



**FIGURE 7.5.** Genome reduction in *Buchnera* endosymbionts of aphids. A fragment of two genomes is shown. (*Top row*) The putative ancestor of all aphid endosymbionts in the *Buchnera* genus. (*Bottom row*) The genome of the symbionts today. The massive amounts of gene loss are indicated by the genes colored *white* in the ancestral genome that are missing from the modern genome below. Orthologous genes between the two genomes are shown in the same color. Note the conservation of gene order between the two genomes despite the gene loss. The direction of gene transcription is indicated by the gene box being shifted above or below the *black line*.

7.5, redrawn from Moran N.A. et al., *Genome Biol.* **2**: research0054.1–0054.12, © 2001 Nancy A. Moran