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INDEX OF PAPERS PUBLISHED IN THE PROCEEDINGS OF THE NATIONAL SHELLFISHERIES ASSOCIATION

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REFERENCES

1. ABBE, G. R. 1980. Growth and metal accumulation studies of oysters *Crassostrea virginica* at the Morgantown Steam Electric Station on the Potomac River, Maryland. (abstract) Vol. 70, p. 119
2. ABBE, G. and C. W. HART, JR. 1974. Growth and mortality of tray-held oysters in the Patuxent River, Maryland. (abstract) Vol. 64, p. 1
3. ABBEY, A., A. R. KOHLER and S. UPHAM 1956. Effect of aureomycin chlortetracycline in the processing and storage of freshly shucked oysters. (abstract) Vol. 47, p. 143
4. ADAMS, D. A. 1968. The States' role in management of sea resources. Vol. 58, pp. 19-22
5. AHMED, M. and A. K. SPARKS 1968. Chromosomes of oysters, clams and mussels. (abstract) Vol. 58, p. 10
6. ALDRICH, F. A. 1954. Functional morphology of the alimentary canal of *Asterias forbesi*. Vol. 45, pp. 187-189
7. ALLEN, D. M. 1971. Progress in studies of the calico scallop. (abstract) Vol. 61, p. 1
8. AMBROSE, W. G., JR., D. S. JONES and I. THOMPSON 1980. Distance from shore and growth rate of the suspension feeding bivalve *Spisula solidissima*. Vol. 70, pp. 207-215
9. ANDERSEN, A. M. 1972. Growth of the geoduck clam in Hood Canal, Washington. (abstract) Vol. 62, p. 1
10. ANDERSON, A. M. and M. D. BILGER. 1977. Growth of marked Rangia clams in the Potomac River. Vol. 67, p. 118
11. ANDERSON, R. D. and J. W. ANDERSON 1974. Physiological responses of the American oyster, *Crassostrea virginica* Gmelin, to salinity changes. (abstract) Vol. 64, p. 1 1974. Uptake and depuration of petroleum hydrocarbons by the American oyster, *Crassostrea virginica* Gmelin. (abstract) Vol. 64, pp. 1-2 1975. Oil bioassays with the American oyster, *Crassostrea virginica* (Gmelin). Vol. 65, pp. 38-42
12. ANDERSON, W. D., W. J. KEITH, H. F. MILLS, M. E. BAILEY and J. L. STEINMEYER 1979. A comprehensive survey of South Carolina's hard clam resources. Vol. 69, p. 201
13. ANDERSON, W. D. and W. LACEY 1979. South Carolina's first calico scallop fishery. (abstract) Vol. 69, p. 201
14. ANDREWS, J. D. 1954. Setting of oysters in Virginia. Vol. 45, pp. 38-46 1954. Fungus parasites of bivalve mollusks in Chesapeake Bay. Vol. 45, pp. 157-163 1955. Trapping oyster drills in Virginia. I. The effect of migration and other factors on the catch. Vol. 46, pp. 140-154 1957. Trevor Kincaid. Vol. 48, pp. 2-3 1961. Measurement of shell growth in oysters by weighing in water. Vol. 52, pp. 1-12 1962. Oyster mortality studies in Virginia. IV. MSX in James River seed beds. Vol. 53, pp. 65-84 1967. Problems in shellfish production. Vol. 57, pp. 9-10 1967. Interaction of two diseases of oysters in natural waters. Vol. 57, pp. 38-49 1968. Oyster mortality studies in Virginia. VII. Review of epizootiology and origin of *Minchinia nelsoni*. Vol. 58, pp. 23-36
15. ANDREWS, J. D., D. HAVEN, and D. B. QUAYLE, 1958. Fresh-water kill of oysters, (*Crassostrea virginica*) in James River, Virginia, 1958. Vol. 49, pp. 29-49
16. ANDREWS, J. D. and J. L. McHUGH 1956. Survival and growth of South Carolina seed oysters in Virginia waters. Vol. 47, pp. 3-17
17. ANDREWS, J. D., D. TURGEON and M. HREHA 1969. Removal of pea crabs from live oysters by using Sevin. (abstract) Vol. 59, p. 1
18. APPLEDOORN, R. S., R. S. BROWN and C. W. BROWN 1979. A three month growth and mortality study of normal and neoplastic *Mya arenaria* cross-transplanted between clean and oil-impacted areas. (abstract) Vol. 69, p. 192.
19. ARMSTRONG, D. A. and J. L. ARMSTRONG, 1974. A haplosporidian infection in gaper clams *Tresus capax*, (Gould) from Yaquina Bay, Oregon. Vol. 64, pp. 68-72
20. AUSTIN, H. M. 1972. Notes on the distribution of phyllosoma of the spiny lobster, *Panulirus* ssp., in the Gulf of Mexico. Vol. 62, pp. 26-30
21. BAAB, J. S., G. L. HAMM, K. C. HAINES, A. CHU and O. A. ROELS 1973. Shellfish mariculture in an artificial upwelling system. Vol. 63, pp. 63-67
22. BAHR, L. M. and R. E. HILLIMAN 1967. Effects of repeated shell damage on gametogenesis in the American oyster, *Crassostrea virginica* (Gmelin). Vol. 57, pp. 59-62
23. BALLARD, K. and F. B. TAUB, 1972. Algal production for shellfish feed. (abstract) Vol. 62, p. 1
24. BAQUEIRO, E. 1980. Population structure of the mangrove cockle *Anadara tuberculosa* (Sowerby, 1833) from eight mangrove swamps in Magdalena and Almejas Bays, Baja California Sur, Mexico. (abstract) Vol. 70, p. 120. 1980. Population structure of the mangrove cockle *Anadara tuberculosa* (Sowerby, 1833) from eight mangrove swamps in Magdalena and Almejas Bays, Baja California Sur, Mexico. Vol. 70, p. 201-206.
