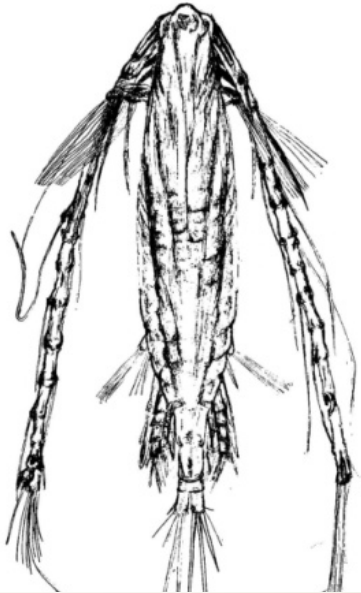




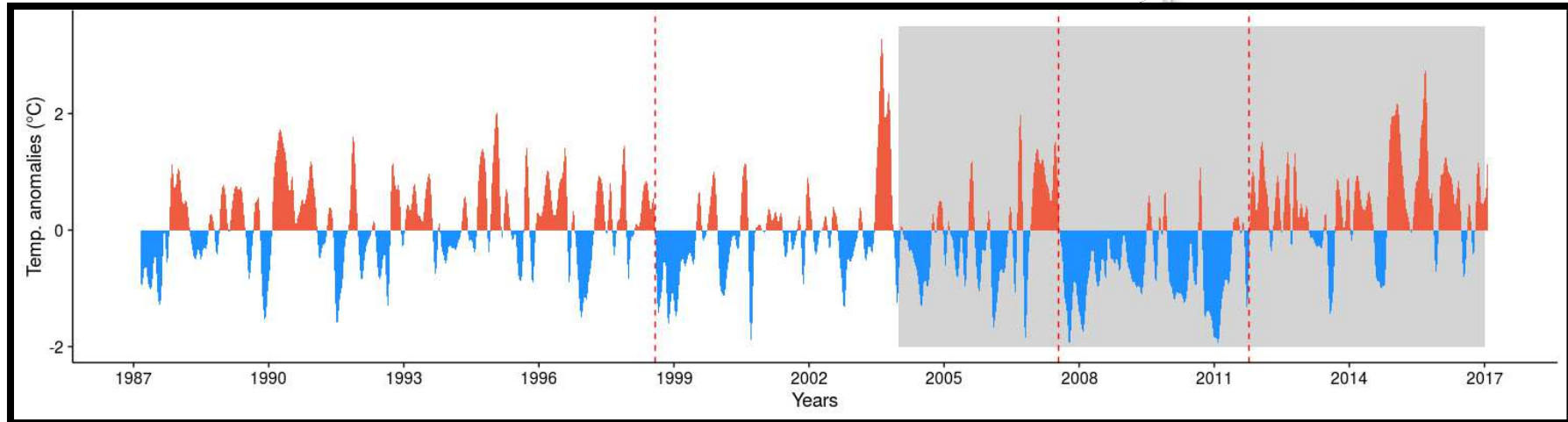
Analyse temporelle du zooplancton méditerranéen dans la baie de Calvi



Lovina Fullgrabe







- ❖ Sensibilité thermique
- ❖ Fort taux de renouvellement
- ❖ Dépendant des producteurs primaires
- ❖ Soumis aux processus physiques



