



FIGURE 18.24. Coevolution between the freshwater snail *Potamopyrgus antipodarum* (A) and its trematode parasite (*Microphallus* sp.) studied over a 5-year period. (B) The rate of infection of snails by parasites from the same or from different lakes. Parasites infect snails from the same lake much more successfully. Snails and parasites came from two lakes in New Zealand, Poerua (turquoise) and lanthe (orange). (“Mixed” parasites are offspring from a cross between parasites from different lakes.) (C) The Poerua snails are all asexual and can be classified into clones according to their allozyme genotype (12, 19, 22, or 63). There were four common clones, which were infected at a high rate by the parasites from the same lake (top row). However, the rare clones, taken together, were infected significantly less (top right). In contrast, parasites from a different lake infected the Poerua snails much less, regardless of whether they were members of common or rare clones (bottom row). (D) The rate of increase of the snail clone is correlated with the rate of increase of infection by parasites, but with a 1-year time lag. The x-axis shows the increase in host clone frequency from year y to $y + 1$, and the vertical axis shows the subsequent change in rate of infection, from year $y + 1$ to $y + 2$.

18.24A, <http://www.esg.montana.edu/aim/taxa/mollusca/pag1044b.jpg>; 18.24B,C, redrawn from Lively C.M. et al., *Nature* 405: 679–691, © 2000 Macmillan, www.nature.com; 18.24D, redrawn from Dybdahl M.F. et al., *Evolution* 52: 1057–1066, © 1998 Society for the Study of Evolution