25. BAQUEIRO, E. and C. B. KENSLER 1978. Mexican molluscan fisheries of the Gulf of Mexico and the Caribbean: 1970-1975. (abstract) Vol. 68, p. 75
26. BARKER, A. M. and T. M. GROUTAGE 1967. Statistics of the New Jersey surf clam fishery—1965. (abstract) Vol. 57, p. 1
27. BARKER, A. M. and A. S. MERRILL 1967. Total solids and length-weight relation of the surf clam, *Spisula solidissima*. Vol. 57, pp. 90-94
28. BARNETT, H. J. 1971. Live crab shipping of the Dungeness crab. (abstract) Vol. 61, p. 7
29. BARNETT, H. J. and M. STEINBERG 1969. Modification of refrigerated seawater for the preservation of fishery products. (abstract) Vol. 59, p. 10
30. BARR, L. 1970. Methods of estimating the abundance of juvenile spot shrimp in a shallow nursery area. (abstract) Vol. 60, p. 12

31. BARTLETT, B. R. 1979. Biochemical changes in the Pacific oyster, *Crassostrea gigas* (Thunberg, 1795) during larval development and metamorphosis. (abstract) Vol. 69, p. 202
32. BEAN, R. A. and J. V. HUNER 1979. Comparison of the growth and survival of Red Swamp crawfish (*Procambarus clarkii* Girard) and White River crawfish (*Procambarus acutus acutus* (Girard)). (abstract) Vol. 60, pp. 192-193
33. BEARDSLEY, A. J. 1970. Some behavioral aspects of shrimp in relation to commercial trawl gear. (abstract) Vol. 60, p. 13
34. BEATTIE, J. H. 1977. Development of University of Washington's experimental oyster hatchery. (abstract) Vol. 67, p. 125
35. BEATTIE, J. H. and W. K. HERSHBERGER, K. K. CHEW and C. MAHNKEN 1978. Breeding disease resistance into the Pacific oyster. (abstract) Vol. 68, p. 88
36. BEATTIE, J. H., K. K. CHEW and W. K. HERSHBERGER 1980. Differential survival of selected strains of Pacific oysters (*Crassostrea gigas*) during summer mortality. (abstract) Vol. 70, p. 119 1980. Differential survival of selected strains of Pacific oysters (*Crassostrea gigas*) during summer mortality. Vol. 70, pp. 184-189
37. BEAVEN, G. F. 1954. Various aspects of oyster setting in Maryland. Vol. 45, pp. 29-37
38. BECKER, C. D. and G. B. PAULEY 1968. A parasite from the ova of *Crassostrea gigas*. (abstract) Vol. 58, p. 11
39. BLOGSLAWSKI, W. J. 1979. Water quality in shellfish culture. Vol. 69, pp. 137-141
40. BOURNE, N. 1969. Clam research in British Columbia. (abstract) Vol. 59, p. 10 1971. The effect of temperature, salinity and food on development of the larvae of butter clams, (*Saxidomus giganteus*, Deshayes). (abstract) Vol. 61, p. 1 1979. Razor clam, *Siliqua patula* Dixon, breeding and recruitment at Masset, British Columbia. Vol. 69, pp. 21-29
41. BOURNE, N. and J. C. LEE 1974. Predation of juvenile bivalves by the shore crabs *Hemigrapsus oregonensis* and *H. nudus*. (abstract) Vol. 64, p. 10
42. BOURNE, N. and D. W. SMITH 1971. The effect of temperature on the larval development of the horse clam, *Tresus capax*, Gould. (abstract) Vol. 61, p. 7 1972. The effect of temperature on the larval development of the horse clam, *Tresus capax*, Gould. (abstract) Vol. 62, pp. 35-37 1972. Breeding and growth of the horse clam, *Tresus capax* (Gould), in southern British Columbia. Vol. 62, pp. 38-46
43. BREBER, P. 1980. Annual gonadal cycle in the carpet-shell clam *Venerupis decussata* in Venice Lagoon, Italy. Vol. 70, pp. 31-35
44. BREED-WILLEKE, G. M. and D. R. HANCOCK 1980. Growth and reproduction of subtidal and intertidal populations of the gaper clam *Tresus capax* (Gould) from Yaquina Bay, Oregon. Vol. 70, pp. 1-13
45. BREESE, W. P. 1969. Proposed pilot oyster hatchery in Oregon. (abstract) Vol. 59, p. 10 1970. Practical problems of phasing an oyster hatchery into production. (abstract) Vol. 60, p. 13 1971. Hot water and oysters. (abstract) Vol. 61, p. 7 1975. Out-bay culture of bivalve molluscs. Vol. 65, pp. 76-77 1976. Out-bay culture. (abstract) Vol. 66, p. 107 1979. Eyed larvae and the oyster grower. (abstract) Vol. 69, pp. 202-203
46. BREESE, W. P., P. L. DONAGHAY, R. E. MALOUF and L. F. SMALL 1967. Algal chemostats and oyster larvae. Vol. 67, p. 125
47. BREESE, W. P. and F. D. PHIBBS 1970. Some observations on the spawning and early development of the butter clam, *Saxidomus giganteus* (Deshayes). Vol. 60, pp. 95-98
48. BRICELJ, V. M. and R. MALOUF 1980. Aspects of reproduction of hard clams (*Mercenaria mercenaria*) in Great South Bay, New York. Vol. 70, pp. 216-229