Rapides réponses aux changements environnementaux

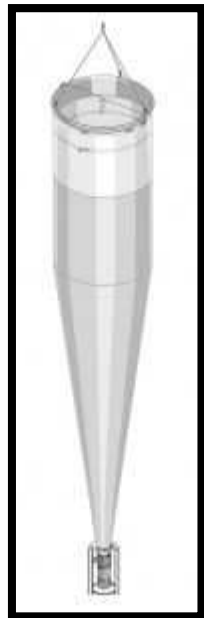


« Beacon of climate change » (Richardson, 2008) = **BIO-INDICATEUR**

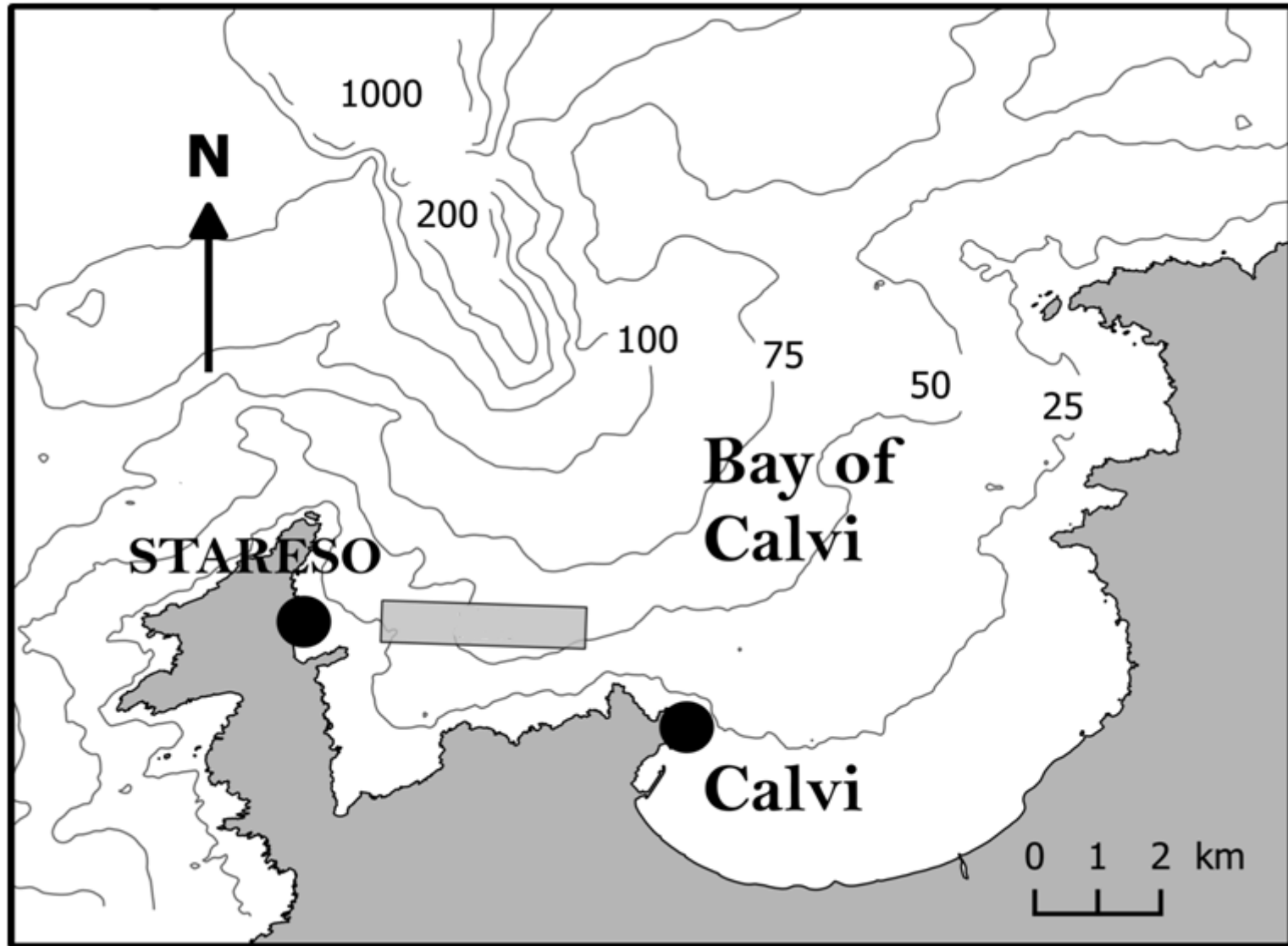


Suivi à long terme

Matériels et méthodes

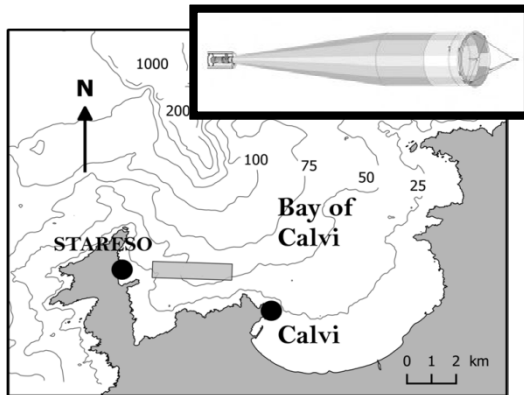


WP2
180µm

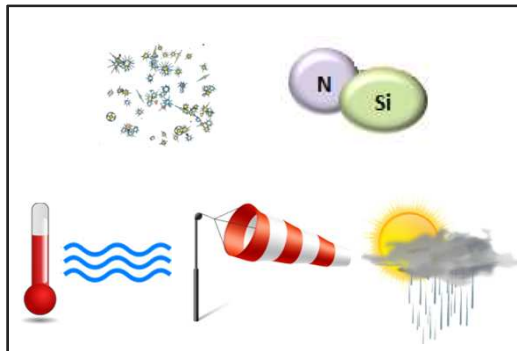


Matériels et méthodes

Traits horizontaux
filet WP2



6 paramètres
environnementaux

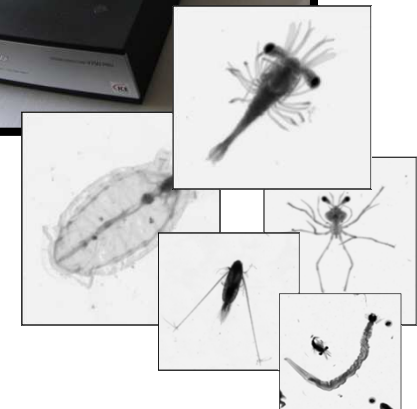


318 échantillons
sélectionnés

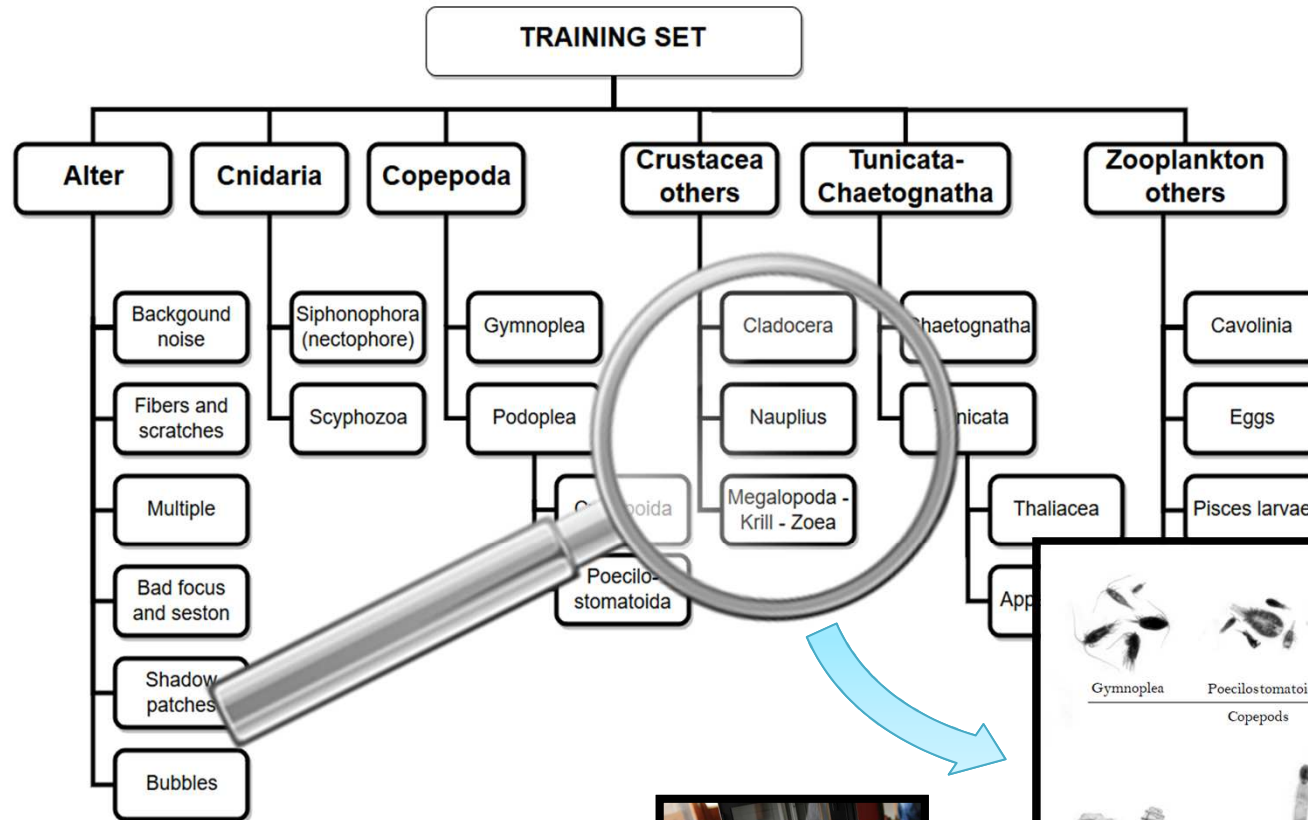
2004-2016
14 clades

Variation d'abondance
Spectre de tailles

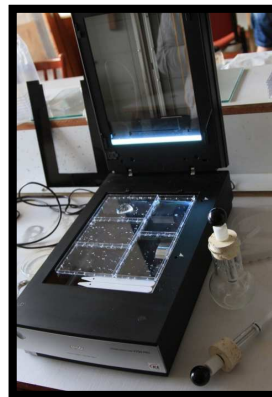
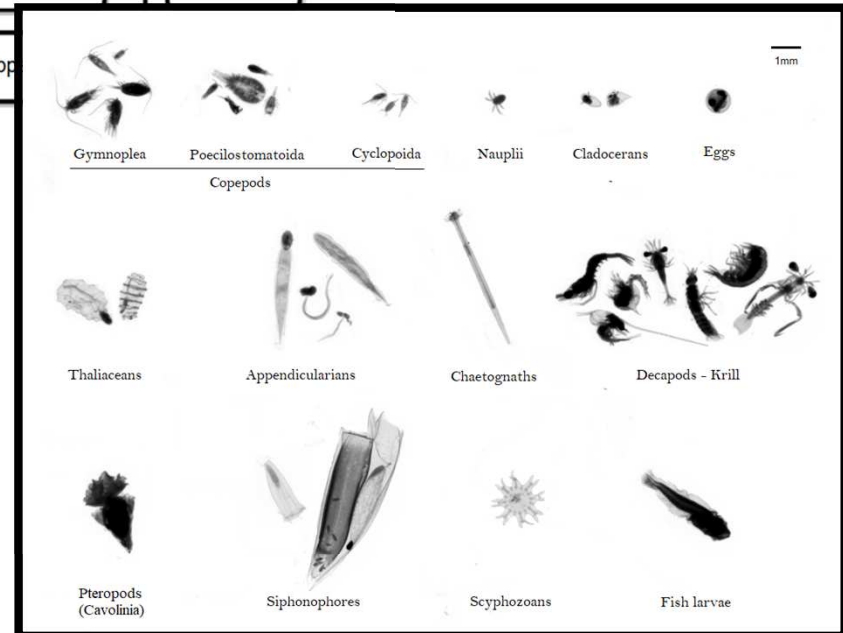
Imagerie
Classification semi-
automatique
Zoo/PhytoImage R



Matériels et méthodes



Science reproducible

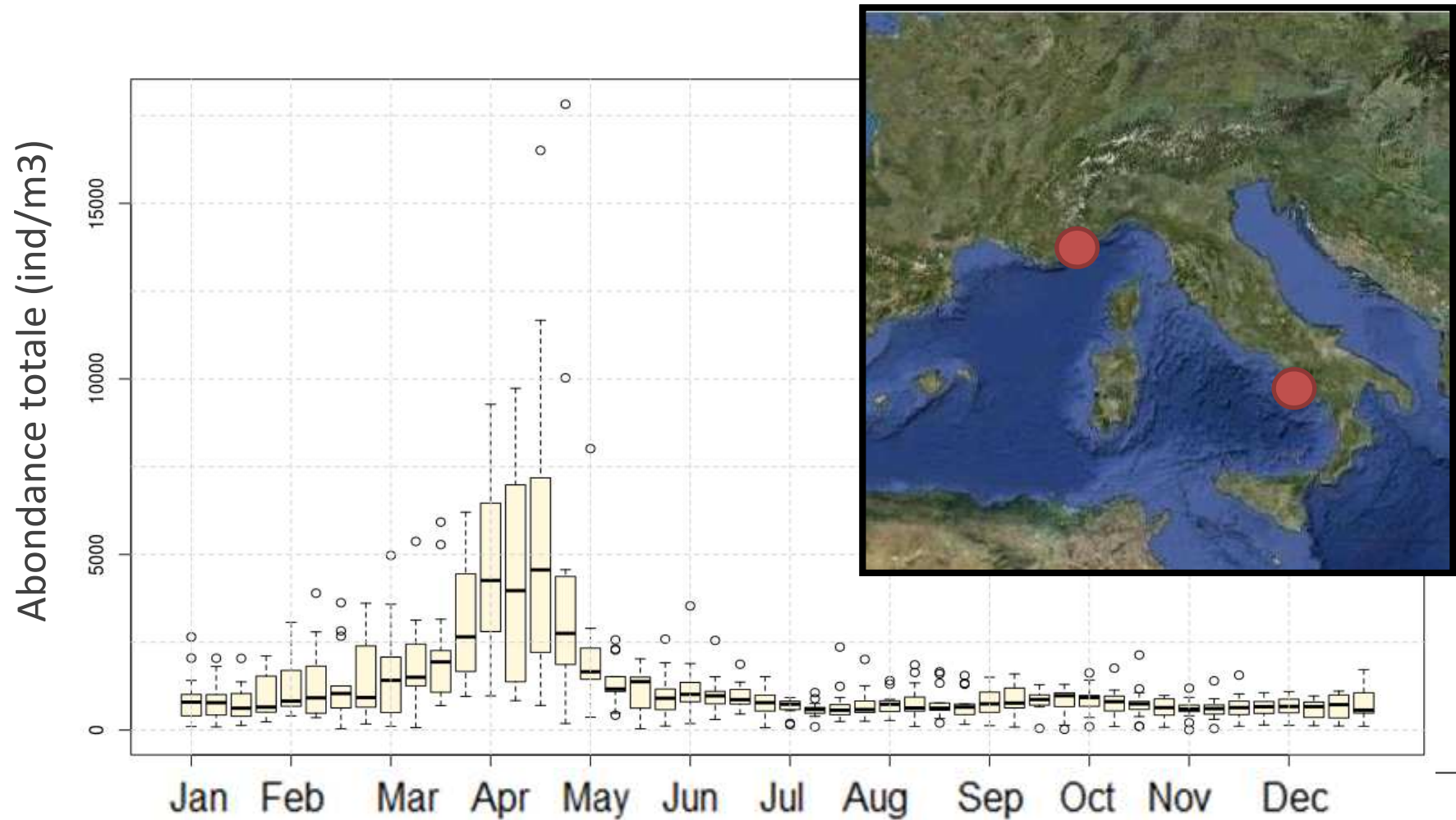


Objectifs

- 1) Variabilité **saisonnaire**
- 2) Variabilité **interannuelle** :
 - une **année « type » d'évolution de communautés**
 - potentiels **facteurs environnementaux**
- 3) Variabilité du **spectre de taille**

