Aaron C. True, PhD

fluid mechanics // mixing & dispersion // biophysical interactions // experimental fluid dynamics
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I. EDUCATION & PROFESSIONAL EXPERIENCE

Education

PhD	Georgia Institute of Technology, Atlanta, Georgia Civil & Environmental Engineering *Major: Environmental Fluid Mechanics, Minor: Oceanography*	2014
MS	Georgia Institute of Technology, Atlanta, Georgia Civil & Environmental Engineering *Environmental Fluid Mechanics*	2011
BS	Georgia Institute of Technology, Atlanta, Georgia Civil & Environmental Engineering *Highest Honors*	2007

Professional Experience

Synopsis: My research leverages experimental and computational fluid dynamics to study transport and dispersion phenomena in environmental and ecological flows. I am particularly interested in how environmental flows transport and disperse scalars entities (odor, heat, aerosols, microorganisms) and in how biological organisms sense and exploit mechanical and chemical cues associated with these plumes. I serve as an independent and collaborative researcher, advisor to undergraduate, graduate, and post-graduate researchers, data curator and lab manager, and adjunct instructor. Key collaborative projects in progress include studies related to plume dispersion and information content in odor landscapes, engineered and biological chemical sensing modalities, olfactory navigation in complex environmental flows, odor source localizaiton in national security contexts, and big data curation.

Assistant Research Professor	University of Colorado Boulder, Boulder, CO Civil, Environmental, & Architectural Engineering	1/2025 - present
Lecturer	University of Colorado Boulder, Boulder, CO Civil, Environmental, & Architectural Engineering	8/2024 - present
Research Associate	University of Colorado Boulder, Boulder, CO Civil, Environmental, & Architectural Engineering	9/2020 - 12/2024
Research Fellow	University of Michigan, Ann Arbor, MI Department of Physics	7/2019 - 6/2020
Project Manager Design Engineer	Trout Unlimited, Steamboat Springs, CO	1/2018 - 5/2019
Postdoctoral Researcher	University of Colorado Boulder, Boulder, CO Civil, Environmental, & Architectural Engineering	6/2014 - 12/2017
Research & Teaching Assistant	Georgia Tech, Atlanta, GA Civil & Environmental Engineering	1/2008 - 6/2014
Structural Engineering Intern	Pruitt, Eberly, and Stone, Atlanta, GA	5/2006 - 5/2007

II. PUBLICATIONS

published

STATISTICS
7 first author
10 co-author
h-index 9

JOURNALS
PLOS One
J. Theor. Bio.
Scientific Reports
Physical Review Fluids
Physics of Fluids
Physical Review E
Sensors & Actuators B
Limonology & Oceanography
Marine Ecology Progress Series
Frontiers in Marine Science
Geophysical Research Letters
Environmental Fluid Mechanics

SPONSORS
NSF
NIH
CU Boulder
Industry & DoD contracts

KEYWORDS
hydrodynamics
plumes
turbulence
piv
flow sensing
chemical sensing
plankton
olfaction
odors

D. Goulet, **A.C. True**, B.H. Smith, and J.P.Crimaldi. "Pore plate sensilla scale and distribution modulate odor capture around honey bee antennae." *Scientific Reports*. 15(1), 41574. 2025.

N. Dennler, **A.C. True**, M. Schmuker, and A. Van Schaik. "Neuromorphic principles in machine olfaction." In review at *Neuromorphic Computing and Engineering*. 5(2), 023001. 2025.

S. Tootoonian, **A.C. True**, E. Stark, J.P. Crimaldi, and A. Schaeffer. "Quantifying spectral information about source separation in multisource odour plumes." *PLOS One 20.1: e0297754. 2025.*

A.C. True, L.T. Larson, A.K. Pauls, and J.P. Crimaldi. "Structure of dense plumes from a finite-height cylinder in laminar crossflow." *Environmental Fluid Mechanics*. 24: 1075-1098, 2024.

B. Ouyang, **A.C. True**, J.P.Crimaldi, and B. Ermentrout. "Simple olfactory navigation in air and water." *J. Theor. Biol.* 595: 111941, 2024.

A.Gumaste, K. L. Baker, M. Izydorczak, **A. C. True**, G. Vasan, J. P. Crimaldi, and J. Verhagen. "Behavioral discrimination and olfactory bulb encoding of odor plume intermittency." *Elife*, 13, e85303. 2024.