49. BROWN, A., JR. 1972. Experimental techniques for preserving diatoms used as food for larval *Penaeus aztecus*. Vol. 62, pp. 21-25
50. BROWN, B., L. WILLIAMS and M. R. CARRIKER 1980. Role of chemoreception in predation by the oyster drill *Urosalpinx cinerea*. I. Feeding behavior. (abstract) Vol. 70, p. 119
51. BROWN, R. S. 1978. A disease survey of New England soft-shell clams, *Mya arenaria*. (abstract) Vol. 68, p. 75
52. BROWN, R. S. and C. J. O'TOOLE 1978. Histochemical analyses of pigment accumulations in *Mercenaria mercenaria* and *Mya arenaria* L. (abstract) Vol. 68, p. 76
53. BUCHANAN, D. V. and PAUL S. TATE 1974. Acute toxicity of spruce and hemlock bark to some estuarine organisms in Southeastern Alaska. (abstract) Vol. 64, p. 10
54. BUCKNER, S. C. 1979. An approach to the management of a hard clam resource. (abstract) Vol. 69, p. 193
55. BUROKER, N. E. and W. K. HERSHBERGER 1975. Genetic variation in the Pacific oyster, *Crassostrea gigas*. (abstract) Vol. 65, p. 7
56. BURNS, P. A. and M. SALOMON 1969. Phosphate adsorption by kaolin in saline environments. Vol. 59, pp. 121-125
57. BURRELL, V. G., JR. 1977. Mortalities of oysters and hard clams associated with heavy runoff in the Santee River System, South Carolina in the spring of 1975. Vol. 67, pp. 35-43
58. BURTON, R. W. 1961. Distribution of oyster microparasites in Chesapeake Bay, Maryland, 1959-1960. Vol. 52, pp. 65-74
59. BUTLER, P. A. 1954. Selective setting of oyster larvae on artificial cultch. Vol. 45, pp. 95-105 1955. Reproductive cycle in native and transplanted oysters. Vol. 46, p. 75 1956. Production and utilization of seed oysters in the Gulf area. Vol. 47, pp. 19-22 1974. Trends in pesticide residues in shellfish. (abstract) Vol. 64, pp. 77-81
60. BUTLER, P. A. and A. J., JR. WILSON 1956. A continuous water sampler for estimation of daily changes in plankton. Vol. 47, pp. 109-113
61. BUTLER, P. A., A. J. WILSON, JR. and A. J. RICK 1960. Effect of pesticides on oysters. Vol. 51, pp. 23-32
62. BUTLER, T. H. 1968. British Columbia crustacean fisheries and research projects past and present. (abstract) Vol. 58, p. 11 1972. Sex change in *Pandalus jordani* and *P. hypsinotus* in British Columbia. (abstract) Vol. 62, p. 2
63. CABELLI, V. J. and W. P. HEFFERNAN 1968. Seasonal factors relevant to fecal coliform levels in *Mercenaria mercenaria*. (abstract) Vol. 58, p. 1 1971. Seasonal factors relevant to coliform levels in the northern quahaug. Vol. 61, pp. 95-101
64. CADDY, J. F., and R. A. CHANDLER 1968. Accumulation of paralytic shellfish poison by the rough whelk (*Buccinum undatum* L.). Vol. 58, pp. 46-50
65. CAKE, E. W., JR. 1970. Some aspects of the ecology, biology and fishery of the sunray Venus clam. (abstract) Vol. 60, p. 1 1973. Larval cestode infections in several edible bivalve mollusks from the vicinity of St. Teresa, Florida. (abstract) Vol. 63, p. 1
66. CAKE, E. W., JR. and R. W. MENZEL 1979. Infections of *Tylocephalum* in commercial oysters and three predaceous gastropods of the eastern Gulf of Mexico. (abstract) Vol. 69, p. 193 1980. Infections of *Tylocephalum* metacestodes in commercial oysters and three predaceous gastropods of the eastern Gulf of Mexico. (abstract) Vol. 70, pp. 94-104
67. CALABRESE, A. 1969. *Mulinia lateralis*: molluscan fruit fly? Vol. 59, pp. 65-66
68. CALABRESE, A. and H. C. DAVIS 1967. Effects of "soft" detergents on embryos and larvae of the American oyster (*Crassostrea virginica*). Vol. 57, pp. 11-16
69. CANZONIER, W. J. 1966. *Dermocystidium* in tray populations of oysters in Delaware Bay. (abstract) Vol. 56, p. 1 1968. Present status of

- attempts to transmit *Minchinia nelsoni* under controlled conditions. (abstract) Vol. 58, p. 1 1969. Recent studies of hard clam activity and depuration. (abstract) Vol. 59, p. 1 1971. Measurement of the oxygen requirements of a large population of *Mercenaria mercenaria*. (abstract) Vol. 61, p. 2 1974. Tissue grafts in the American oyster, *Crassostrea virginica*. Vol. 64, pp. 92-102
70. CARDWELL, R. D. 1976. Relative acute toxicity of a pesticide, heavy metal and anionic surfactants to marine organisms. (abstract) Vol. 66, p. 107 1978. Oyster larvae mortality in South Puget Sound. (abstract) Vol. 68, pp. 88-89
 71. CARR, H. A. 1975. Culturing and transplanting hatchery-spawned quahogs. (abstract) Vol. 65, p. 1 1978. Culture of hatchery-spawned *Mercenaria mercenaria* in Massachusetts. (abstract) Vol. 68, p. 76.
