

ANDREW L. MOORE

Department of Geology
Kent State University
Kent, OH 44242
(330) 672-9465
amoore5@kent.edu

EDUCATION

- Ph.D., Department of Geological Sciences, University of Washington **1999**
Dissertation: *Combined use of clast-size measurements and wave-tank experiments to estimate Pleistocene tsunami size at Molokai, Hawaii*
Advisor: Dr. Brian F. Atwater
- M.S., Department of Geological Sciences, University of Washington **1994**
Thesis: *Evidence for a Tsunami in Puget Sound 1000 Years Ago*
Advisors: Dr. Joanne Bourgeois and Dr. Brian F. Atwater
- B.A., *Cum Laude*, Department of Geology, Carleton College **1990**
Graduated with distinction in Geology

PROFESSIONAL EXPERIENCE

- Assistant Professor** **2002-**
Department of Geology, Kent State University, Kent, OH
- Teaching *Environmental Geology, Oceanography, Coastal Processes, Field Geology, Fluvial Sediment Transport and Hydrology*.
 - Continuing research on the mechanics of tsunami sedimentation and on the sedimentologic consequences of dam removal on the Cuyahoga River.
- 講師 (Lecturer)** **2001**
Department of Civil Engineering, Tohoku University, Sendai, Japan
- Taught seminars on research paper composition and English language
 - Continued research on estimating the size of the 1771 Meiwa tsunami in Okinawa, and sediment post-depositional processes following the 1999 Vanuatu tsunami.
- Postdoctoral Researcher** **1999-2001**
Disaster Control Research Center, Tohoku University, Sendai, Japan
- Studied tsunami deposits in Okinawa and Hokkaido to determine the size of historic and prehistoric tsunamis in Japan
 - Performed wave-tank experiments to clarify the relationship between grain-size trends and tsunami size, and determine the distribution of force from an incoming tsunami
 - Studied tsunami deposition and runup from the 26 November 1999 tsunami in Vanuatu
- Instructor** **1998**
Department of Civil Engineering, University of Washington, Seattle, WA

- Taught *Fluvial Sediment Transport* to senior engineering majors
- Increased field and laboratory exposure to a class with a strong math component.

Lecturer

1997

Department of Geology, North Seattle Community College, Seattle, WA

- Co-taught summer course *Introduction to Geology* for non-science majors with Dr. Tracy Furutani.
- Substituted for Dr. Furutani as needed in his classes, 1997-98.

Field Researcher

1996

International Tsunami Survey Team

Surveyed damage caused by the 17 February 1996 tsunami in Irian Jaya, Indonesia.

- Helped identify and describe tsunami deposits in several locations
- Aided coworkers with runup measurements when tsunami deposition was not present

Research Assistant

1995-1996

Departments of Geological Sciences and Civil Engineering, University of Washington

- Constructed 50-foot wave tank at the Harris Hydraulic Facility
- Designed and built a bore generator for the tank
- Instrumented the tank to record wave velocity and height
- Researched advection of gravel-sized particles by tsunamis

Researcher

1995

National Institute for Resources and the Environment, Tsukuba, Japan

- Adapted existing computer model for use as a tsunami simulation and used the model to evaluate several different scenarios for the 1000-year-old tsunami in Puget Sound
- Designed a finite difference model for the same tsunami to run on a spreadsheet

Geologist

1991-1992

United States Geological Survey, Seattle, WA

- Documented sedimentological evidence for a tsunami in Puget Sound 1000 years ago
- Used the grain size of the sediment to estimate the size of the tsunami.

Teaching Assistant

1990-1997

Department of Geological Sciences, University of Washington, Seattle, WA

- Developed and taught labs in *Physical Geology*, *Great Ice Ages*, *Evolution of the Earth*, *Geology of the Pacific Northwest*, *Depositional Environments*, *Stratigraphy*, and *Field Geology*.

PROFESSIONAL ACTIVITIES

Reviewer

Reviewed journal submissions for *Nature*, *Quaternary Research*, *GSA Bulletin*, and *Marine Geology* and grant proposals for the National Science Foundation.

