



Figure 2. Homeotic transformations in PcG mutants of various species. (A–D) *Drosophila melanogaster*, (E,F) *Mus musculus*, (G,H) *Arabidopsis thaliana*. (A,B) Leg imaginal discs undergoing a transdetermination event as indicated by the expression of the wing-specific gene *vestigial* (marked by green fluorescent protein [GFP]). (C,D) Cuticles of a wild-type (C) and a *Su(z)12* mutant embryo (D). In the *Su(z)12* mutant embryo, all abdominal, thoracic, and several head segments (not all visible in this focal plane) are homeotically transformed into copies of the eighth abdominal segment because of misexpression of the *Abd-B* gene in every segment. (E,F) Axial skeleton of newborn wild-type (E) and *Ring1A*^{-/-} mice (F). Views of the thoracic regions of cleared skeletons show bone (red) and cartilage (blue). The mutant displays anterior transformation of the eighth thoracic vertebra as indicated by the presence of an eighth (1–8) vertebrosteral rib, instead of seven (1–7) as in the wild type. (G,H) Wild-type (G) and *clf-2* mutant (H) flowers. The wild-type flower shows the normal arrangement of sepals, petals, stamens, and carpels. In the *clf-2* flower, petals are absent or reduced in number. (A,B, Courtesy of N. Lee and R. Paro; C,D, reprinted, with permission, from Birve et al. 2001, © Company of Biologists Ltd; E,F, reprinted, with permission, from Lorente et al. 2000, © Company of Biologists Ltd; G,H, courtesy of J. Goodrich.)