 72. CARREON, J. A. 1969. The malacology of Philippine oysters of the genus *Crassostrea* and a review of their shell characters. Vol. 59, pp. 104-115 1973. Ecomorphism and soft animal growth of *Crassostrea iredalei*. Vol. 63, pp. 12-19
 73. CARRIKER, M. R. 1954. Seasonal vertical movements of oyster drills. Vol. 45, pp. 190-198 1957. Thurlow Christian Nelson. Vol. 48, p. 6-7 1970. An analysis of hole boring by scanning electron microscopy by the snail *Urosalpinx*. (abstract) Vol. 60, pp. 1-2 1972. Dissolution of shell by the accessory boring organ of *Urosalpinx*: a study by scanning electron microscopy. (abstract) Vol. 62, p. 2 1973. Discovery of duct system in accessory boring organ of *Urosalpinx cinerea follyensis* by scanning electron microscopy. (abstract) Vol. 63, p. 1 1978. Ultrastructural evidence that gastropods swallow shell rasped during hole boring. (abstract) Vol. 68, pp. 76-77
 74. CARRIKER, M. R. and R. E. PALMER 1979. Ultrastructural morphogenesis of prodissoconch and early dissoconch valves of the oyster *Crassostrea virginica*. Vol. 69, pp. 103-128
 75. CARRIKER, M. R., R. E. PALMER, L. V. SICK and C. C. JOHNSON. 1980. Ultrastructure and mineral chemistry of major shell regions of *Crassostrea virginica*. (Abstract) Vol. 70, p. 120
 76. CARRIKER, M. R., R. E. PALMER and R. S. PREZANT 1980. Functional ultramorphology of the dissoconch valves of the oyster *Crassostrea virginica*. Vol. 70, pp. 139-183.
 77. CARRIKER, M. R. and J. G. SCHAADT, 1975. Motion picture film entitled "Predatory behavior of the boring snail *Urosalpinx cinerea*". (abstract) Vol. 65, p. 1
 78. CARVER, J. A., JR. 1966. Some critical problems of the shellfish industry. Vol. 56, pp. 9-12
 79. CASTAGNA, M. 1970. Field experiments testing the use of aggregate covers to protect juvenile clams. (abstract) Vol. 60, p. 2
 80. CASTAGNA, M. and P. CHANLEY 1966. Salinity tolerance limits of some species of pelecypods from Virginia. (abstract) Vol. 56, p. 1
 81. CASTAGNA, M. and DUGGAN, W. 1971. Rearing the bay scallop, *Aequipecten irradians*. Vol. 61, pp. 80-85
 82. CASTAGNA, M., D. S. HAVEN and J. B. WHITCOMB 1969. Treatment of shell cultch with Polystream to increase the yield of seed oysters, *Crassostrea virginica*. Vol. 59, pp. 84-90
 83. CASTAGNA, M. and J. N. KRAEUTER 1976. A mariculture system for growing the hard clam, *Mercenaria mercenaria*. (abstract) Vol. 66, p. 100 1977. *Mercenaria* culture using stone aggregate for predator selection. Vol. 67, pp. 1-6
 84. CAVE, R. N. and E. W. CAKE, JR. 1980. Observations on the predation of oysters by the black drum *Pogonias cromis* (Linnaeus) (Sciaenidae). (abstract) Vol. 70, p. 121
 85. CEURVELS, A. R. 1968. Development of a saltwater embayment for molluscan research. (abstract) Vol. 58, p. 1
 86. CHAMBERS, J. S. 1970. Recent research on control of oyster drills. (abstract) Vol. 60, p. 13
 87. CHANLEY, P. E. 1954. Possible causes of growth variations in clam larvae. Vol. 45, pp. 84-94 1957. Survival of some juvenile bivalves in water of low salinity. Vol. 48, pp. 52-65 1959. Inheritance of shell markings and growth in the hard clam, *Venus mercenaria*. Vol. 50, pp. 163-169 1966. Larval development of *Rangia cuneata* and *Lyonsia hyalina*. (abstract) Vol. 56, p. 1 1966. Larval development of the large blood clam, *Noetia ponderosa* (Say). Vol. 56, p. 53-58 1967. Comparative study of twenty-three species of bivalve larvae. (abstract) Vol. 57, p. 1 1970. Larval development of the hooked mussel, *Brachidontes recurvus*, Rafinesque (Bivalvia: Mytilidae) including a literature review of larval characteristics of the Mytilidae. Vol. 60, pp. 86-94
 88. CHANLEY, P. E. and R. F. NORMANDIN 1967. Use of artificial foods for larvae of the hard clam, *Mercenaria mercenaria* (L.). Vol. 57, pp. 31-37
 89. CHAPMAN, C. R. 1955. Feeding habits of the southern oyster drill, *Thais haemastoma*. Vol. 46, pp. 169-176 1958. Oyster drill predation in Mississippi Sound. Vol. 49, pp. 87-97
 90. CHAVES, L. and K. K. CHEW 1975. Application of spanish mussel culture techniques in Puget Sound, Washington. (abstract) Vol. 65, p. 7
 91. CHAVES-MICHAEL, L. 1977. Mussel studies in Seabeck Bay and Clam Bay. (abstract) Vol. 67, p. 125
 92. CHENG, T. C. 1966. On the structure, mode of infection, and fate of *Tylocephalum* in the American oyster, *Crassostrea virginica*. (abstract) Vol. 56, pp. 1-2 1966. Perivascular leucocytosis and other types of cellular reaction in *Crassostrea virginica* (Gmelin) experimentally infected with the metastrongylid nematode *Angiostrongylus cantonensis* (Chen). (abstract) Vol. 56, p. 2
