

CURRICULUM VITAE

ADAM DOUGLAS SWITZER

PERSONAL DETAILS

Date of Birth : October 4, 1973
Nationality : Australian

ACADEMIC QUALIFICATIONS

1999 B.Sc. Hons, University of Wollongong, Australia
2005 Ph.D. University of Wollongong, Australia

PRESENT POSITIONS

2010 - present National Research Foundation Fellow and Nanyang Assistant Professor
2009 - present Principal Investigator, Earth Observatory of Singapore, Nanyang Technological University, Singapore

PREVIOUS POSITIONS

2000 - 2004 Casual academic, University of Wollongong, Australia
2003 - 2003 Associate Lecturer, University of Wollongong, Australia
2005 - 2005 Cheung Kong Endeavour Australia Fellow, The University of Hong Kong
2005 - 2007 Post-doctoral Research Fellow, The University of Hong Kong
2007 - 2009 Centenary Research Assistant Professor, The University of Hong Kong

KEY SKILLS

- Demonstrated experience in the initiation, coordination and development of new academic programs in climate science, geomorphology and natural hazards.
- Supervision of undergraduate, honours and postgraduate students engaged in course work and postgraduate research projects.
- Development and management of large multidisciplinary research projects involving consultants, industry, academics and students.
- Experience in consulting for industry, numerous NGO's and governments in Asia.
- Stimulating public speaker and teacher with significant media experience (2011 SPMS faculty teaching award).
- Proven ability to provide a medium between scientific literature, industry and mainstream media.

RESEARCH AND TEACHING PROFILE

Professional goals

- Build a respected research group at a world class institution and develop and lead an internationally recognised research program in natural hazards, sea level change, palaeoenvironments and palaeoclimates.
- Develop interdisciplinary research collaborations with other Divisions/Departments within the university and research collaborations with other regional institutions.
- Produce research output of the highest quality and train research postgraduate students to a high standard.

- Secure significant external research funding from a variety of sources.
- Become an effective and significant contributor to administration and management within the department and Faculty.
- Act as a point of reference for expertise in natural hazards, sea level change and palaeoenvironments locally and internationally, and promote the value of this research field within the University and beyond.

Research and academic achievements

I am an internationally recognized expert in coastal processes and associated sedimentation. My most significant contributions to the field and achievements include;

- The recognition that immature heavy mineral suites in coastal sandsheets may indicate tsunami deposition rather than storm deposition in coastal settings (Switzer et al. 2005; Switzer and Jones, 2008a; Pham et al., in prep)
- The recognition of an erosional signature of large scale washover of coastal dunes using Ground Penetrating Radar (Switzer et al. 2006; Lee et al., in prep)
- The first study of modern storm deposits from the Australian southeast coast (Switzer and Jones 2008b)
- The first study of the sedimentary processes associated with the 2004 Indian Ocean tsunami on the southeast coast of India (Srinivasalu et al. 2007; Switzer et al. 2012)
- First comprehensive syntheses and commentary on elevated boulders on the southeast Australian coast (Switzer and Burston, 2010).
- First use of thin bed ground penetrating radar techniques to characterize over wash sandsheets
- Lead the production of the first database of coastal hazards in China and provinces (Lau et al., 2010, Lee et al., 2012)
- Lead the first study of the geomorphological and sedimentological impacts of typhoons/cyclones Xangsane, Durian (Philippines, 2006) and Thane (India, 2011).
- First earth scientist to obtain the Singapore NRF fellowship
- Developer, primary proponent and co-leader of UNESCO-IUGS backed project IGCP588 - Preparing for coastal change Involving more than 250 scientists globally.
- Guest editor of two special issue in impact journals; Quaternary International (2010) and Quaternary Science Reviews (2012).
- Co-editor of Methods volume of Treatise of Geomorphology

KEY PUBLICATIONS (January 20, 2012)

* Notes IF = Impact factor : S = Scopus : ISI = web of knowledge : GS = Google Scholar

Switzer, AD., ... 2012. Bedding structures in Indian tsunami deposits that provide clues to the dynamics of tsunami inundation Geological Society Special Publication, 361 (1), 61-77. (IF: 3.195 - S: 2 ISI: 0 GS: 5)

Switzer, AD., ... (2011) On the possible origins of an unusual (mid- to late-Holocene) coastal

deposit, Old Punt Bay, South-East Australia. Geographical Research, 49 (4), 408-430. (IF: 3.195 - S: 1 ISI: 1 GS: 1)

Lau, A.Y.A., Switzer, A.D., ... 2010 Written records of historical tsunamis in the northeastern South China Sea - Challenges associated with developing a new integrated database. Natural Hazards and Earth System Science 10 (9), pp. 1793-1806 (IF: 1.983 - S: 5 ISI: 3 GS: 0)

Switzer, A.D., and Burston, J.M. 2010 Competing mechanisms for boulder deposition on the southeast Australian coast. Geomorphology 114 (1-2), 42-54 (IF: 2.52 - S: 27 ISI: 27 GS: 27)

Zong, Y., Huang, G., Switzer A.D., ... 2009 An evolutionary model for the Holocene formation of the Pearl River delta, China. The Holocene 19(1) 129-142 (IF: 1.874 - S: 17 ISI: 17 GS: 23)

Switzer A.D and Jones B.G. 2008a Large-scale washover sedimentation in a freshwater lagoon from the southeast Australian coast: tsunami or exceptionally large storm. The Holocene 18(5): 787-803. (IF: 1.874 - S: 36 ISI: 41 GS: 43)

