

APPLICATION AND PERMIT TO CONDUCT BIOLOGICAL, GEOLOGICAL, OR SOIL INVESTIGATIONS/COLLECTIONS

- NEW
 RENEWAL

FOR DEPARTMENT USE ONLY	
APPLICATION NO.	DATE RECEIVED
DISTRICT	CEQA
PERMIT TYPE	
<input type="checkbox"/> Biological	<input type="checkbox"/> Geological
<input type="checkbox"/> Soil	

APPLICATION

Instructions: Applications must be TYPEWRITTEN with original signatures. Precise location of proposed work must be shown on attached USGS topographic map and other maps. Application should be sent to the District Office that administers the park unit where the collection/investigation will take place, or to the Resource Management Division for multi-District requests.

APPLICANT ORGANIZATION	TELEPHONE NO.
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STREET ADDRESS/CITY/STATE/ZIP CODE

NAME, TITLE, ADDRESS, TELEPHONE NO., AND AFFILIATION OF PRINCIPAL INVESTIGATOR (Attach resume or curriculum vitae.)

NAME, ADDRESS, TELEPHONE NO., AND AFFILIATION OF PERSON IN ACTUAL DIRECT CHARGE OF FIELD WORK (Attach resume and curriculum vitae if different from investigator.)

COLLECTING ASSISTANT NAME(S)	STREET ADDRESS/CITY/STATE/ZIP CODE	TELEPHONE NO.

The above applicant hereby applies to the Department of Parks and Recreation for a permit under Title XIV, California Code of Regulations, Section 4309, and Public Resources Code Section 5097.5, to conduct investigations on lands of the State of California as follows:

STATE PARK UNIT(S)	COUNTY(IES)
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TYPE OF HABITAT, GEOLOGICAL FORMATION NAME, OR SOIL TYPE

USGS QUADRANGLE(S)

LEGAL DESCRIPTION (Township, Range, and Section of each distinct location.)

1. AIM AND PURPOSE OF COLLECTION ACTIVITY, AND METHODS OF THIS INVESTIGATION (For excavations, provide a research design and an outline of the report. Attach continuation sheets as necessary.)

2. METHOD OF COLLECTION

3. TYPES OF SPECIMENS (Species, quantity, size, condition.)

4. EXPECTED DURATION OF THE PROJECT (Specify dates of field investigations, laboratory study, and report completion.)

5. GENERAL SCOPE AND NATURE OF APPLICANT ORGANIZATION'S ACTIVITIES AND GOALS

6. PLACE AT WHICH LABORATORY WORK WILL BE PERFORMED (Institution, address, telephone numbers, contact person.)

7. NAME AND LOCATION OF FACILITY THAT HAS AGREED TO CURATE MATERIALS COLLECTED UNDER THIS PERMIT.

PERMIT

STANDARD CONDITIONS AND RESTRICTIONS

It is the intention of the Department of Parks and Recreation to further scientific research within the areas administered by it, and to cooperate with authorized workers to the fullest extent compatible with its charge to preserve all species of flora and fauna and all soil and geologic material in a natural state insofar as is possible.

1. General classroom collection is not allowed under this or any other permit.
2. This permit applies only to non-cultural materials, and is limited to the kind, number, and sizes of specimens described on the front of this form. Archeological material may NOT be collected under this permit.
3. The collections shall be used for scientific or interpretive purposes only, shall be dedicated to the public benefit, and shall not be used for commercial purposes.
4. The collecting must be done away from roads, trails, and developed areas unless such localities are specified in the permit. This collecting shall be done in an inconspicuous manner, and shall not cause damage to the environment. Because of the scarcity or importance of some specimens, the Department of Parks and Recreation may designate other restrictions necessary for the preservation of the area.
5. The permittee shall submit a summary of information gathered to the applicable District where the investigations took place, and to the Chief, Resource Management Division, Department of Parks and Recreation in Sacramento. The Department further requires that the collector make available to the Department any material published as a result of this permit.
6. The collector is to contact the appropriate District Superintendent before collecting, and to present a copy of this permit together with evidences of additional collecting licenses and collecting permits, if required.
7. If collections are not made to the satisfaction of the Department, this permit may be immediately cancelled.
8. All applicable laws and regulations must be observed by the permittee in exercising the privileges granted in this permit.
9. Questions regarding this permit may be directed to the District Superintendent.

I have read the Standard Conditions and Restrictions above.

APPLICANT'S SIGNATURE

APPLICANT'S NAME *(Print or type.)*

DATE



REVIEWER	SIGNATURE	DATE
District Resource Ecologist		
District Superintendent		

APPROVAL SIGNATURE*

TITLE

DATE



APPLICANT MUST CARRY THIS PERMIT AT ALL TIMES WHILE COLLECTING.

