CURRICULUM VITAE

JAMES C. KELLEY
Box 909 Montara
California 94037
jkelley@sfsu.edu

Date of Birth: 5 October 1940
Place of Birth: Los Angeles, California

Educational Background:

Institution	Field	Degree
Pomona College, 1961-63	Geology	B.A.
University of Wyoming, 1963-66	Geology	Ph.D.

Professional Background:

Expedition Leader and Naturalist. Lindblad Expeditions, Worldwide, Main Office, New York, NY	1985-present
Dean, College of Science and Engineering, San Francisco State University, San Francisco	1975-2001
Professor of Oceanography, San Francisco State University, San Francisco	1975-2001
President, California Academy of Sciences, San Francisco	1981-1993
Assistant to Associate Professor of Oceanography, Biomathematics, and Geological Sciences, University of Washington, Seattle	1966-1975
Fulbright Professor, University of Athens and Democritos Nuclear Research Center, Athens, Greece	1971-1972
Cooperating Member of Quaternary Research Center, University of Washington, Seattle	1968-1975

License

Master, Steam and Motor Vessels, not more than 100 Tons, Authorized to Engage in Commercial Assistance Towing, Radar Observer (Unlimited)

Current Research Interests:

Coastal Upwelling
Artificial Intelligence and Intelligent Tutoring Systems
Limnology and Sierra Nevada Lakes
Environmental Impact Assessment Related to Offshore Drilling
Estuarine Dynamics in San Francisco Bay

Member: American Geophysical Union
American Society of Limnology and Oceanography
Pacific Science Association
Sigma Xi
American Association for the Advancement of Science
Eastern Pacific Oceanic Conference
The Western Society of Naturalists
The Oceanography Society

Fellow: California Academy of Sciences

Activities:

2002-present	Board of Trustees, California Ocean Science Trust
2001-present	Gulf of the Farallones National Mareine Sanctuary Advisory Council
1997-present	Board of Directors, Romberg Tiburon Centers
1995-2001	Commission on University Strategic Planning, San Francisco State University
1995-2001	Executive Committee, ERIM International Conferences
1992-2001	University Budget Committee, San Francisco State University
1991-2001	Member of the Academy of Creative Endeavors of the USSR
1989-2001	Academic Senate, San Francisco State University (appointed)
1985-2001	Industrial Waste Review Board, Department of Public Works, City and County of San Francisco
1975-2001	Board of Governors, Moss Landing Marine Laboratories
1992-1996	Chair, Pacific Basin Study Center Board of Directors (Consortium of University of California, Davis and San Francisco State University)
1992-1994	Pacific Land Trust Board
1991-1993	Chair, Moss landing Marine Laboratories Governing Board
1990-1993	Academic Planning Committee, San Francisco State University
1985-1993	President, California Academy of Sciences

1981-1993 Board of Trustees, California Academic of Science

1983-1993	Outer Continental Shelf Advisory Board (Pacific Regional Technical Working Group) – Advisory to the Minerals Management Service, Department of Interior
1981-1993	Board of Directors, Institute for Sino-American Studies (SFSU)
1986-1990	Chairman, Eastern Pacific Oceanic Conference
1979-1986	Vice Chair, Eastern Pacific Oceanic Conference
1982-1985	Vice President, California Academy of Sciences
1982-1985	San Francisco State University Resource Planning Group
1982-1984	Vice Chair, Board of Directors, The Institute for innovative and Applied Technology
1980-1982	President's Cabinet, San Francisco State University
1980	Ad Hoc Scientific Advisory Committee on Radioactive Waste Dumping U.S. House Committee on Government Operations
1979-1981	University Planning Group (Academic Master Planning), SFSU
1979-1980	Academic Senate, San Francisco State University (appointed)
1976-1978	Director's Advisory Board on the Outer Continental Shelf, Bureau of Land Management
1976-1978	Member of the JOIDES (Deep Sea Drilling Project) Information Handling Panel
1976-1977	Academic Senate, San Francisco State University (appointed)
1974-1975	Academic Senate, University of Washington (elected)
1972-1975	Member of the Executive Council of the Coastal Upwelling Ecosystems Analysis Program

