

FIGURE 11.11. (A–F) Differential Ubx protein expression makes the appendages of the second and third thoracic segments morphologically distinct. In T2 of flies, the wing (T2 W in A) derives from the larval wing imaginal disk (B), which does not express Ubx (lack of green stain in B). In fly T3, the haltere (T3 H in A) derives from the larval haltere disk (C), which does express Ubx (green staining in C). In butterflies, the T2 forewing (T2 FW in D) derives from the larval forewing disk (E), which does not express Ubx (lack of green stain in E). The T3 butterfly hindwing (T3 HW in D) derives from the larval hindwing disk (E), which does express Ubx (green stain in E). (E) Wild-type butterfly (underside of the species E) Precis coenia) shows different coloration patterns between the forewing and hindwing. If E0 Expression is removed from small patches of the hindwing during development, the resulting adult wing (E1) displays regions of the hindwing that now contain patterns normally associated with the forewing. Note the lighter color and presence of the large eyespot in the hindwing (indicated by E1) which are patterns normally seen in the forewing.

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