

Ron S. Nolan, Ph.D.

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EDUCATION:

- Ph.D. in Marine Biology, Scripps Institution of Oceanography
- B.S. (Honors) in Zoology, University of Kansas
- Post Doctoral Research, University of Hawaii
- Sea Grant Trainee, University of the Pacific
- Research Associate, Biology, UC Santa Cruz
- Research Associate, Computer Engineering, UC Santa Cruz

EXPERIENCE SUMMARY

Thirty years of extensive and varied experience in ecological research, environmental assessment and impact studies, and conservation education in the following principal areas which are described in detail below.

- Fund Raising, Proposal Development and Project Management
- Information Technology
- Ecological Research and Environmental Studies
- Natural Resource Management and Planning
- Conservation Education and Resolution of Environmental Conflict

FUND RAISING, PROPOSAL DEVELOPMENT AND PROJECT MANAGEMENT

- Sample proposals as researcher and grant writer include:
 - Early Reading Program Mount Diablo Unified School District, Contra Costa County
 - Monument Community Partnership, Kaiser Permanente Benefit Programs
 - Alameda County Office of AIDS Prevention, Substance Abuse for Minority Populations
 - Oakland Unified School District, Substance Abuse Project Stand Tall
- In the early 1980's Nolan raised over five million dollars through private placements for the development of a commercial aquaculture research venture in Hawaii. The fund raising process involved the development of detailed legal

prospectuses and a nation-wide series of seminars and presentations. Nolan also gained considerable experience in lead management, database development and in making follow up contacts.

- For the University of California, Santa Cruz Baskin Center for Information Sciences and Computer Engineering, Nolan raised approximately \$30,000 in matching contributions for the development of a CD-ROM and website designed to encourage recruitment of students to UCSC.
- Nolan has developed over twenty proposals to government and federal agencies for a variety of environmental and educational projects including: a \$250,000 award from the National Science Foundation to develop a 6 part instructional television program about the effort to preserve and restore salmon populations in the Pacific Northwest and a \$90,000 grant from the National Science Foundation to develop a CD-ROM using music to interest high school students in computer science and engineering.
- Nolan has successfully managed a wide range of complex and detailed projects, many concurrently. He was an early adopter of fast track methods to prioritize the allocation of time, funding and human resources. He has excellent communication skills and works well with others.

AVAILABILITY AND CAPABILITY

Available as soon as needed. Nearly all grant writing services have been provided via telecommuting and I am comfortable with that arrangement. I am also willing to work on a contract basis or at an hourly rate. I have a state-of-the-art Dell workstation with two large flat screens. For image editing I have GIMP and Thunderbird for e-mail; MS Office 2007 for writing and data analysis. I have Comcast digital voice for unlimited long distance and high speed internet.

INFORMATION TECHNOLOGY

- Experienced in conducting research using the Internet and familiar with a number of on-line resources and searchable databases made accessible through past association with UC Santa Cruz for example: Melvyl, Current Contents, Aquatic Sciences and Fisheries Abstracts (AFSA), BIOSIS, BioOne, Oceanic Abstracts, Science Direct, Web of Science, Zoological Record and many others available through the University of California library system.
- Familiar with database theory and structure. Designed and programmed Digital Studios business database featuring integrated customer leads, sales, invoicing and receivables tracking program.

- Very experienced LINGO programmer having written thousands of lines of code that were used in interactive software programs produced and published by Digital Studios. Author, designer and photographer of: the following CD-ROMs Coral Kingdom, Task Force Environmental Investigation Kit; Computer Music: an Interactive Documentary; Mission 2000; and Ecosystems.
- HTML expert. Designed web site for UCSC Computer Engineering student recruitment project called Mission 2000. Designed web sites for Digital Studios at www.cyberlearn.com and Solar Metro Online at www.solarmetro.com.
- Videographer, writer, editor and co-producer of six episode instructional television series on salmon restoration and preservations which was funded by the National Science Foundation and which has been aired in thousands of classrooms across the U.S. ecological and environmental studies