Participant in numerous oceanographic cruises, including:
M/S Endeavour, Azores, (Expedition Leader), 2004
M/S Endeavour, Mid-Atlantic Ridge, 2004
M/V Sea Bird, Baja California, (Expedition Leader), 2004
M/S Sea Bird, Baja California, (Expedition Leader), 2003
M/S Endeavour, Mid-Atlantic Ridge
M/S Endevour, Atlantic Crossing, 2003
M/S Endeavour, British Isles, 2003
M/S Endeavour, Azores (Expedition Leader), 2003
M/V Sea Bird, Baja California (Expedition Leader), 2002
M/S Endeavour, British Isles, 2002
M/V Endeavour, Svalbard, 2002
M/V Sea Bird, Baja California (Expedition Leader), 2001
M/S Endeavour, British Isles, 2001
M/S Endeavour, Morocco, 2001
M/S Endeavour, Mediterranean Sea, 2002
M/V Sea Lion, Baja California, (Expedtion Leader), 2000
M/S Endeavour, British Isles, 2000
M/S Caledonian Star, Antarctica, 1999

M/S Caledonian Star, British Isles, 1998
M/V Sea Lion, Baja California, (Expedition Leader), 1998
M/S Caledonian Star, British Isles and Svalbard (Expedition Leader), 1997
M/S Polaris, British Isles, 1996M/V Sea Lion, Baja California, (Expedition Leader), 1997
M/S Polaris, Transatlantic Passage, (Expedition Leader), 1996
M/V Sea Lion, Baja California, (Expedition Leader), 1996
M/S Polaris, Greenland and the Canadian Arctic, 1995
M/S Polaris, Transatlantic Passage, (Expedition Leader), 1995
M/V Sea Lion, Baja California, (Expedition Leader), 1995
M/V Sea Bird (California Academy of Sciences), Baja California (Expedition Leader), 1994
M/V Polaris (California Academy of Sciences), Spitzbergen, 1993
M/V Sea lion (California Academy of Sciences), Baja California (Expedition Leader), 1993
M/V Polaris (California Academy of Sciences), Costa Rica (Expedition Leader), 1992
M/V Polaris, Atlantic Passage, 1992
M/V Sea Bird (California Academy of Sciences), Baja California, 1992
M/V Sea Lion (California Academy of Sciences), Baja California, 1992
M/V Polaris, North Atlantic (between Norway and Spitzbergen), 1991
M/V Sea Lion (California Academy of Sciences), Baja California, 1991
M/V Polaris (California Academy of Sciences), Atlantic Passage, 1991
M/V Polaris, North Atlantic, Ireland, Faroes, 1990
M/V Sea Lion, Baja California, 1990
M/V Polaris, Equatorial Atlantic, 1989
M/V Polaris, Sargasso Sea, 1989
M/S World Discoverer (California Academy of Sciences), Greenland and the Canadian Arctic, 1989
M/V Polaris, Costa Rica and Baja California (Expedition Leader), 1989
M/V Polaris, North Cape and Spitzbergen, 1988
M/V Polaris, Sargasso Sea, 1988
M/S Spirit of Adventure (California Academy of Sciences), Baja California, 1988
M/V Polaris, Baja California, 1988
M/S Pacific Northwest Explorer (California Academy of Sciences), Baja California, 1984-87
R/V Velero IV (OPUS II), California, 1983
R/V Velero IV (OPUS I), California, 1981
R/V Melville (CUEA), Peru, 1978
R/V Thomas G. Thompson (PROBES), Alaska (Bering Sea), 1978
R/V Thomas G. Thompson (JOINT II), Peru, 1976 (chief Scientist, Leg 2)
R/V Atlantis II Cruise #82 (JOINT I), N.W. Africa,1974 (Chief Scientist, Legs 0,2)
R/V Thomas G. Thompson (CUE II), Oregon, 1973 (Chief Scientist)
R/V Thomas G. Thompson (MESCAL II), Mexico, 1973
R/V Thomas G. Thompson (MESCAL I), Mexico, 1973
B/O Cornide de Saavedra (SAHARA II), N.W. Africa, 1971 (invited foreign scientist)
R/V Thomas G. Thompson cruise (PASTOUZO), Greece and West Mediterranean, 1970
R/V Thomas G. Thompson cruise (PISCO), Peru, 1969

R/V Thomas G. Thompson cruise (PANCHO), Mexico, 1968
R/V Thomas G. Thompson cruise #018, Alaska, 1967

Project Director on numerous research projects, including:

Cooperative Education Program (U.S. Department of Education), 1993-1993

Mathematics and Science Intervention Project (California Department of Education), 1993-1995

The Mathematics, Engineering, Science Achievement Program, 1992-1995

Young Engineers and Scientists (National Science Foundation), 1992-1995

Supercities (U.N. Environmental Program), 1992

Exploring System Earth (Hewlett-Packard Company, U.S. Department of Education (FIPSE), 1995-1991