 93. CHESTNUT, A. F. 1954. Opening remarks of the president of the National Shellfisheries Association. Vol. 45, pp. 7-8 1955. Opening remarks of the president of the National Shellfisheries Association. Vol. 46, pp. 7-8 1955. The distribution of oyster drills in North Carolina. Vol. 46, pp. 134-139 1956. Seed oyster problems of North Carolina. (abstract) Vol. 47, p. 18
 94. CHESTNUT, A. F., W. E. FAHY and H. J. PORTER 1956. Growth of young *Venus mercenaria*, *Venus campechiensis* and their hybrids. Vol. 47, pp. 50-56
 95. CHEW, K. K. 1977. Manila clam reseedling prospects in Washington state. (abstract) Vol. 67, p. 118 1977. Preliminary findings on a recent summer kill of Pacific oysters. (abstract) Vol. 67, p. 126
 96. CHEW, K. K., D. HOLLAND, J. W. WELLS, D. H. MCKENZIE and C. K. HARRIS 1974. Depth distribution and size of spot shrimp, *Pandalus platyceros*, trawled in Dabob Bay of Hood Canal, Washington from 1966-1971. Vol. 64, pp. 28-32
 97. CHEW, K. K., A. K. SPARKS, S. C. KATKANSKY, C. STANLEY and D. HUGHES 1964. Preliminary observations on the seasonal size distribution of *Mytilicola orientalis* Mori in the Pacific oyster, *Crassostrea gigas* (Thunberg) at Humboldt Bay, California and Yaquina Bay, Oregon. Vol. 55, pp. 1-8
 98. CHEW, K. K., J. W. WELLS, D. HOLLAND, D. H. MCKENZIE and C. K. HARRIS 1972. January size frequency distribution of *Pandalopsis dispar* and *Pandalus platyceros* trawled in Dabob Bay, Hood Canal, Washington from 1966 to 1971. (abstract) Vol. 62, pp. 2-3
 99. CHIPMAN, WALTER A. 1954. *Pecten irradians*: rate of water propulsion by the bay scallop. Vol. 45, pp. 136-139 1958. Disposal of radioactive materials and its relation to fisheries. Vol. 49, pp. 5-12
 100. CHRISTENSEN, D. J. 1973. Prey preference of *Stylochus ellipticus* in Chesapeake Bay. Vol. 63, pp. 35-38
 101. COFFIN, G. W. 1962. A technique for separating small mollusks from bottom sediments. Vol. 53, pp. 175-180

102. COLE, G. H., R. L. COPP and D. C. COOPER 1977. Estimation of lobster population size at Millstone Point, Connecticut, by mark-recapture techniques, 1975-1976. Vol. 67, pp. 60-66
103. COLWELL, R. R. and J. LISTON 1959. A bacteriological study of the natural flora of Pacific oysters (*Crassostrea gigas*) when transplanted to various areas in Washington. Vol. 50, pp. 181-188
104. COMAR, P. G., B. E. KANE and D. B. JEFFREYS 1979. Sanitary significance of the bacterial flora of the brackish water clam, *Rangia cuneata*, in Albemarle Sound, North Carolina. Vol. 69, pp. 92-100
105. COOLEY, N. R. 1957. Incidence and life history of *Parochis acanthus*, a digenetic trematode, in the southern oyster drill *Thais haemastoma*. Vol. 48, pp. 174-188
106. COOPER, K., S. RAY and J. NEFF 1978. The interaction of water soluble fractions (WSF) of South Louisiana crude oil and *Dermocystidium (Labyrinthomyxa) marina* at varying temperatures in the American oyster, *Crassostrea virginica* Gmelin. (abstract) Vol. 68, p. 77
107. COSTELLO, T. J., J. H. HUDSON, J. R. DUPUY and S. RIVKIN 1973. Larval culture of the calico scallop, *Argopecten gibbus*. Vol. 63, pp. 72-76
108. COUCH, J. A. and A. ROSENFELD 1968. Epizootiology of *Minchinia costalis* and *Minchinia nelsoni* in oysters introduced into Chincoteague Bay, Virginia. Vol. 58, pp. 51-59
109. COX, K. W. 1957. Notes on the California abalone fishery. Vol. 48, pp. 103-109
110. CRONIN, L. E. 1956. Symposium on the production and utilization of seed oysters. Vol. 47, p. 2
111. CRONIN, L. E., R. B. BIGGS and H. T. PFITZENMEYER 1968. Relations of spoil disposal to shellfish areas. (abstract) Vol. 58, p. 2
112. CROWTHER, H. E. 1968. BCF role in farming of the sea. Vol. 58, pp. 16-18
113. CUMMINGS, J. M. and A. C. JONES 1969. Uptake and elimination of *Gymnodinium breve* toxin(s) by the oyster, *Crassostrea virginica*. (abstract) Vol. 59, pp. 1-2
114. CUMMINGS, J. M., A. C. JONES and A. A. STEVENS 1970. A *Gymnodinium breve* "red tide": occurrence of toxic shellfish. (abstract) Vol. 60, p. 2
115. CUNNINGHAM, P. A. 1976. Inhibition of shell growth in the presence of mercury and subsequent recovery of juvenile oysters. Vol. 66, pp. 1-6
116. DAHLSTROM, W. A. 1964. Survival and growth of the European flat oyster in California. Vol. 55, pp. 9-17
117. DAME, R. F. 1972. Variations in the caloric value of the American oyster, *Crassostrea virginica*. Vol. 62, pp. 86-88 1976. Systems analysis of an oyster community: an evolving model. (abstract) Vol. 66, p. 100 1979. The abundance, diversity and biomass of macrobenthos on North Inlet, South Carolina, intertidal oyster reefs. Vol. 69, pp. 6-10
