**Contributing Institution:** Special Collections and Archives, University of California, Irvine Libraries

**Title:** Grover C. Stephens papers

**Creator:** Stephens, Grover C.

**Identifier/Call Number:** MS.F.018

**Physical Description:** 3.6 Linear Feet (5 boxes)

**Date (inclusive):** 1950-2003

**Abstract:** Collection comprises the extant professional papers of University of California, Irvine biologist and founding faculty member Grover C. Stephens. His research focused on small marine invertebrates. A nearly complete set of his publications is included, as well as some of his correspondence, research files, course materials, biographical items and slides.

**Language of Material:** English.

**Access**

Collection is open for research.

**Publication Rights**

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**Preferred Citation**


For the benefit of current and future researchers, please cite any additional information about sources consulted in this collection, including permanent URLs, item or folder descriptions, and box/folder locations.

**Acquisition Information**


**Processing History**


**Biography**

Grover C. Stephens was a founding faculty member in the School of Biological Sciences at the University of California Irvine. He was the first chair of the Department of Organismic Biology, later named the Department of Developmental and Cell Biology. He also served as Dean of Biological Sciences in the mid-1980s. He was a comparative physiologist whose research focused on small marine invertebrates.

Stephens was born in 1925 in Oak Park, Illinois and later received his Ph.D. from Northwestern University. His first academic appointment was at Brooklyn College, followed by a professorship at the University of Minnesota prior to moving to the new UC Irvine campus in 1964.

Professor Stephens died on June 17, 2003. He was survived by his wife, Ann Doyle Stephens, and his sons Peter W. Stephens and John D. Stephens.

1925 Born, Oak Park, Illinois.
1948 B.A. Mathematics, Northwestern University.
1949 M.A. Philosophy, Northwestern University.
1952 Ph.D. Biology, Northwestern University.
1952-1953 Instructor, Biology, Brooklyn College.
1953-1957 Summer Instructor, Invertebrate Zoology, Marine Biological Laboratory, Woods Hole, Massachusetts.
1953-1964 Instructor and Professor, Zoology Department, University of Minnesota.
1964-1969 Professor of Biological Sciences and Chairman, Department of Organismic Biology, UCI.
1974 Biology
1969-1991 Professor of Biological Sciences, Department of Developmental and Cell Biology, UCI.
1982-1986 Dean of School of Biological Sciences, UCI.
1989-1991 Professor of Biological Sciences, Department of Ecology and Evolutionary Biology, UCI.
1991 Professor Emeritus, UCI.
2003 Died on June 17th.

**Collection Scope and Content Summary**

Collection comprises the extant professional papers of University of California, Irvine comparative physiologist and founding faculty member Grover C. Stephens. His research focused on small marine invertebrates. A nearly complete set of his
publications is included, as well as some of his correspondence, research files, course materials, biographical items and slides.

**Collection Arrangement**

The collection is arranged in 4 series:

- **Series 1. Publications, 1950-1989.** 0.6 linear feet.
- **Series 2. Administrative and biographical files, 1952-2003.** 0.6 linear feet
- **Series 3. Course materials, 1978-1990.** 0.6 linear feet
- **Series 4. Grants and research materials, 1957-1994.** 1.7 linear feet

**Subjects and Indexing Terms**

- Physiology, Comparative -- Study and teaching (Higher)
- Biology -- History -- Sources
- Marine invertebrates
- Biology -- Study and teaching (Higher)
- Curricula -- 20th century.
- Letters -- 20th century.
- Lectures -- 20th century.
- Grant proposals -- 20th century.
- Research notes -- 20th century.
- Lecture notes -- 20th century.
- Slides -- 20th century.
- Reprints -- 20th century.
- Professors.
- Biologists.
- Autobiographies -- 21st century.
- DVDs -- 21st century.
- Physiology, Comparative
- University of California, Irvine -- Faculty -- Archives
- Stephens, Grover C. -- Archives

**Publications Series: 1 1950-1989**

**Physical Description:** 0.6 Linear Feet

**General Physical Description note:** no content

**Series Scope and Content Summary**

Series comprises a near complete collection of reprints of Stephens' scientific publications. The list of published articles in Folder 1:1 identifies missing titles.

