

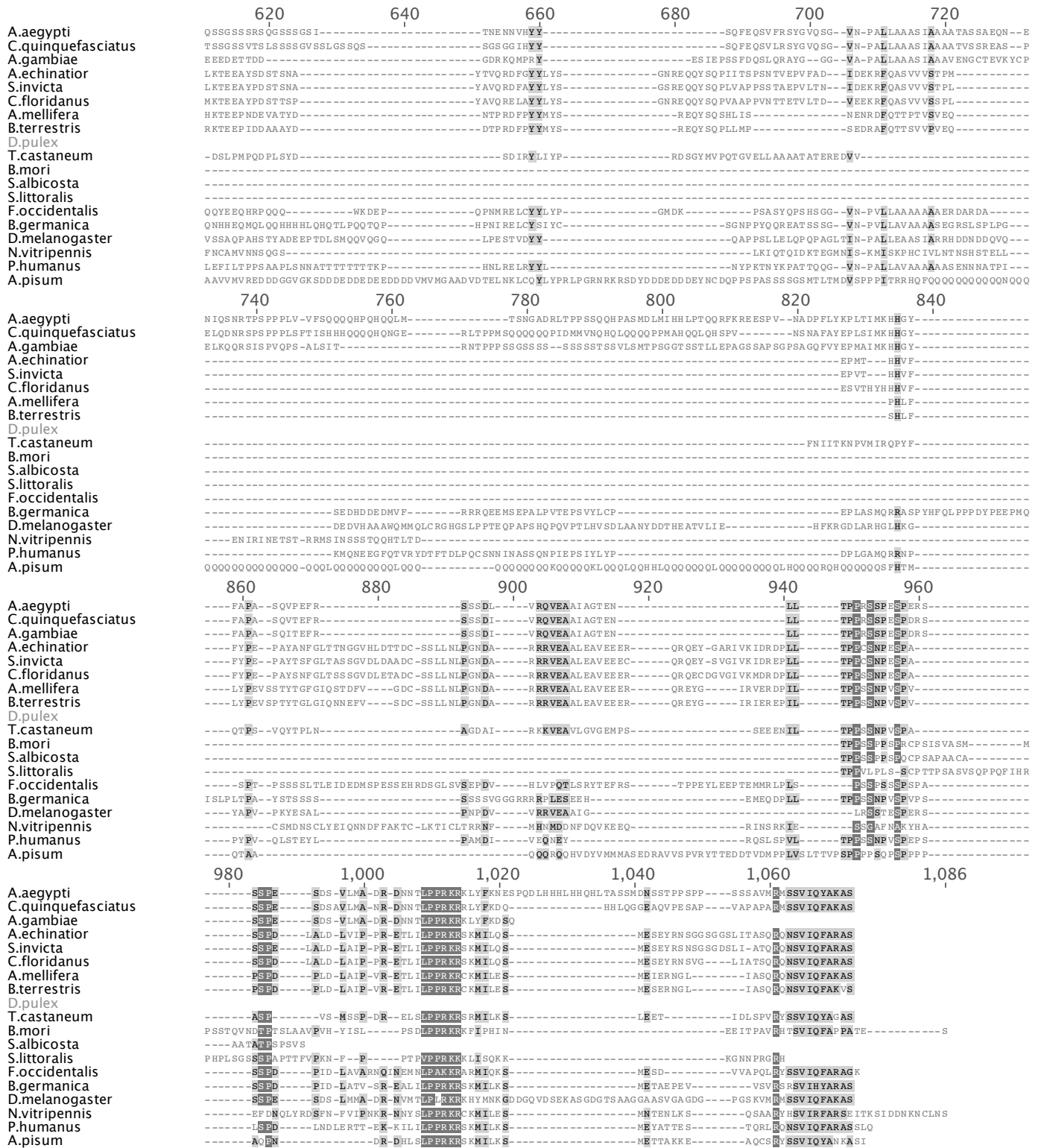
Supplementary information

Conserved repressive function of Krüppel homologue 1 on insect metamorphosis in hemimetabolous and holometabolous species

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3 Supplementary Figures

1 Supplementary Table



Supplementary Figure S1. Alignment of the Krüppel homolog 1 protein sequences from insects and from the Crustacean *Daphnia pulex*. The alignment was carried out using MAFFT program and visualized in Geneious Software. Positions with 100% of identity are indicated in black, 80 to 99% in dark grey, 60 to 79% in bright grey and in white with less than 59%.



Supplementary Figure 2. Dorsal and ventral view of a supernumerary nymph of *Blattella germanica*. They were obtained after treating freshly ecdysed sith (last) instar female nymphs with 20 μg of JH III. The wings were partially extended, but the general shape and dark coloration, in particular in the abdomen, correspond to a nymph.



Supplementary Figure 3. Incomplete imaginal ecdysis of nymph-adult intermediates of *Blattella germanica*. Nymph-adult intermediates were obtained instead the normal sixth (last) nymphal instar after treating freshly ecdysed fifth instar nymphs with dsKr-h1. Most of them (86%) died between 6 and 10 days after the molt, but 14% were able to molt again, although did not complete the ecdysis. The image shows one of these specimens, still with part of the exuvia covering the tip of the abdomen. The wings are unextended, but the general shape and yellowish coloration, in particular in the abdomen, correspond to an adult.

Supplementary Table

Supplementary Table 1. Summary of the RNAi experiments to knockdown BgKr-h1 in *Blattella germanica*. Experiments were carried out on males (M) or females (F), with a single dose of 3 µg of dsKr-h1 injected on day 0 of the corresponding nymphal instar, or with two doses of 3 µg of dsKr-h1 each, injected on day 0 and day 3. The phenotype refers to the external morphology of the specimens.

Sex	Nymphal instar	dsKr-h1 day 0	dsKr-h1 day 3	n	Phenotype
F	4th	x		25	6 (24%) intermediate nymph-adult* 19 (76%) precocious adult*
F	4th	x	x	20	20 (100%) precocious adult*
F	5th	x		41	29 (71%) intermediate nymph-adult** 12 (29%) precocious adult**
F	5th	x	x	21	21 (100%) precocious adult**
M	4th	x		20	20 (100%) precocious adult*
M	5th	x		23	23 (100%) precocious adult**

*Phenotype obtained after two molts

** Phenotype obtained after one molt