J. P. Crimaldi, **A. C. True**, K. G. Linden, M.T. Hernandez, L.T. Larson, and A. K. Pauls. "Commercial toilets emit energetic and rapidly spreading aerosol plumes." *Scientific Reports* 12, no. 1: 20493. 2022.

A.C. True and J.P. Crimaldi. "Distortion of passive scalar structure during suction-based plume sampling", *Sensors and Actuators B: Chemical*. 367: 132018. 2022.

J.P. Crimaldi, **A.C. True**, J.D. Victor. "Active sensing in a dynamic olfactory landscape." *Journal of Computational Neuroscience*. 50, no. 1: 1-6. 2022.

A.C. True, D.R. Webster, M.J. Weissburg, J. Yen. "Persistent hydrodynamic cues elicit orientation-specific behavioral sensitivities and kinematic responses in dispersed crab larvae." *Frontiers in Marine Science.* 7, 603, 2020.

E.G. Connor, **A.C. True**, J.P. Crimaldi, "Dynamics of an idealized respiratory-type flows: tidal exchange across intermediate Reynolds numbers." *Physical Review Fluids*. 5.9, 093103, 2020.

A.C. True, J.P. Crimaldi, "High dynamic range particle image velocimetry analysis of viscous inhalant flows." *Physics of Fluids*, 31(10), 103605, 2019.

A.C. True, D.R. Webster, M.J. Weissburg, J. Yen, "Copepod avoidance of thin chemical layers of harmful algal compounds", *Limnology and Oceanography*, 63(3), 1041-1055, 2018.

A.C. True and J.P. Crimaldi, "Hydrodynamics of viscous inhalant flows", *Physical Review E*, 95, 053107, 2017.

K.R. Pratt, **A. True** and J.P. Crimaldi, "Turbulent clustering of initially well-mixed buoyant particles on a free surface by Lagrangian coherent structures", *Physics of Fluids*, 29, 075101, 2017.

A.C. True, D.R. Webster, M.J. Weissburg, J. Yen, and A. Genin, "Patchiness and depth-keeping of copepods in response to simulated frontal flows", *Marine Ecology Progress Series*, 539, 65-76, 2015.

C.B. Woodson, ... and **A. True**, "Observations of Internal Wave Packets Propagating Along-shelf in northern Monterey Bay", *Geophysical Research Letters*, 38 (1) 16,2011.

in review

D. Goulet, **A.C. True**, A. Pauls, and J.P.Crimaldi. "Flow structure and volume capture in idealized stereo inhalation flows at low-intermediate Reynolds number" In review at *Phys. Review Fluids*. Jan. 2026.

E. Stark, **A.C. True**, J.P.Crimaldi, and J.D. Victor. "Temporal reformatting of odor sources by turbulence: parallels and contrasts to vision." In review at *Phys. Review X Life*, Jan. 2026.

in preparation

A.C. True, J.D. Wheeler, F.G. Michalec, M. Holzner, R. Stocker, and J.P. Crimaldi. "A liter-scale turbulence tank for plankton-flow interactions." In prep. for submisison to *Scientifc Reports*. Feb. 2026.

III. TEACHING & ADVISING

Teaching

University of Colorado Boulder — adjunct instructor

CVEN 3313 Theoretical Fluid Dynamics, Fall 2024, Fall 2025, Instructor of Record

Course overview: Basic principles of fluid mechanics. Covers fluid properties, hydrostatics, fluid flow concepts, including continuity, energy, momentum, dimensional analysis and similitude and flow in closed conduits.

CVEN 3323 Hydraulic Engineering, Spring 2025, Spring 2026 Instructor of Record

Georgia Institute of Technology — teaching assistant

CEE 2040 Dynamics of Rigid Bodies, Spring 2012

Course Overview: Kinematics and dynamics of particles and rigid bodies in one, two, and three dimensions. Work-energy and impulse-momentum concepts.

CEE 3040 Fluid Mechanics, Fall 2010

Course Overview: Elementary mechanics of fluids with emphasis on hydrostatics, control volume analysis of flowing fluids using kinematics, continuity, energy, and momentum principles; similitude, pipe flow.