**Arrangement**

Chronological

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**List of published articles**

**Reprints of published articles**

1. Influence of daylength on the diurnal rhythm of black chromatophores of the fiddler crab, Uca pugnax 1950
2. A culture method for Artemia 1951
3. A molt-inhibiting factor in the central nervous system of the crayfish, Cambarus 1951
4. Studies of the daily rhythmicity of the fiddler crab, Uca 1951
5. The control of cement gland development in the crayfish, Cambarus 1952
6. A non-birefringent mechanism for orientation to polarized light in arthropods 1952
7. Review of “Study of Instinct” by N. Tinbergen 1952
8. The orientation of Drosophila to plane polarized light 1953
9. Persistent diurnal rhythms of O₂ consumption in the periwinkle, Littorina littorea and the oyster drill, Urosalpinx cinereus 1953
10. A persistent tidal rhythm of activity in the mud snail, Nassa Obsoleta 1953
11. Relationship between time of day and inhibiting influence of low temperature on the diurnal chromatophore rhythm of Uca 1953
12. Induction of molt in the crayfish, Cambarus, by exposure to light 1954
13. Persistent daily and tidal rhythms of oxygen consumption in two species of marine snails 1954
14. Activity rhythms in the mud snail, Nassa obsolete 1955
15. Induction of molting in the crayfish, Cambarus, by modification of daily photoperiod 1955
16. Influence of the rate and the magnitude of temperature change on the diurnal melanophore rhythm of the fiddler crab, Uca pugnax 1955
17. Responses of the diurnal melanophore rhythm of Uca pugnax to changes in temperature 1955
18. Electrophorectic separation of chromatophorotropic principles of the fiddler crab, Uca 1956
19. The rate of disappearance of the melanophore-dispersing hormone from the blood of the fiddler crab, Uca 1956
20. Uptake of amino acids from sea water by ciliary-mucoid filter feeding animals 1957
22. Chromatophorotropic principles of the green gland of the fiddler crab 1958
23. Enzymatic inactivation of chromatophorotropic principles from the fiddler crab, Uca 1958
24. Studies on the effect of population size on the diurnal melanophore rhythm of the fiddler crab, Uca 1958
25. Biological Rhythms 1959
26. Comparative Endocrinology (review) 1960
27. The mechanism of glucose uptake by the coral, Fungia 1960
28. Uptake of glucose from solution by solitary coral, Fungia 1960
29. Populations as circadian systems 1961
30. Uptake of amino acids by marine invertebrates 1961
31. Amino acids in the economy of the bamboo worm, Clymenella torquata 1962
32. Circadian melanophore rhythms of the fiddler crab: Interactions between animals 1962
34. Uptake of amino acids by the bamboo worm, Clymenella torquata 1962
35. Uptake of organic material by aquatic invertebrates, I, Uptake of glucose by the solitary coral, Fungia scutaria 1962
36. Uptake of phenylalanine by Tetrahymena pyriformis 1962
37. Characteristics of amino acid accumulation by Clymenella torquata 1963
38. Uptake of organic material by aquatic invertebrates, II, Accumulation of amino acids by the bamboo worm, Clymenella torquata 1963
39. The blinded fiddler crab: An invertebrate model of circadian desynchronization 1964
40. The phylogenetic significance of distribution of creatine in the invertebrates 1964
41. Uptake of organic material by aquatic invertebrates, III, Uptake of glycine by brackish-water annelids 1964
42. Accumulation and assimilation of amino acids by the brittle star, Ophiactis simplex 1965
43. Photoperiodic stimulation of egg-laying in the land snail, Helix aspersa 1965
44. Phylogeny and distribution of creatine in invertebrates 1965
45. The undergraduate program in biology at University of California, Irvine 1966
46. Uptake of organic material by aquatic invertebrates, IV, The influence of salinity on the uptake of amino acids by the brittle star Ophiactis arenosa 1966
55. Dissolved organic material as a nutritional source for marine and estuarine invertebrates 1967

56. A survey of the occurrence of creatine and creatine-synthesizing enzymes and the phylogenetic significance thereof 1967

57. Uptake and assimilation of amino acids by Platymonas 1967

58. The Biology of Suspension Feeding by C. B. Jorgensen (review) 1968

59. Dissolved organic matter as a potential source of nutrition for marine organisms 1968

60. Studies of the mechanism of an in vivo creatine transport process 1968

61. Ultrastructure of the Surface of the Body Wall of Glyceria and Accumulation of Small Organic Compounds 1968

62. Uptake of C¹⁴-labeled Glycine by the Epiflora of Marine Crustaceans 1968

63. The accumulation of amino acids by coelomocytes of Glyceria dibranchiata (abstract) 1969

64. Alteration of flash-induced responses by intracarotid administration of harmine (abstract) 1969

65. Dissolved amino acids and Platymonas nutrition 1969

66. Uptake of glycine by blue-green algae 1969


68. Uptake of organic material by aquatic invertebrates, VI, Role of epiflora in apparent uptake of glycine by marine crustaceans 1969

