Laurence J. Purcell

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San Diego, California 92131

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EDUCATION

Master of Science in Biology, December 1985
California State University, Long Beach

Thesis: Nighttime ammonium excretion by the blacksmith (Chromis punctipinnis: Pomacentridae) at Santa Catalina Island, California, and its potential for uptake by benthic algae

Bachelor of Science in Marine Biology, with honors, May 1978
California State University, Long Beach

Honors and Awards
Deans Honor List, 1974-1975
Presidents Honor List, 1975-1978
K.L. Johnson Award (Outstanding Master's Thesis), 1986

PROFESSIONAL HISTORY

Water Resources Manager, San Diego County Water Authority	1992-present
Water Resources Specialist, San Diego County Water Authority	1990-1992
Environmental Specialist, City of Long Beach Harbor Dept.	1989-1990
Environmental Specialist Associate, City of Long Beach Harbor Dept.	1988-1989
Environmental Specialist Assistant, City of Long Beach Harbor Dept.	1987-1988
Environmental Engineering Technician, Chevron USA	1986-1987
Analytical Assistant, Chevron USA	1981-1986
Project Leader, Occidental College	1980-1981
Environmental Specialist, Occidental College	1978-1980
Research Technician, San Diego State University Foundation	1977-1978

CERTIFICATES/LICENSES

California Class C Drivers License
PADI Divemaster Certificate
FAA Private Pilot License

SPECIAL TRAINING

Saturation Diving; May-June 1983, June 1985
NOAA National Undersea Laboratory - HYDROLAB
St. Croix, Virgin Islands, USA

PROFESSIONAL MEMBERSHIPS

Association of Environmental Professionals
Professional Association of Diving Instructors

DETAILED PROFESSIONAL EXPERIENCE

1990 to present San Diego County Water Authority

Water Resources Manager
Duties: Provide day-to-day management for six professional staff performing environmental and water resource planning functions. Develop and implement environmental compliance policies and procedures. Develop and pursue water supply strategies to meet current and future demand projections. Negotiate and procure permits from state and federal regulatory agencies. Participate on interagency and interstate advisory committees to resolve natural resource conflicts. Participate in drafting legislation. Coordinate water resource management programs and plans with Metropolitan Water District, member agencies and other organizations.

Water Resources Specialist (Environmental)
Duties: Provided California Environmental Quality Act and National Environmental Policy Act compliance for $900 million capital improvement program, including pipeline and reservoir storage projects. Negotiated contracts and managed environmental consultants. Developed mitigation plans, budgets, and schedules. Represented employer before federal, state, and local agencies and public groups. Reviewed proposed legislation. Developed recommendations and made presentations to Board of Directors.

1987 to 1990 City of Long Beach Harbor Department

Environmental Specialist
Duties: Managed the preparation of complex environmental documents for CEQA and NEPA compliance. Conducted difficult environmental investigations for major port development projects. Directed 116-acre wetland restoration project and feasibility study of artificial reefs for mitigation. Represented employer on interagency committees. Reviewed proposed legislation. Negotiated and managed professional service contracts. Presented reports and recommendations to Board of Directors. Supervised the Environmental Planning Section.

Environmental Specialist Associate
Duties: Conducted environmental impact investigations for development projects, including preparation of environmental documents for compliance with CEQA and NEPA. Represented employer at public hearings. Selected and managed environmental consultants. Developed environmental mitigation plans. Developed agency policy regarding hazardous materials. Directed the activities of the Environmental Planning Section.

Environmental Specialist Assistant
Duties: Evaluated permit applications for development projects. Prepared environmental documents for compliance with the CEQA and California Coastal Act. Identified and assessed wetland mitigation sites. Negotiated with federal and state agencies. Conducted assessments of potentially contaminated property. Managed contaminated property remedial action programs. Supervised and trained the Administrative Intern.

PROFESSIONAL EXPERIENCE (continued)

1981 to 1987 Chevron U.S.A., Inc.

Environmental Engineering Technician
Duties: Provided guidance for operation of a 6.5 MGD industrial wastewater treatment facility. Investigated chemical and biological treatment systems to reduce wastewater contaminant loading. Participated in recovery and treatment of contaminated groundwater. Represented the company at meetings with regulatory agencies. Developed and implemented computerized data-base system for monitoring treatment plant operating variables.

Analytical Assistant
Duties: Determined chemical constituents in unknown solid, aqueous, and gaseous samples for assessment of environmental contamination. Participated in subsurface contamination and mitigation assessment for tank leaks. Provided technical guidance for 10-acre hazardous waste landfarming facility. Monitored stack releases to the atmosphere. Prepared written reports for regulatory agencies. Trained and directed activities of laboratory staff.