HONORS AND AWARDS

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| 2004 | Glenn Frank departmental award for outstanding teaching, Kent State University |
| 1998 | Goodspeed departmental fellowship for teaching excellence, University of Washington |
| 1998 | NSF International Postdoctoral Fellowship to Japan |
| 1998 | USGS Coastal and Marine Geology Postdoctoral Fellowship (declined) |

- 1995 Summer Institute attendee, National Science Foundation Japan Program
 1989 Duncan Stewart departmental fellowship for academic excellence, Carleton College
 1986 National Merit Scholarship

PUBLICATIONS

Journals:

- Jaffe, B.E., Borrero, J.C., Prasetya, G.S., Dengler, Lori, Gelfenbaum, Guy, Hidayat, Rahman, Higman, Bretwood, Kingsley, Etienne, Lukiyanto, McAdoo, Brian, Moore, Andrew, Morton, Robert, Peters, Robert, Ruggiero, Peter, Titov, Vasily, Kongko, Widjo, and Yulianto, Eko, in review, The December 26th 2004 Indian Ocean tsunami in northwest Sumatra and offshore islands: **Earthquake Spectra**, special issue
- Moore, A., McAdoo, B., and Ruffman, A., in press, Systematic grain size variation in the 1929 Grand Banks tsunami deposit, Taylor's Bay, Newfoundland, invited submission to a theme issue on tsunami deposits in **Sedimentary Geology**.
- Moore, A., Nishimura, Y., Gelfenbaum, G., and Kamataki, T., 2006, Sedimentary deposits of the 26 December 2004 tsunami on the northwest coast of Aceh, Indonesia, **Earth, Planets, and Space**, v. 58, p. 253-258.
- Atwater, B. F., Furukawa, R., Hemphill-Haley, E., Ikeda, Y., Kashima, K., Kawase, K., Kelsey, H.M., Moore, A.L., Nanayama, F., Nishimura, Y., Odagiri, N., Ota, Y., Park, S.-C., Satake, K., Sawai, Y., and Shimokawa, K., 2004, Seventeenth-century uplift in eastern Hokkaido, Japan, **The Holocene**, v. 14, p. 487-501. [Authors listed alphabetically].
- Moore, A., 2003, Tsunami Deposits, in **Encyclopedia of Sedimentology and Sedimentary Rocks**, Gerald Middleton, ed., Kluwer Academic Press, Dordrecht, The Netherlands, 928 p.
- Koshimura, S., Mofjeld, H., González, F., and Moore, A., 2002, Modeling the 1100 bp paleotsunami in Puget Sound, Washington, **Geophysics Research Letters**, v. 29.
- Imamura, F., Yoshida, I., and Moore, A., 2001, Numerical simulation of boulder movement by the 1771 Meiwa tsunami on Ishigakijima, **Japan Coastal Engineering Journal**, v. 48, p. 346-50.
- Moore, A., Imamura, F., Yoshida, I., and Hayakawa, T., 2001, Reappraisal of the maximum runup of the 1771 Meiwa tsunami on Ishigakijima, **Tsunami Engineering**, v. 18, p. 53-60.
- Imamura, F., Yoshida, I., and Moore, A., 2001, Numerical simulation of boulder movement by the 1771 Meiwa tsunami on Ishigakijima, **Tsunami Engineering**, v. 18, p. 61-72.
- Caminade, J.P., D. Charlie, U. Kanoglu, S. Koshimura, H. Matsutomi, A. Moore, C. Ruscher, C. Synolakis, and T. Takahashi, 2001, Vanuatu survey data aids study of earthquake and tsunami, **Earth in Space**, v. 13, n. 8, p. 1-16. [I am the correspondence author on this paper; by agreement, authors are listed alphabetically].
- Caminade, J.P., D. Charlie, U. Kanoglu, S. Koshimura, H. Matsutomi, A. Moore, C. Ruscher, C. Synolakis, and T. Takahashi, 2000, Vanuatu earthquake and tsunami cause much damage,

few casualties, **Eos**, v. 81, n. 52, p. 641, 646-647. [I am the correspondence author on this paper; by agreement, authors are listed alphabetically].

