## Appendices for:

Is biocontrol efficacy rather driven by the plant or the antagonist genotypes?: a conceptual bioassay approach

## List of Authors

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Fig. S1. Life cycle of the biocontrol candidate *Ophraella communa* and size (length) of each stage a: egg-batch with 16 eggs; b: first larval instar (L1 instar); c: the second larval instar (L2 instar); d: the third larval instar (L3 instar); e: pupa; f: adult.



Fig. S2. Origin of Ambrosia artemisiifolia seed families (green) and Ophraella communa genotypes (red) collected in a) North America; b)Europa;c)China.







Fig. S4. Set-up of the experimental design. Circle colors represent different genotypes of *Ophraella communa*, and leaf colors represent different genotypes of *Ambrosia artemisiifolia*. For each test, we did three replicates.



Fig. S5. Effect of all *Ambrosia artemisiifolia* and *Ophraella communa* genotypes on the survival of each larval instars and pupal stage of *O. communa*. Grey cells represent dead *O. communa*, and blank cells represent missing data. All matrices are highly correlated (P < 0.001).



Fig. S6. Effect of all *Ambrosia artemisiifolia* and *Ophraella communa* genotypes on the developmental time of each larval instar and pupal stage of *O. communa*. Grey cells represent dead *Ophraella communa* individuals, and blank cells represent the missing data. All those matrices are highly correlated (P < 0.001).



Fig. S7. Effect of all *Ambrosia artemisiifolia* and *Ophraella communa* genotypes on the dry weight and water content of *O. communa* adults, and on the total, first and second leaf area consumed. Grey cells represent dead *Ophraella communa*, and blank cells represent missing data.



Fig. S8. Relationship between total leaf area consumed of *Ambrosia artemisiifolia* and *Ophraella communa* adult dry biomass. Each point represents one individual; blue for males and pink for females. Blue, pink and grey lines represent significant linear regression for males, females and overall; respectively.