1983 and 1985 Long Beach State University Foundation

Aquanaut
Duties: Remained underwater for 7 days as part of a federal government sponsored research team investigating nitrogen importation and cycling in tropical reef ecosystems. Required utilization of the National Underwater Laboratory, an underwater habitat administered by the National Oceanic and Atmospheric Administration.

Surface Scientific Team Leader
Duties: Member of a federal government sponsored research team investigating nutrient importation in tropical reef ecosystems. Coordinated field research activities and served as liaison with government representatives. Directed shore based lab operations and supervised a 3 member surface scientific team.

1978 to 1981 Occidental College

Project Leader
Duties: Investigated the abiotic and biotic factors influencing community structure of temperate marine fishes on natural and artificial reefs. Trained personnel in marine organism identification and field collection techniques.

Environmental Specialist
Duties: Directed temperature preference and avoidance experimentation on adult and larval fishes. Participated in studies investigating the effects of temperature and chlorination on marine organism physiology. Designed experimental apparatus and laboratory water systems. Directed and trained staff members in scientific techniques.

PROFESSIONAL EXPERIENCE (continued)

1977 to 1978 San Diego State University Foundation

Research Technician
Duties: Monitored thermal effects simulation project to determine mortality and reproductive effects on marine organisms. Constructed and maintained laboratory sea water systems. Participated in pilot aquaculture program of the Maine lobster utilizing heated effluent from an electrical generating station.

PUBLICATIONS AND PRESENTATIONS

Purcell, L.J. 2000. Assessing the growth inducing potential of water supply planning and water transfers. Presented at the Association of Environmental Professionals Water Supply & Urban Growth Workshop, San Diego, California, November 7.

Purcell, L.J. 1999. Ecological considerations of the lower Colorado River multi-species conservation plan. Presented at the Association of California Water Agencies Endangered Species Act Workshop, San Diego, California, November 30.

Purcell, L.J. 1995. Endangered species issues on the Colorado River. Presented at the Second Annual Southern California Urban Water Conference, San Diego, California, August 24-25.

Barnett, A.M., T.D. Johnson, E.E. DeMartini, L.L. Craft, R.F. Ambrose, and L.J. Purcell. 1994. Fish production and habitat utilization on a Southern California artificial reef. Bull. Mar. Sci. 55(2-3):709-723.

Purcell, L.J., and T.D. Johnson. 1992. Creating wetlands. Civil Engineering 62(8):36-37

Purcell, L.J., and T.D. Johnson. 1991. Anaheim Bay wetland restoration and enhancement-an overview, *in* Proceedings of Seventh Symposium on Coastal and Ocean Systems Management, edited by Orville T. Magoon, Long Beach, California, July 13-17, pages 1720-1737.

Johnson, T.D., A.M. Barnett, E.E. DeMartini, and L.J. Purcell. 1991. Habitat value of a southern California artificial reef, *in* Perspectives on the Marine Environment, edited by Phyllis M. Grifman and Susan E. Yoder, Los Angles, California, May 10, pages 69-74.

Bray, R.N., L.J. Purcell, and A.C. Miller. 1986. Ammonium excretion in a temperate-reef community by a planktivorous fish, Chromis punctipinnis, (Pomacentridae), and potential uptake by young giant kelp, Macrocystis pyrifera (Laminariales). Mar. Biol. 90:327-334.

Shrode, J.B., L.J. Purcell, and J.S. Stephens, Jr. 1983. Ontogeny of thermal preference in four species of viviparous fishes (Embiotocidae). Env. Biol. Fish. 9:71-76.

PUBLICATIONS AND PRESENTATIONS (continued)

Purcell, L.J., and J.B. Shrode. 1983. Vertical temperature preference tank for larval and juvenile fish. Prog. Fish. Cult. 45:27-29.

Purcell, L.J., J.E. Hose, K.E. Zerba, J.S. Stephens, Jr., and J.B. Shrode. 1981. Behavioral responses of juvenile marine fishes to temperature. Annual Report to Southern California Edison Company.

Helvey, M., J.L. Stein, and L.J. Purcell. 1981. Simplification of habitat at a cooling water intake structure and its effect on fish attraction and fish entrapment. Report for Phase III, Habitat Modification Study 316(b) Demonstration. Southern California Edison Research and Development Series: 81-RD-144, 62 pp.

Shrode, J.B., L.J. Purcell, and J.S. Stephens, Jr. 1980. Ontogeny of thermal preference in five species of viviparous fishes, family Embiotocidae. (Abstract). American Fisheries Society annual meeting, Louisville, Kentucky.

Purcell, L.J., and J.E. Hose. 1980. The directionality of response to temperature gradients by juvenile fishes. (Abstract). Southern California Academy of Sciences annual meeting, Long Beach, California.