Moore, Andrew L., 2000, Landward fining in onshore gravel as evidence for a late Pleistocene tsunami on Molokai, Hawaii, **Geology**, v. 28, p. 247-250.

Moore, James G., Wilfred B. Bryan, George Moore, Andy Moore, and Barbara Keating, 1997, Giant-wave deposits on Lanai and Molokai, **Guide to accompany GSA Cordilleran Section field trip to Lanai and Molokai**, May 28-29, 1997.

Imamura, F., D. Subandono, G. Watson, A. Moore, T. Takahashi, H. Matsutomi, R. Hidayat, and Y. Tsuji, 1997, The 1996 Irian Jaya earthquake, tsunami, and its damage, **Eos, Transactions of the American Geophysical Union**, v. 78, n. 19, p. 197, 201.

Atwater, B.F. and A.L. Moore, 1992, A tsunami about 1000 years ago in Puget Sound, Washington, **Science**, v. 258, p. 1614-1617.

Abstracts:

Jaffe, B., Borrero, J., Prasetya, G., Dengler, L., Gelfenbaum, G., Hidayat, R., Higman, B., Kingsley, E., Lukianto, McAdoo, B., Moore, A., Morton, R., Peters, R., Ruggiero, P., Titov, V., Kongko, W., Yulianto, E., 2005, Field Survey of the effects of the 26 December 2004 and 28 March 2005 Tsunamis and Earthquakes in Indonesia, **Transactions of the American Geophysical Union**.

Moore, A., 2005, How do deposits from the 2004 tsunami in Sumatra change our views of tsunami deposition? **GSA Abstracts with Programs**, v. 37.

Moore, A., Gelfenbaum, G., Kamataki, T., and Nishimura, Y., 2005, Sedimentation from the 26 December 2004 South Asia tsunami in northern Sumatra, Indonesia, **GSA Abstracts with Programs**, v. 37.

Woodward, S., Nishimura, Y., Hirakawa, K., and Moore, A., 2005, Landward fining in late Holocene tsunami deposits from southeastern Hokkaido, **GSA Abstracts with Programs**, v. 37.

Jovanelly, T., and Moore, A., 2005, Tsunami origin for an 1,100-year-old enigmatic sand sheet in Lynch Cove, Puget Sound, Washington, USA, **GSA Abstracts with Programs**, v. 37.

Moore, A., Hacker, D., Holm, D., 2004, Role of geology road logs in teaching field geology, **GSA Abstracts with Programs**, v. 36, n. 5.

Holm, D., Hacker, D., Moore, A., 2004, Integrating geology course and labs with geologic mapping in the field, **GSA Abstracts with Programs**, v. 36, n. 5.

Smith, A., Gilbert, A., Moore, A., 2004, Developing an inquiry-based approach to educating pre-service teachers in environmental geology, **GSA Abstracts with Programs**, v. 36, n. 5.

