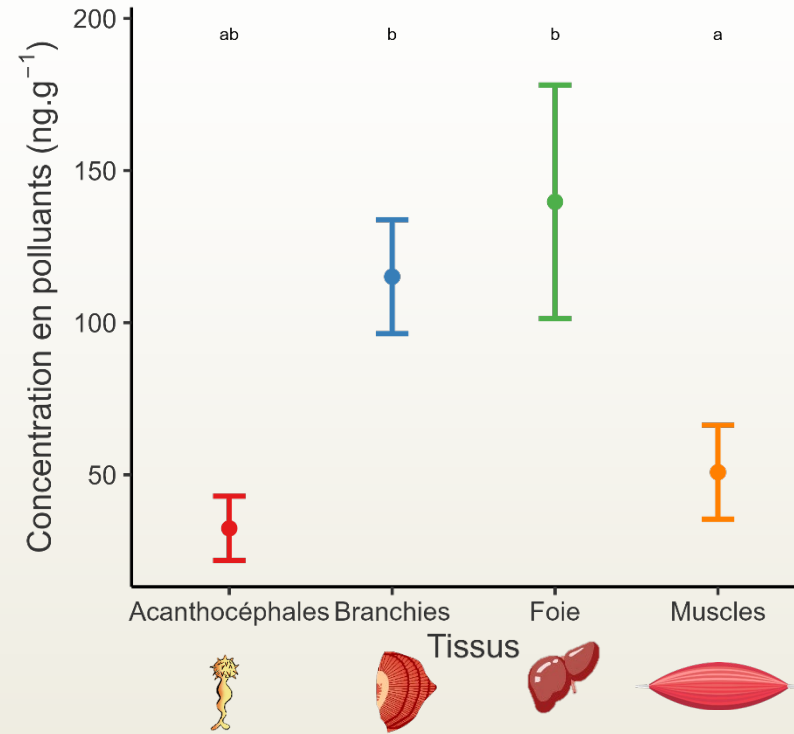
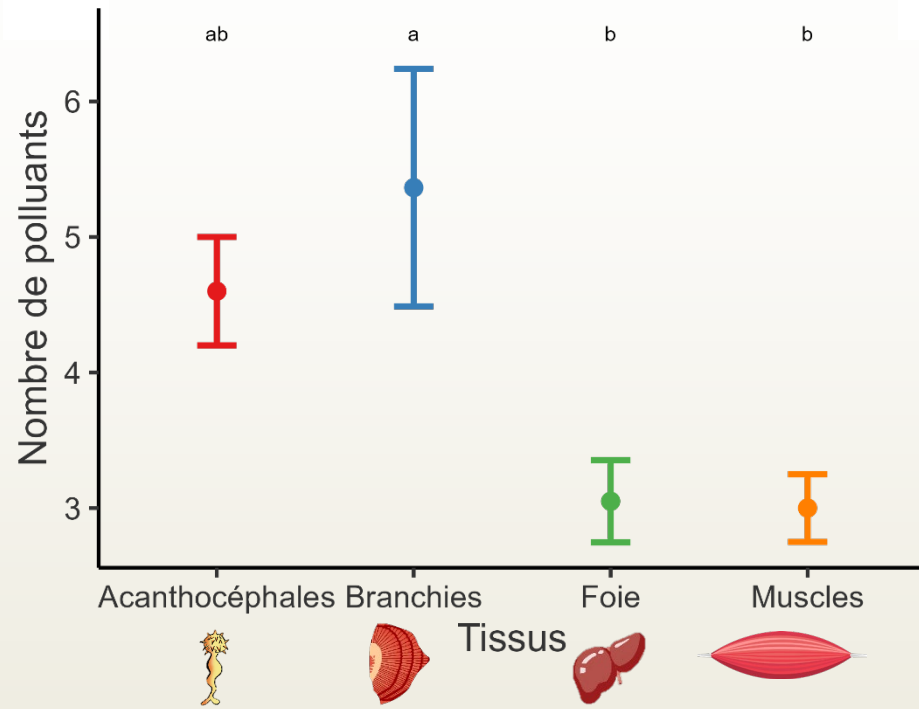


