

SCIENTIFIC AMERICAN carries in its April 1981 issue an article on "Filter-feeding Insects" by Richard W. Merritt and J. Bruce Wallace, the gist of which is that underwater filter-feeders of three orders play a role in opposing the tendency of ecological systems to lose organic matter downhill. Excellent micrographs and drawings accompany the text, which describes in great detail the life cycles and feeding mechanisms and habits of examples from all three orders of insect. Aldo S. Leopold is cited for his suggestion that the continuity and stability of upland communities depend on life forms storing nutrients and organic matter and participating in other processes that retard the downhill trend all materials take in the course of natural processes. The authors conclude that although filter-feeding insects utilize only a small portion of the passing organic matter, they "convert that proportion into organic matter of a more complex form and with higher food value" — namely, their own bodies. These bodies serve as food for life higher up the food chain. "Thus," say the authors, "they act to retard the dominant downhill movement of organic matter by both retaining it and altering it."