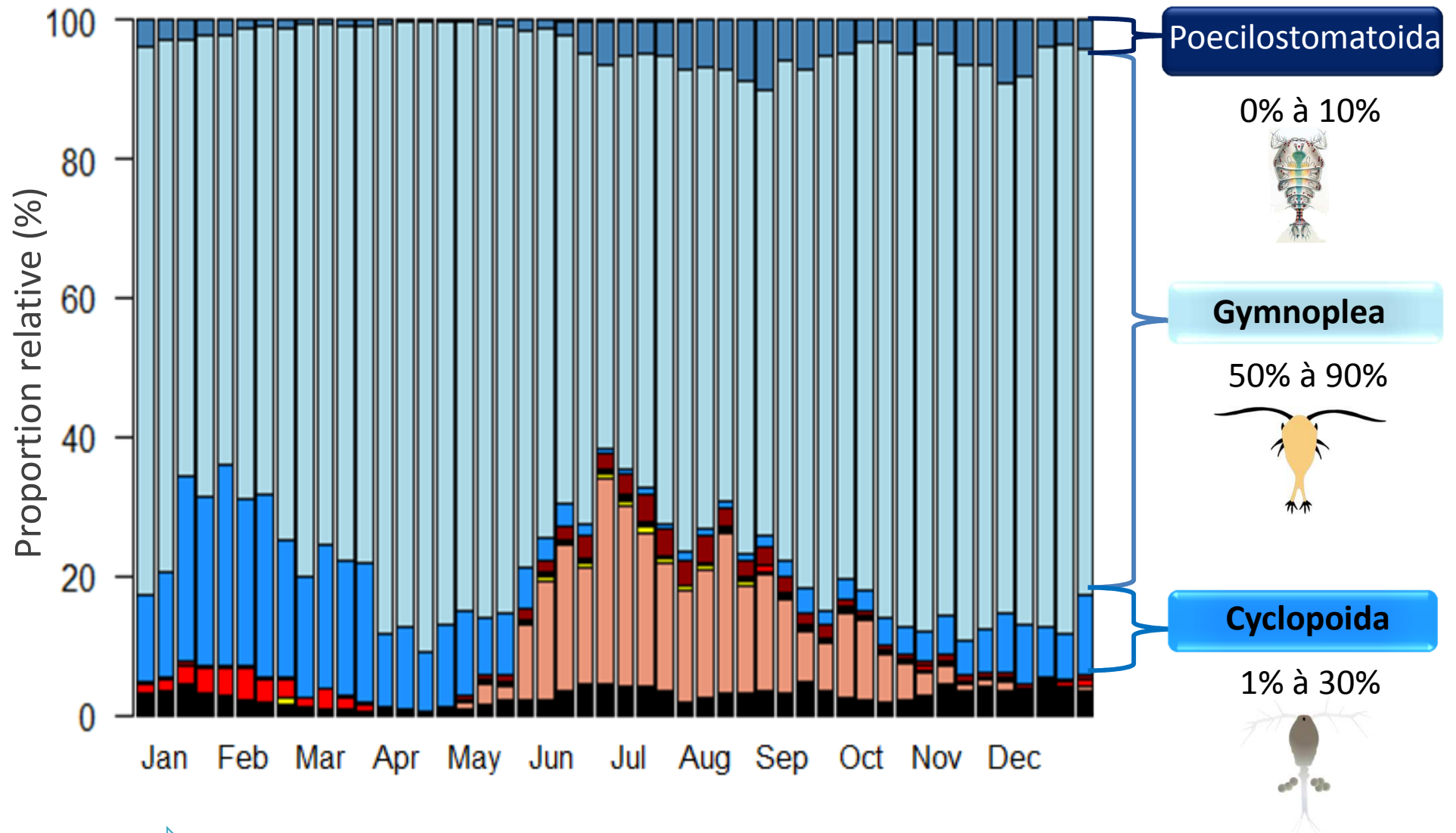


1. Variabilité saisonnière



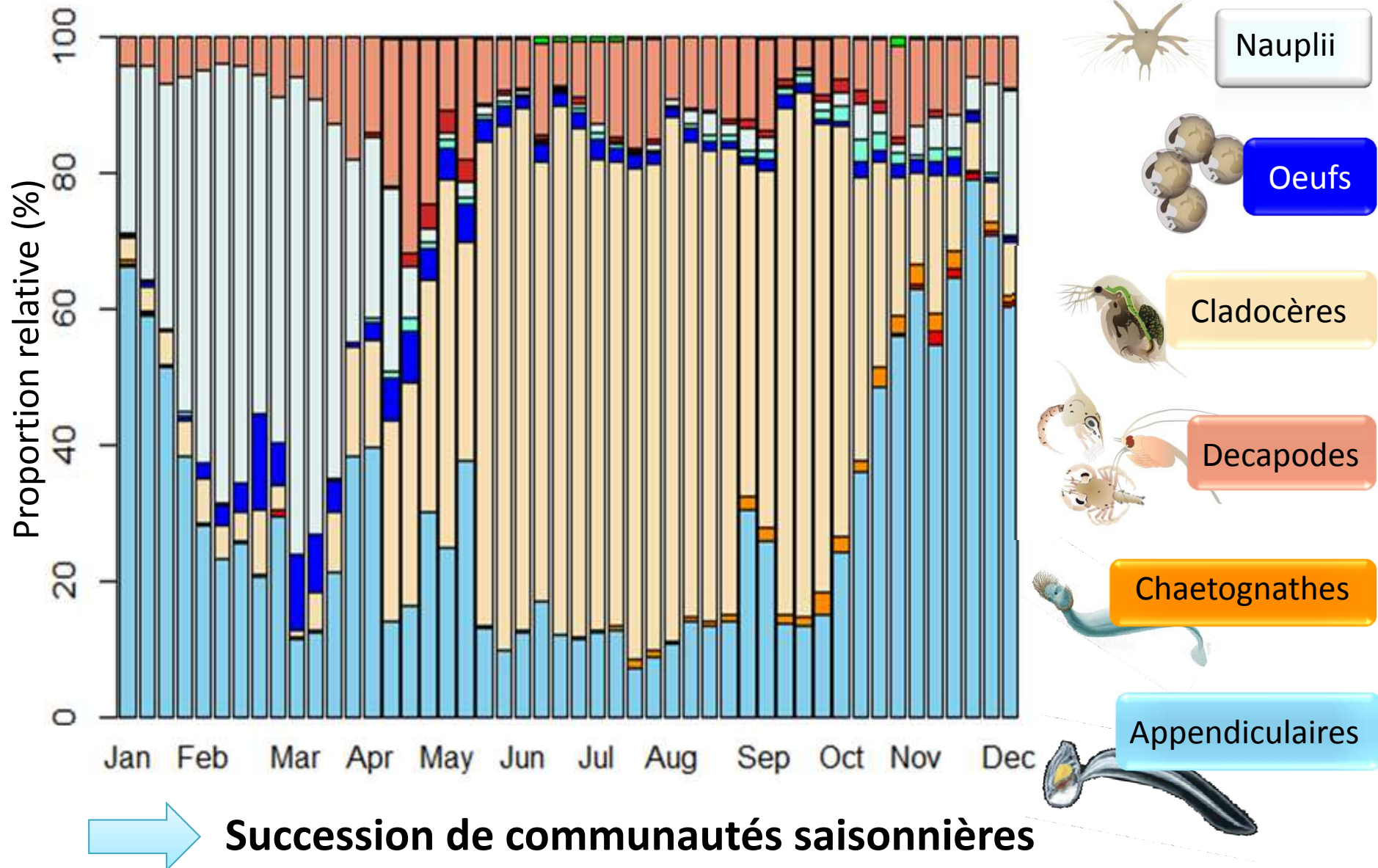
Grande variabilité du bloom printannier

1. Variabilité saisonnière

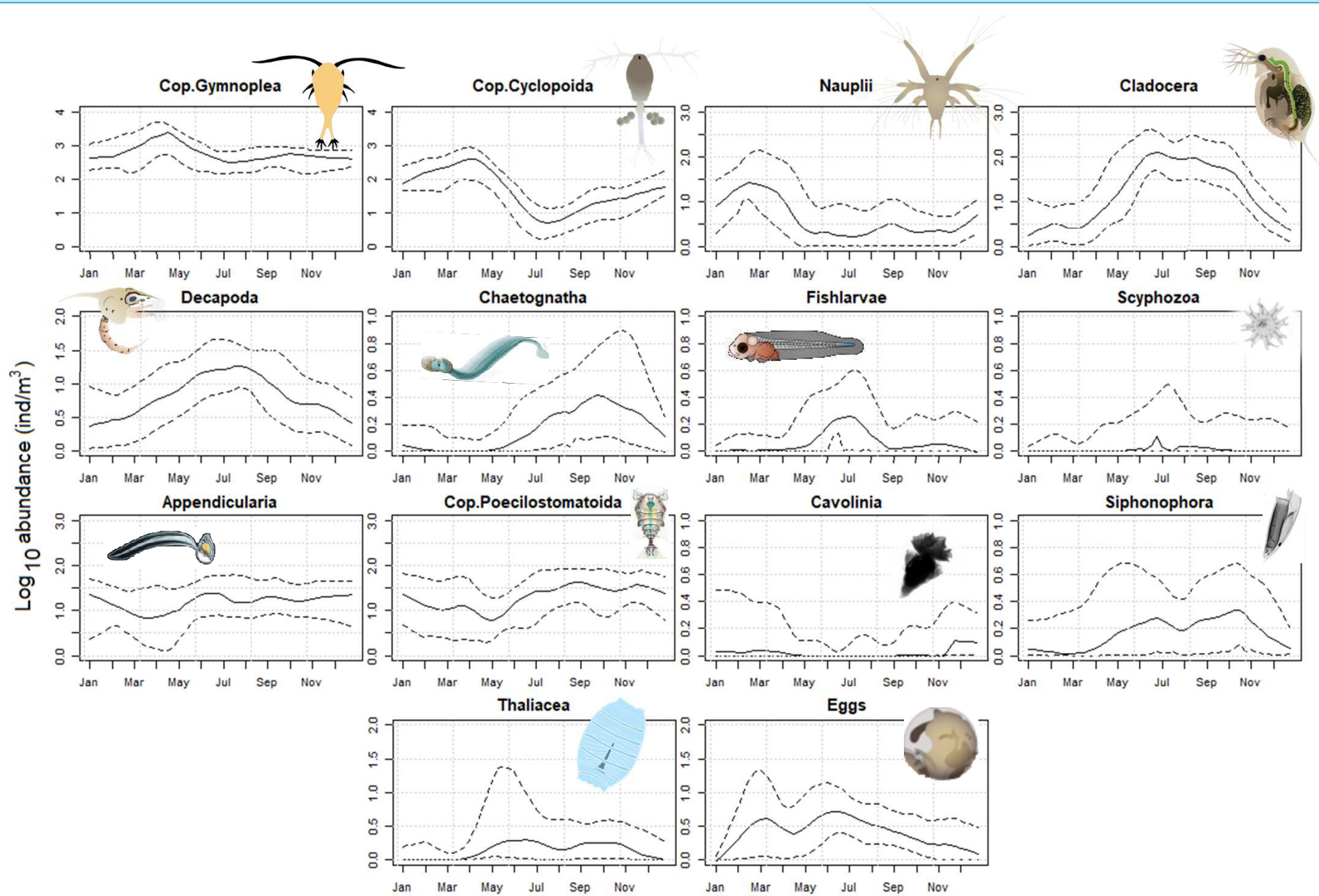


Copépodes: 40% à 99% de la proportion relative

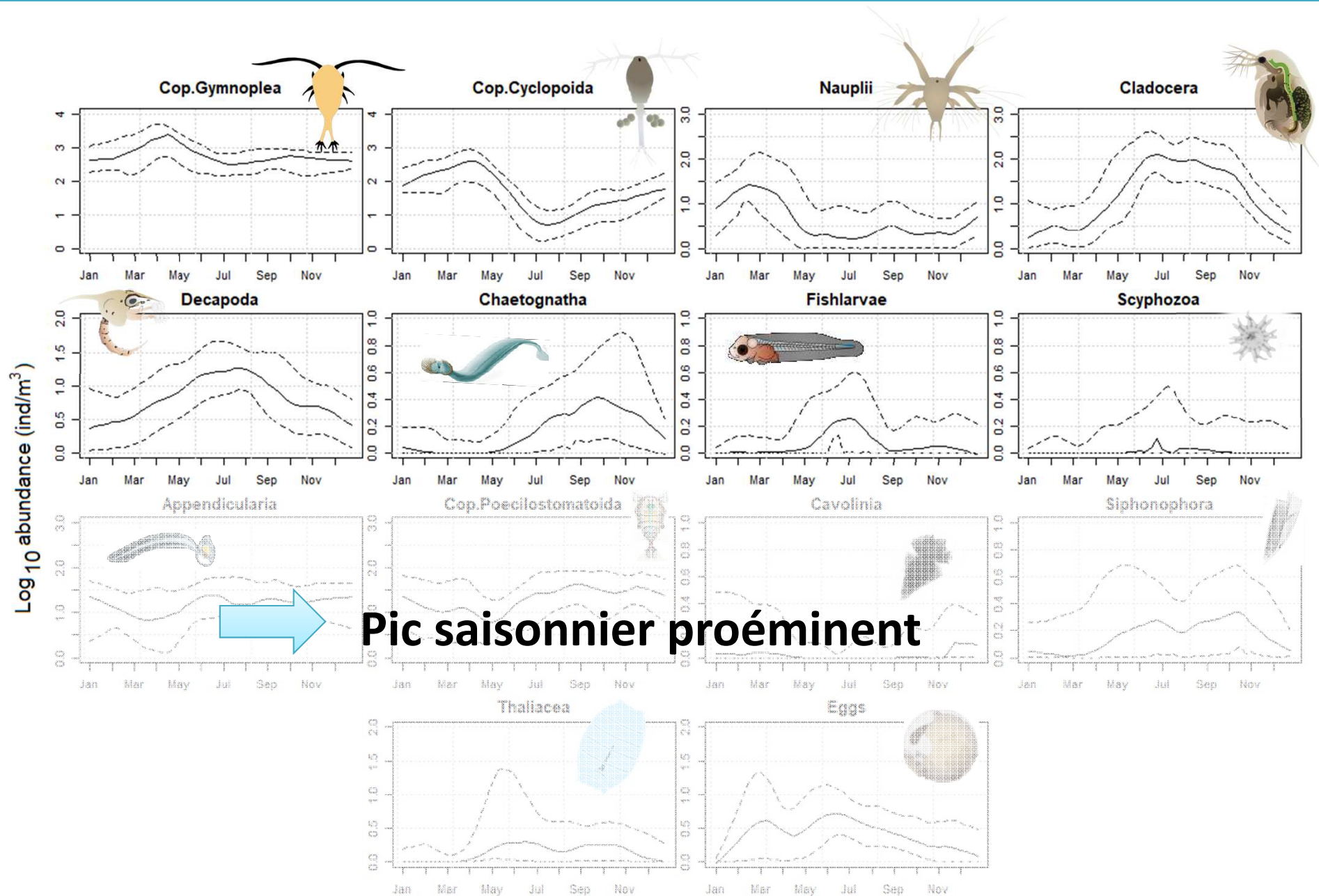
1. Variabilité saisonnière



