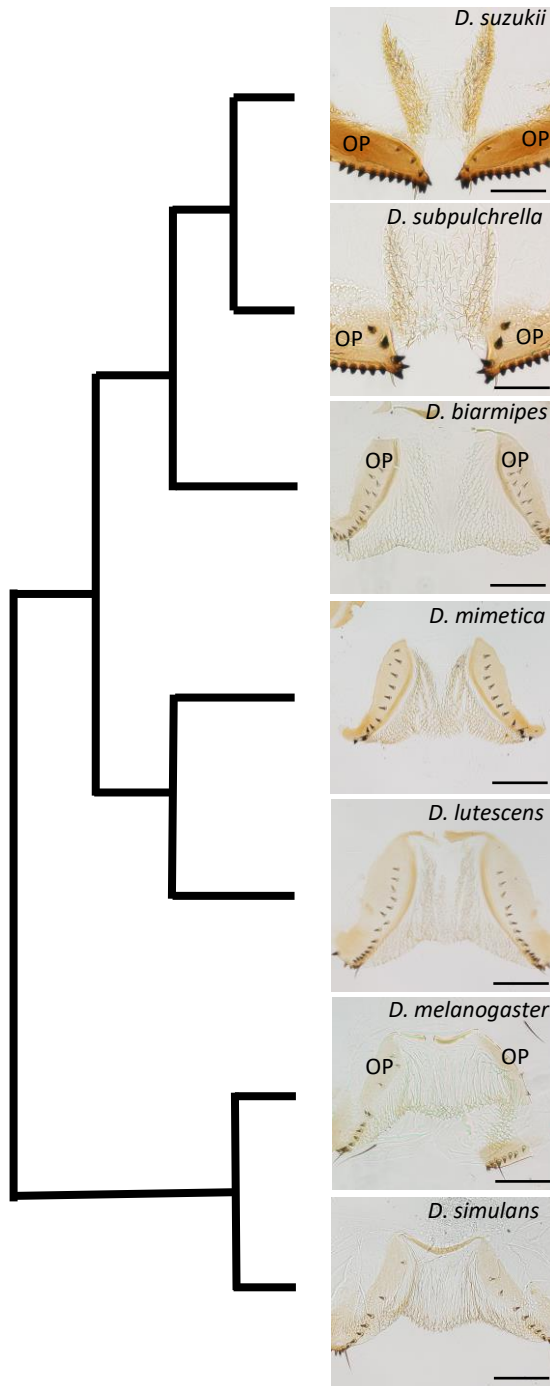
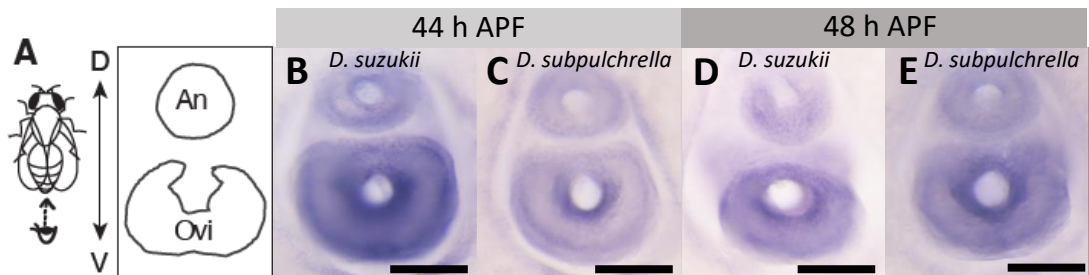


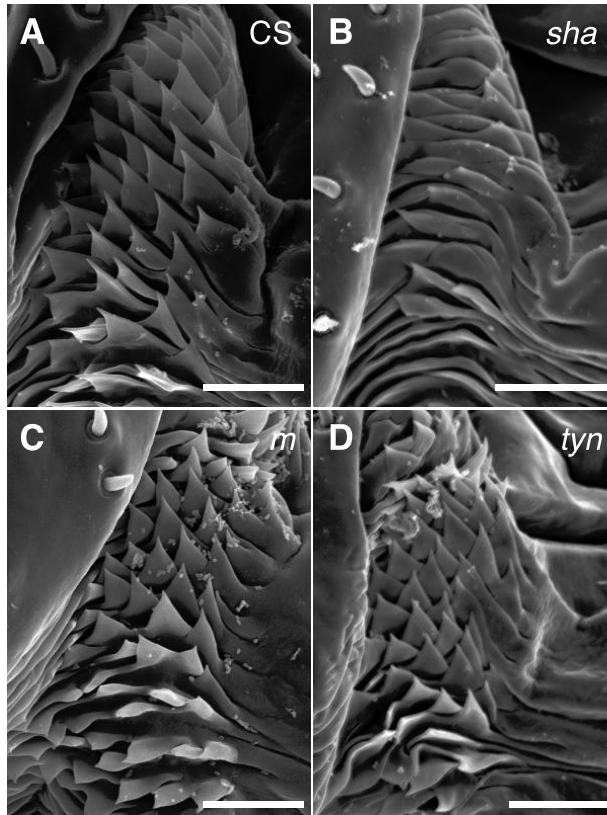
**Fig. S1 Ovipositor scales from additional strains.** (A–C) Ovipositor scales from dissected ovipositors in three additional strains, Hilo, TMUS09, and TMUS18, of *D. sukuzii*. (D–F) Ovipositor scales from dissected ovipositors in three additional strains, M4, NAR02, and NAR07 of *D. subpulchrella*. Scale bar indicates 50 μm.



**Fig. S2** Ovipositor scales in *Drosophila suzukii*, *D. subpulchrella*, and five other related species. (A) Phylogenetic relationship and the images of ovipositor scales from dissected ovipositors. Tree topology is based on Suvorov et al. [57] and Finet et al. [58]. Scale bar indicates 100 μm.



**Fig. S3** *svb* expression in the developing ovipositor. (A) Schematic image of the developing female terminalia. Abbreviations indicate analia (An) and ovipositor (Ovi). (B) in situ hybridization of *svb* at 44 h APF in *D. sukukii*. (C) in situ hybridization of *svb* at 44 h APF in *D. subpulchrella*. (D) in situ hybridization of *svb* at 48 h APF in *D. sukukii*. (E) in situ hybridization of *svb* at 48 h APF in *D. subpulchrella*. Scale bars indicate 100  $\mu$ m.



**Fig. S4** Ovipositor scales of mutants of trichome-related genes in *D. melanogaster*. (A) Wildtype Canton-S. (B–C) Mutant phenotype of trichome patterning genes, *sha* (B), *m* (C) and *tyn* (D). Scale bar indicates 20  $\mu\text{m}$ .