Srinivasalu, S., Thangadurai, N., Switzer, A.D., ... 2007 Erosion and sedimentation in Kalpakkam (Northern Tamil Nadu, India) from the 26 December 2004 tsunami. Marine Geology 240 65-75 (IF: 2.263 - S: 35 ISI: 31 GS: 48)

Switzer, A.D., Bristow, C.S. and Jones, B.G. 2006 An erosional signature for large-scale washover identified using Ground Penetrating Radar on a small Holocene barrier from the southeast Australian coast. Sedimentary Geology 183: 145-146 (IF: 1.537 - S: X ISI: 19 GS: 23)

Switzer, A.D., ... 2005 Sea-level, storms or tsunami; enigmatic sand sheet deposits in sheltered coastal embayment from southeastern New South Wales Australia Journal of Coastal Research 21 (4): 655-663 (IF: 0.766 - S: X 31 ISI: 30 GS:36)

RESEARCH GRANT RECORD

Hong Kong 2006-2009

P-I - Research Grants Council, General Research Fund (GRF). Documentary and geological records of catastrophic marine inundations caused by large storms and tsunami on the coast of Taiwan and southeast China, HK\$ 668,417, (~US\$84,000) 2008-2011
Co-I- Research Grants Council, General Research Fund (GRF). Late postglacial sedimentation on the inner continental shelf of the South China Sea off Hong Kong and applications, HK\$ 668,417, (~US\$84,000) 2008-2011
Co-I - University Grants Council - One-off equipment grant, Stable Isotope Laboratory with PI Min Sun + 13 others HK\$4,500,000 2008-2011
Co-I - Research Grants Council, General Research Fund (GRF) Paleogene history of southern Tibet: Tethys closure and initiation of the India-Asia collision with PI Jonathan Aitchison + 4 others HK\$328,250, 2007-2010

Co-I - Research Grants Council, General Research Fund (GRF) Tibets' palimpsest lake system: a chronicle of Quaternary climate change with PI Jonathan Aitchison + 7 others (later passed to Yongqiang Zong) HK\$ 1,217,076, 2009-2012
Co-I - University Grants Committee General Research Fund (GRF). A history of industrial oceanic hazards and recent climate change using coral geochemistry from the South China Sea, HK\$620,000 (~US\$79,500), with PI, N. Goodkin and Co-I, Dr. K. Hughen 2009-2012
Co-I - Seed Funding for Basic Research, University of Hong Kong, Principal Investigator, Records of industrial development and environmental change from Porites corals in eastern Hong Kong, HK\$120,000 (~US\$15,4000), with PI, N. Goodkin and Co-I, Dr. K. Hughen 2009-2011
Co-I - Ocean Park Conservation Foundation, Climate Change Impacts on Massive Corals of Hong Kong, HK\$90,000 (~US\$11,500), with PI, N. Goodkin and Co-I, Dr. K. Hughen, 2009-2010.

Singapore (2009 - current)

PI - Singapore National Research Fellowship, NRF Singapore, Geological Records of Coastal Hazards in Asia, S\$3,217,474

PI - MOE/EOS, Hunting the tsunami deposits of the AD551 Beirut-Tripoli earthquake S\$ 67,620 with Co-Is P. Tapponnier and A. Elias.
PI - MOE/EOS, A preliminary assessment of volcanogenic tsunami hazard in southeast Asia S\$ 6000 with Co-Is M. Belosouva, A. Belsouva and R. Paris
PI - MOE/EOS, GEOBOULDER, an online research portal dedicated to coastal boulder studies S\$4,000 with Co-Is S. Etienne, J. Terry and R. Paris
PI - MOE/EOS, High-resolution sea-level history at Belitung Island, Indonesia, on the Sunda Shelf, over the past 8000 years S\$ 255,700 with Co-Is A. Meltzner and B. Horton

STUDENT SUPERVISION

PhDs
2012- Maggie Chan (EOS/NRF) Statistical techniques to improve Ground Penetrating Radar studies in coastal settings
2011- Lea Soria (EOS/NRF) Coastal hazards in the central and northwest Philippines
2011- Dat Tien Pham (EOS/NRF) Integrating modelling of multiple contributions to coastal sea levels on the Sunda Shelf and Vietnam.
2010- Chen Mengli (Singapore MIT Alliance) A study of the regional "sources" and "fluxes" of lead (Pb) using bulk Pb and Pb isotopes in corals

2008-2011 Chiu Hon Chim (HKU) Sedimentology and geomorphology of modern and relict lake systems in Tibet (now at HK Geotechnical Engineering Office)

MPhil or MSc

2009-2010 Lau Ai Yi Annie (HKU) Comparing historical and Geological records of Catastrophic washover events at Qing' AO, Nan'Ao Island, Southeastern China (Now a PhD student at National University of Singapore)
2009-2010 Sylvia Chik Shun Wah (MSc HKU) Internal sedimentology of washover deposits in Tai Long Wan, Hong Kong
2008-2009 Esther Yeung (MSc HKU). Beach erosion and recovery on the beaches of southeast Hong Kong Island, Hong Kong SAR, China (now at Halcrow, Hong Kong)
2007-2008 Brandon Wu (MSc HKU). Morphological relationships of wave exposure, elevation and rock strength on coastal rock platforms of Shek-O, Hong Kong SAR.
2006-2007 David Chu (MSc HKU). Storm surge and tsunami risk in low-lying areas of Hong Kong (now senior engineer at Arup Abu Dhabi)
2006-2007 Teresa Chung (MSc HKU). Palaeoenvironments of the northwest Hong Kong Continental Shelf (co-supervised by Prof Wyss Yim)