ENVIRONMENTAL RESEARCH

- Throughout his career, Nolan has been active both in basic research and in conducting environmental assessments and impact studies. His doctoral studies as Scripps Institution of Oceanography investigated the community structure of fish assemblages inhabiting shallow lagoon patch reefs at Enewetak Atoll in Micronesia. One component of this work was to develop, test and deploy small modular artificial reefs in order to study in a quantifiable fashion the recruitment of larval reef fishes. Other marine research interests include the systematics of mid-water anglerfishes of the genus, *Lasiognathus* and the discovery and description of a new species, *Lasiognathus waltoni*.
- The first of more than 20 environmental assessment projects began with a post doctoral study at the University of Hawaii which investigated the impact of commercial aquarium fish collecting. This project was conducted on the Kona and Kohala coasts of Hawaii and was funded by Sea Grant. L. Taylor, Jr., was the P.I.
- A spin-off of the aquarium fish collection impact study was the realization that the most commonly employed methods of using underwater observations to assess reef fish populations had never been rigorously tested. As a result, Nolan led an effort to quantitatively evaluate the precision, accuracy and efficiency of a variety of survey methods which was subsequently revised and published in 1999.
- After completing post doctoral research at the University of Hawaii in 1975-1976, Nolan formed an environmental consulting company focused upon performing marine environmental studies in Hawaii. The following is a summary of some of the more notable projects conducted by ORCA, LTD.

- Investigation of spatial and temporal distribution of coral, micro-molluscan assemblages and reef fishes at Ke-ahole Point, Island of Hawaii for the Natural Energy Laboratory, University of Hawaii.
- Environmental assessment of Puukohala Bay, Island of Hawaii for the National Park Service.
- Assessment of Pohoiki Bay, Island of Hawaii for U.S. Army Corps of Engineers.
- West Hawaii coral reef inventory for U.S. Army Corps of Engineers.
- West Hawaii Coral Reef Atlas for U.S. Army Corps of Engineers. This was a major intertidal and subtidal survey of coastal use activities, invertebrates and fish populations including fishing and recreational activities along the entire west coast of the Island of Hawaii (with D. Cheney).
- Shark control and the Hawaiian monk seal. U.S. Fish & Wildlife Service.
- Environmental impact of Orca Sea Farm Partners shrimp farm Section 404 dredge and fill permit in wetlands of Molokai, Hawaii for U.S. Army Corps of Engineers.
- Member of State of Hawaii, Department of Health “208” Scientific Technical Committee to develop water quality standards.

NATURAL RESOURCE MANAGEMENT AND PLANNING

- Nolan has had a long-term involvement with the salmon fisheries of the Pacific Northwest. As a contractor, he developed instructional materials used to train Idaho Department of Fish and Game staff in the concept of using reservoir draw down to increase Columbia /Snake River smolt passage survivorship. Nolan also developed an interactive, multimedia, public exhibit for the Fish and Game Nature Center in Boise, Idaho, as well as an instructional television series and interactive software featuring salmon fisheries, stock preservation and restoration strategies.
- Co P.I./Contractor to State of Hawaii Division of Fish and Game. Assessment of Hawaii Fishery Development Plan (with P. Struhsaker).1979.
- Co P.I./Contractor to Western Pacific Regional Fisheries Management Council to develop the Bottomfish Management Plan for the Western Pacific (with P. Struhsaker). 1979 This was the first management plan developed for these fishes in the Hawaii and Western Pacific region.
- Co P.I./Contractor to Western Pacific Regional Fisheries Management Council to develop the Spiny Lobster Management Plan for the Western Pacific (with P. Struhsaker).1980 This was the first management plan for lobsters in this region.
- P.I./Contractor to National Marine Fisheries Service to monitor pelagic fishes attracted to an experimental fish aggregation buoy anchored in deep water off the Kona Coast of the Island of Hawaii.. This was the first sea test of a device

designed to attract pelagic commercial/sport fishes to a specific location. Other aggregating devices were subsequently deployed throughout state waters.

