

CURRICULUM VITAE

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Education: B.Sc. (Botany) University of New Zealand, (1960)
Ph.D. (Marine Biology) Scripps Institution Oceanography (1965)

Present Positions: Professor of Ecology Evolution and Marine Biology, University of California,
Santa Barbara 1994—
Interdepartmental graduate Program in Marine Science 1996-

Previous Positions: 1994-2000. Dean of Mathematical, Life and Physical Sciences
Division, College of Letters and Science and Professor of Biology,
University of California, Santa Barbara
1978-1994 Professor of Biology, University of California
Los Angeles
1973-1978 Associate Professor of Biology, University of
California, Los Angeles
1968-1973 Assistant Professor of Biology, University of
Chicago
1966-1967 Research Associate Biologist, Brookhaven
National Laboratory
1965-1966 Research Associate Marine Biologist, Scripps
Institution of Oceanography
1963 Teaching Assistant (summer session), University
of Washington, Friday Harbor Marine Laboratory
1961-1965 Graduate Research Assistant, University of
California, Scripps Institution of Oceanography

Honors, Awards, and Special Recognition

Sigma Xi, 1965--
German Academic Exchange Fellow, 1970, Institut Biochemie, Universitat des Saarlandes
Distinguished Visiting Scientist, 1979-1980, National Research Council, Canada
Doctor of Science Degree, University of Auckland, New Zealand 1979.
Distinguished Faculty Teaching Award, Dept. of Biology, UCLA. 1981.
Honorary Visiting Professor, University of Auckland, N.Z., July/Aug., 1989.
Faculty Marshal, College of L&S Commencement, 1989.
Visiting Professor, Instituto Oceanologicas, Universidad Autonoma de Baja California, 1990-
Honors Collegium Award, College of Letters and Science, UCLA 1993.
Plenary Lecturer. Vth International Phycological Congress. China 1994
Visiting Professor, Course instructor. Insituto Politecnico Nacional. La Paz, Mexico, Oct. 2005

Editorial

Cellular Origins and Life in Extreme Environments. Associate Editor, 2003-
Journal of Phycology - Editorial Board, 1969-1972, 2000-2003
Proceedings of IXth International Seaweed Symposium - Editorial Board, 1977-1978
International Journal of Cryptogamic Botany - Editorial Board, 1988-
Progress in Phycological Research, Co-editor, 1982-2000 (Discontinued)

Proceedings of XVth International Seaweed Symposium, Co-editor, 1995

Academic: International Symposia Invited Speaker

Symposium of Algal Taxonomy. Madras, India 1974

Symposium on Green Algal Phylogeny and Origin of Land Plants. 2nd International Meeting of Systematics and Evolutionary Biology. Canada. 1980.

Symposium on Algal Phylogeny, 13th International Botanical Congress. Australia. 1982.

Keynote Speaker. Symposium Natural Products in Marine Environment. Canadian Institute of Chemistry Annual Meeting. Canada. 1981.

Chair. Sessions on Applied Phycology. 1st International Phycological Congress. Canada. 1983.

Gordon Conference on Origin of Life. 1985.

CoChair. Organizer, Symposium on Seaweed Technology. 14th International Seaweed Symposium. Brazil. 1986.

Field Leader and Organizer: Precambrian Paleobiology Research Group Scientific Field Excursion to New Zealand Thermal Region, 1986

Participant: Precambrian Paleobiology Research Group Field Excursions to Western Australia Hamersley-Pilbara (1982); Great Lakes-Gunflint (1983); South Africa-Barbertons-Onverwacht (1985); North Western Australia (Kimberley's) - New Zealand (1986).

International Phycological Symposium - Varanasi, India. 1987. Algal Growth Hormones: Applied Phycology.

Symposium on Green Algal Phylogeny and Origin of Land Plants. 14th International Botanical Congress. Berlin. 1987.

Office of Naval Research workshop on Symbiosis, Bermuda, 1987

International Symposium on Organic Geochemical Biomarker Techniques. Australia 1988.

Symposium on Biochemical Evolution in Microalgal Groups. 3rd International Phycological Congress Australia. 1988.