- Moore, A. and McAdoo, B., 2004, Tsunami deposit from the 1929 Grand Banks submarine landslide, Taylor's Bay, Newfoundland, **AGU Western Pacific Geophysics Meeting**, Honolulu, Hawaii, August 14-18, 2004.
- McAdoo, B. and Moore, A., Ruffman, A., and Minder, J., 2004, Sediment grain size variation in deposits from the 1929 Grand Banks tsunami, Taylor's Bay, Newfoundland, **32nd International Geological Congress**, Florence, Italy, August 20-28, 2004.
- McAdoo, B. G., Minder, J., Moore, A., and Ruffman, A., 2003, Tsunami deposits from the 1929 Grand Banks earthquake and submarine landslide, Taylor's Bay, Newfoundland, **GSA Abstracts with Programs** v. 35, n. 3
- Moore, A. Jovanelly, T., Imamura, F., and Koshimura, S., 2002, Hydraulic inferences from tsunami deposits associated with the 26 November 1999 Vanuatu tsunami, **Tsunami Risk and Its Reduction in the Asia Pacific Region**, Bandung, Indonesia, March 18-19, 2002
- Moore, A.L., 2001, Grain-size trends in a Holocene tsunami deposit from Cultus Bay, Puget Sound, Washington, **International Tsunami Symposium**, Seattle, Washington, August 7-10, 2001.
- Moore, A., C. Petroff, and H. Árnason, 2001, Particle advection by turbulent bores, **International Tsunami Symposium**, Seattle, Washington, August 7-10, 2001.
- Koshimura, Shun-ichi, Andrew Moore, and Harold Mofjeld, 2001, Simulation of paleotsunamis in Puget Sound, Washington, **International Tsunami Symposium**, Seattle, Washington, August 7-10, 2001.
- Japan-US Field Survey Team, 2001, Episodic Holocene uplift resolves conflict between geodesy and geology along the subduction zone off Hokkaido, **Seismological Society of America**.
- Ruscher, C., C. Synolakis, H. Matsutomi, J.P. Caminade, U. Kanoglu, T. Takahashi, A. Moore, D. Charlie, and S. Koshimura, 2000, The November 26, 1999 Vanuatu tsunami, **Eos, Transactions of the American Geophysical Union**.
- Moore, A.L. and F. Imamura, 2000, Ancient tsunami surged higher than 40 meters on Ishigakijima, Okinawa, Japan [abstract], **GSA Abstracts with programs**, v. 32.
- Moore, A.L., Imamura, F., Matsutomi, H., Synolakis, C., Takahashi, T., and Koshimura, S., 2000, Report on the damage caused by the 26 November 1999 tsunami in Vanuatu [abstract], **South Pacific Applied Geoscience Commission 29th Annual Session**.
- Matsutomi, H., S. Koshimura, T. Takahashi, A. Moore, F. Imamura, Y. Kawata, and M. Matsuyama, 2000, Field survey of the 1999 Vanuatu earthquake and tsunami [abstract], **Proceedings of the Japan Society of Civil Engineers**.
- Moore, A.L. and F. Imamura, 2000, Sand deposition from the 1999 Vanuatu tsunami [abstract], **Eos, Transactions of the American Geophysical Union**, v. 81
- Moore, Andrew, Fumihiko Imamura, and Shun-Ichi Koshimura, 2000, Evidence for a sandy tsunami deposit in western Ishigakijima, Japan [abstract], **Hazards 2000, the 8th International Symposium on Natural and Technological Hazards**, p. 129.

- Moore, A.L., 1999, Evidence for a sandy tsunami deposit in western Ishigakijima, Okinawa, Japan [abstract], **GSA Abstracts with programs**, v. 31
- Petroff, C., A. Moore, and H. Arnason, 1998, Characteristics of large object movement in bores [abstract], **26th International Conference on Coastal Engineering**, Copenhagen, Denmark.
- Moore, A.L., 1997, Landward fining in a tsunami-deposited gravel on Molokai, Hawaii [abstract], **GSA Abstracts with programs**, v. 29, n. 5, p. 53.
- Moore, A.L., F. Imamura, and T. Takahashi, 1996, No landward fining in a tsunami deposit from Biak, Indonesia [abstract], **Eos, Transactions of the American Geophysical Union**, v. 77
- Moore, A.L. and D.C. Mohrig, 1994, Size estimate of a 1000-year-old Puget Sound tsunami [abstract], **GSA Abstracts with programs**, v. 26, n. 7, p. 522.
- Dooley, A.C. and A.L. Moore, 1994, Method for the remote determination of paleocurrents [abstract], **GSA Abstracts with programs**, v. 26, n. 7, p. 493.
- Atwater, B.F. and A.L. Moore, 1993, A tsunami about 1000 years ago in Puget Sound, Washington, *in* **CANQUA 93; applied Quaternary research; program with abstracts and field guide**. Canadian Quaternary Association, p. A1.
- Moore, A.L., 1992, A Puget Sound source for a large wave 1100 years ago [abstract], **GSA Abstracts with programs**, v. 24, n. 5, p. 71.
- Moore, A.L., 1991, Evidence for a tsunami in Puget Sound 1100 years ago [abstract], **Eos, Transactions of the American Geophysical Union**, v. 72, p. 315.