- Co P.I./Contractor to A.K. Chin to assess the commercial potential of precious corals in Indonesia (with R. Grigg).
- P.I./Contractor to Oceanic Resources of Honolulu to assess commercial potential of sea cucumber (beche de mer) resources in Micronesia.

CONSERVATION EDUCATION AND RESOLUTION OF ENVIRONMENTAL CONFLICT

- Nolan has had a long involvement in efforts to educate young people as well as adults in environmental conservation. One of the projects is the Task Force Environmental Education Kit. This combination of instructional television series, interactive software and web discussion forum encourages students to understand the issues related to declining salmon fisheries. It challenges students to develop skills in the resolution of environmental conflict by studying a wide range of differing viewpoints and then to develop their own management plan. This was funded in part by a grant from the National Science Foundation in 1994.
- Developer of Salmon Preservation: a Case Study in the Resolution of Environmental Conflict, a web site with a wide range of resources, fishery data and open forum. (<http://www.cyberlearn.com/online.htm>) Current
- Developer of Coral Kingdom, instructional software about the biology and ecology of coral reefs, Digital Studios, 1993.
- Developer of Ecosystems (upper division level college textbook on CD-ROM), Digital Studios, 2000.

SELECTED PUBLICATIONS & TECHNICAL REPORTS

- Review of the deep-sea angler fish, genus, *Lasiognathus*. Copeia (1), 1975
- Artificial reefs as experimental tools. Proceedings of an international conference on artificial reefs. TAML-SG-74-103, 1976.
- Ecology of patch reef fishes. Ph.D. dissertation, Scripps Institution of Oceanography, UCSD, La Jolla, CA, 1975.
- Coral reef survey: Ke-ahole Point, Island of Hawaii, winter months. Natural Energy Laboratory OTEC Facility, State of Hawaii.
- Reconnaissance surveys of proposed small boat harbor at Kawaihae, Island of Hawaii, U.S. Army Corps of Engineers, 1978.
- Environmental assessment of Coast Guard removal from Tern Island, French Frigate Shoals, U.S. Fish and Wildlife Service, 1979.

- Monitoring and photography of pelagic fishes associated with the fish aggregation buoy off the Island of Hawaii, National Marine Fisheries Service, 1979.
- West Hawaii Coral Reef Atlas, U.S. Army Corps of Engineers, 1981
- An evaluation of transect methods for fish census on shallow reefs. Ron S. Nolan and Leighton R. Taylor, Jr.. Naturalista sicil, Vol. XXIII pp 261-283, 1999.
- ECOSYSTEMS, 2000 Digital Studios, Aptos, CA (college level textbook on CD-ROM)

EMPLOYMENT

- 1975-1976 Post doctoral fellowship, University of Hawaii
- 1977-1980 President ORCA, LTD,
- 1981-1985 President, ORCA Sea Farms, Inc.
- 1985-1989 Proprietor of Island Shrimp Shop and North Shore Seafood Company
- 1990-2007 Proprietor of Digital Studios, Aptos, CA
- 2006-2008 Proprietor of Solar Metro/Co-Owner Solar Metro Online. Aptos, CA
- 2009-2013 Proprietor of FarSun Communications
- Current Founder of New-Humans Incorporal

RELEVANT SKILLS

- Experienced at writing and editing technical proposals and reports
- Highly developed communication and marketing skills
- Advanced SCUBA diver, comfortable at sea and in the field, approximately 3000 hours logged underwater with dives to a depth of 265 feet. Experienced with handling aggressive sharks. Organizer and participant in effort that set world altitude record for SCUBA in 1975.

REFERENCES

Reference: Grant Writing
 Sonya Tolson
 Development Consulting Network
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Reference: Information Technology/Computer Engineering

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