International Symposium on Phylogeny and Peroxisomes of Algae. Germany. 1991.

Invitee to Soviet Academy of Sciences. Marine Biology Institute. Vladivostok. 1991.

Symposium on Chemical Evolution of the Ocean, atmosphere and sedimentary rocks. International Geological Congress: Kyoto 1992.

International Symposium on Seaweed Resources in Africa. Namibia. March 1992.

Symposium on Applied Phycology: III Congress Ficologia Americolatina. Mexico City. 1993.

Symposium on Algal Hormones and Toxins. Vth International Phycological Congress. China. June 1994.

Office of Naval Research Workshop on Marine Biotechnology. Goa, India. 1994.

Symposium on Algal Carbon Partitioning. XVth International Seaweed Symposium: Valdivia, Chile, January 1995.

Symposium on Algal Polysaccharides. Mexican Phycological Society..Ensenada, B.C. 1996

Workshop on Marine Resources in Sub-Saharan Africa. American Association Advancement of Science . Seattle. WA Febr. 1997

Workshop on Ultra High Cell Density Photobioreactors. XVIth International Seaweed Symposium, Cebu, Philippines 1998

Symposium/Workshop. Bridging Two Worlds: Archaeal-Proterozoic. UCLA. February 1999

Symposium on Marine Nutraceuticals. Amway-Nutralite. Houston. September 2000

International Symposium on Invasive Plants (Keynote speaker). New Delhi, India December 2006 (Declined)

Visiting and External Examiner Committees

University of Auckland, External Ph.D. Examiner, 1973, 1977, 1990

Banaras Hindu University, Varanasi, India. External Ph.D. Examiner, 1991

Osmania University, Hyderabad, India, External Ph.D. Examiner, 1989

Hong Kong Baptist University, External PhD Examiner, 1991

State University of New York, Stony Brook, External Ph.D. Examiner, 1990, 1997

University of Madras, India, External Ph.D. Examiner, 1992

University of Alexandria, Egypt, External Ph.D. Examiner 1994,1997, 2000

Universidad Autonoma de Baja California M.S. Examiner 1997

Universidad Autonoma de Baja California, La Paz, 2005

Academic Panel and Consultant Positions

U.S. National Committee for 1977 International Seaweed Symposium
Scientific Advisory Council on Offshore Continental Shelf Drilling to Mayor of Los Angeles, 1975-1976
Chair, Review Committee for Biological Science, South Central Universities Region,
Louisiana 1989
Chair, Board of Regents Review Committee for Biological Sciences in Louisiana public universities, 1989
Executive Committee to develop the Ft. McArthur Marine Consortium between UCLA, Cal State Universities and
the Los Angeles Unified School District 1988-.1990
Arizona State University. Advisory Workshop on Environmental Sciences 1996
Council of Colleges of Arts and Sciences. Task Force on the National Agenda 1996-1999
American Association Advancement of Science. Workshop on Sub-Saharan African Marine Resources. 1997
NSF Site review panel. University of Hawaii, 1998
Council of Colleges of Arts and Sciences. Panel on Media relations. 1998
Phycological Society America. Student Awards Committee. 2004-

Consultant Positions: Government and Private Sector

Coronet Instruction Films, 1969-1973
State of California Attorney General's Office on Offshore Continental Shelf Drilling, 1975-1976
Biogenics Analysis - Los Virgenes Municipal Water District, 1978-1979
Los Angeles Department of Water and Power, 1980--84: Mono Lake Project
James Montgomery Associates: Ojai Valley Sanitary District Water Treatment Plant, 1990-1991
Consultant to various companies and law firms on environmental matters
National Water Research Board, 2000
Solazyme Inc. Member Scientific Advisory Board 2005-

Interdisciplinary Research and Teaching

Member: Inter-university Precambrian Palaeobiology Research group: UCLA.
Center Study Evolution and Origin of Life: UCLA
Doctoral program in Environmental Science and Engineering UCLA
Executive Committee Marine Science Center: UCLA
Organizing Committee of LAUSD - UCLA - CSU - Marine Sciences Consortium.
Global Change Consortium Steering Committee UCLA
UCSB-US Navy (Pt. Hueneme) Educational Partnership Agreement negotiator
UCSB-University of South Pacific Agreement negotiator

