

Description of the dataset archived for the article "Sexual isolation with and without ecological isolation in marine isopods *Jaera albifrons* and *J. praeheirsuta*"

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All files are tab-delimited text files

nochoice_crosses.txt

This file contains the results of all no-choice crosses performed with individuals from the same region or different regions.

cross: label of each experimental cross

region: male and female from a unique region (Brittany or Normandy) or from different regions (Interregion).

type: intraspecific or interspecific cross

mother.origin: region of origin of the female (that is, region where the mother of this female was sampled).

mother.species: female species

father.origin: region of origin of the male

father.species: male species

mother.cross.to.death.time: time in days between the setting-up of the cross and the death of the female

success: did the cross result in offspring production?

cross.to.juv.time: time in days between the setting-up of the cross and the birth of offspring

n.juv: number of offspring produced (first brood)

survival.35days: number of offspring alive 35 days after their birth.

genotypes_parents.txt

This file contains the microsatellite genotypes of the potential parents in the multiple-choice experimental population.

genotypes_offspring.txt

This file contains the microsatellite genotypes of the offspring produced in the multiple-choice experimental population.

male_phenotypes.txt

This file contains the phenotypic variables and the mating success of the males (potential parents) used in the multiple-choice experiment.

size: in mm

M: number of mating partners identified after genetic parentage analyses

Ma: number of *Jaera albifrons* female mating partners

Mp: number of *Jaera praeheirsuta* female mating partners

species: male species

All other columns correspond to male secondary sexual traits as described in the article.

male_reprod_success.txt

Contains details of the mating success of males in the multiple-choice experiment.

brood1juvtot: total number of offspring sired by a given male (possibly with several females), considering only the first brood of each mating partner.

nb_partners: number of mating partners

ID_partner1: label of female mating partner

species_partner1: species of female mating partner

length_partner1: length (in mm) of female mating partner

nb_juvpartner1: number of offspring sired by the male with this particular female.

A male could have had up to 4 mating partners in this experiment.

female_reprod_success.txt

Contains details of the reproductive success of females in the multiple-choice experiment

ID, species, and length: label, species and length (in mm) of the female.

nb_juvtot: number of offspring produced by each female (possibly over two successive broods).

nb_broods: number of broods analysed for each female (0, 1, or 2).

brood1: number of offspring in first brood

b1assigned: number of offspring that could be genotyped and assigned to their parents (genetic identification of their father)

nb_partners: number of male mating partners

ID_partner1: identity of male mating partner 1

nb_juvpartner1: number of offspring produced with male partner 1.

pairs.txt

This file contains a list of all reproductive pairs identified in the multiple-choice experiment

f_ID: identity of the female in a particular pair of parents

f_species: species of the female

f_length: length (in mm) of the female

m_ID, m_species, m_length: idem for the male of each pair

nb_juvbrood1: number of offspring produced by this particular pair (first brood only).

nb_juvfemale and nb_juvmale: within nb_juvbrood1, number of female and male offspring