69. In vitro uptake of amino acids by erthrocytes of the hagfish, Eptatretus stouti (abstract) 1970

70. Leakage rates of amino acid in the annelid, Stauroneris rudolfi (Della Chiaje) (abstract) 1970

71. The occurrence of amphioxus, Branchiostoma indicum (Willey) on the west coast of India 1970


73. Social and Humanistic Biology 1970

74. Uptake and assimilation of amino acids by Platymonas. II. Increased uptake in nitrogen-deficient cells 1971

75. Amino acid accumulation and assimilation in marine organisms, In "Nitrogen Metabolism and the Environment," Campbell and Goldstein (eds) 1972

76. Amino acid transport in Nitzschia ovalis Arnott. 1972

77. Distribution of creatine, guanidinoacetate and the enzymes for their biosynthesis in the animal kingdom 1972

78. Amino acid transport by marine phytoplankters 1974

79. Uptake of naturally occurring primary amines by marine annelids 1975

80. Characteristics of influx and net flux of amino acids in Mytilus californianus 1977

81. The metabolic segregation of intracellular free amino acids in Platymonas 1977

82. A one-way flow system for the study of amino acid transport 1977

83. Uptake of glycine by natural phytoplankton communities 1977

84. Effect of activity of lateral cilia on influx of amino acids in Mytilus 1978

85. Removal of amino acid during a single passage of water across the gill of marine mussels 1978

86. Transepidermal accumulation of naturally occurring amino acids in the sand dollar, Dendraster excentricus 1978

87. Uptake and assimilation of amino acids by oligoxenic suspensions of sea urchin larvae 1979

88. HPLC analysis of net amino acid influx and ammonia production by the ophiuroid, Ophionereis annulata 1980

89. Influence of temperature and unstirred layers on the kinetics of glycine transport in isolated gills of Mytilus californianus 1980
99. Influx and net flux of amino acids into larval and juvenile European flat oysters, Ostrea edulis (L.) 1980

100. Uptake of amino acids and carbon metabolism in low and high salinity populations of Enteromorpha intestinalis 1980

102. Amino acid uptake into bivalve gills and the Na+ gradient hypothesis 1982

103. The application of high performance liquid chromatography to the study of amino acid transport in a marine bivalve 1982

104. Bacteria-free sand dollar larvae without antibiotics: net uptake of amino acids 1982

105. Orchids and orchinologists in the People's Republic of China 1982

106. Recent progress in the study of "Die Ernährung der Wassertiere und der Stoffhaushalt der Gewasser" 1982

107. Simultaneous determination of net flux for 14 amino acids in Tetrahymena using high performance liquid chromatography 1982


109. Transepidermal transport of amino acids in the nutrition of marine invertebrates 1982

110. Transport of dissolved amino acids by the mussel, Mytilus edulis: demonstration of net uptake from natural sea water by HPLC analysis 1982

111. Variability in Taro Seeding Populations 1982

112. Bacteria-free sea urchin larvae: selective uptake of neutral amino acids from seawater 1983

113. Determination of net flux of 14 amino acids in Tetrahymena pyriformis 1983

114. Dissolved organic material and the nutrition of marine bivalves 1983

115. Sea urchin larvae lack apparent regulatory mechanisms for amino acid transport 1983

116. Simultaneous determination of net uptake of 16 amino acids by a marine bivalve 1983

117. The use of high performance liquid chromatography to measure dissolved organic compounds in bivalve aquaculture systems 1983

119. Autoradiographic analysis of amino acid uptake by the gill of Mytilus 1984

120. Demonstration of net influx of free amino acids in Phaeodactylum tricornutum using high performance liquid chromatography 1984

121. Regulation of net amino acid exchange in sea urchin larvae 1984

124. Technical advances in the study of nutrition of marine mollusks 1984

125. Uptake of free amino acids by bacteria-free larvae of the sand dollar Dendraster excentricus 1984

126. "Citation Classic" 1985

127. Heterotrophic utilization of amino acids by marine macroalgae 1985

128. Net entry of amino acids in the brittle star, Ophionereis annulata 1985

129. Sodium-dependent amino acid transport in bacteria-free sea urchin larvae 1985

130. Regulation of uptake of free amino acids in eucaryote marine organisms 1985

131. Uptake of free amino acids by the diatom, Melosira mediocris 1985

132. Regulation of system L amino acid transport by Tetrahymena thermophila 1986

133. Uptake of amino acids by Pareurythoe californica: substrate interaction modifies net influx from the environment 1986