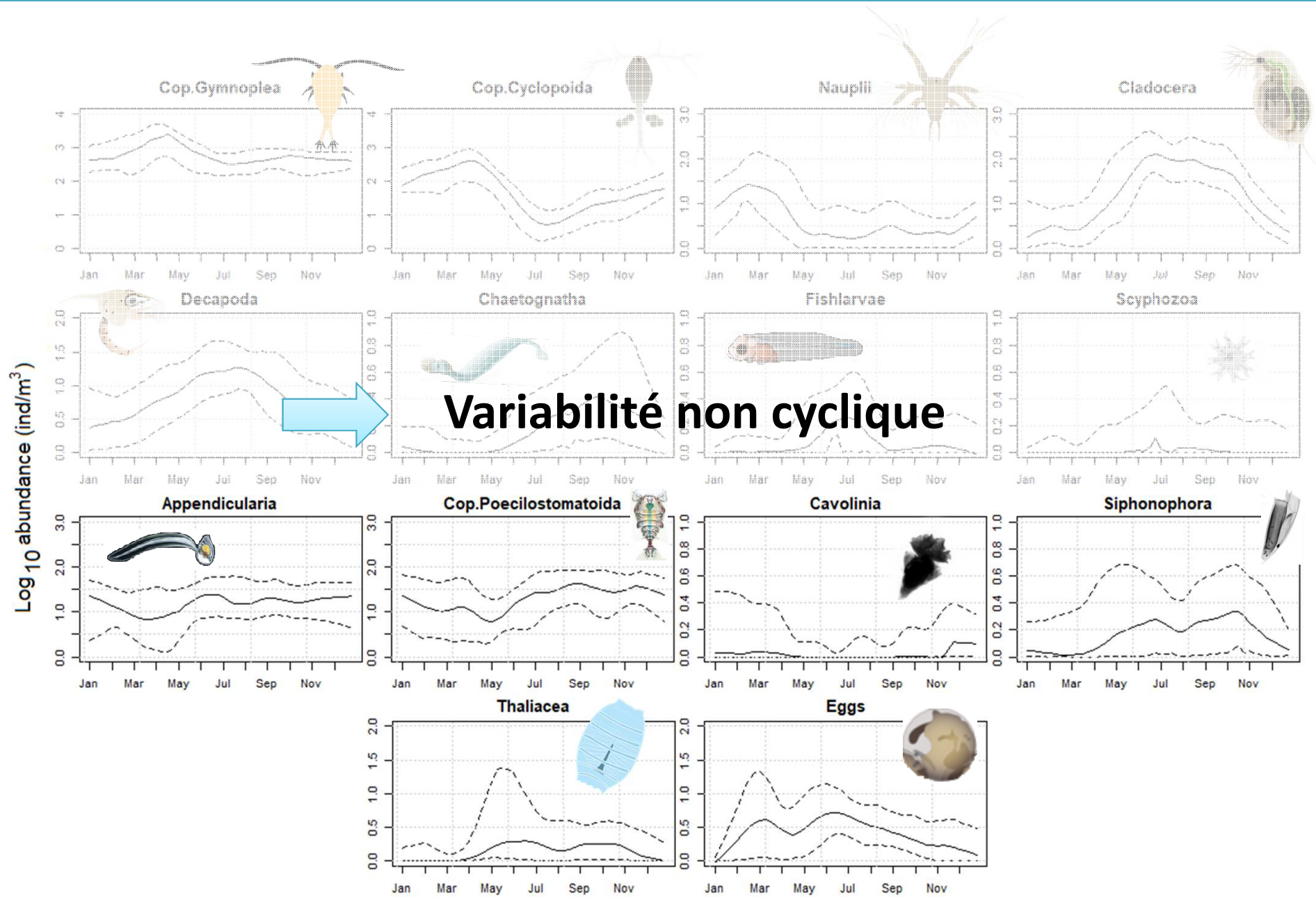
1. Variabilité saisonnière



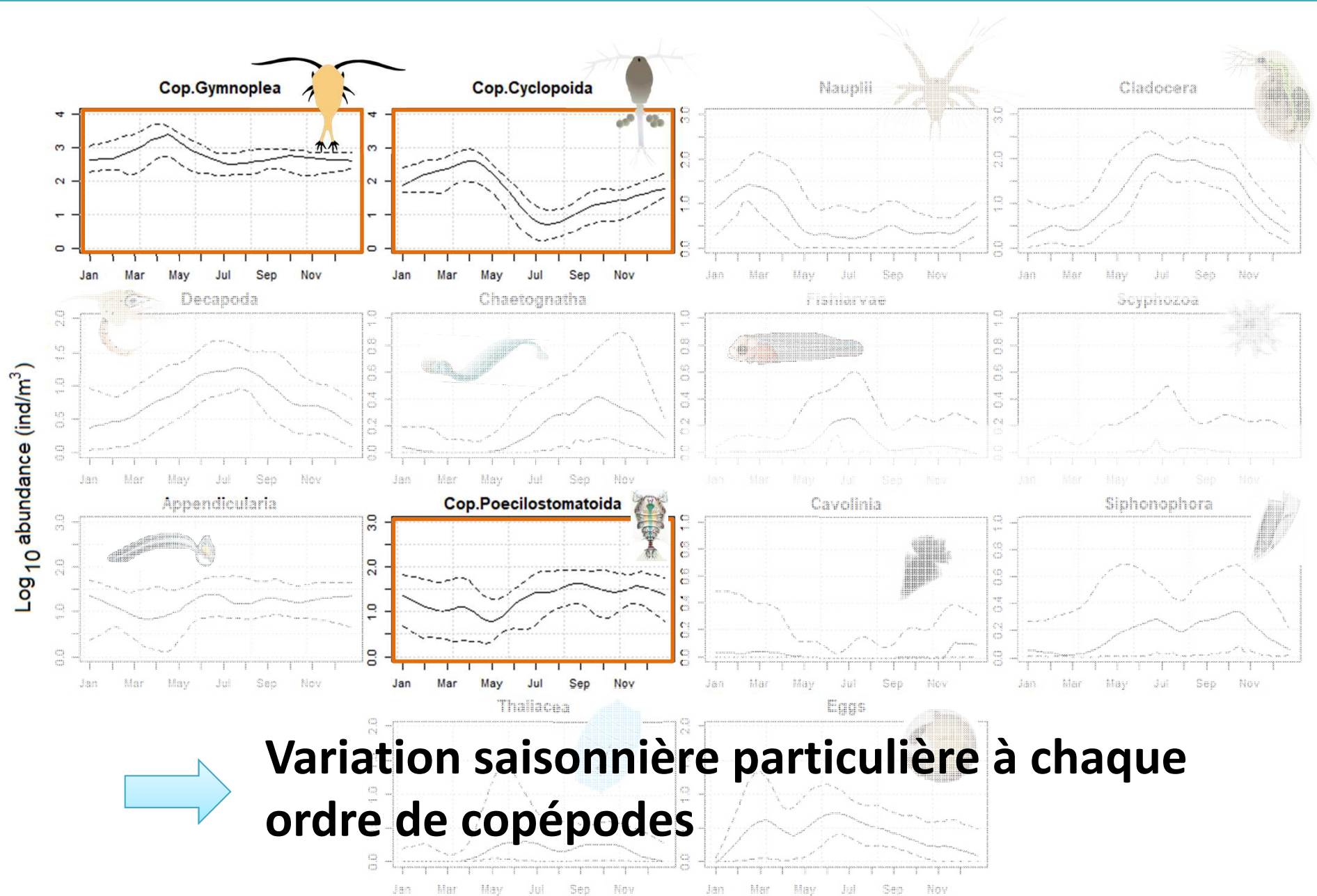
Objectif 1. Variabilité saisonnière



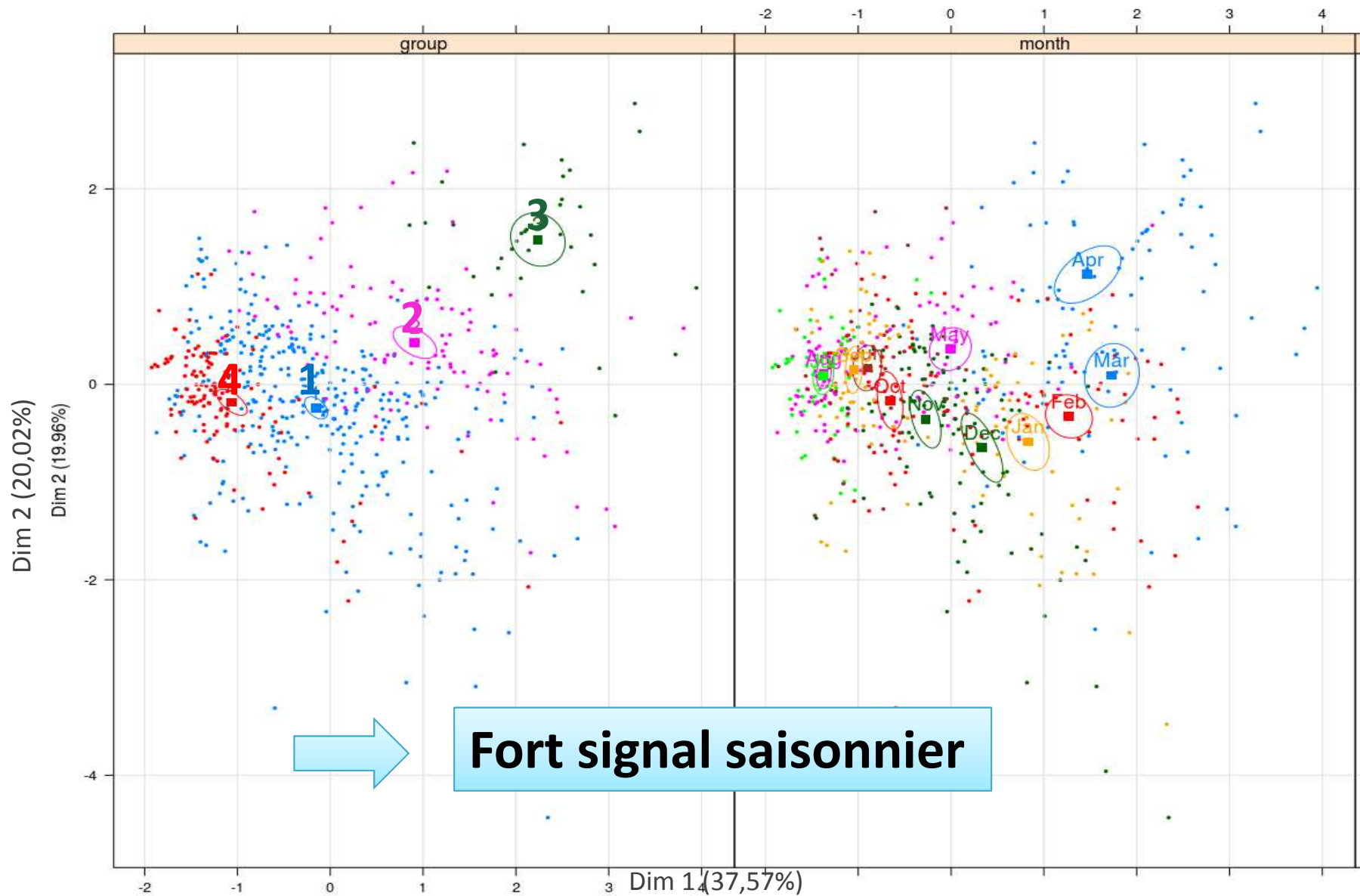
Objectif 1. Variabilité saisonnière



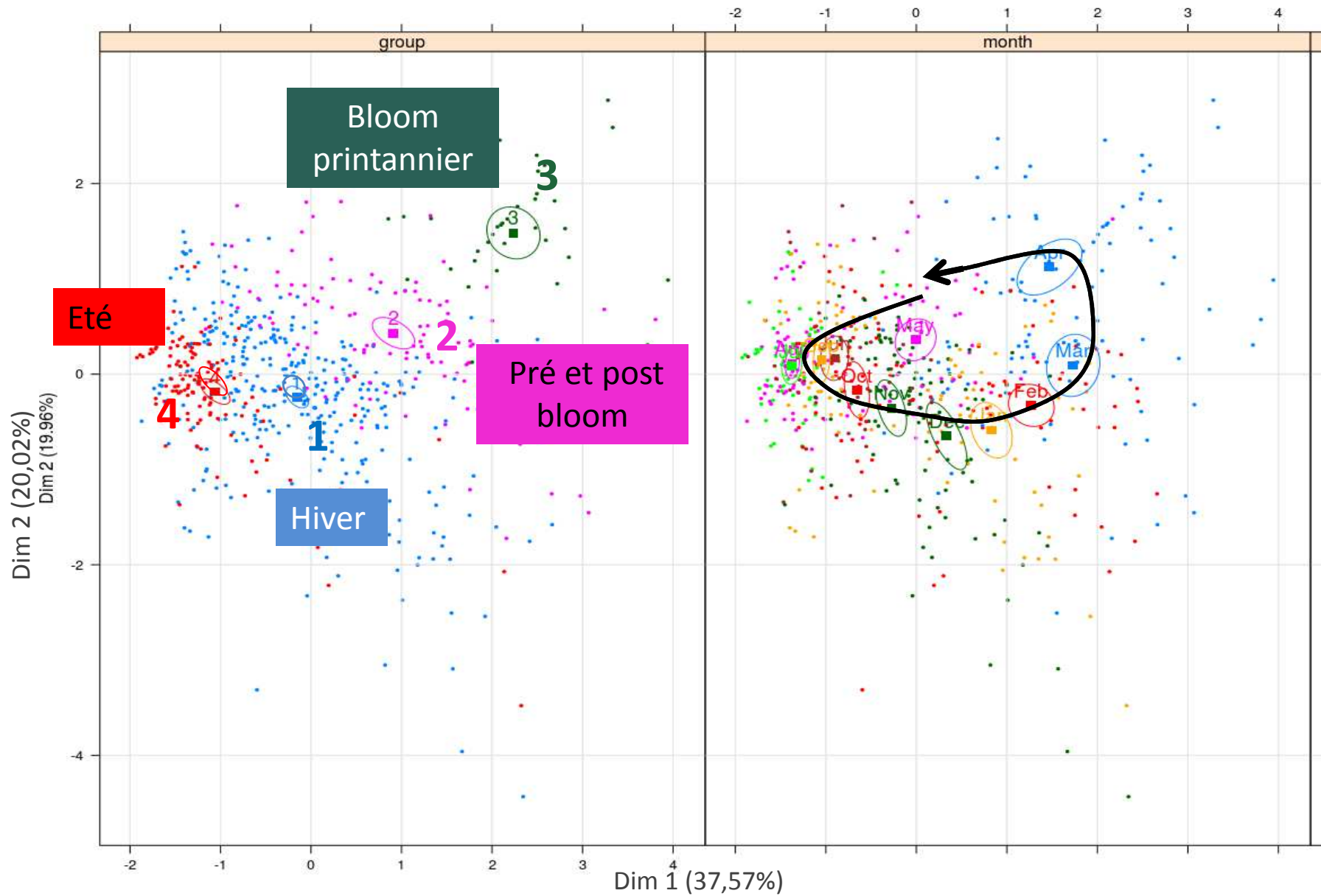
1. Variabilité saisonnière



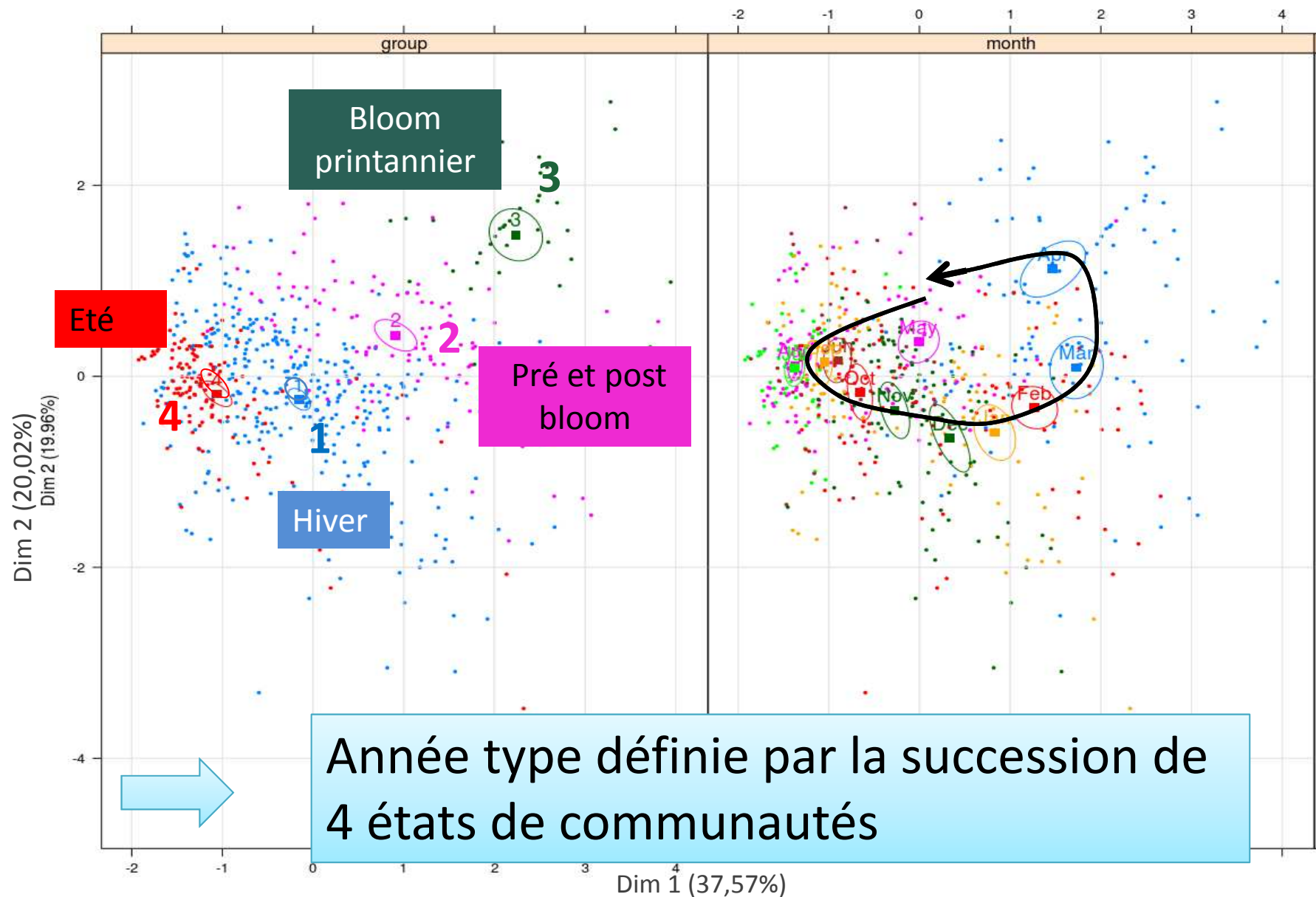
2. Variabilité interannuelle