Young Scientists of Tomorrow (San Francisco Foundation), 1980-1982

Processes and Resources of the Bering Sea Shelf (PROBES) Data Management (NSF/OPP), 1978-1980

Energy 2020 (Department of Education), 1979-1980

Voyages Into Ocean Space (NSF and NOAA), 1976-1977

CUEA Component 24, Interactive Realtime Information System (NSF/IDOE), 1972-1980

Coastal Upwelling Ecosystem Analysis (CUEA), Component 14, Nutrient and Phytoplankton Fields (NSF/IDOE), 1973-1978

SELECTED PUBLICATIONS
JAMES C. KELLEY

1998

San Francisco Bay: Our Urbanized Estuary, *San Francisco Urban Institute,* Spring 1998, p. 30-31 (invited paper).

Keeping a Hi-Tech Eye on El Nino, *Proceedings of the Fifth International Conference on Remote Sensing for Marine and Coastal Environments*, (invited plenary paper), in press.

1997

John Steinbeck and Ed Ricketts: Understanding Life in the Great Tide Pool, in *Steinbeck and the Environment*, S.F. Beegel, S. Shillinglaw, and W. N. Tiffney, eds., University of Alabama press, p. 27-42 (invited paper).

The Geoecology of Steinbeck Country, *The Steinbeck Newsletter*, Spring 1996, p.1 ff (invited paper).

1995

Ed Ricketts, Ecologist, On Cannery Row: Fiftieth Anniversary Edition, *The Steinbeck Newsletter*, Fall 1995 (invited paper).

1992

Supercities and Their Urbanized Estuaries, *Proc. Workshop on Supercities*, Pacific Basin Study Center, submitted.

Oil and Gas Development and Associated Environmental Impact on the West Coast of North America, Oceanic and Anthropogenic Controls of Life in the Pacific Ocean, V. I. Illyichev and V. V. Anikiev, eds., Kluwer Academic Publishers, August 1992.

1991

Minerals and Energy from the Sea, *The Encyclopedia of the Earth: Oceans and Islands*, Weldon Owen Publishing, 1991.

The Sargasso Sea, *The Encyclopedia of the Earth; Oceans and Islands*, Weldon Owen Publishing, 1991.

1989

A Report on the Second Symposium on Marine Sciences: The Rational Use of National Resources of the Ocean, *GeoJournal*, January 1969.

1988

Environmental Impact Assessment prior to Offshore Oil and Gas Development on the West Coast of North America, The Second Symposium on Marine Sciences, Nakhodka, USSR, August 1988 (invited paper).

1987

The Minerals Management Service pacific Environmental Studies Program – A Short History and Assessment, *EOS, Trans. Amer. Geophys. Union*, December 1987 (invited paper).

AI goes to School (with E. Duckworth and S. Wilson), *Academic Computing*, November 1987, pp. 6-10; 38-43; 62-63.

1985

Scientific Goals and Educational Challenges for the California Academy of Sciences 1985-2000, *California Academy of Science*, special pub.

1983

Statistics of Underway Sampling, (Abs.) *Proceedings of the Division of Analytical Chemistry*, American Chemical Society, March 1983.

Persistent Centers of Coastal Upwelling, (Abs.) *Proceedings of the XVth Pacific Science Congress*, February 1983.

1981

Hydrography and Underway Mapping (with T. Whitledge and M. Friebertshauser), *CUEA Data Report 65*.

Hydrography and Underway Mapping (with T. Whitledge and M. Friebertshauser), *CUEA Data Report 64*.

1980

Coastal Upwelling Ecosystem Analysis: Social Implications, in Coastal Upwelling, F. A. Richards, ed., *American Geophysical Union*, pp. 9-12.

1979

Portable Real-Time Minicomputer Systems Acquires and Displays Dynamic Ocean Data, *Sea Technology*, February 1979, pp. 20-23, 27.

1978

Ecological Significance of Time-Space Heterogenetics and Marine Phytoplankton Fields, *Proceedings of the Siam Institute for Mathematics and Statistics*, Conference on "Time Series and Ecological Processes". Proceedings Volume, pp. 34-50.

Not All Sea Monsters Come from the Deep or Are 32-Bitters Really the Answer? (with W. A. Petersen), *Proceedings of the Second Working Conference on Oceanographic Data Systems*, September 26-28, 1978, pp. 145-151.

1977

Effectos a Meso-Escala de la Variacion del Viento Sobre la Distribucion de los Parametros Fisicos y Quimicos en una Region del Afloramiento: Baja California, Primavera, 1973, *Proceedings of the Vth National Congress of Oceanography*, Sonora, Mexico, October 1973, pp. 326-341.

