



**FIGURE 6.14.** In situ hybridization can be used to label specific organisms in a mixed sample. This is shown here with a *Paramecium* (a eukaryote in the Ciliate phylum; see Box 8.1) that harbors a bacterial symbiont. (A) Phase-contrast micrograph. (B) Fluorescent micrograph using an rRNA probe that detects all bacteria. The probe lights up multiple locations in the cell because *Paramecium* eat bacteria. (C) Fluorescent micrograph with a probe specific for the symbiont *Halo-spora obtusa*, which is detected only in the **macronucleus**.

6.14, from Amann R.I. et al., *Microbiol. Rev.* **59**: 143–169, © 1995 American Society for Microbiology