

STEPHEN V. TAYLOR

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EDUCATION

Ph.D., Physical Oceanography, 2006
Scripps Institution of Oceanography / University of California San Diego
M.A., Geography, *University of California Santa Barbara*, 2001
B.S., Physics, *University of California Santa Barbara*, 1993

PROFESSIONAL APPOINTMENTS

2016-pres. Associate Professor, Division of Science and Mathematics, Kaua'i Community College
2012-2016 Assistant Professor, Division of Science and Mathematics, Kaua'i Community College
2008-2012 Tenure-Track Instructional Faculty, Division of Science and Mathematics
Kaua'i Community College
2008 Lecturer, Department of Mechanical & Aerospace Engineering
University of California San Diego
2008 Adjunct Faculty, Geography Program, San Diego Mesa College
2007-2008 Postdoctoral Associate, Hydrologic Research Center, San Diego, California
2001-2006 Hydrologic Scientist, Hydrologic Research Center, San Diego, California
2001-2004 Wave and Weather Forecaster, Wetsand.com, Ventura, California (company reinvented
as Surfbunker.com)

COURSES – KAUA'I COMMUNITY COLLEGE

Astronomy	ASTR 110: Survey of Astronomy
Geology	GG 101: Introduction to Geology GG 101L: Introduction to Geology Laboratory
Mathematics	MATH 75X: Intro to Mathematical Reasoning (adapted from MATH 24) MATH 82X: Expanded Algebraic Foundations (adapted from MATH 25)
Oceanography	OCN 101: Introduction to the Marine Option Program OCN 120: Global Environmental Challenges (focused on climate change) OCN 199v: Marine Directed Research OCN 201: Science of the Sea
Physics	PHYS 101: Career and Technical Education Physics PHYS 151: College Physics I PHYS 170: General Physics I PHYS 170L: General Physics I Laboratory SCI 122: Introduction to Physical Science SCI 122L: Introduction to Physical Science Laboratory

PROJECTS AND RESEARCH

[Climate Change Outreach](#): Working with a small but growing group that seeks to accelerate local climate mitigation and adaptation efforts by increasing climate literacy across our community

[Climate Research](#): Satellite and buoy wind observations are used to characterize surface boundary layer atmospheric circulation and associated upper tropospheric and ocean circulation in the Eastern North Pacific Ocean

[Coastal Geomorphology](#): Coastal change monitoring and coastal dynamics research on West Kauai beaches conducted under the leadership of sedimentary geologist, Charles Blay

[Land Surface Hydrology](#): Land surface hydrology research and technology transfer focused on rainfall, flash flood prediction and warning systems, and use of hourly through seasonal forecasts to guide reservoir management

[Science Education](#): Science education research, assessment, development of hands-on activities, student project advising, and recruitment efforts focused mainly on lower-division undergraduate students

AWARDS

- Wo Learning Champions Change Agent ([2013](#))
- UH Regents' Medal for Excellence in Teaching ([2011](#))

PUBLICATIONS, PRESENTATIONS, AND REPORTS

Guidry, M., A. Eschenberg, F.W. McCoy, M.A. McManus, J.K. Delay, K. Lee, **S.V. Taylor**, J. Dire, and D. Krupp (2017), "Creating and maintaining a successful geoscience pathway from 2YC to 4YC for Native Hawaiian Students: First Steps." American Geophysical Union Fall Meeting, Dec. 2017, Abstract [ED22B-08](#).

Taylor, S.V., S.A. Hovan, and M. Jones (2017) "A Big Lesson From Tiny Forams: A Simple Hands-on Activity For How Scientists Infer Climate of the Past," Geological Society of America Annual Meeting, Oct. 2017, Paper No. [299631](#).

Blay, C.T, **S.V. Taylor**, J.J. Rothenberg, R. Pap (2014) "Kauai Island's Fluctuating Sandy Beaches: Response to Varying Wave Energy and Approach Azimuth over Seasonal and Decadal Time Scales," Geological Society of America Annual Meeting, Oct. 2014, Paper No. [196-12](#).

Harris, S., J.E. Schoonmaker, **S.V. Taylor** (2014) "University Students' Ideas about Climate Concepts Lack Systems Dynamics Thinking," Geological Society of America Annual Meeting, Oct. 2014, Paper No. [245-13](#).

Harris, S., **S.V. Taylor**, J.E. Schoonmaker, E. Lane, R. Francois, P. Austin (2011), "Measuring Student Improvement in Lower- and Upper-Level University Climate Science Courses." American Geophysical Union Fall Meeting, Dec. 2011, Abstract [ED11B-0773](#).

