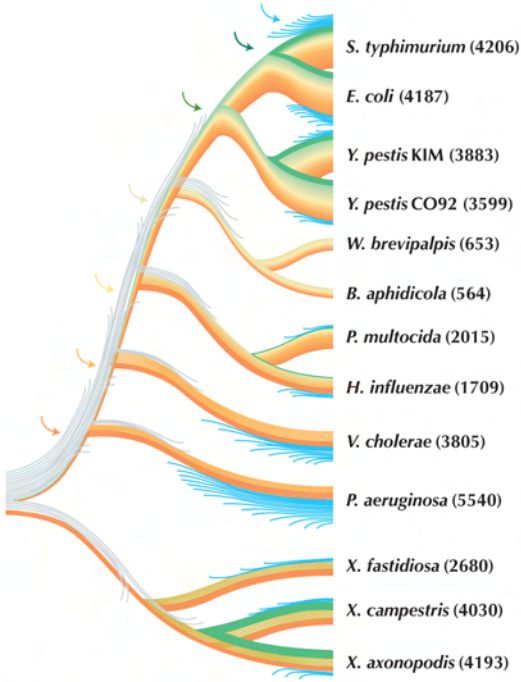

FIGURE 7.25. Lateral gene transfer and genome evolution in γ-proteobacteria. Only a small proportion of genes have been retained since the common ancestor of γ-proteobacteria (in *orange*). Under the assumption that ancestral and contemporary genome sizes are similar, most of the genes present in this ancestral genome (in *gray*) have been replaced by nonhomologous genes (*yellow* to *green*), usually via lateral gene transfer from organisms outside of this clade. Once a new gene is acquired, its transmission follows vertical inheritance. The abundance of genes unique to a species (in *blue*) indicates that these bacteria (with the exception of the endosymbionts *W. brevipalpis* and *B. aphidicola*) constantly acquire new genes, most of which do not persist in the long term within lineages. (Numbers of protein-coding genes, excluding those corresponding to known insertion sequence elements and phage, are in parentheses for each genome.)

7.25, redrawn from Lerat E. et al., *PLoS Biol.* **3:** E130, © 2005 Public Library of Science