National Science Foundation Grant Awards

Bilin-Protein Linkages in Biliproteins
Carotenogenesis in Photosynthetic Bacteria (two)
Sterol Biochemistry in Prokaryotes
Chemotaxonomy in Algae (two)
Chemical Taxonomy and Phylogeny in Green Algae
Instrumentation in Botanical Research (with E. Gonzalez, B. Phinney, G. Laties)
Molecular Evolution in Dinoflagellates (with C. Brunk)

National Science Foundation Educational Outreach Grants

Teacher Training Program in Marine Science (1992-1995, Co-PI with W. Hamner)
Leadership in Marine Science (1995-1999, Co-PI with W. Hamner & S. Strand)

University of California - Academic Senate Research Awards

Biochemistry of Molluscan Shell Proteins and Pigments (three)
Algal Chemotaxonomy (three)
Terpene Biochemistry in Prokaryotes (two)
Bromophenol Biochemistry in Algae
Chemical Ecology of Sea Hares (two)
Ecology of Laminated Algal Mats (two)

Sargassum Mariculture

Growth hormones of algae (three)

Dinoflagellate Symbioses (two)

Dimethyl sulfide production by phytoplankton

Invasive Alga species

Development of Bioreactors for high density algal culturing (two)

Mimicking formation of coniform stromatolites with lab. culture

Xanthophyll cycling in phytoplankton under natural light regimes (two)

University of California - Instructional Improvement Grant Awards

Establishment of Plant Biochemistry Teaching Lab (with J.P. Thornber), 1978

Preparation of Laboratory Manual in Phycology-Mycolology. 1982

Preparation of a Phycology Laboratory manual. 1993 (UCLA), 1998 (UCSB)

University-wide Energy Research Grants

Optimization of methane production from algal biomass by anaerobic digestion
(with K.W.Gellenbeck)

Office of Naval Research Research Grants

Molecular biology of Calcification in Coccolithophorids (with E. González) 1988-1991; 1992-1995

Graduate Training Program in Molecular Marine Biology, 1988-1990 (with L. Muscatine)

Physical, chemical, biological properties of ship wakes, 1993-1996 (with W. Hamner)

Innovative Approaches to Biofouling, 2003-2005 (with E. Matthys)

California - NOAA Sea Grant

Development of molecular probes to monitor bacterial pollution 1991-1993, 1993-1995
(With C. Brunk).

Controlling Undaria and Invasive Kelps through Management of the gametophyte. 2003-2005

UC-Pacific Rim

Economic development and environmental policy in commercial aquaculture of algae, 1993-1995.

Principal UC system wide committees, workshops and task forces

University of California - State Legislature Conference on Minority Student
Retention, 1986.

University of California - Conference on Graduate Student Recruitment, 1987

State Legislature - California Higher Education Segments Conference on Minority Students, 1987.

Committee on Teaching Assistant Training of the President's Advisory Council on Undergraduate Education, 1989

President's All-University Conference on Graduate Student and Faculty Affirmative Action, 1990

Principal Senate and Administrative Positions: UCLA

Excluding all ex officio committees as Divisional Academic Senate Chair,

Department Legislative Assembly - Academic Senate, 1974-1977

Executive Committee - College of Letters and Science, 1977-1978

Committee, Undergraduate Courses Curricula, 1978-1979

Graduate Council, 1981-1985 (Chair 1983-84; 1984-85)

Biomedical Library Advisory Committee, 1981-87

Marginal Honors Committee, College of letters and Science, 1974-1983

Academic Senate Executive Board, 1983-1988 (1987-88 service as Past-Chair)

Vice Chair Academic Senate Los Angeles Division, 1985-1986

Chair Academic Senate, L.A. Division, 1986-1987 (And all ex-officio Committee Service)

All ex-officio committees pertaining to position as Department Chair. 1986-1991

Senate Task Force on Part Time Students, 1983

Senate Task Force on Cheating, 1984

Senate Task Force on Organized Research Units (Chair), 1985-1986

System wide Academic Affairs Council, 1985-1987

Chancellors Strategic Planning Committee, 1987-1989

Academic Senate Planning Committee, 1985-87

Capital Space Planning Committee, 1987

University Librarian Search Committee (Chair), 1989-1990

College of L/S Honors Collegium Advisory Committee, 1990-1994(Chair 1992-1994)

