

Lamb Receives 2012 Luna B. Leopold Young Scientist Award

Michael Lamb received the 2012 Luna B. Leopold Young Scientist Award at the 2012 AGU Fall Meeting, held 3–7 December in San Francisco, Calif. The award recognizes “a young scientist for making a significant and outstanding contribution that advances the field of Earth and planetary surface processes.”

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Citation

Mike Lamb is an accomplished field scientist, numerical modeler, and experimentalist who has established himself as a leader in the fields of geomorphology, sedimentology, marine geology, and planetary geology. His diversity of accomplishments and interests sets him apart from his peers. Mike has worked on net erosional and net depositional terrains in both terrestrial and submarine environments on Earth, as well as the surfaces of other planets and moons. His publication record is very substantial, and his research is rigorous and quantitative.

Mike's work is groundbreaking and attests to a remarkable scientific range and creativity. Among his accomplishments is his demonstration that the critical Shields number *increases* significantly with increasing slope, even for very low slopes. Mike's work on bedrock canyons shows that they are not solely produced by groundwater sapping, but also by surface runoff, which has direct implications for the interpretation of similar geomorphological features on Mars and Titan. His experimental and theoretical work on hyperpycnal flows is seminal and an important contribution to our understanding of the processes that control delivery of river sediment to coastlines and oceans. This work reveals the processes that link the terrestrial and marine realms with regard to sediment transport and deposition. Overall, the cumulative impact of this work extends well beyond geomorphology.

Mike is carrying on three of the most important threads of Luna Leopold's research: a rigorous, quantitative approach, great scientific range, and creativity. This combination of traits is allowing Mike to quickly become a leader in his field and makes him a fitting recipient of the Luna B. Leopold Young Scientist Award.

—PAUL MYROW, Department of Geology, Colorado College, Colorado Springs

Response

It is my pleasure to be a part of the exciting community of Earth and planetary surface processes. In addition to the opportunities to participate in engaging and fundamental science, I enjoy our field because of collaborations with bright and fun people. In my short career I have had the pleasure to work with a number of colleagues, and I share this award with you.

A few people deserve particular mention for impacting my career. Chris Paola inspired me to the field of Earth and Planetary Surface Processes. Gary Parker pushed me to conduct my first independent project and introduced me to flume experiments. Jeff Parsons advised my master's work. Bill Dietrich, my Ph.D. advisor, opened my eyes to fascinating problems and approaches in geomorphology. David Mohrig advised my postdoctoral work, and his cross-disciplinary science has been an inspiration since I was an undergraduate student. Alan Howard and Paul Myrow have



Michael P. Lamb

been unofficial advisors who have generously guided me through a number of projects, including introducing me to Mars and the sedimentary record. In the past 4 years at Caltech, I have had the pleasure to work with Ryan Ewing, Ben Mackey, Phairot Chatanantavet, Roman DiBiase, Adam Booth, Vamsi Ganti, and Edwin Kite as postdocs. In addition, I thank graduate students Ajay Limaye, Joel Scheingross, Jeff Prancevic, and Mathieu Lapotre. Brian Fuller helped me build a new flume laboratory at Caltech. Thank you to John Grotzinger, Woody Fischer, Ken Farley, Jean-Philippe Avouac, and the rest of the Caltech community for support and mentorship.

Thank you for this award.

—MICHAEL P. LAMB, Division of Geological and Planetary Sciences, California Institute of Technology, Pasadena