GEORGE MERCER AWARD

Brian J. Enquist

The George Mercer Award is the oldest of the awards granted by the Ecological Society of America, in memory of a young British ecologist who was killed in action in World War I. The award is given to an author under 40 years old in recognition of a single outstanding paper in ecology published during the past two years. The winner of the Mercer Award for 2001 is Brian J. Enquist, along with Eric Charnov and James Brown. The award is made for their 1999 paper, "Allometric scaling of production and life-history variation in vascular plants," published in *Nature* **401**:907–911. This paper presents Brian Enquist's postdoctoral work, which was supported by an NSF postdoctoral fellowship and the Thaw Charitable Trust.

In this paper, Enquist expands on his general models of scaling and their relationship to life history theory within ecology and evolution (see also Enquist et al. 1998, *Nature* **395**:163–165; West et al. 1997, *Science* **276**:122–126; West et al. 1999, *Nature* **400**:664–667). This award-winning paper illustrates the true generality of Enquist's results. A simple scaling relationship, *d*mass/*d*time proportional to mass$^{3/4}$, along with interspecific variation in wood density, yields a universal growth law that quantitatively predicts the growth relationships of 45 tropical and seven temperate tree species, and accords with qualitative features of tree life history theory, including basic demographics and reproduction. The overall picture that emerges from this study, along with the three previous papers published in *Science* and *Nature*, is that scaling relationships have real power to be translated into fundamental ecological/evolutionary laws.

The Mercer Award Subcommittee was especially impressed by the results of rigorous mathematical modeling backed up with global-scale field data. This double-barreled approach is a wonderful antidote to armchair theorizing common in the nascent field of macroecology. This paper highlights links across scales of organization, from demography/life history to primary productivity and ecosystem function, and was a strong first choice for the Mercer Award.

Mercer Award Subcommittee: Nicholas Gotelli (Chair), Alison Brody, Aaron Ellison, Steve Heard, Mark McPeek, Margaret Palmer, Mary Price

MURRAY F. BUELL AWARD

Melinda D. Smith