PERMIT VALID FROM _____ TO _____

PERMIT CONDITIONS:

* NOTE: The District Superintendent has the permit authority if one District is involved; the Supervisor, Natural Heritage Section, if more than one District is involved.

JEFFREY DEAN PADUAN

Naval Postgraduate School
Code OC/Pd
Monterey, California 93943
(831) 656-3350

265 Mar Vista Drive
Monterey
California 93940
(831) 647-8679

EDUCATION

- Sept 1982 Oregon State University, College of Oceanography, Corvallis, Oregon.
Dec 1987 Ph.D. in Physical Oceanography, December 1987. Thesis advisor: Roland A. de Szoek. Thesis title: Response to wind stress and heating in the north Pacific surface layer.
Sept 1978 University of Michigan, College of Engineering, Ann Arbor, Michigan
May 1982 B.S.E. in Engineering Science with honors, May 1982.

EXPERIENCE

- July 1997 Associate Professor of Oceanography, Naval Postgraduate School, Monterey, California;
Present Adjunct Associate Professor, University of California Santa Cruz. Instructor for graduate-level oceanography courses. Researcher using shore-based HF radar.
July 1991 Assistant Professor of Oceanography, Naval Postgraduate School, Monterey, California.
June 1997
Jan 1991 Assistant Research Oceanographer, Scripps Institution of Oceanography, La Jolla,
June 1991 California. Conducted research using satellite-tracked drifters to study the horizontal structure of temperature and current in the northeast Pacific Ocean. Served as Global Drifter Center manager for the World Ocean Circulation Experiment (WOCE).
Dec 1987 Postdoctoral Research Oceanographer, Scripps Institution of Oceanography, La Jolla,
Jan 1991 California. Conducted research using satellite-tracked drifters to study offshore-flowing, cold-water jets off the coast of California and horizontal current and temperature structure in the northeast Pacific Ocean.
Sept 1982 Graduate Research Assistant, Physical Oceanography, Oregon State University,
Dec 1987 Corvallis. Conducted research in air-sea interaction using upper-ocean measurements of currents and temperatures and surface meteorological observations. Presented results (oral and written) at internationally attended conferences. Participated in research cruises.
May 1980 Research Assistant, Great Lakes Environmental Research Laboratory, Ann Arbor, MI.
Aug 1982 Performed computer programming and field duties in support of research on the circulation of the Great Lakes and dispersion of oil and toxic chemicals.
Jan 1980 Research Assistant, Department of Atmospheric and Oceanic Sciences, University of
May 1980 Michigan. Assisted in data reduction of current meter records from Lake Erie surf zone.

AWARDS/NATIONAL COMMITTEES

- Dec 2005 President, Central & N. Cal. Ocean Observing System (CeNCOOS) Governing Council
Dec 2004 Named as member of the CA Marine Life Protection Act Science Advisory Team
Sept. 2003 Chair, Ocean.US Surface Current Mapping Initiative Steering Committee
Nov 2001 Member, Ocean.US Community Workshop Steering Committee
Aug 1997 Editor's Excellence in Reviewing Award, Journal Geophysical Research
Jan 1997 AMS Committee on Meteorology & Oceanography of the Coastal Zone
1994 Teaching (Oct) and Research (April) Recognition Awards, Naval Postgraduate School
Dec 1986 Best Student Paper Award for Oceanography AGU Fall Meeting[†]