Interrelationships of Chemical and Biological Phenomena in the Baja California Upwelling Ecosystem (with T. Whitledge), *Proceedings of the Vth National Congress of Oceanography*, Sonora, Mexico, October 1974, pp. 705-724.

The Interactive Real-Time Information System (IRIS*), Proceedings of IEEE Committee on Oceanic Engineering and Technology*, Oceanic Data Base Information Exchange Workshop, February 1977, San Diego, p. 108.

Scales and Properties of Oceanic Fronts Determined from Biological and Chemical Variables, presented at the AGU Chapman Conference on Oceanic Fronts, New Orleans, Louisiana, October 1977. Abstract in *EOS*, v. 58(9), p. 889.

1976

Sampling the Sea, Chapter 14 in *Ecology of the Sea*, D. H. Cushing and J. J. Walsh, ed., W. B. Saunders Co., pp. 361-387.

Further Transition States of the California Upwelling Ecosystem (with J. J. Walsh, T. E. Whitledge, M. Stevenson, D. Pillsbury, T. J. Smayda, J. J. Goering, R. T. Barber, M. Blackburn, and R. T. Thorne).

1975

Results of Sea Surface Mapping Techniques in the Peru Upwelling System (with T. E. Whitledge and R. C. Dugdale), *Limnol. And Ocean*, v. 20, p. 784.

Atlas of Sea Surface Maps of Temperature Nutrients and Chlorophyll from Peru, March-April 1969, *CUEA Technical Report #9*, February 1975, p. 125.

Continuous Measurement of Nutrient Concentrations and Phytoplankton Density in the Surface Water of the Western Mediterranean, Winter 1970, *Rapports et Proc's-Verbaux Des Reunions*, 22(8):119-120 (with A. Cruzado).

Time-Varying Distribution of Biologically Significant Variables in the Ocean, *Deep-Sea Research*, v. 22, p. 679.

1974

An Automated Contouring System for the Interactive Real-Time Information System (IRIS) (with J. Rix), *Coastal Upwelling Ecosystem Analysis Technical Report #4*, January 1974.

A Shipboard Data Acquisition System for Ecosystem Analysis (with T. E. Whitledge and R. C. Dugdale), *Coastal Upwelling Ecosystem Analysis Technical Report #6.*

Description of a Coastal Upwelling Event, Oregon, 1973: Part I. Physical System (with D. Halpern). Abstract in *EOS*, December 1974, p. 1132.

Description of a Coastal Upwelling Event, Oregon, 1973: Part II. Response of Non-Conservative Properties (with D. Halpern). Abstract in *EOS*, December 1974, p. 1132.

1973

TUPS - A New Look at Underway Sampling Systems (with P. Becker, R. vanHaagen, and T. Whitledge), presented at the IEEE Meeting, September 25, 1973.

Effects of Internal Waves on Vertical Distribution of Non-Conservative Properties in an Upwelling Area, *EOS*, November 1973, p. 1117.

Review of "Computer Programs in Oceanography," *Math. Geol*.

Spatial Characteristics of Nutrient Phytoplankton Fields in Upwelling Areas*, Proceedings of Analysis of Upwelling Systems*, Second Conference, Marseilles, France, May-June 1973.

Spin-Up of the Baja California Upwelling Ecosystem (with J. J. Walsh, R. C. Dugdale, T. E. Whitledge and S. Huntsman), *Limnol. And Ocean*, 19: 553-572, July 1974.

Effects of Effluent Discharge on Concentrations of Nutrients in the Saronikos Gulf (with R. C. Dugdale and T. Beacacos-Kontos), *Mar. Poll. And Sea Life*, 166-169.

1972

Selection of a Shipboard Computer System, *CUEA Technical Report #1*, June 1972.

Factor Analysis in Real-Time, *Inves. Pesq.*, 36(1):179-182.

A Strategy for Multivariate Spectral Analysis of Oceanographic Data, *Inves. Pesq*., 36(1):175-178.

Pattern Recognition Studies in Plant Ecology (with K. Mitrakos and E. Oikomomidou), *Proc. Acad. Of Greece*.

Environmental Prediction: A Scientific Imperative (invited paper at the Lecture Series on Man and His Environment), *Hellenic-American Union*, Athens, Greece.

Oceanographic Sampling: A Probalistic Approach to Underway Navigation, *EOS*.

1971

Gross Biological Features of the Peruvian Upwelling System (with R. C. Dugdale, J. J. Walsh and B. T. Frost), *Inves. Pesq*., 35:35-42.

