



**FIGURE 11.19.** (A) In adult *Drosophila melanogaster*, there is a small patch of the T2 femur that is devoid of hairs (bristles), and this hairless (naked) region corresponds to the region of the femur that expresses high levels of Ubx during pupal development. (B) If high levels of Ubx expression are experimentally generated in the *D. melanogaster* T2 leg during the pupal stage, the hairless region in the adult T2 leg is greatly expanded. (C) In *Drosophila virilis* adults, there is no naked region on the T2 femur, and Ubx is expressed at low levels in the pupal T2 femur. (D) In *Drosophila simulans*, the naked region of the T2 femur is larger than in *D. melanogaster*. Currently available techniques for detecting Ubx protein are not sufficiently accurate to measure differences in expression between the pupal legs of *D. simulans* and *D. melanogaster* (hence the similarity in the Ubx profiles shown in A and D), but genetic experiments suggest that there are functionally significant differences in the level of Ubx expression between the two species.

11.19, based on Stern D.L., *Nature* 396: 463–466, © 1998 Macmillan, www.nature.com