Chair Institutional Animal Care and Use Committee UCSB 2005-

Departmental Administrative positions: UCLA, Department of Biology

Department of Biology Graduate Advisor, 1975-1978

Department of Biology M.A. Committee, 1976-1978 (Chair)

Department of Biology Marine Science Committee, 1981-1994, 1981-1982 (Chair)

Department of Biology Executive Committee, 1981-1983

Division II (Organismic Biology) Convenor Elect, 1981-1982

Division II (Organismic Biology) Convenor, 1982-1983

Division II (organismic Biology) Admissions and Support Committee 1980-81; 1984-85 (Chair), 1993-1994

Chair, Department of Biology, 1986-1991

Department of Biology Undergraduate Advisor, 1993-1994

Administrative positions UCSB

Dean of Mathematical Life and Physical Sciences 1994-2000

All ex officio committees therewith, 1994-2000

Search Committee for Vice Chancellor of Research, 1996

Chancellor's Advisory Committee on the Clearview Oil Drilling proposal 1995-6

Search Committee for Vice Chancellor Budget & Planning. 2001

Search Committee for Director of Environmental Health and Safety (Chair), 2002

Institutional Animal Care and Use Committee UCSB.Chair.2005-

Departmental Administrative Positions UCSB, Department of Biology

Museum Oversight committee. 2000- Curator of Algal collection

Resources committee. 2003-2005 Chair, 2004-2005

Acting Vice Chair. Summer 2004.

Acting Vice Chair 2005-2006, Summer 2006

Ad hoc Reviewer for Research Papers

Biochimica Biophysica Acta

Journal Biological Chemistry

Science

Journal Experimental Marine Biology Ecology

Journal of Phycology

Phycologia

Quarterly Review of Biology

Plant, Cell Environment

Trends in Biotechnology

Biochemical Systematics

Proceedings National Academy of Sciences

Journal of Cell Science

Paleoclimatology, Paleoecology, Paleogeography

Phycological Research

Botanical Gazette

Developmental Biology

Evolution

Marine Biology

Analytical Biochemistry

Archives Biochemistry Biophysics

Journal of Molecular Evolution

Biosystems

Botanica Marina

Taxon

American Journal of Botany

European Journal of Phycology

Macromolecules

Ad Hoc Reviewer: Granting Agencies

National Science Foundation: Programs in Metabolic, Systematic, Molecular Biology and Oceanography, Israel
Binational; Renewable Resources Engineering, Earth Sciences

Environmental Protection Agency

U.S. Department of Agriculture

Small Business Administration

American Chemical Society: Petroleum Research Fund

National Research Council of Canada

California, Rhode Island, Minnesota, Oregon, Puerto Rico, Louisiana, Massachusetts Sea Grants-NOAA

Israel National Science Foundation

U.C. Energy

National Environment and Research Council, United Kingdom National Aeronautics and Space Administration

National Oceanographic Atmospheric Administration

Book Manuscript Reviewer

Cambridge University Press

Wadsworth Publishing

Oxford University Press

U.C. Press

Academic Press

J Wiley and Sons

Prentice Hall

Professional Society Memberships

American Society of Plant Physiologists

Japanese Society of Plant Physiology

American Chemical Society

Botanical Society of America

International Phycological Society

British Phycological Society

International Society of Applied Phycology

Asia-Pacific Society Applied Phycology

Phytochemical Society North America

Korean Phycological Society

International Society Chemical Ecology

Linnean Society of London (Fellow)