Sampling Considerations in Upwelling Studies, *Inves. Pesq*., 35:25-42.

Multivatiate Oceanographic Sampling, *J. Internat. Assoc. Math. Geol*., 3:43-49.

Mathematical Analysis of Point Count Data, Chapter 17, *Proc. Sed. Pet*., R. E. Carver, ed., pp. 409-425.

1970

Computer Simulation Models in Oceanographic Education, Proc. Conf. On Applic. Of Compuers in Undergrad. Curric.

Quantitative Methods of Identification of Marine Benthic Communities (with U. Lie), J. Fish, *Res. Bd. Can*., 27:621-651.

Hierarchical Analysis of Variance of Shelf Sediment Texture (with D. A. McManus), *J. Sed. Pet*., 40:1335-1339.

1969

Surface Representation: Information Considerations (with C. Stephen Smyth), *Trans. Amer. Geophys. Union*, 50(11).

Reduction and Presentation of Acoustic Reflection Data with the Aid of a Shipboard Computer (with C. Stephen Smyth), Mar. Tech. Soc. Tech. Symp., "Applications of Sea-Going Computers," La Jolla, California, Proc. Vol.

Optimizing Sediment Sampling Plans (with D. A. McManus, *Mar. Geol*., 7:465-469.

Characteristics of Columbia River Sediment and Sediment Transport (with J. T. Shetten and L. G. Hanson), *J. Sed. Pet.*, 39(3):1149-1166.

Quantitative Statistical Analysis of Columbia River Sediment Samples (with J. T. Whetten*), J. Sed. Pet*., 39(3)1167-1173.

Continental Shelf Sedimentation in an Arctic Environment (with D. A. McManus and J. S. Creager), *Geol. Soc. Amer. Bull*., 80:1961-1984.

1968

Evaluation of Granulometric Parameters for the Recognition of Sediment Variability (with D. A. McManus), *Trans. Amer. Geophys. Union*, 49:222, Abstract.

Columbia River Sediment Sources (with J. T. Whetten, L. G. Hanson), Program Meeting of the Cordileran Section, *Geol. Soc. Amer*., p. 127.

Lease Squares Analysis of Tectonite Fabric Data, *Geol. Soc. Amer. Bull*., 79:223-240.

Clay Minerals of the Columbia River: A Qualitative, Quantitative and Statistical Evaluation (with H. J. Knebel, J. T. Whetten), *J. Sed. Pet.,* 38-600-611.

Dead Reckoning Navigation with the Aid of a Shipboard Compuer (with M. Ratner), *Mar. Sci. Instr*., 4:617-626.

1967

Multivariate Analyses of Columbia River Sediment (with J. T. Whetten), *Proc. Annual Mtg., Geol Soc. Amer., New* Orleans, Louisiana, November, Abstract.

A FORTRAN IV Program for the Determination of Rotation Axes from Fabric Data, *Contri. Geol*., 5(1)39-44.

Iron Content of Fossil Bones of Tertiary Age in Wyoming Correlated with Climatic Change (with R. S. Houston and H. Toots), *Contri. Geol*., 5(2):1-18.

1965

Least Squares Analysis of Fabric Data: I. Theoretical Considerations (with R. B. Parker and D. S. Hodge), Prog. Rocky Mountain Section, *Geol. Soc. Amer*., May, p. 38, Abstract.

Least Squares Analysis of Fabric Data: II. Geological Examples (with R. B. Parker), Rocky Mountain Section, *Geol. Soc. Amer*., May, p. 46, Abstract.

An Example of the Quantitative Study of Echinoid Morphology, *Contri. Geol*., 4:15-20.

Dr. James C. Kelley
Short Biography

Dr. James C. Kelley is an oceanographer with 30 years of research experience on the oceans of the world. He is primarily interested in the coastal regions of the oceans and coastal upwelling, a phenomenon which is responsible for one-half of the world's fish catch. Because El Nino interrupts coastal upwelling and changes the world weather, he has also studied it extensively. He is also interested in multiple uses of the coastal oceans, for example for fishing, petroleum production and shipping.

Dr. Kelley was Dean of the College of Science and Engineering at San Francisco State University from 1975 until 2001. He was for nine years President of the California Academy of Sciences, was Chairman of the Board of the Moss Landing Marine Laboratories, Chairman of the East Pacific Oceanic Conference and a member of the U.S. Department of Interior's Advisory Board on the Outer Continental Shelf which advises the Secretary on offshore drilling. He has served as Chief Scientist and Expedition Leader on many cruises around the world.