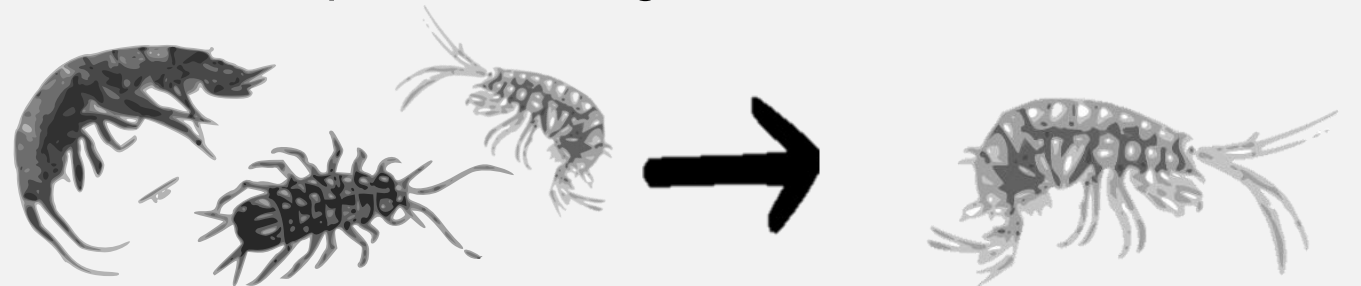


(a) DEFINE ECOLOGICALLY IMPORTANT TRAITS

(i) Ecological process:

Decomposition of organic matter in rivers



(ii) Focal community:
Detritivorous crustaceans

(iii) Reference genome:
Gammarus fossarum

(iv) Target traits: Food assimilation, body size,
locomotion activity, aggregation behavior...

(b) FINDING GENES IN THE LITERATURE

Identify relevant genes-trait studies:

Functional genomics and *functional ecology* fields

Model and semi-model species

Reviews



Putative PCCGs: 89 genes identified from 110 papers

(c) ACQUIRE GENES SEQUENCES

(i) Directly on papers:



(ii) On NCBI database:

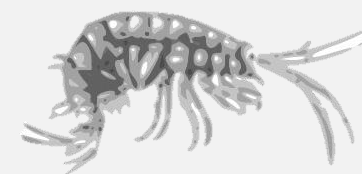
Hyallela azteca
Gammarus fossarum
G. Pulex & rosaeli
Amphipoda

Penaeus vannamei
Malacostraca

Daphnia magna **Crustacea**

PCCGs panel: 60 genes found in amphipoda,
most of sequence on *Hyallela azteca*

(d) RETRIEVE PCCGs ON THE REFERENCE GENOME



BLAST: Search of PCCGs
in the reference genome



Final PCCGs panel: 60 genes found
in *Gammarus fossarum* for a total of
529 exons (~340 000 pb)