Phycological Society of America

Mexican Phycological Society

Japanese Society Phycology

PUBLISHED WORK

1. Chapman, D.J. and V.J. Chapman. Life histories in the algae. Ann. Bot. N.S. 25:547-561. 1961.
2. Chapman, D.J. A check list and key to the Rhodophyceae of New Zealand. Sections A and B. Roy. Soc. New Zealand. Botany 1: 127-139. 1962.
3. Chapman, D.J. and F.T. Haxo. Identity of E-carotene and E₁-carotene. Plant and Cell Physiol. 4:56-63. 1963.
4. Chapman, D.J. Three new algal xanthophylls. Phytochemistry 5:1131-1133.
5. Chapman, D.J. and R.D. Tocher. Occurrence and production of carbon monoxide in brown algae. Canad. J. Bot. 44:1438-1442. 1966.
6. Chapman, D.J. Chloroplast pigments of the endosymbiotic algae (Cyanellae) of Cyanophora paradoxa and Glaucocystis nosto-chinearum and two blue- colored Rhodophyceae, Asterocytis ornata and Porphyridium aerugineum. Archiv. f. Mikrobiol. 55:17-25. 1966.
7. Chapman, D.J., W.J. Cole, and H.W. Siegelman. Chromophores of allophycocyanin and R-phycocyanin. Biochem. J. 105:903-908. 1967.
8. Chapman, D.J., W.J. Cole, and H.W. Siegelman. Structure of phycoerythrobilin. J. Amer. Chem. Soc. 89:5976. 1967.
9. Chapman, D.J. and F.T. Haxo. Chloroplast pigments of the Chloromonadophyceae. J. Phycology 3:89-91. 1967.
10. Cole, W.J., D.J. Chapman, and H.W. Siegelman. The structure of phycocyanobilin. J. Amer. Chem. Soc. 89:3463-3465. 1967.
12. Mallams, A.K., B.C.L. Weedon, E.S. Waight, D.J. Chapman, F.T. Haxo, D.M. Thomas, and T.W. Goodwin. A new class of carotenoids. Chem. Communic., p. 319. 1967.
13. Siegelman, H.W., D.J. Chapman, and W.J. Cole. Enzymatic cleavage of phycocyanobilin. Arch. Biochem. Biophys. 122:161. 1967.
14. Chapman, D.J., W.J. Cole, and H.W. Siegelman. Phylogenetic implications of C-phycocyanin and phycocyanobilin. Amer. J. Bot. 5:314-316. 1968.
15. Chapman, D.J., W.J. Cole, and H.W. Siegelman. Comparative study of the phycoerythrin chromophores. Phytochemistry 7:1831-1835. 1968.
16. Cole, W.J., D.J. Chapman, and H.W. Siegelman. The structure and properties of phycocyanobilin and related bilatrienes. Biochemistry 7:2929-2935. 1968.
17. Chapman, D.J., W.J. Cole, and H.W. Siegelman. The cleavage of phycocyanobilin from C-phycocyanin. Biochem. Biophys. Acta 153:629-698. 1969.
18. Chapman, D.J. and D.L. Fox. Bile pigment metabolism of the sea hare Aplysia. J. Expt. Mar. Biol. and Ecol. 4:71-78. 1969.
19. Siegelman, H.W., D.J. Chapman, and W.J. Cole. Bile pigments in plants. Biochemical Society Symposia 28:107-120. 1969.