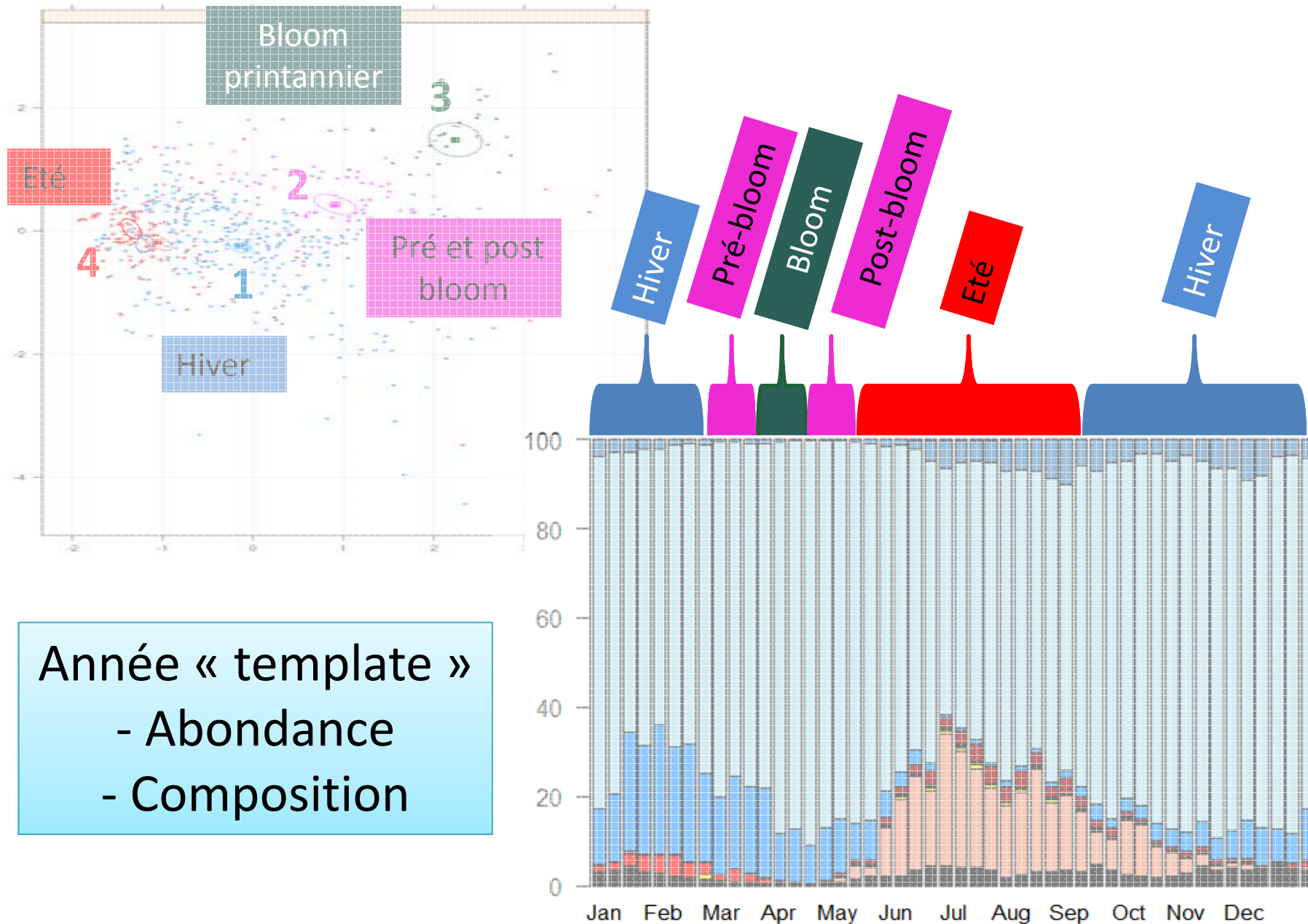
Objectif 2. Variabilité interannuelle



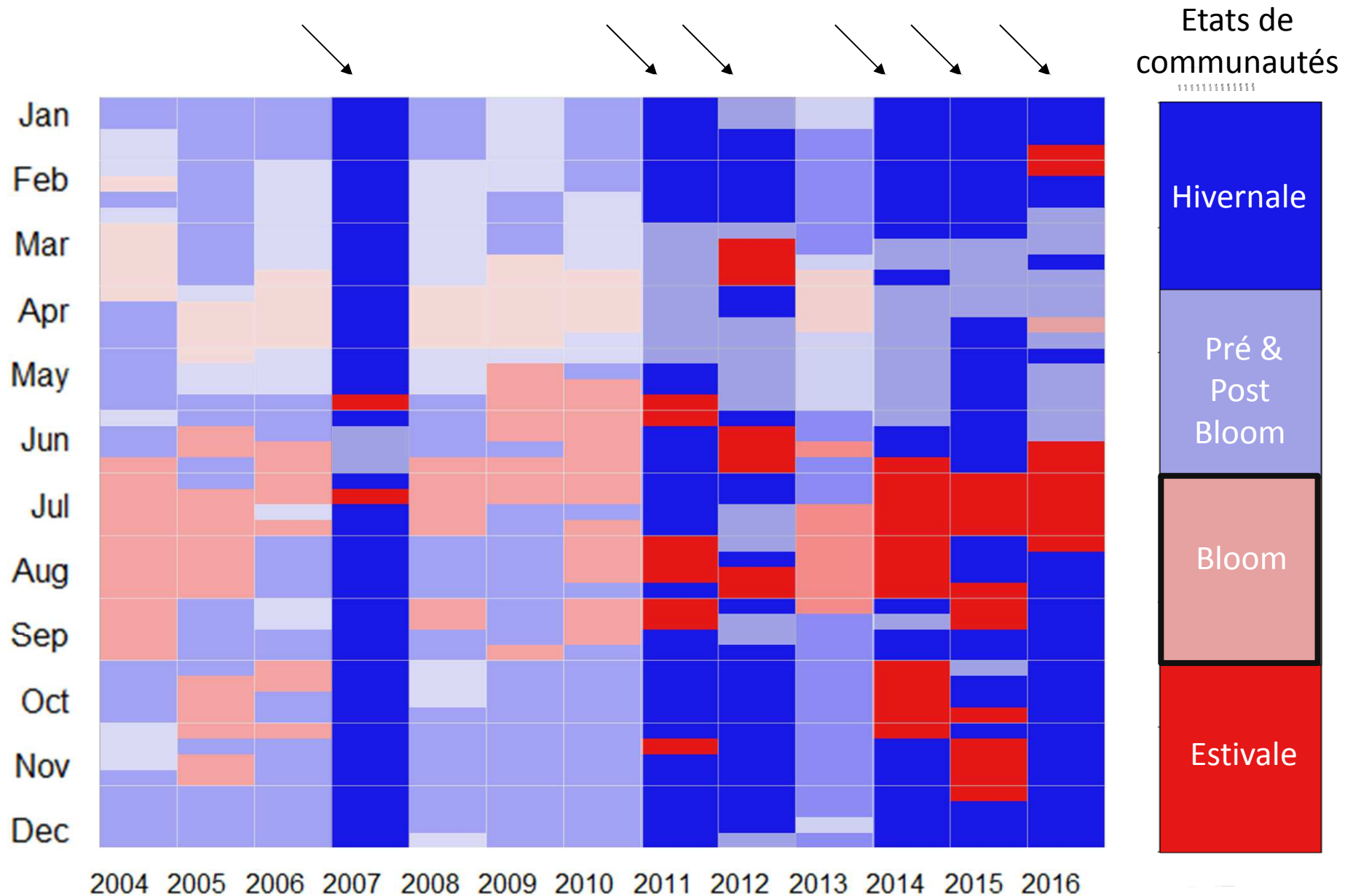
Objectif 2. Variabilité interannuelle



Objectif 2. Variabilité interannuelle

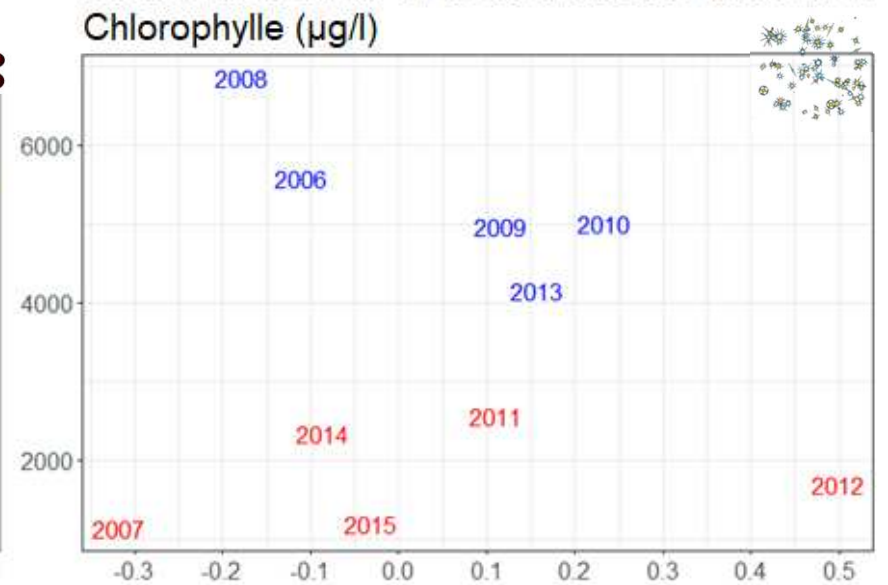
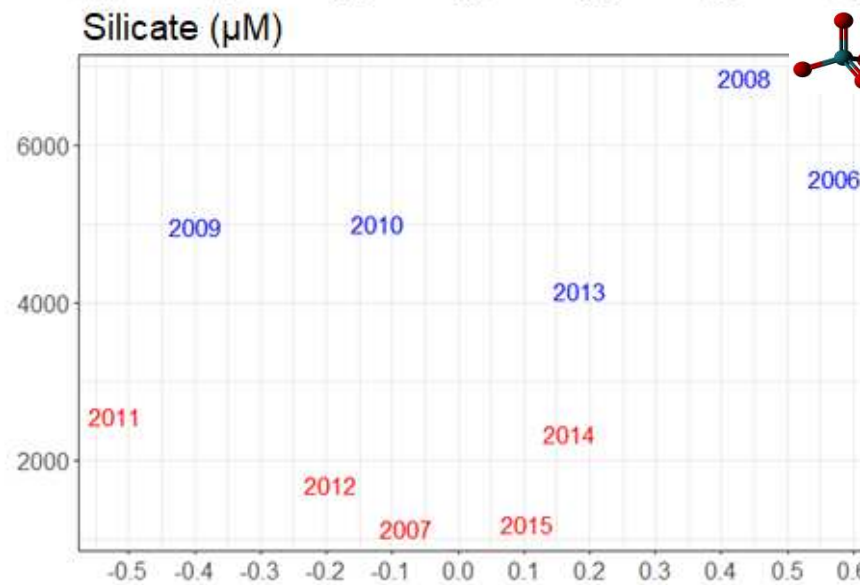
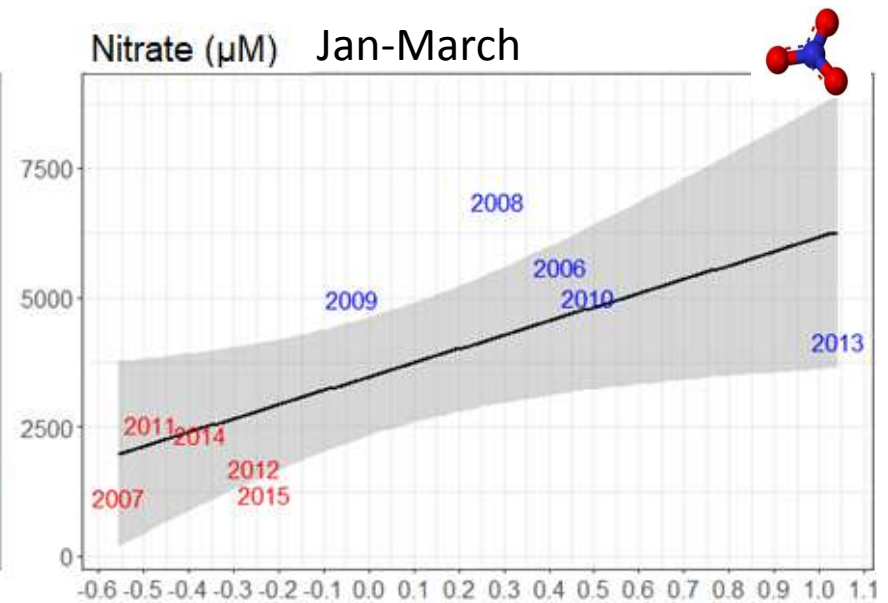
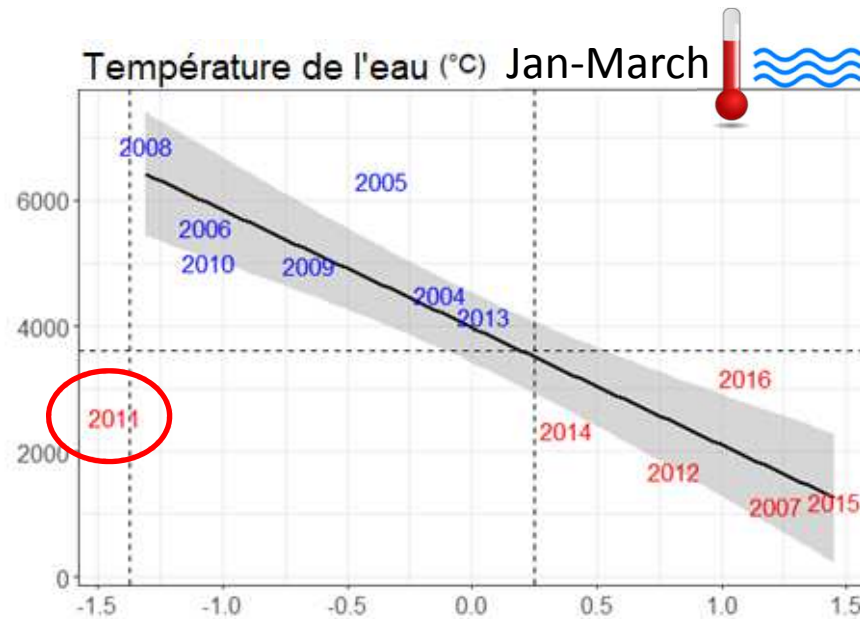