118. DAVIS, D. E. 1959. Problems in analysis of mortalities. Vol. 50, pp. 1-5
119. DAVIS, J. D. 1967. *Polydora* infestation of Arctic wedge clams: a pattern of selective attack. Vol. 57, pp. 67-72
120. DAVIS, J. D. and D. D. TURGEON 1972. Reproductive cycle and planktonic stages of *Mya arenaria* in the Hampton-Seabrook Estuary, New Hampshire. (abstract) Vol. 62, p. 3
121. DAVIS, N. W. and R. E. HILLMAN 1971. Effect of artificial shell damage on sex determination in oysters. (abstract) Vol. 61, p. 2
122. DAVIS, H. C. and P. E. CHANLEY 1955. Spawning and egg production of oysters and clams. Vol. 46, pp. 40-58 1955. Effects of some dissolved substances on bivalve larvae. Vol. 46, pp. 59-74
123. DAVIS, H. C. and V. L. LOOSANOFF 1954. A fungus disease in bivalve larvae. Vol. 45, pp. 151-156
124. DAVIS, R. L. and N. MARSHALL 1961. The feeding of the bay scallop, *Aequipecten irradians*. Vol. 52, pp. 25-29
125. DEAN, D. 1979. Impacts of thermal addition and predation on intertidal populations of the blue mussel, *Mytilus edulis* L. Vol. 69, pp. 47-53
126. DEAN, J. M., F. A. CROSS and S. W. FOWLER 1967. Metabolism of ⁶⁵Zn in Crustacea. Vol. 57, p. 6
127. DEMORY, D. 1978. Helicopter crabbing. (abstract) Vol. 68, p. 89
128. DesVOIGNE, D. M. and A. K. SPARKS 1968. Wound repair in *Crassostrea gigas*. (abstract) Vol. 58, p. 11
129. DEY, N. D. and E. T. BOLTON 1978. Tetracycline as a bivalve shell marker. (abstract) Vol. 68, p. 77
130. DIGIROLAMO, R. 1969. Preliminary observations on the uptake, depuration and effect of irradiation on viruses in Pacific and Olympia oysters. (abstract) Vol. 59, p. 2
131. DINGEE, J. 1955. New types and uses of cans. Vol. 46, pp. 192-195
132. DONALDSON, J., C. MUNSEY and V. LIPOVSKY 1976. Winter spawning of Pacific oysters. (abstract) Vol. 66, p. 107
133. DOUGLASS, W. R. 1975. Host response to infection with *Bucephalus* in *Crassostrea virginica*. (abstract) Vol. 65, p. 1
134. DOUGLASS, W. R. and H. H. HASKIN 1974. *Crassostrea virginica*-MSX interactions: changes in hemolymph enzyme activities with *Minchinia nelsoni* lesion development. (abstract) Vol. 64, p. 2 1975. MSX-oyster interactions: leucocyte response to *Minchinia nelsoni* disease in *Crassostrea virginica*. (abstract) Vol. 65, p. 2 1975. MSX-oyster interactions: some new observations on *Minchinia nelsoni* disease development in stocks of oysters resistant and susceptible to *Minchinia nelsoni*—caused mortality. (abstract) Vol. 65, p. 2
135. DOW, R. L. 1954. Preliminary experiments in the use of ground controlled aerial photography in intertidal hydrographic surveys. Vol. 45, pp. 199-208 1957. Sanitary criteria for shellfish by species and by area. Vol. 48, pp. 23-29
136. DOWN, R. J. 1972. Off-bottom high density oyster farming in Cape May County, New Jersey: materials, methods and politics. (abstract) Vol. 63, pp. 1-2
137. DRINNAN, R. E. 1968. Effect of early fouling of shell surfaces on oyster spatfall. (abstract) Vol. 59, p. 2
138. DROBECK, K. G. and D. W. PRITCHARD 1975. A field experiment to determine the role of sediment bound heavy metals and salinity regime in the heavy metals uptake of oysters. (abstract) Vol. 65, p. 3
139. DUGGAN, W. 1973. Growth and survival of the bay scallop *Argopecten irradians*, at various locations in the water column and at various densities. Vol. 63, pp. 68-71
140. DUNN, G. E. 1956. Some features of the hurricane problem. Vol. 47, pp. 104-108
141. DUNNINGTON, E. A., JR. 1968. Survival time of oysters after burial at various temperatures. Vol. 58, pp. 101-103 1967. Potomac fisheries: potential and opportunity. (abstract) Vol. 58, p. 2
142. DUNNINGTON, E. A., JR., K. LEUM and D. MacGREGOR 1970. Ability of buried oysters to clear sediment from the shell margin. (abstract) Vol. 60, pp. 2-3
143. DUPUY, J. L. and A. K. SPARKS 1967. *Gonyaulax (catenella?)*, its growth, toxin production and relationships with bivalve mollusks. (abstract) Vol. 57, pp. 6-7 1968. *Gonyaulax washingtonensis*, its relationship to *Mytilus californianus* and *Crassostrea gigas* as a source of paralytic shellfish toxin in Sequim Bay, Washington. (abstract) Vol. 58, p. 2

144. DUPUY, J. L., A. K. SPARKS, K. K. CHEW and B. C. CHSU 1966. The culturing of *Gonyaulax* sp. and accompanying problems inherent with this organism. (abstract) Vol. 56, pp. 6-7 1967. A source of paralytic shellfish toxin in Sequim Bay, Washington. (abstract) Vol. 57, pp. 1-2