Georgakakos, K.P., **S.V. Taylor**, N.E. Graham (2010), "Implications of Dynamic Downscaling of Climate Forecast System (CFS) Information for Ensemble Streamflow Predictions in Northern California." Hydrologic Research Center Technical Note No. 42A ([2.5MB pdf](#)).

Taylor, S.V., D.R. Cayan, N.E. Graham, and K.P. Georgakakos (2008), "Northerly surface winds over the eastern North Pacific Ocean in spring and summer," *Journal of Geophysical Research*, 113, D02110, doi:10.1029/2006JD008053. [[Abstract](#)] [[Full Text](#)]

- Carpenter, T.M., **S.V. Taylor**, K.P. Georgakakos, J. Wang, E. Shamir, and J.A. Sperflage (2007), "Surveying flash flood response in mountain streams," *Eos Trans. AGU*, 88(6), 69, doi:10.1029/2007EO060001. [[Abstract](#)] [[Full Text](#)]
- Georgakakos, K.P., R.W. Jubach, J.A. Sperflage, T.M. Carpenter, and **S.V. Taylor** (2007), Flash Flood Guidance System (FFGS) with Global Coverage: System Implementation Plan. Hydrologic Research Center Limited Distribution Report No. 28, NOAA-2007-FFGS01, 41 pp.
- Taylor, S.V.** (2006), "Understanding the Greenhouse Effect Using Clear vs Cloudy Sky Diurnal Temperature Observations," *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract [ED41A-07](#).
- Taylor, S.V.**, N.E. Graham, D.R. Cayan, J. Wang, and K.P. Georgakakos (2006), "Large-scale Atmospheric Circulation Associated With Northwesterly Surface Wind Events Along the US West Coast," *Eos Trans. AGU*, 87(52), Fall Meet. Suppl., Abstract [A43C-0152](#).
- Taylor, S.V.** (2006), "Northerly surface wind events over the eastern North Pacific Ocean: Spatial distribution, seasonality, atmospheric circulation, and forcing." Doctoral [Dissertation](#), University of California San Diego, La Jolla, California, 133 pp.
- Georgakakos, K.P., N.E. Graham, T.M. Carpenter, E. Shamir, J. Wang, J.A. Sperflage, and **S.V. Taylor** (2006), Integrated forecast and reservoir management (INFORM) for Northern California: System development and initial demonstration. Hydrologic Research Center Technical Report No. 5, 415 pp ([24MB pdf](#)).
- Graham, N.E., **S.V. Taylor**, J.A. Sperflage, T.M. Carpenter, and K.P. Georgakakos (2001) Training and technology transfer for enhancing the spatial variability of historical raingauge precipitation fields for extended streamflow prediction analysis with the Nile Forecast System. Hydrologic Research Center Technical Note No. 15, 48 pp.

EDUCATIONAL & PROFESSIONAL DEVELOPMENT WORKSHOPS

- Consortium for Ocean Leadership, "MSI-REaCH: Reconstructing Earth's Climate History," International Ocean Discovery Program Gulf Coast Repository at Texas A&M University, College Station, TX, August 1-5, 2016.
- American Meteorological Society, "Climate Studies Diversity Project," Washington, D.C. May 18-23, 2014.
- On the Cutting Edge: Professional Development for Geoscience Faculty Workshop: "Teaching Oceanography," San Francisco, California, June 17-23, 2013.
- Workshop Co-Convener*, Climate Literacy & Energy Awareness Network, "[Teaching Climate Complexity](#)," Online workshop for undergraduate faculty, May 7-16, 2012.
- Climate Literacy & Energy Awareness Network, "Navigating Climate Complexities in the Classroom," online workshop for undergraduate faculty, June 7-8 and June 14-15, 2011
- American Meteorological Society "Summer Policy Colloquium", Washington, D.C., June, 2009.
- On the Cutting Edge Professional Development for Geoscience Faculty Workshop: "Teaching Climate Change: Lessons from the Past," Bozeman, MT, August 14-15, 2006.

POSTS AND COMMITTEES

- Coordinator, Associate of Science in Natural Science Program
- Coordinator, Marine Option Program
- Chair, General Education Diversification Board
- Division Personnel Committee
- International Education Committee
- Sustainability Committee
- Course Evaluation System Ad-hoc Committee
- Academic Dean Fact Finding Ad-hoc Committee