CEE 4200 Hydraulic Engineering, Fall 2011, Spring 2012, Fall 2013

Course overview: Applications of fluid mechanics to engineering and natural systems including fluid drag, open channel flow, turbomachinery, and environmental hydraulics; laboratory experiments; computational hydraulics.

guest lecturer & exam proctor

CEE 2040 Dynamics of Rigid Bodies, Spring 2010 and 2012, Instructor: Dr. Donald Webster
CEE 3040 Fluid Mechanics, Fall 2010, Instructor: Dr. Donald Webster
CEE 4200 Hydraulic Engineering, Fall 2009, Instructor: Dr. Donald Webster and Dr. Philip Roberts
CEE 6261 Environmental Fluid Mechanics, Fall 2010, Instructor: Dr. Philip Roberts
CEE 6251 Intermediate Fluid Mechanics, Fall 2009, Instructor: Dr. Donald Webster
CEE 6293 Hydrodynamic Instability and Turbulence, Spring 2011, Instructor: Dr. Donald Webster

Advising & Mentoring

University of Colorado Boulder

graduate research advising

Elle Stark, Civil, Environmnetal, & Architectural Engineering, CU Boulder — Fall 2023 - present
Coupling of flow & odor structure in scalar plumes
PhD Student (co-advisor/co-chair)

Derek Goulet, Civil, Environmnetal, & Architectural Engineering, CU Boulder — Fall 2022 - present
Research topic: Odor capture around insect antennae
PhD Student (co-advisor/co-chair)

Lars Larson, Civil, Environmnetal, & Architectural Engineering, CU Boulder — Fall 2021 - Summer 2024
Gaseous scalar mixing measurements with simultaneous sPIV & PLIF
Masters Student (co-advisor)

Dionys Beck, Civil, Environmnetal, & Architectural Engineering, CU Boulder — Fall 2020 - Spring 2021
Explosive odor source localization around passenger vehicles
Masters Student (informal co-advisor)

undergraduate research advising

University of Colorado Boulder

CU Boulder Summer Program for Undergraduate Research

Matthew Lee & Cristina Alles Martin, Mechanical Engineering, University of Colorado Boulder — Summer 2025
Research topic: plume dispersion from person-borne improvise explosive devices

Daniel Jeung, Aerospace Engineering Sciences, University of Colorado Boulder — Summer 2024, Spring 2025
Research topic: plume dispersion from person-borne improvise explosive devices

David Kautilius, Biomedical Engineering, University of Colorado Boulder — Summer 2024
Research topic: laminar flow cell design and fabrication for honeybee assays

Josh Minimo, Mechanical Engineering, University of Colorado Boulder — Summer 2023
Research topic: explosive odor source localization around passenger vehicles

Abby Adams, Chemical Engineering, University of Colorado Boulder — Summer 2022
Research topic: odor dispersion around a diffusive canine training device

Maria Winters, Environmental Engineering, UC San Diego — Summer 2016
Research topic: hydrodynamics of sniffing flows
CU Boulder Summer Multicultural Access to Research Training Program

Miguel Calpe Linares, Civil Engineering, Barcelona — Summer 2015
Research topic: phytoplankton-turbulence interactions
Balsells Research Project, Senior Thesis

Georgia Institute of Technology

Andrew Griesmer, Civil and Environmental Engineering, Georgia Institute of Technology — Spring 2012
Research topics: digital image analysis, zooplankton swiming trajectory kinematics
Undergraduate Researcher (technical elective)

Alex Nguyen, Civil and Environmental Engineering, Georgia Institute of Technology — Spring 2012
Research topics: digital image analysis, experimental design & fabrication
Undergraduate Researcher (technical elective)

Clara Choi, Civil and Environmental Engineering, Georgia Institute of Technology — Spring 2012
Research topics: digital image analysis, zooplankton behavioral assays
Undergraduate Researcher (technical elective)

Joanna Wright, Biology, Georgia Institute of Technology — Spring - Fall 2011
Research topics: digital image analysis, zooplankton swiming trajectory kinematics
Undergraduate Researcher (technical elective)

Allison Bergin, Biology, Sweet Briar College — Summer 2010
Research topics: zooplankton behavioral assays, digital image analysis
NSF Aquatic Chemical Ecology REU Student

Hunter Causey, Civil and Environmental Engineering, Georgia Institute of Technology — Spring 2009
Research topics: particle image velocimetry, digital image analysis
Undergraduate Researcher (technical elective)