145. DWIVEDY, R. C. 1973. Design of an experimental self-supporting closed cycle oyster culture system. (abstract) Vol. 63, p. 2 1973. A study of chemo-receptors on labial palps of the American oyster *Crassostrea virginica* using microelectrodes. Vol. 63, pp. 20-26 1974. A proposed method of waste management in closed-cycle mariculture systems through foam-fractionation and chlorination. Vol. 64, pp. 111-117
146. EBLE, A. F. 1957. The observations on the blood circulation in the oyster, *Crassostrea virginica*. Vol. 48, pp. 148-153 1960. The use of vinyl acetate in studies on the circulatory system of the American oyster, *Crassostrea virginica*. Vol. 51, pp. 12-14 1966. Some observations on the seasonal distribution of selected enzymes in the American oyster as revealed by enzyme histochemistry. Vol. 56, pp. 37-42 1969. A histochemical demonstration of glycogen, glycogen phosphorylase and branching enzyme in the American oyster. Vol. 59, pp. 27-34 1970. Physiology of the ripe, spawning and spent surf clam gonad. (abstract) Vol. 60, p. 3 1971. Histochemistry of gonadal regression and subsequent maturation in the Atlantic surf clam, *Spisula solidissima*. (abstract) Vol. 61, p. 2 1976. Freshwater aquaculture of the tropical prawn, *Macrobrachium rosenbergii*, and the rainbow trout, *Salmo gairdnerii*, using thermal effluent discharges from an electric generating station. (abstract) Vol. 66, p. 100 1979. *Macrobrachium* culture in the United States. Vol. 69, pp. 129-136
147. EBLE, A. F. and A. ROSENFELD 1968. The enzyme histochemistry of the sporulation of *Minchinia nelsoni* in *Crassostrea virginica*. (abstract) Vol. 58, p. 3
148. EBLE, A. F. and N. STOLPE 1970. The histochemistry of the foot epithelium and associated glands of the surf clam, *Spisula solidissima*. (abstract) Vol. 60, p. 3
149. EBLE, A. F., and M. R. TRIPP 1969. Oyster leucocytes in tissue culture: a functional study. (abstract) Vol. 59, p. 2
150. ECKMAYER, W. J. 1978. Oyster reef cultivation for cultch material. (abstract) Vol. 68, p. 77
151. EDWARDS, M. B. 1955. Local sanitation problems in shellfish growing areas. Vol. 46, pp. 32-34
152. EHRESMANN, D. W., C. CLAUS and C. E. WHALEN 1971. Optimal pumping rate conditions for oysters as determined by a Fortran IV program. (abstract) Vol. 61, p. 3
153. EISSINGER, R. A. 1975. Progress in central California shellfish seed production. (abstract) Vol. 65, p. 7 1978. Disease control in a molluscan shellfish hatchery. (abstract) Vol. 68, pp. 89-90
154. ELDRIDGE, P. J., A. G. EVERSOLE and J. M. WHETSTONE 1979. Comparative survival and growth rates of hard clams, *Mercenaria mercenaria*, planted in trays subtidally and intertidally at varying densities in a South Carolina estuary. Vol. 69, pp. 30-39
155. ELDRIDGE, P. J., W. WALTZ, R. C. GRACY and H. HUNT 1976. Growth and mortality rates of hatchery seed clams, *Mercenaria mercenaria*, in protected trays in waters of South Carolina. Vol. 66, pp. 13-20
156. ELLIFRIT, N. J., D. W. COON and M. S. YOSHINAKA 1973. Some observations of clam distribution at four sites on Hood Canal, Washington. (abstract) Vol. 63, p. 7
157. ELSTON, R. 1980. Functional anatomy, histology and ultrastructure of the soft tissues of the larval American oyster *Crassostrea virginica*. Vol. 70, pp. 65-93 1980. Anatomy, histology and ultrastructure of larval crassostreid veligers. (abstract) Vol. 70, pp. 121-122 1980. New ultrastructure aspects of a serious disease of hatchery reared larval Pacific oysters *Crassostrea gigas*. (abstract) Vol. 70, p. 122
158. ELSTON, R. and L. LEIBOVITZ 1980. Detection of vibriosis in hatchery reared larval oysters: correlation between clinical, histological and ultrastructural observations in experimentally induced disease. (abstract) Vol. 70, pp. 122-123
159. ENGESSER, W. F. and D. CHEUNG 1974. Improving productivity by using tanner crab models. (abstract) Vol. 64, p. 10
160. ENGESSER, W., C. M. CHEUNG, S. FARUQUI and W. MERCER 1976. System work design and interim reports covering current and proposed industrial engineering standards for shrimp, crab, oysters, bottom-fish and product- mix species. (abstract) Vol. 66, p. 107
161. ENGLE, J. B. 1955. Ten years of study on oyster setting in a seed area in Upper Chesapeake Bay. Vol. 46, pp. 88-99 1957. The seasonal significance of total solids of oysters in commercial exploitation. Vol. 48, pp. 72-78 1965. The molluscan shellfish industry current status and trends. Vol. 56, pp. 13-21