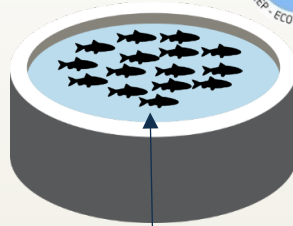
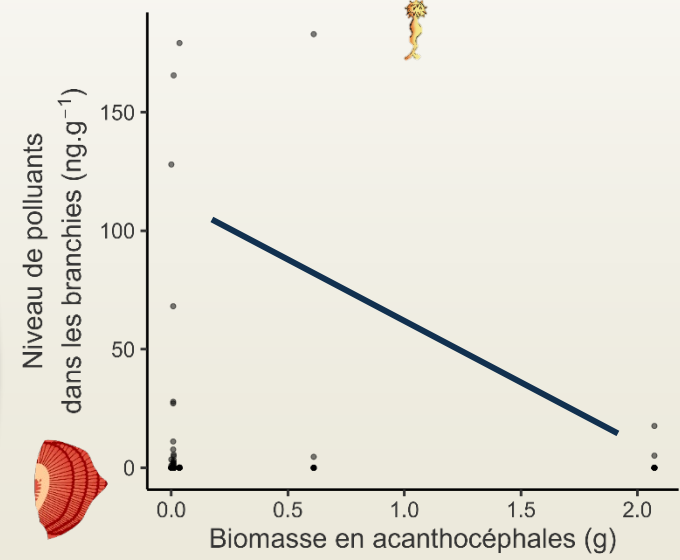
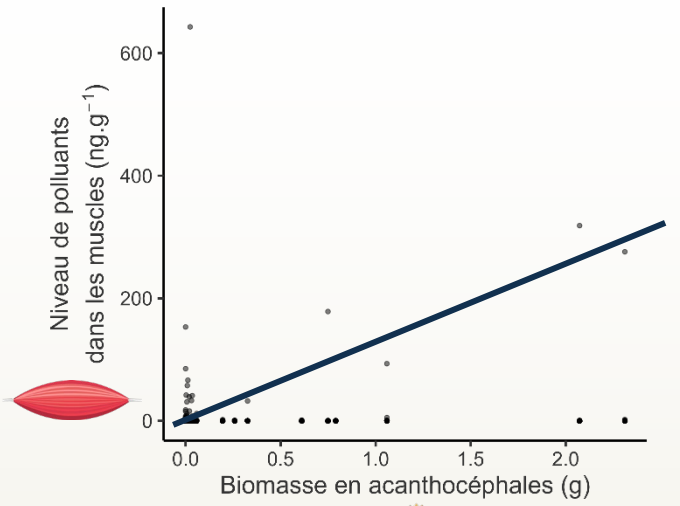
Concentration



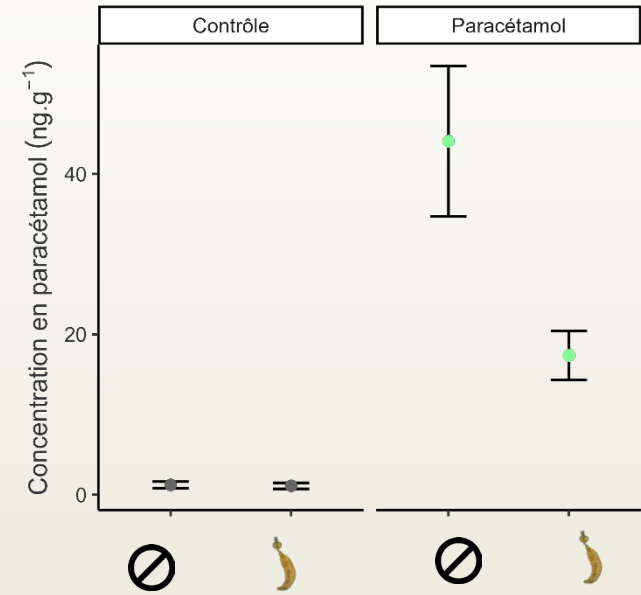
Occurrence

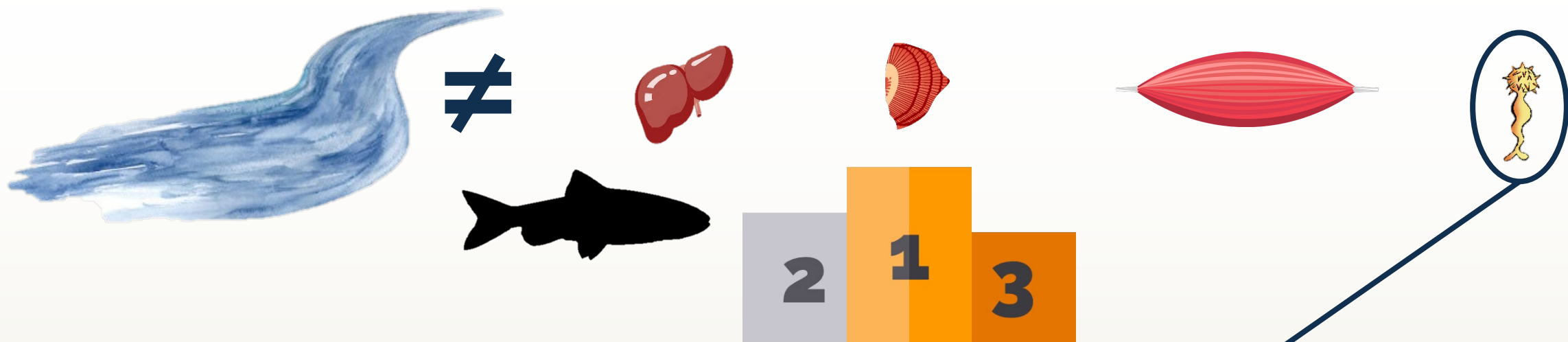






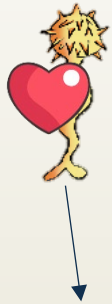
$16 \mu\text{g.g}^{-1}$





Type de polluant ?
Type d'exposition ?
Mutualisme

Parasitisme



Impact des parasites sur le métabolisme des polluants ?

Impact des parasites sur l'accumulation des polluants ?

Merci pour votre attention

BIOGÉOSCIENCES

