

**Figure S1:** Wing diagrams illustrating areas and lengths compared over stages and genotypes. Three areas were measured: interveins A and B (anterior, green), intervein C (middle, magenta) and intervein D (posterior, blue). We measured the distances between the twenty-eight possible pairwise combinations of the eight landmarks. Only four distances are shown in the diagram for clarity, between landmarks 2-3 (len23); 3-5 (len35); 5-8 (len58) and 7-8 (len78). In addition, we measured the length of a portion of the anterior margin (lenAnt) and of a portion of the posterior margin (lenPost) using landmarks landmarks 1, 3, 5, 7 and the semi-landmarks.





b.





**Figure S2.** Change in standardized lengths during development (all genotypes pooled). The boxplots show, for the distances corrected by the centroid size between each of the twenty-eight possible pairwise combinations of the eight landmarks (stlen), the ratio of the mean for stage 2 (e.g. pupal) over the mean for stage 1 (e.g. larva). Variance for the ratios were obtained by bootstrap (n = 1000, see methods). Notches on the boxplots display the 95 % confidence interval around the median. **a**. Ratio pupal/larva. **b**. Ratio adult/pupa. Pictures (from Fig. 3) for larval, pupal and adult wings with landmarks positions are shown. a. For standardized lengths.



b. For absolute and relative areas.



**Figure S3.** Variation between genotypes yw and ds in adult wing univariate measurements. The boxplots show for each variable the ratio of the mean for genotype ds over the mean for genotype yw. Variances for the ratios were obtained by bootstrap (n = 1000, see methods). Notches on the boxplots display the 95 % confidence interval around the median. **a**. Changes in the distances corrected by the centroid size between each of the twenty-eight possible pairwise combinations of the eight landmarks. A diagram (from Fig. 7) summarizing the overall adult wing shape variation between yw and ds is shown. **b**. Changes in absolute areas and in areas corrected by the total wing area (relative area).





b. For absolute and relative areas.



stlen12 stlen67

**Figure S5.** Change in adult wings univariate measurments between genotypes *yw* and *shf*. The boxplots show, for each variable, the ratio of the mean for genotype shf2 over the mean for genotype *yw*. Variance for the ratios were obtained by bootstrap (n = 1000, see methods). Notches on the boxplots display the 95 % confidence interval around the median. **a**. Changes in the distances corrected by the centroid size between each of the twenty-eight possible pairwise combinations of the eight landmarks. A diagram (from Fig. 6) summarizing the overall adult wing shape variation between *yw* and shf2 is shown. **b**. Changes in absolute areas and in areas corrected by the total wing area (relative area).