SELECTED PUBLICATIONS IN REFEREED JOURNALS

- Kindle, J.C., R. Hodur, S. deRada, J. Paduan, L.K. Rosenfeld, and F. Chavez, 2002: A COAMPS™ reanalysis for the eastern Pacific: properties of the diurnal sea breeze along the central California coast. *Geophys. Res. Letters*, **29**(24), 2203, doi:10.1029/2002GL015566.
- Laws, K. D.M. Fernandez, and J.D. Paduan, 2000: Simulation-Based Evaluations of HF Radar Ocean Current Algorithms. *J. Oceanic Engin.*, **25**, 481-491.
- Lipphardt, B.L. Jr., A.D. Kirwan, Jr., C.E. Grosch, J.K. Lewis, and J.D. Paduan, 2000: Blending HF radar and model velocities in Monterey Bay through normal mode analysis. *J. Geophys. Res.*, **105**, 3425-3450.
- Niiler, P.P., and J.D. Paduan, 1995: Wind-driven motions in the northeast Pacific as measured by Lagrangian drifters. *J. Phys. Oceanogr.*, **25**, 2583-2594.
- Paduan, J.D., and M.S. Cook, 1997: Mapping surface currents in Monterey Bay with CODAR-type HF radar. *Oceanography*, **10**, 49-52.
- Paduan, J.D., R.A. deSzoeko, and R.A. Weller, 1989: Inertial Oscillations in the Upper Ocean during the Mixed Layer Dynamics Experiment (MILDEX). *J. Geophys. Res.*, **94**, 4835-4842.
- Paduan, J.D., and H.C. Graber, 1997: Introduction to high frequency radar: Reality and myth. *Oceanography*, **10**, 36-39.
- Paduan, J.D., K.C. Kim, M.S. Cook, and F.P. Chavez, 2006: Calibration and validation of direction-finding high frequency radar ocean surface current observations. *IEEE J. Oceanic Engin.*, 10.1109/JOE.2006.886195, 862-875.
- Paduan, J.D., P.-M. Kosro, and S.M. Glenn, 2004: A national coastal ocean surface current mapping system for the United States. *Marine Tech. Soc.*, **38**, 102-108.
- Paduan, J.D., and L.K. Rosenfeld, 1996: Remotely sensed surface currents in Monterey Bay from shore-based HF radar (CODAR). *J. Geophys. Res.*, **101**, 20669-20686.
- Paduan, J.D., and I. Shulman, 2004: CODAR data assimilation in the Monterey Bay area. *J. Geophys Res.*, **109**, C07S09, doi: 10.1029/2003JC001949.
- Petruncio, E.T., L.K. Rosenfeld, and J.D. Paduan, 1998: Observations of the internal tide in Monterey Submarine Canyon. *J. Phys. Oceanogr.*, **28**, 1873-1903.
- Pickett, M., and J.D. Paduan, 2003: Wind stress curl and related upwelling in the California Current System from high resolution COAMPS reanalysis fields. *J. Geophys Res.*, **108**, 25-1 to 25-10.
- Ramp, S.R., J.D. Paduan, I. Shulman, J. Kindle, F.L. Bahr, and F.P. Chavez, 2004: Observations of upwelling and relaxation events in the northern Monterey Bay during August 2000. *J. Geophys. Res.*, In Press.
- Shulman, I., S. Haddock, D. McGillicuddy, J. Paduan, and P. Bissett, 2003: Numerical modeling of bioluminescence distributions in the coastal ocean. *J. Oceanic & Atmos. Tech.*, **20**, 1060-1068.

Curriculum Vitae
Daniel P. Atwater

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Carmel, CA 93922
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Degrees:

University of California Santa Cruz Institute of Marine Science
Degree: Master of Science in Marine Science
Date: Expected 2008
California State University Monterey Bay
Degree: Bachelor of Science in Earth Science
Minor in Mathematics
Date: May 2003

Professional Experience:

University of California Santa Cruz Institute of Marine Science
Position: Associate Specialist Step (IV)
Supervisor: Jeffrey D. Paduan (Ph.D.)
Dates: June 2005 - present
Naval Postgraduate School (Monterey, CA) Oceanography Department
Position: Research Assistant
Supervisor: Jeffrey D. Paduan (Ph.D.)
Dates: July 2002 - June 2005
Lawrence Berkeley National Laboratory Environmental Energies Technology
Division
Position: Research Fellow
Supervisor: Lara A. Gundel (Ph.D.)
Dates: January 2002 - August 2002
California State University Monterey Bay Earth Systems Science and Policy
Position: Undergraduate Research Assistant
Supervisor: Daniel M. Fernandez (Ph.D.)
Dates: March 2001 - July 2002
California State University Monterey Bay Institute of Mathematical Sciences
Position: Teacher Assistant
Supervisor: Donald Pierce (Ph.D.)
Dates: August 2000 - December 2001
United States Navy USS Theodore Roosevelt V1 Air Division
Position: Flight Deck Firefighter
Supervisor: Andy Anderson
Dates: October 1996 - February 1998

Awards:

Energy Research Undergraduate Laboratory Fellowship (ERULF)
Department of Energy Lawrence Berkeley National Laboratory
Environmental Energies Technology Division;
Mentor: Lara A. Gundel (Ph.D.);
Dates: January 2002 - August 2002

Publications:

Atwater D.P., M. Apte, L.A. Gundel, A.D. Hansen, D.R. Black, "Collection
mechanism for miniaturized particle sampler", DOE Journal of Under-
graduate Science, Vol. V, 2003

Conference Presentations:

- Atwater, D. P., M. S. Cook, J. D. Paduan, B. L. Lipphardt, "Real-time surface current analyses in the Monterey Bay from HF radar during the autonomous ocean sampling network (AOSN) experiment", American Society of Limnology and Oceanography / The Oceanography Society 2004 Ocean Research Conference, 15 - 20 February, 2004.
- Cook M.S., B.L. Lipphardt, J.D. Paduan, D.P. Atwater, A.D. Kirwan, "Web based near real-time surface current analysis in Monterey Bay from HF radar", 50th Eastern Pacific Ocean Conference, 25 - 28 September, 2003.
- Paduan J., M. Cook, D.P. Atwater. "Lagrangian beaching and exiting statistics from Monterey Bay HF-radar-derived surface velocities". 49th Eastern Pacific Ocean Conference, 25 - 28 September, 2002.