20. Chapman, D.J., W.J. Cole, and H.W. Siegelman. Chromophores of allophycocyanin and R-phycocyanin - with 1971 addendum. In: Reading in Phycology, J. Rostenkowski and B.C. Parker (Eds.), pp. 676-679. Univ. Nebraska. 1971.
21. Brooks, R.C. and D.J. Chapman. Bilin-protein linkage of cryptomonad phycocerythrin. Phytochemistry **11**:2663-2670. 1972.
22. Chapman, D.J., H. Budzikiewicz, and H.W. Siegelman. Structure of mesobilirhodin. Experientia **26**:876-878. 1972.
23. Moshier, S.E. and D.J. Chapman. Biosynthesis of aromatic carotenoids. Biochem. J. **126**:395-404. 1972
24. Chapman, D.J. Biliproteins. In: Biology of Blue-Green Algae, N.G. Carr and B.A. Whitton (Eds.), pp. 162-185. Butterworths. 1973.
25. Chapman, D.J. and E.L. Douglas. Absence of porphyrin respiratory pigments in the blood fo the Antarctic ice fish, Chaenocephalus aceratus. Cryobiol. **10**:260-262. 1973.
26. Chapman, D.J. Chemical taxonomy in algae. Proc. Int. Symp. on Taxonomy in Algae Madras, India, pp. 2-4. 1974.
27. Klein, S., D.J. Chapman, and E.D. Garber. Chemotaxonomy in algae: Oscillatoria-Phormidium complex. Biochemical Systematics **1**:173-175. 1974.
- 28.. Garber, E.D., M.L. Baird, and D.J. Chapman. Genetics of Ustilago violacea: Carotenes and carotenogenesis. Bot. Gaz. **136**:341-346. 1975.
29. Chapman, D.J. Taxonomic status of Cyanidium caldarium, and the Porphyridiales-Goniotrichales complex. Nova Hedwigia **25**: 673-682. 1975.
30. Kost, H-P., W. Rudiger, and D.J. Chapman. Uber die Bindungen zwischen Chromophor und Protein in Biliproteiden. Annalen der Chemie:1561-1574. 1975.
31. Chapman, V.J. and D.J. Chapman. Life forms in algae. Bot. Marina **19**:65-74. 1976.
32. Gordon, M.S., D.J. Chapman, D-P. Yu, and L. Kawasaki. Biological recycling of dissolved nutrients in treated domestic waste waters; using hydroponic and aquaculture methods. In: Wastewater Renovation and Reuse, F. D'Itri (Ed.), pp. 147-164. M. Dekker. 1976.
33. Kieras, J.E. and D.J. Chapman. Structural studies on the extracellular polysaccharide of Porphyridium cruentum. Carbohydr. Res. **52**:169-177. 1977.
34. Kieras, J.E., L. Roden, and D.J. Chapman. Covalent linkage of protein to carbohydrate in the extracellular protein-polysaccharide from the red alga, Porphyridium cruentum. Biochem. J. **164**:9-17. 1977.
35. Rudiger, W., P. Hedden, H-P. Kost, and D.J. Chapman. Esterification of chlorophyllide by geranylgeranyl phosphate in a cell free system from maize roots. Biochem. Biophys. Res. Commun. **74**:1268-1272. 1977.
36. Leutwiler, L.S. and D. J. Chapman. Biosynthesis of carotenoids in Rhodomicrobium vanniellii. FEBS Letters **89**:248-252. 1978.
37. Vreeland, V. and D.J. Chapman. Application of quantitative immunoelectro-phoretic analysis to the carbohydrate antigens, alginate and fucan. J. Immunol. Methods **23**:277-240. 1978.