Matt Lynch, Mechanical Engineering, Georgia Institute of Technology — Summer 2008
Research topics: particle image velocimetry, digital image analysis — Fall 2009 - Fall 2010
NSF Aquatic Chemical Ecology REU Student
Undergraduate Researcher (technical elective)

IV. SPONSORED RESEARCH PROJECTS

Awarded

U.S. Army Combat Capabilities Development Command (DEVCOM) Army Research Lab, "Optimization of Odor Source Localization from Person-borne Improvised Explosive Devices (PBIED): Phase 3." A. True (PI). J. Crimaldi (co-PI), $2M, Anticipated Feb. 20206. 10/1/25-9/7/30.

U.S. Army Combat Capabilities Development Command (DEVCOM) Army Research Lab, "Optimization of Odor Source Localization from Person-borne Improvised Explosive Devices (PBIED): Phase 2." J. Crimaldi (PI or co-PI), A. True (PI or co-PI). $251,300, 10/1/24-9/7/25.

U.S. Army Combat Capabilities Development Command (DEVCOM) Army Research Lab, "Optimization of Odor Source Localization from Person-borne Improvised Explosive Devices (PBIED)," J. Crimaldi (PI), A. True (co-PI), $132,332, 4/1/24-9/7/24 (5-month initial funding, to be extended to 12-month)

In development

Targeted to NSF, "Plume vectoring and amplification in honey bees," O. Peleg (PI, CU Boulder, CS & BioFrontiers Institute), A. True (co-PI, CU Boulder, CEAE), J. Crimaldi (co-PI or Senior Personnel, CU Boulder, CEAE), and B. Smith (co-PI, ASU, Life Sciences). Budget planning and project timeline in development.

Targeted to NSF, "Sorption effects on mixing and reaction kinetics in porous media," R. Neupauer (PI, CU Boulder, CEAE), A. True (co-PI, CU Boulder, CEAE), J. Crimaldi (co-PI or Senior Personnel, CU Boulder, CEAE), and J. Ryan (co-PI, CU Boulder, CEAE). Early conceptual development.

Supporting roles

I have played PI-level supporting roles in numerous additional NIH-, NSF-, and DoD-sponsored research projects with J. Crimaldi (PI) totaling close to $30M (total awarded). I did fundamental research, recruited and advised graduate students, formed collaborative working groups, published and disseminated findings in research communities in the US and abroad, and wrote numerous progress reports to project sponsors.

V. SERVICE & PROFESSIONAL DEVELOPMENT

Service

Rate-based Service Agreement & Facilities Committees CEAE, CU Boulder	Fall 2024 & 2025
University of Colorado Boulder, FE Exam, Fluid Mechanics Review Sessions	Fall 2024 & 2025
Session Chair - Biological Fluid Dynamics - Rocky Mountain Fluid Mechanics Symposium, Boulder, CO	August 2024
PhD Comittee Member, Turbulence-surface interactions, CU Boulder Aerospace Engineering Sciences	Fall 2023 - present
Volunteer mentor for postdoctoral mentor program, Office of Postodctoral Affairs, CU Boulder	Spring and Fall 2022
Contributing peer-reviewer: *Physics of Fluids, Fluids, Limnology and Oceanography, Marine Ecology Progress Series, Journal of Marine Systems, Reviews in Scientific Instruments* (ad hoc)	2012 - present
CU Boulder, Summer Multicultural Access to Research Training (SMART), Research Advisor	Summer 2016
CU Boulder, Balsells Fellowship, Research Advisor	Fall 2014 - Spring 2015
Chi Epsilon Georgia Tech, FE Exam, Fluid Mechanics Review Sessions	Fall 2010, Spring 2011