2. Variabilité interannuelle



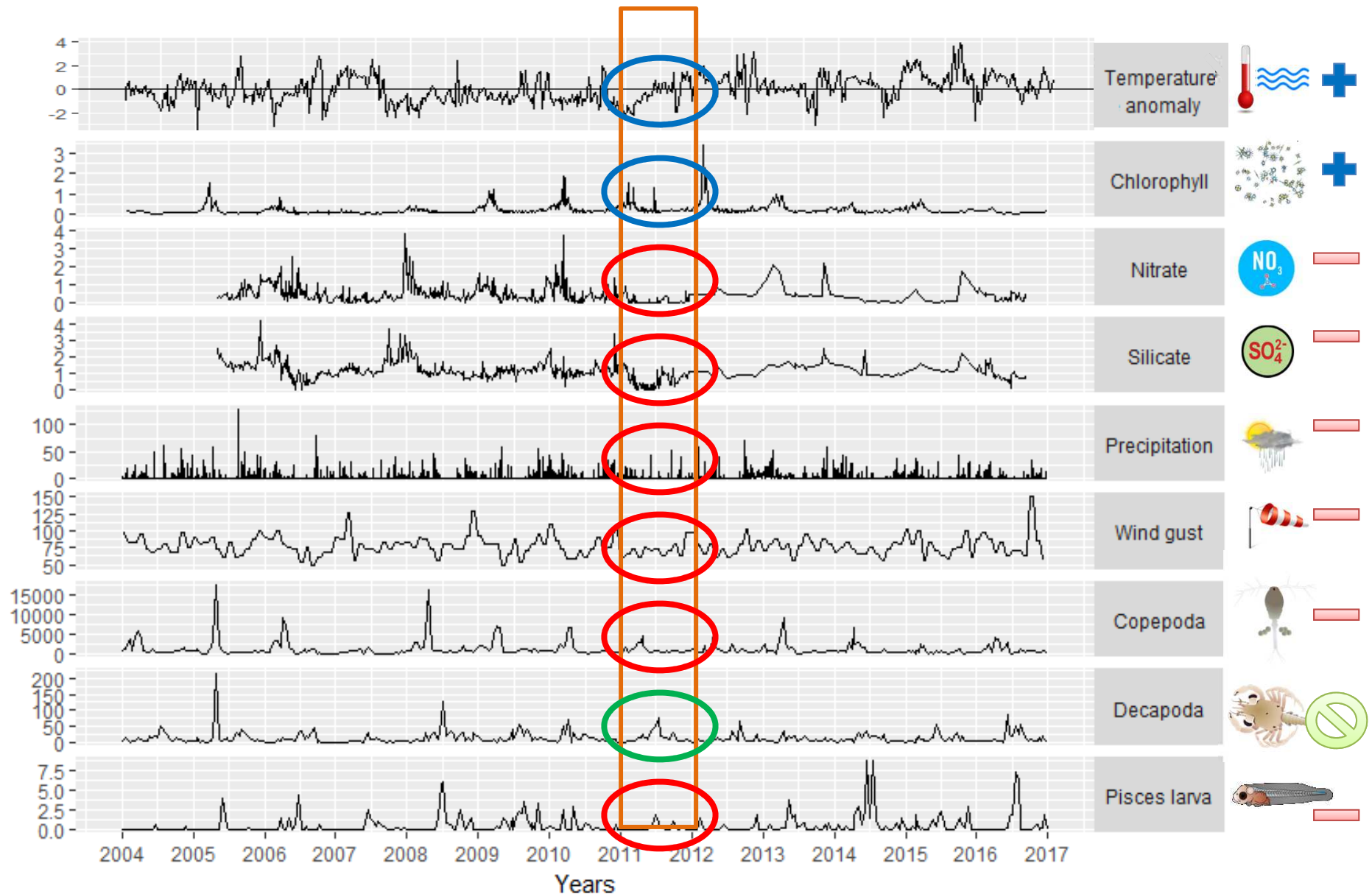
Objectif 2. Variabilité interannuelle

Abondance maximale de copépodes (ind/m³)