38. Manley, S.L. and D.J. Chapman. formation of 3-bromo-4-hydroxybenzaldehyde from L-tyrosine in cell-free homogenates of Odonthalia floccosa. A proposed biosynthetic pathway for brominated phenols. FEBS Letters **93**:97-101.
39. Gysi, J.R, S.E. Moshier, and D.J. Chapman. Comparative biochemistry of Haliotis pigmentation: Unusual bileptides of Haliotis cracherodii. Comp. Biochem. Physiol. **63B**:355-361. 1979.
40. Leutwiler, S.L. and D.J. Chapman. Biosynthesis of aromatic carotenoids. Inhibitor studies on chlorobactene biosynthesis in Chlorobium limicola. Arch. Microbiol. **123**:267-274. 1979.
41. Manley, S.L. and D.J. Chapman. The metabolism of 4-OH-benzaldehyde, 3-Br,4-OH-benzaldehyde and bromide by cell-free fractions of the marine red alga Odonthalia floccosa: Formation of bromophenols. Phytochem. **19**:1453-1457. 1979.
42. Manley, S.L. and Chapman, D.J. Metabolism of L-tyrosine to 4-OH-benz-aldehyde and 3-bromo-4-OH-benzaldehyde by chloroplast containing fractions of Odonthalia floccosa. Plant Physiol. **64**:1028-1036. 1979.
43. Vreeland, V. and D.J. Chapman. Alginate and sulfated fucan immunochemistry in brown algal taxonomy. Proc. IXth Int. Seaweed Symposium, pp. 337-346. 1979.
44. Chapman, D.J. and M.A. Ragan. Evolution of biosynthetic pathways. Ann.Rev. Plant Physiol. **31**:639-678. 1980.
45. Howard, D.L. and D.J. Chapman. Structural elucidation of two novel hopanoids from Rhodomicrobium vanniellii. Chemical Communications, 468-469. 1981.
46. Gysi, J.R. and D.J. Chapman. Phycobiliproteins and phycobilins. In: Handbook of Biosolar Resources, Vol. I. Pt. I, Fundamental Principles, C.C Black and A. Mitsui (Eds.), pp. 83-102. CRC Press. 1982.
47. Kawasaki, L.Y., E-Tarifeno-Silva, M.S. Gordon, and D.J. Chapman. Aquacultural approaches to recycling of dissolved nutrients in secondarily treated domestic waste waters. I. Nutrient uptake and release by artificial food chains. Water Research **16**:37-49. 1982.
48. Tarifeno-Silva, E., L.Y. Kawasaki, D.P. Yu, M.S. Gordon, and D.J. Chapman. Ibidem II: Biological productivity of artificial food chains. Water Research **16**:50-58. 1982.
49. Tarifeno-Silva, E., L.Y. Kawasaki, D.P. Yu, M.S. Gordon, and D.J. Chapman. Ibidem III. Uptake of dissolved heavy metals by artificial food chains. Water Research **16**:59-65. 1982.
50. Gordon, M.S., D.J. Chapman, E. Tarifeno-Silva, and D.P. Yu. Ibidem IV: Considerations, design and operational considerations for artificial food chains. Water Research **16**:67-71. 1982.
51. Leutwiler, S.L. and D.J. Chapman. Biosynthesis of Aromatic carotenoids: Nature of the precyclization intermediate. Plant Cell Physiol. **22**:781-787. 1983.
52. Chapman, D.J. and H. Gest. Terms used to describe biological energy conversions, electron transport processes, interactions of cellular systems with molecular oxygen, and carbon nutrition. In: Origin and Evolution of Earth's Earliest Biosphere, J.W. Schopf (Ed.). Princeton Univ. Press. 1983. Pp. 459-463.
53. Chapman, D.J., and J.W. Schopf. Biological and biochemical effects of the development of an aerobic environment. In: Origin and Evolution of Earth's Earliest Biosphere, J.W. Schopf (Ed.). Princeton Univ. Press. 1983. Pp. 302-320.

54. Chapman, D.J. and R.K. Trench. Prochlorophyta: Bibliography and introduction to bibliography. In: Readings in Phycology, J. Rostenkowski and B.C. Parker, (Eds.). Univ. Nebraska Press. 1983. Pp. 656-658.
55. Gellenbeck, K.W. and D.J. Chapman. Seaweed uses: Outlook for mariculture. Endeavour 7:31-38. 1983.
56. Chapman, D.J. Natural products from algae: The interface of biology and chemistry. Marine Chemistry 12:226-227. 1983.
57. Valadon, L.R.G. and D.J. Chapman. The Naphthoquinones (fungal vacuolation factor) of Verticillium agricinum. Microbios 24:115-119. 1983.
58. Shaalaan, S.H. and D.J. Chapman. Chemotaxonomy of symbiotic Zoochlorella. I. Biochemical heterogeneity of isolates from Hydra viridis (Florida strain). Bull. Fac. Sci., Alexandria Univ. 23:1-17. 1983.
59. Shaalaan, S.H. and D.J. Chapman. Chemotaxonomy of symbiotic Zoochlorella. II. Effect of symbiotic process and culture conditions on the total soluble protein and isozyme profiles of some isolates from Hydra viridis (Florida strain). Bull. Fac. Sci., Alexandria Univ. 23:18-40. 1983.
60. Shaalaan, S.H. and D.J. Chapman. Chemotaxonomy of symbiotic Zoochlorella. III. Biochemical heterogeneity of isolates from different strains of Hydra and from different animal hosts. Bull. Fac. Sci., Alexandria Univ. 23:41-59. 1983.
61. Chapman, D.J. Geological aspects and biochemical aspects of the origin of land plants. In: Geological Factors and the Evolution of Plants, B. Tiffney (Ed.), pp. 23-45. Yale University Press. 1984.
62. Howard, D.L., B. Simonet, and D.J. Chapman. Triterpenoids from the lipids of Rhodomicribium vanniellii. Arch. Microbiol. 137:200-204. 1984.
63. Valadon, L.R.G. and D.J. Chapman. On the Effects of two triethylamines on the Carotenoids of Strelitzia reginae and Hemerocallis flavis. Ann. Bot. 53:649-653. 1984.
64. Gellenbeck, K. and D.J. Chapman. Feasibility of mariculture the Brown seaweed, Sargassum muticum: Growth and culture conditions, alginic acid content and conversion to methane: Proceeding Symp. on Algae Biomass Technologies. Beih Nova Hedwigia 83:107-115. 1985.
65. Douglas, E.L., K.S. Peterson, J.R. Gysi, and D.J. Chapman. Myoglobin in the heart tissue of fishes lacking hemoglobin. Comp. Biochem. Physiol. 81A:885-888. 1985.
66. Chapman, D.J., and Ragan, M.A. Chemotaxonomy in algae: A viewpoint. In: Taxonomy of Algae, T.V. Desikachary (ed.), ICAR India, pp. 65-87. 1984.
67. Manske, C. and D.J. Chapman. Effects of nonuniform substitution rates on the construction of Phylogenetic Trees: Computer simulation and comparative analyses of 5S ribosomal RNA sequences. Journal Molecular Evolution. 26:226-251. 1987.
68. Chapman, D.J. Quantitative Analyses of Pigments. In Experimental Phycology Lab Manual. Ed. C.S. Lobban, D.J. Chapman, B. Kremer. Cambridge University, pp. 93-103. 1987.
69. Chapman, D.J. Formation and Analyses of Secondary Carotenoids. Ibidem, pp. 104-109. 1987.