Professional Development

Researcher and key contributor, NSF NeuroNex Odor2Action Network	Sept. 2020 to present
Invited talk, International Symposium on Olfaction & Taste, Reykjavik, Iceland	June 2024
Invited participant and presenter, Workshop of Olfactory Navigation, Janelia Research Campus	March 2023
Invited participant and speaker, Microscale Ocean Biophysics Meeting, Puerto de Soller, Mallorca, Spain.	May 2022
Tomographic PIV Seminar & Training Participant, LaVision, Ypsilanti, Michigan	October 2019
Researcher, NSF Olfactory Navigation Team, CU Boulder, Crimaldi Lab	July 2016 - Dec. 2017
Invited Exhibitor, Turbulence Flow Demonstration, Microscale Ocean Biophysics, Eilat, Israel	October 2016
PIV Seminar & Training Participant, LaVision GmbH, Gottingen, Germany	October 2016
Bill Schutz Graduate Teaching Assistant Award, Georgia Tech, CEE	April 2013
Eco – DAS X Symposium, Center for Microbial Oceanography, Honolulu, HI	October 2012
NSF International Research Program, Reef Ecology, Aqaba, Jordan, Auburn University	May - June 2009
Hosted Researcher with Dr. Amatzia Genin, IUI, Hebrew University, Elat, Israel	July - August 2009
Partnership for Interdisciplinary Study of Coastal Oceans (PISCO), UC Santa Cruz	Summer 2008
NSF Research Experience for Undergraduates Program, Georgia Tech	May - August 2007
Professional Society Membership: American Physical Society (APS), American Society of Civil Engineers (ASCE), Association for the Sciences of Limnology and Oceanography (ASLO), Chi Epsilon Civil Engineering Honor Society, National Society of Collegiate Scholars (NSCS), Lifetime Member Trout Unlimited (TU)	2007 - present

VI. TECHNICAL PRESENTATIONS

Selected Talks (presenting)

STATISTICS
26 talks
13 poster presentations

VENUES
US & international
Research conferences
Invited seminars
Symposia

ORGANIZATIONS
American Physical Society (APS)
Association for the Sciences of Limnology & Oceanography (ASLO)
NSF NeuroNex
Georgia Tech
CU Boulder
ETH Zurich
IUI for Marine Sciences

"Odor mixing, dispersion, and sampling in olfactory landscapes," International Symposium on Olfaction & Taste, June 2024, Reykjavik, Iceland (invited)

"Naturalistic flow and odor cues driving animal behaviors in complex environments," Mechanical Engineering Seminar, University of South Florida, April 2024 Tampa, FL

"Simultaneous velocity & scalar measurements in low-Re, low-Sc odor landscapes", American Physical Society, Division of Fluid Dynamics, Nov. 2023 Washington, DC.

"Exploring coupled flow and odor cues in general plumes." Flash Talk. Workshop on Navigational Algorithms and Neural Circuit Computations Directing Olfactory Search Across Species, Janelia Research Campus, March 26-29, 2023, Ashburn VA.

"Distortion of passive scalar structure during suction-based plume sampling," American Physical Society Division of Fluid Dynamics, Indianapolis, IN, November 20-22, 2022.

"Distortion of passive scalar structure during suction-based plume sampling," Rocky Mountain Fluid Mechanics Symposium, Boulder, CO, August 9, 2022.

" A liter-scale turbulence facility for microorganism-flow interactions," ASLO Ocean Sciences, Honolulu, HI (virtual), Feb. 28 – Mar. 4, 2022.

"A liter-scale turbulence facility for microorganism-flow interactions," Microscale Ocean Biophysics, Mallorca, Spain, May 22-27, 2022.

"Quantification of odor landscapes & big data endeavours in olfaction team science," Water Resources Seminar, CU Boulder, CEAE, Boulder, CO, 2021.

"Adventures in biofluids: thin plankton layers, viscous inhalant flows, and mini turbulence tanks " Seminar, ETH Zurich, Institute for Environmental Engineering, 2019 Zurich, Switzerland

"Copepod avoidance of thin layers of harmful algal compounds" ASLO Summer Meeting, 2019 San Juan, Puerto Rico

"Classical and fractal grid turbulence in a liter-scale oscillating grid tank" Rocky Mountain Fluid Mechanics Symposium, 2017 Boulder, CO

"Multi-time-lag type PIV analysis of low Reynolds number inhalant flows" American Physical Society, Division of Fluid Dynamics, 2017 Denver, CO

"Hydrodynamics of Cyclic Inhalant-Exhalant Flows" Microscale Ocean Biophysics 2016, Interuniversity Institute for Marine Science, 2016 Elat, Israel

Selected Talks cont'd

"Ecologically-motivated problems in fluid dynamics: Studies in phytoplankton-turbulence interactions and the hydrodynamics of inhalant flows" Water Resources Seminar, University of Colorado, CEAE, 2016 Boulder, CO

