Murray F. Buell ascribed great importance to the participation of students at meetings and to excellence in the presentation of papers. To honor his dedication to the Ecological Society of America and to the younger generation of ecologists, this award is presented to a student for the outstanding oral paper presented at the Society's annual meeting.

The 1990 winner of the award is Robert B. Jackson for his paper, "Rapid physiological adjustment of roots to localized soil enrichment." Robert received his bachelor's degree from Rice University in chemical engineering and his master's degree from Utah State University. He is concurrently working toward his doctorate in the Department of Range Science at Utah State University, where his advisor is Dr. Martyn Caldwell, and toward another master's degree in statistics.

Receiving honorable mention citations are Pierre O. Berner of the University of Florida for his paper, "Dynamics of a tropical montane oak–bamboo forest in Costa Rica: effects of slope," and Reuven Yosef of Ohio State University for his paper, "The proximate costs and benefits of polygyny to male Northern Shrikes, Lanius excubitor."