70. Chapman, D.J. and P.J. Harrison. Nitrogen Metabolism and Measurement of Nitrate reductase. Ibidem, pp. 194-199. 1987).
71. Chapman, D.J. Chromatic Adaptation in Cyanobacteria Ibidem, pp. 134-141. 1987.
72. Chapman, D.J. Identification of Component sugars in Extracellular polysaccharides of Porphyridium. Ibidem, pp. 157-163. 1987.
73. Gellenbeck, K., G. Kraemer, L. McMurty and D. Chapman. System design of an outdoor mariculture Unit. Aquaculture. 74: 385-391. 1988.
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1. Handbook of Protoctista. (With L. Margulis, J.O. Corliss, M. Melkonian) Bartlett Publishing, 1989.
2. Experimental Phycology: A Laboratory manual (with C. Lobban, B. Kremer) Cambridge University, 1987.
3. Progress in Phycological Research (With F.G. Round). Annual Series. Elsevier then Biopress Ltd. Volumes 1-13, 1982-1996 when publication ceased.-.
4. Proceedings of the XVth International Seaweed Symposium (With S. Lindstrom). Developments in Hydrobiologia. Kluwer Academic Press. 1996

Current Research Projects (*Denotes my graduate students)

- 1) Modelling the development of stromatolites with modern cyanobacteria with implications for early life and the Archaean environment
- 2) Development of Ultra High Density photobioreactors
- 3) Viscometric and drag reduction behaviour of exopolysaccharides of micro-algae

UCSB Projects (Graduate students)

- 1) Photoprotection in diatoms under mixing regimes in water columns. (completed)
- 2) Osmoregulatory Biochemistry of the Mono Lake diatom Navicula. (completed)
- 3) Gametophyte biology of Undaria in relation to invasions and spreading. (completed)

UCLA Courses formerly taught

Biology of Algae (Upper Division)
Advanced Biology of Algae (Graduate)
Chemical and Molecular Communication in Plants (UD)
Biology of Marine Plants (UD: Marine biology Quarter)
Introductory marine biology (UD.)
Biochemical & Molecular evolution (Graduate)
Plant Communication and Chemical Ecology (Honors Collegium: GE)
Plankton and pollution (Honors Collegium: GE)

UCSB Courses

Seaweeds and Phytoplankton
Mariculture for the 21st Century: Research Frontiers
Evolution, adaptation and differentiation of Pharmacophores
Chemical Ecology