"State-of-the-art Experimental Fluid Mechanics towards resolving Biophysi- cal Processes in Marine Ecosystems", Boulder Fluids Seminar, University of Colorado, 2015 Boulder, CO

"Copepod Behavior in Cryptic Blooms of Toxic Algae", American Physical Society, Division of Fluid Dynamics, 2014 San Francisco, CA

"Ecological Engines: Finescale Hydrodynamic and Chemical Cues Affecting Zooplankton in Marine Ecosystems", Water Resources Seminar, University of Colorado, CEAE, 2014 Boulder, CO

"Thin Layer Sensory Cues Affect Antarctic Krill Swimming Kinematics"
American Physical Society, Division of Fluid Dynamics, 2013 Pittsburgh, PA

"Thin Layers: The Poster Child for Biophysical Coupling in Coastal Marine Ecosystems" American Physical Society, Division of Fluid Dynamics, 2012 San Diego, CA

"Satiated Copepod Behavior in Persistent Thin Layer Shear Flow"
American Physical Society, Division of Fluid Dynamics, 2011 Baltimore, MD

"Patchiness: Zooplankton Behavior in Finescale Vertical Shear Layers"
Environmental Fluid Mechanics & Water Resources Seminar, Georgia Tech, April 2011

"Quantifying Copepod Swimming Kinematics in Response to Vertical Shear Layers" Environmental Fluid Mechanics & Water Resources Seminar, Georgia Tech, March 2010

"Thin layers: Fine-scale physical and chemical cues contributing to observed copepod aggregations" Departmental Seminar, Genin Lab, Interuniversity Institute, Eilat, Israel, July 2009

"Fluid Mechanics, Coral Reef Hydrodynamics, and Life on the Reef"
Red Sea Biology, Auburn University, National Science Foundation International Research Experience Program, Marine Science Station, Aqaba, Jordan, June 2009

"Copepod Behavioral Responses to Velocity Gradients in a Model Downwelling System" Ocean Sciences, Orlando, FL, March 2008

Selected Posters (presenting)

"Fluid flow sensing in arthropods, Lagrangian coherent structures, and coupled flow and odor cues in plumes." Workshop on Navigational Algorithms and Neural Circuit Computations Directing Olfactory Search Across Species, Janelia Research Campus, March 26-29, 2023, Ashburn VA.

"Distortion of passive scalar structure during suction-based plume sampling," NSF NeuroNex, San Diego, California, November 16-17, 2023.

"Distortion of passive scalar structure during suction-based plume sampling," NSF NeuroNex, San Diego, California, November 16-17, 2022.

"3D laser-induced fluorescence measurements of turbulent chemical plumes"
American Physical Society, Division of Fluid Dynamics, 2017 Denver, CO

Selected Posters cont'd

"Hydrodynamics of low Reynolds number respiratory-type flows", American Physical Society, Division of Fluid Dynamics, 2017 Denver, CO

"Fluid dynamics of odor transport and sampling", National Science Foundation Headquarters, Olfactory Navigation Reverse Site Visit, 2017 Alexandria, VA

"Laser-based Investigations in Bio-physical Problems in Fluid Dynamics"
Microscale Ocean Biophysics 2016, Interuniversity Institute for Marine Science, 2016 Elat, Israel

"The Fluid Mechanics of Siphon Flows", Rocky Mountain Fluid Mechanics Symposium, 2015 Boulder, CO

"Proof-of-concept Investigations into Turbulence-induced Phytoplankton Patchiness", Microscale Ocean Biophysics, 2014 Aspen, CO

"Shear-induced behavioral responses of eminently-settling Brachyuran crab larvae have implications for Selective Tidal Stream Transport (STST)" Ocean Sciences, 2014, Honolulu, HI, February 2014

"Assessing Zooplankton Behavioral Changes to Fine-scale Gradients of Vertical Flow", Microenvironments Modulating Biological Interactions in the Ocean, 2011, Aspen, CO, January 2011

"Quantifying Copepod Swimming Kinematics in Response to Vertical Shear Layers", Ocean Sciences 2010, Portland, OR, March 2010

"Copepod Aggregations at Oceanographic Discontinuities Associated With Physical Gradients", NSF Aquatic Chemical Ecology REU, Georgia Institute of Technology, August 2007