134. Active uptake of amino acids by leaves of an epiphytic vascular plant, Tillandsia pauciflora (Bromeliaceae) 1987

135. The lack of an effect of magnesium on the uptake of amino acids by the sea urchin Strongylocentrotus purpuratus 1987

136. Uptake and internal distribution of exogenously supplied amino acids in the Pacific oyster, Crassostrea gigas (Thunberg) 1987

137. Characterization of a broad-scope amino acid transport system in larval and adult sand dollars 1988
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<td>2, 26</td>
<td>138. Distribution of amino acids to internal tissues after epidermal uptake in the annelid Glyceria dibranchiate 1988</td>
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<tr>
<td>2, 27</td>
<td>139. Epidermal amino acid transport in marine invertebrates. 1988</td>
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<tr>
<td>2, 28</td>
<td>140. Epidermal uptake of amino acids in marine invertebrates: Mechanism(s) and studies of specificity 1988</td>
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<td>2, 29</td>
<td>141. Influx and transepithelial flux of amino acids in the mussel, Mytilus edulis L. 1988</td>
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<td>2, 30</td>
<td>142. Influx, net flux and transepithelial flux of amino acids in the hardshell clam, Mercenaria mercenaria (Linne): influence of salinity 1988</td>
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<td>2, 31</td>
<td>144. Effect of nitrogen deprivation on amino acid uptake by the chlorophyte Platymonas subcordiformis 1989</td>
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<tr>
<td>2, 32</td>
<td>145. Sodium-dependent amino acid transport in the chlorophyte Platymonas subcordiformis 1989</td>
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**Administrative and biographical files** Series: 2 1952-2003

- **Physical Description:** 0.6 Linear Feet
- **General Physical Description note:** no content
- **Series Scope and Content Summary**
  - Series includes correspondence, biographical information, and some files documenting Stephens' involvement with the School of Biological Sciences and other campus units.
- **Arrangement**
  - Alphabetical by type of material

**Administrative materials**

- Box 3, Folder 1: Department of Ecology and Evolutionary Biology 1989-1992
- Box 3, Folder 2: Faculty retreat 1988
- Box 3, Folder 3: Graduate Research Committee 1989-1990
- Box 3, Folder 4-6: School of Biological Sciences 1988-1992
- Box 3, Folder 7: Social ecology 1989-1991
- Box 3, Folder 8-19: Correspondence 1969-1992

**Personal and biographical files**

- Box 4, Folder 7: "Becoming a Biologist," autobiography 2002
- Box 4, Folder 8: Curriculum vitae and list of publications circa 1971-1991
- Box 4, Folder 10: Grover C. Stephens Memorial Service, October 9th, 2003 2003

**Course materials** Series: 3 1978-1990

- **Physical Description:** 0.6 Linear Feet
- **General Physical Description note:** no content
- **Series Scope and Content Summary**
  - Series documents some of the courses taught by Stephens at UCI.
- **Arrangement**
  - Alphabetical by course title

**Bio 1A, 1990 1990**
box 3, folder 22-24
box 3, folder 25-26
box 3, folder 27
box 4, folder 5
box 4, folder 6


Ecological/Evolutional Bio 208 1990

Ecological/Evolutional Bio 220 1989

Miscellaneous notes 1989

Grants and research materials Series 4 1957-1994

Physical Description: 1.7 Linear Feet

General Physical Description note: no content

Series Scope and Content Summary

Series documents lectures, seminars, and conferences attended by Stephens, as well as publications, research and grant files. Also included are slides together with research notes.

Arrangement

Alphabetical by type of material

Grants

California Sea Grant 1979-1987

Faculty research grants 1987-1990

National Science Foundation

Grant proposals 1986-1991

Grants 1978-1989

Lectures and seminars 1959-1994

Research

Manuscripts 1969-1992

Supporting materials

Notes 1957-1992

Slides circa 1978- circa 1988

Scope and Contents note

Slides consist of transparencies used for lectures, including graphs, charts, enlargements of microscopic images, and photographic images of marine life.