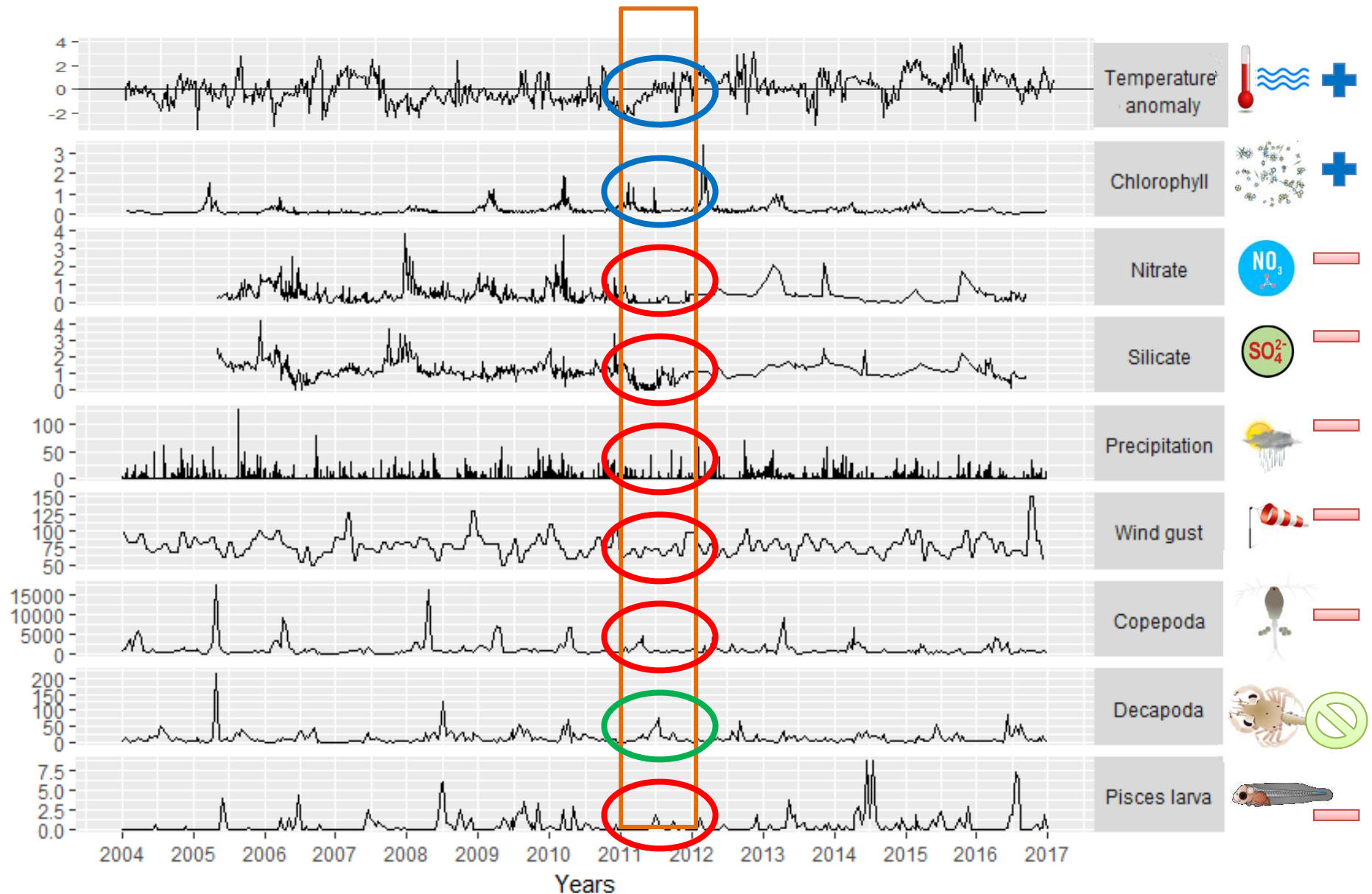


Anomalies

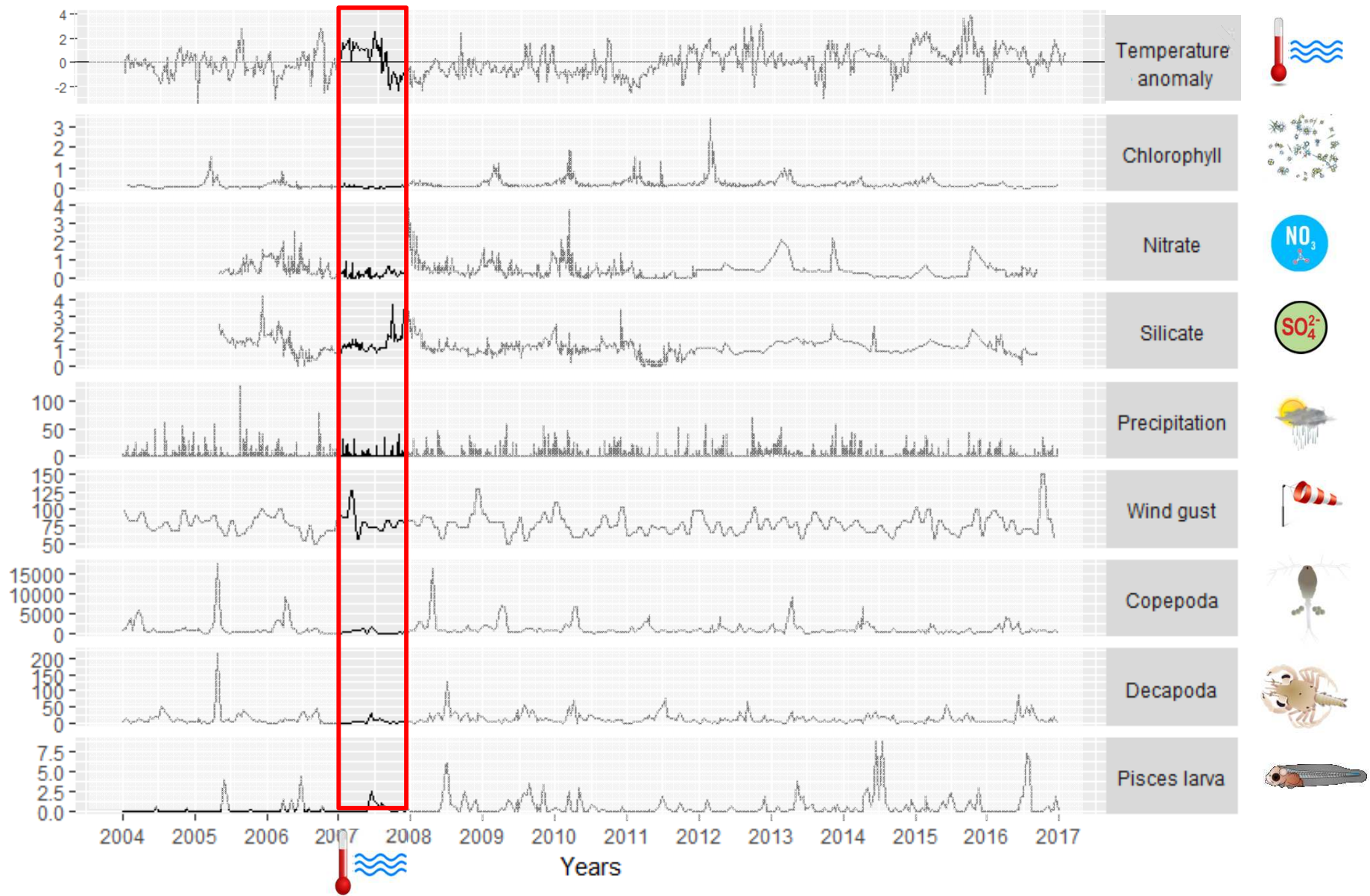
2. Variabilité interannuelle



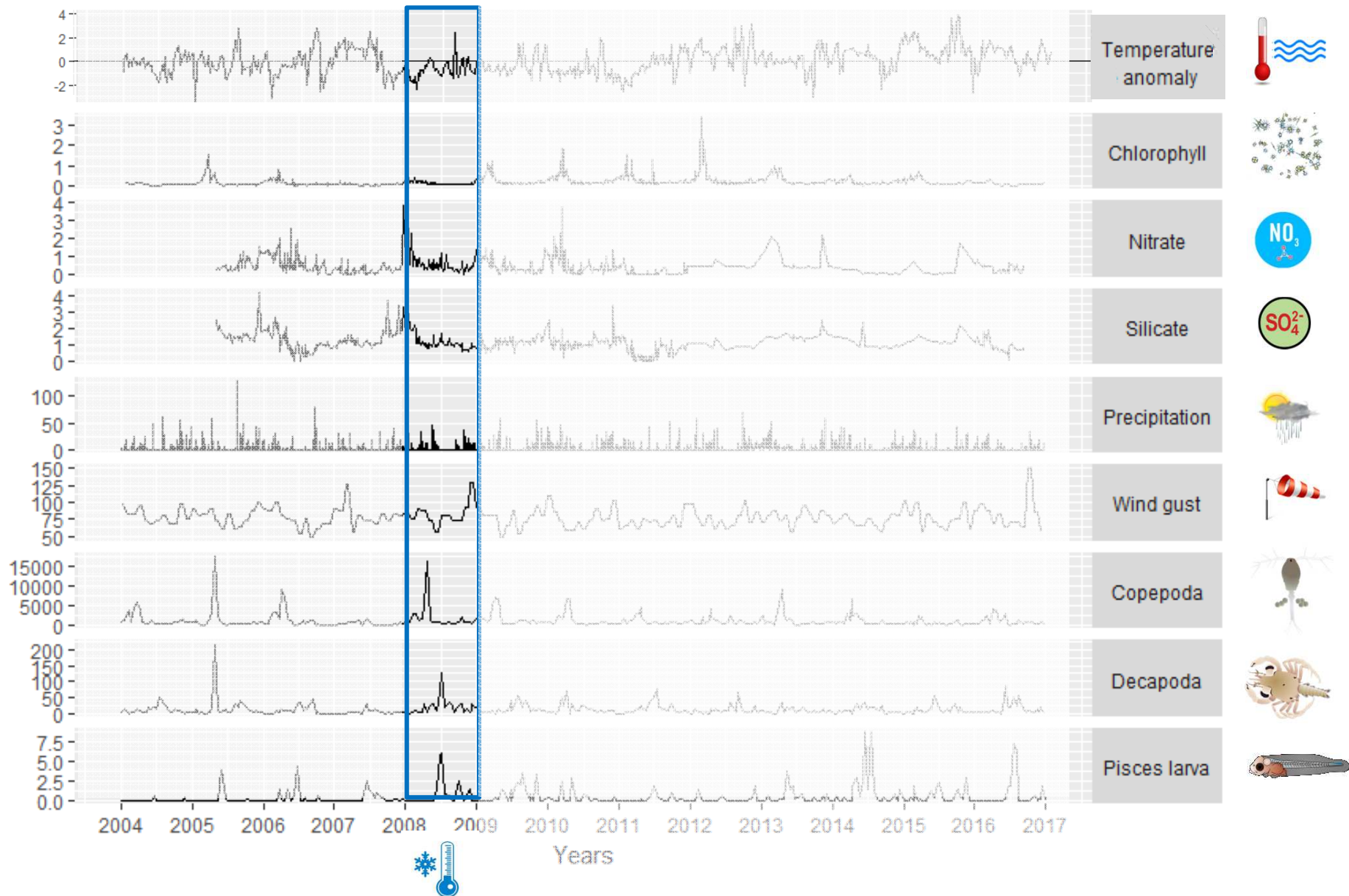
2. Variabilité interannuelle



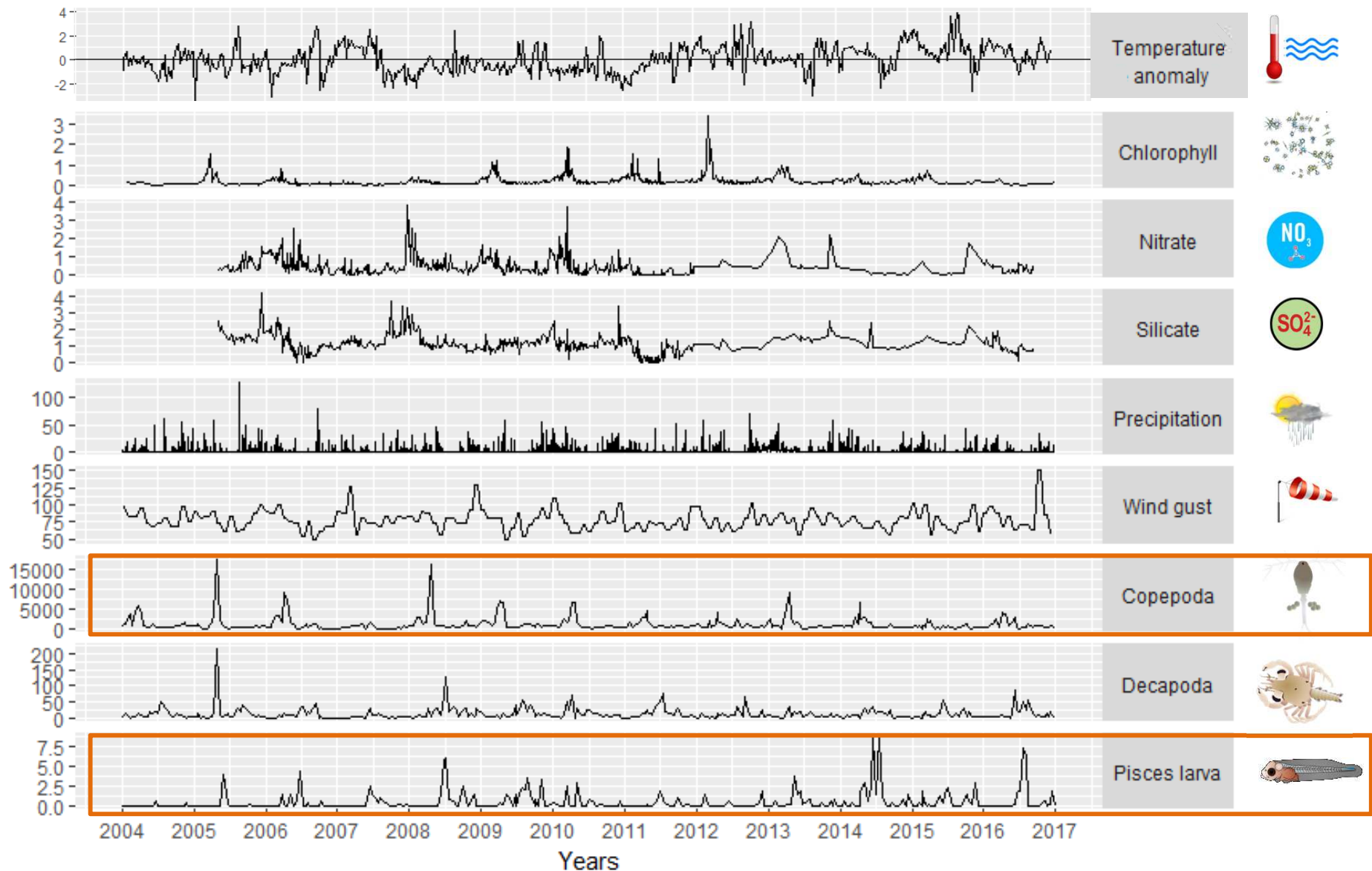
2. Variabilité interannuelle



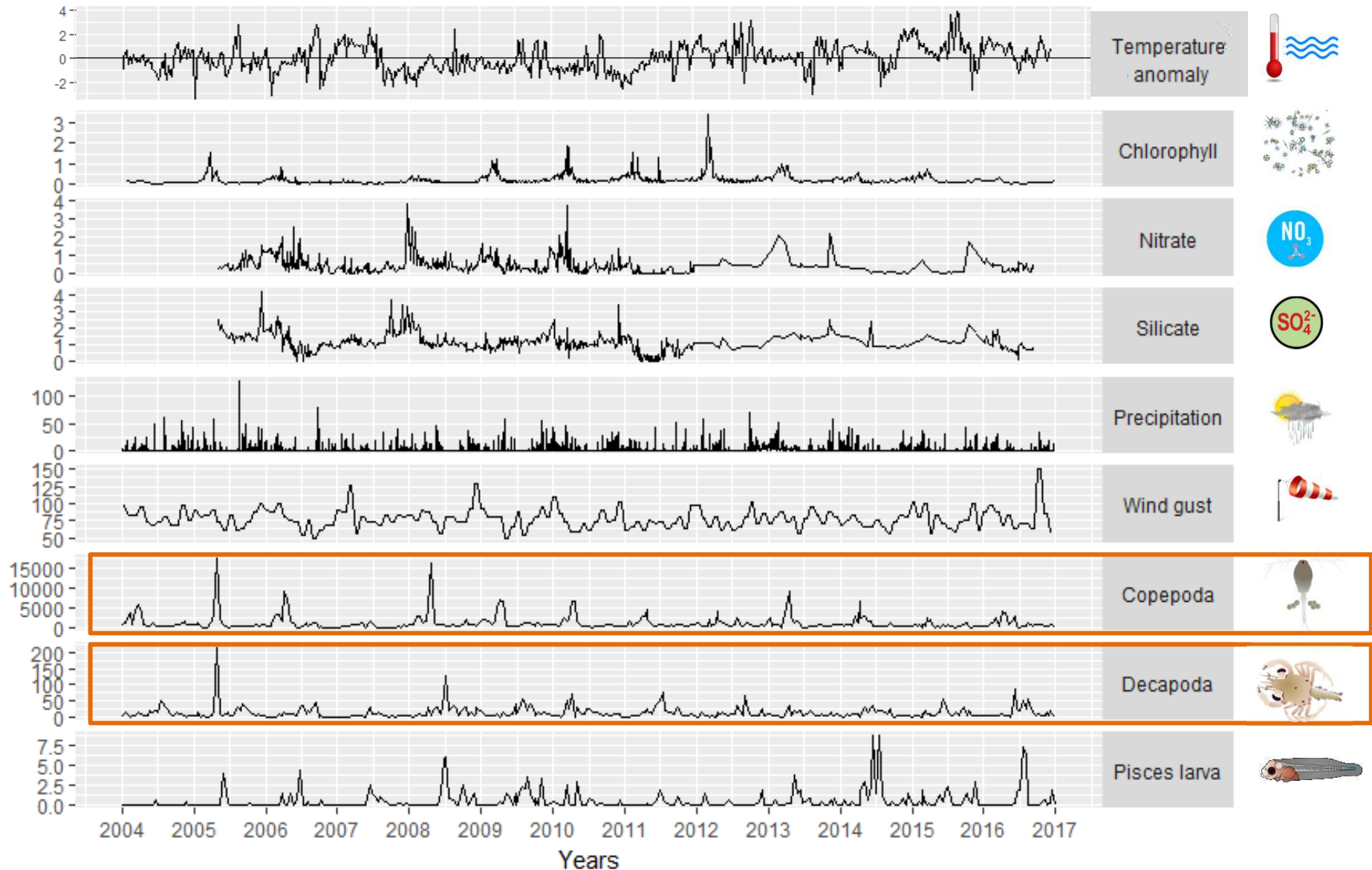
2. Variabilité interannuelle



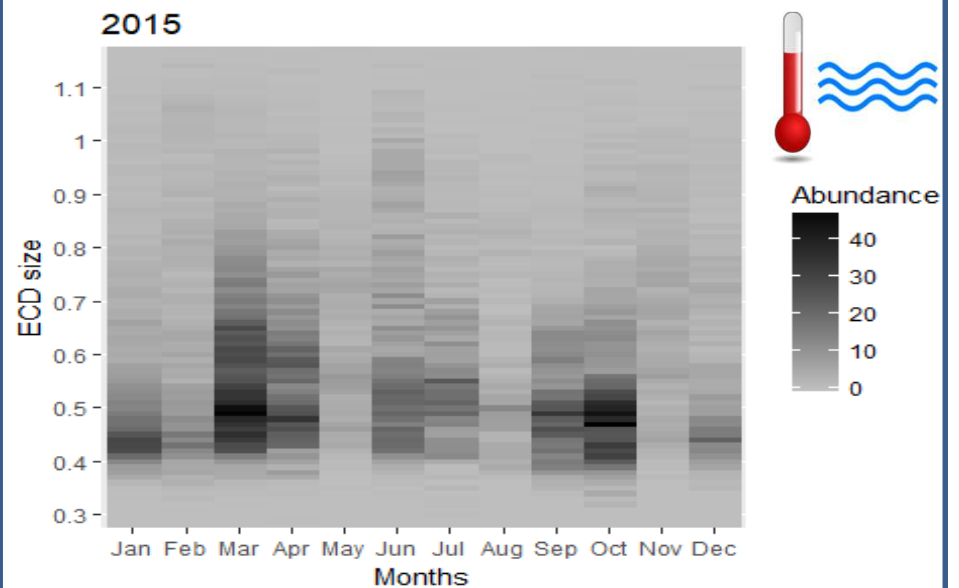
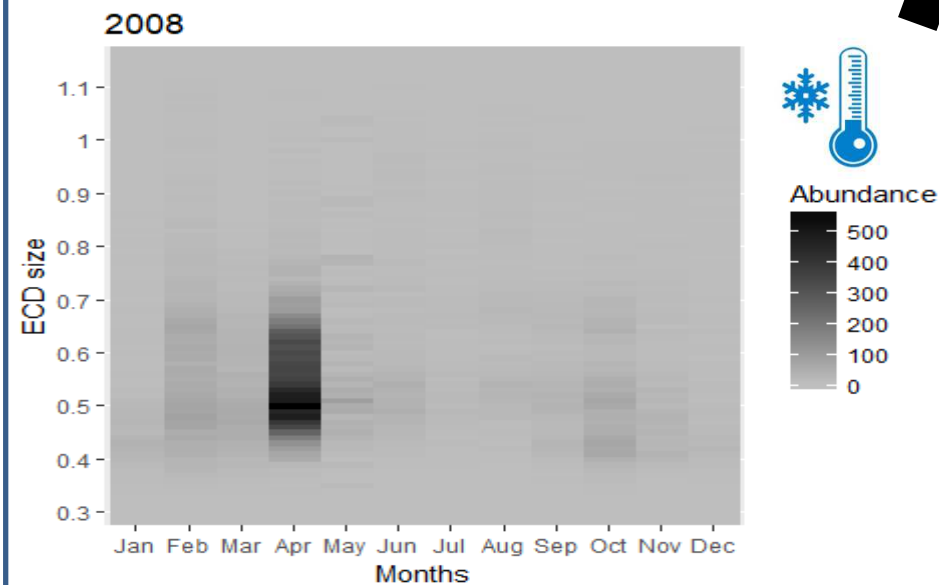
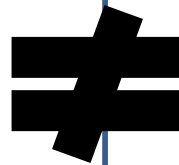
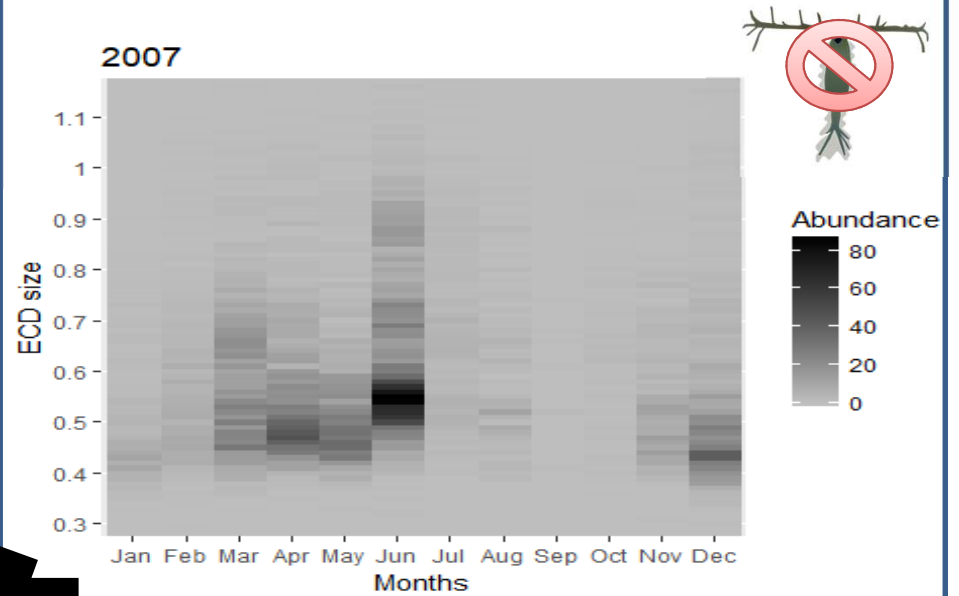
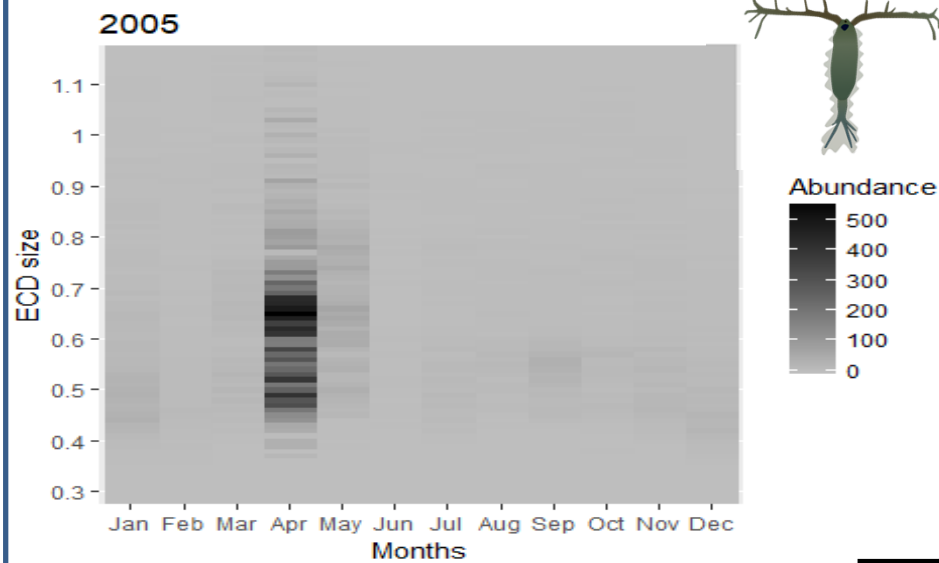
2. Variabilité interannuelle



2. Variabilité interannuelle



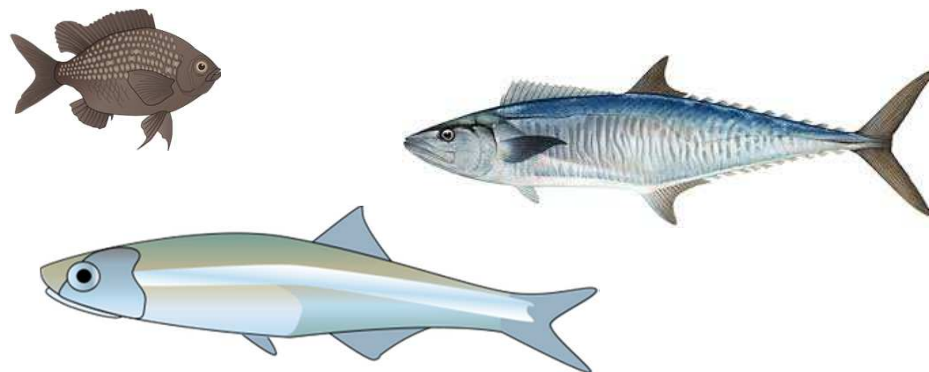
3. Spectre de tailles



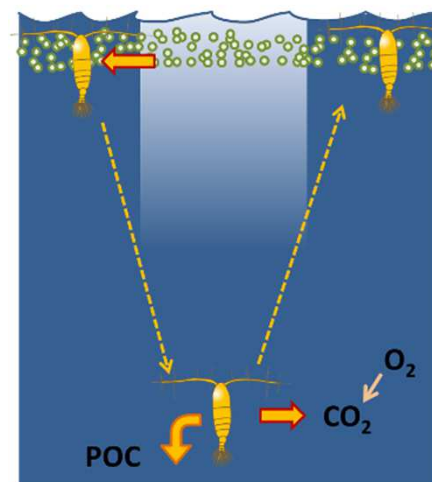
3. Spectre de tailles

- **Prédation**

- biomasse disponible
- sélectivité



