**Supplementary Material**

A close up of a logo

Description automatically generated

**Figure S1**. Diagram of floral characters measured from pressed Aquilegia specimens. (a) anther exsertion; (b) corolla width; (c) lamina length; (d) spur length; (e) lamina width; (f) cleft lamina; (g) sepal length; and (h) sepal width. All traits except (f) were used to construct a hybrid index as described in Materials and Methods in the main text. Left: complete flower from an *A. flavescens* × *formosa* individual; middle: representative petals and sepal of *A. flavescens*; right: representative petals and sepal of *A. formosa*. Figure reproduced from Groh et al. (2019).

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Lamina width** | **Lamina length** | **Anther exsertion** | **Spur length** | **Sepal width** | **Corolla width** | **Sepal length** |
| ***A. formosa* mean (cm)** | 0.36 ±  0.01 | 0.25 ±  0.01 | 1.20 ± 0.03 | 1.76 ±  0.03 | 0.76 ±  0.02 | 1.43 ± 0.02 | 2.15 ± 0.05 |
| ***A. flavescens* mean (cm)** | 0.68 ±  0.02 | 0.57 ±  0.01 | 0.66 ±  0.02 | 1.43 ± 0.03 | 0.69 ±  0.02 | 1.91 ±  0.04 | 1.95 ±  0.04 |
| **LD1 loading** | -4.59 | -3.22 | 2.09 | 1.70 | 1.53 | -0.98 | 0.32 |

**Table S1**. Estimated trait means and standard errors for *Aquilegia formosa* and *A. flavescens*. Values were computed using the training data set described in Materials and Methods in the main text. Sample sizes: *A. formosa,* 72; *A. flavescens*, 77. LD1 loadings give the coefficients in a linear combination of traits (from linear discriminant analysis) used to construct a hybrid index, with higher function values representing the *A. formosa* phenotype, and lower values representing the *A. flavescens* phenotype. Note that as traits were not scaled in this analysis, the magnitude of LD1 loadings does not strictly represent order of importance to species discrimination.