



**FIGURE 27.31.** Organellar lateral gene transfer. Phylogenetic tree of the *gnd* (6-phosphogluconate dehydrogenase) gene from bacteria, plants, selected eukaryotes, and various plastids. Note how the plant nuclear and chloroplast-encoded genes group together, which is a reflection of gene transfer from the chloroplast genome to the nuclear genome for those species in which the gene is found in the nucleus. Note also how genes from plastids and plants all group with cyanobacteria, which is a reflection of the cyanobacterial origin of plastids. (Redrawn from Nozaki H. et al. *J. Mol. Evol.* **59**: 103–113, Fig. 1, © 2004 Springer Science & Business Media.)