- **Migration verticale**





Wind gusts



Water mixing

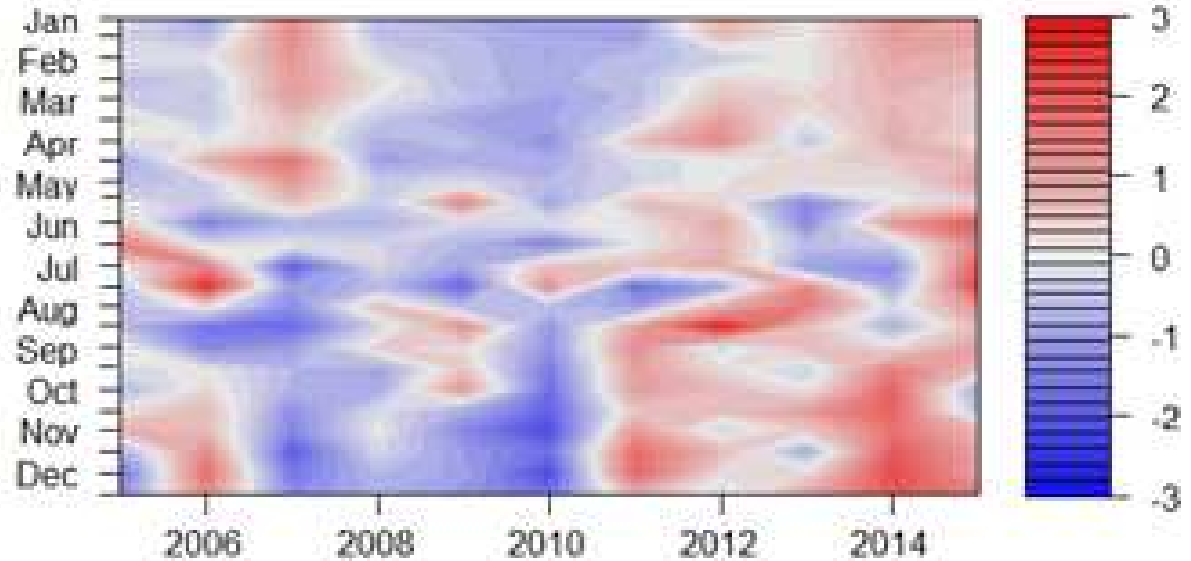


Nutrients

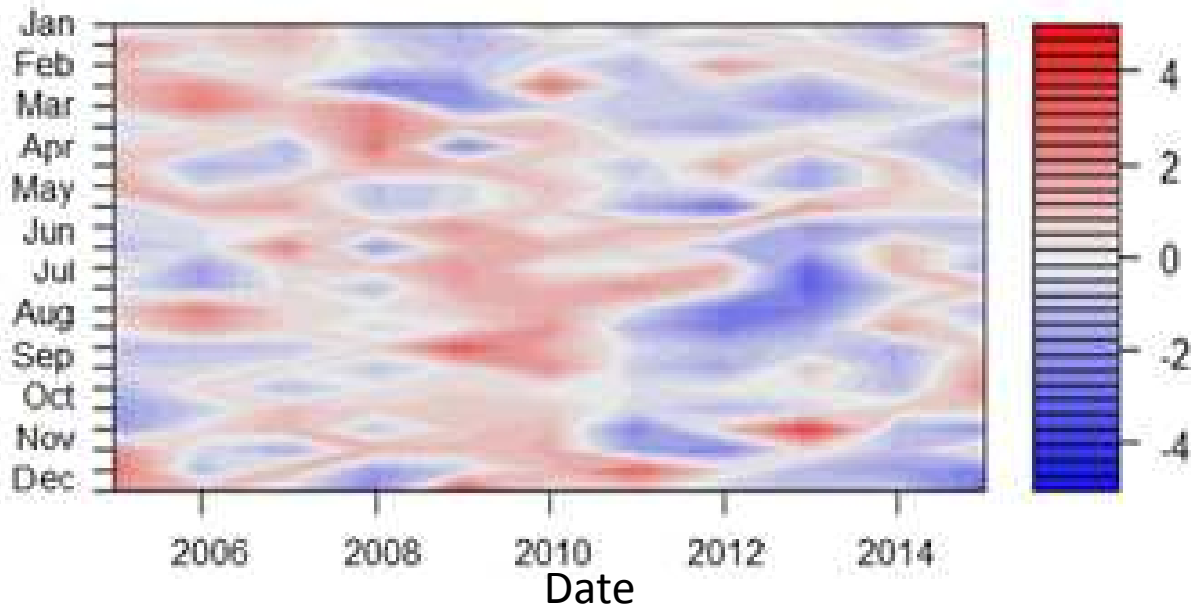


Chlorophyll bloom


Water temperature anomalies



Wind speed anomalies



Conclusions

- **Fort signal saisonnier**
-> évolution template de structure
- **Fluctuations interannuelles des structures de communautés**
- **Facteurs fortement liés au bloom:**
 - Nutriments (nitrate)
 -  Température
 - Chlorophylle
- **Potentielles relations trophiques inter-zooplanctoniques**
- **Variation de tailles**



Suite

- **Cycle carbone : biomasse**
- **Etudes ichtyologiques & benthiques**
- **Prédation sélective
(taxonomie et taille)**
- **Profils verticaux**
- **Profils acoustics**





Merci



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