162. ENNIS, G. P. 1977. Determination of shell condition in lobsters (*Homarus americanus*) by means of external macroscopic examination. Vol. 67, pp. 67-70
163. EPIFANIO, C. E. and C. A. MOOTZ 1975. Growth of oysters in a recirculating maricultural system. Vol. 65, pp. 32-37
164. EVANS, M. C. 1976. Fabricated substrates—an approach to the intensive culture of *Macrobrachium rosenbergii* (deMan) (abstract) Vol. 66, p. 101
165. EVERSOLE, ARNOLD G. 1978. Marking clams with rubidium. (abstract) Vol. 68, p. 78
166. EVERSOLE, A. G., W. K. MICHENER and P. J. ELDRIDGE 1980. Reproductive cycle of *Mercenaria mercenaria* in a South Carolina estuary. Vol. 70, p. 22-30
167. FEDER, H. M. and A. J. PAUL 1974. Age, growth and size-weight relationships of the soft-shell clam, *Mya arenaria*, in Prince William Sound, Alaska. Vol. 64, pp. 45-52 1980. Food of the king crab *Paralithodes camtschatica* and the Dungeness crab *Cancer magister* in Cook Inlet, Alaska. Vol. 70, pp. 240-246
168. FEDER, H. M. and A. J. PAUL and J. PAUL 1976. Age, growth, and size-weight relationships of the pinkneck clam, *Spisula polynyma* in Hartney Bay, Prince William Sound, Alaska. Vol. 66, pp. 21-25
169. FENG, S. Y. 1957. Observations on distribution and elimination of spores of *Nematopsis ostrearum* in oysters. Vol. 48, pp. 162-173 1966. The fate of a virus, *Staphylococcus aureus* phage 80, injected into the oyster. (abstract) Vol. 56, p. 2 1966. Biological aspects of hard clam purification. (abstract) Vol. 56, p. 3 1967. Further studies in clam depuration. (abstract) Vol. 57, p. 2
170. FINGERMAN, M. and L. D. FAIRBANKS 1956. Investigations of the body fluid and "brown-spotting" of the oyster. Vol. 47, pp. 146-147 1957. Histophysiology of the oyster kidney. Vol. 48, pp. 125-133
171. FISKE, J. D. 1968. The Massachusetts estuarine research program. (abstract) Vol. 58, p. 3
172. FLOWERS, J. M. 1973. Pattern of distribution of the surf clam *Spisula solidissima* in the Point Judith, Rhode Island Harbor of Refuge. Vol. 63, pp. 107-112
173. FORD, S. E. 1971. "MSX"—10 years in the Lower Delaware Bay. (abstract) Vol. 61, p. 3 1973. Recent trends in the epizootiology of *Minchinia nelsoni* (MSX) in Delaware Bay. (abstract) Vol. 63, pp. 2-3 1979. Chronic infections of *Minchinia nelsoni* (MSX) in Delaware Bay oysters. (abstract) Vol. 69, pp. 193-194
174. FOSTER, C. A., J. W. HAWKES and D. A. WOLFE 1980. A histopathological study of mussels (*Mytilus edulis*) exposed to petroleum from the *Amoco Cadiz* spill. (abstract) Vol. 70, p. 125

175. FOX, W. W., JR. 1972. Dynamics of pandalid shrimps: a review and management considerations. (abstract) Vol. 62, pp. 3-4
176. FRAIDENBURG, M. E. 1971. Observations on the developing fishery for crayfish in Washington State. (abstract) Vol. 61, pp. 7-8
177. FRANZ, D. R. 1966. Some studies on physiological variation among populations of the oyster drill, *Urosalpinx cinerea*. (abstract) Vol. 56, p. 3
1967. Further studies on physiological variation among populations of oyster drills. (abstract) Vol. 57, p. 2
178. GALTSOFF, P. S. 1954. Recent advances in the studies of the structure and formation of the shell of *Crassostrea virginica*. Vol. 45, pp. 116-135
1957. The past and future of oyster research. Vol. 48, pp. 8-22 1957. Observations on muscle attachments, ciliary motion, and the pallial organ of oysters. Vol. 48, pp. 154-161 1960. The three hearts of the oyster. Vol. 51, pp. 7-11
179. GAUCHER, T. A. 1966. Dispersion in a subtidal *Mya arenaria* (Linnaeus) population. (abstract) Vol. 56, pp. 3-4
180. GAUCHER, T. A. and S. B. SAILA 1966. Estimation of the sampling distribution and numerical abundance of some mollusks in a Rhode Island salt pond. Vol. 56, pp. 73-80
181. GAUMER, T. F. 1977. Recent clam studies in Oregon's estuaries. (abstract) Vol. 67, p. 126
182. GIBSON, G. G. and D. S. LUND 1973. A pilot economic study of oyster raft culture in Yaquina Bay, Oregon. (abstract) Vol. 63, p. 7
183. GILLMOR, R. B. 1978. Suspension culture of European oysters (*Ostrea edulis* L.) (abstract) Vol. 68, p. 78 1978. Growth responses of European and American oysters (*Ostrea edulis* L. and *Crassostrea virginica* G.) to intertidal exposure. (abstract) Vol. 68, p. 79 1980. Comparative physiology of intertidal bivalves. (abstract) Vol. 70, p. 132
184. GLENN, R. D. 1975. A report on the successful utilization of plastic trays for the large scale culture of *C. gigas* in Baja California, Mexico. (abstract) Vol. 65, p. 3
185. GLOCK, J. W. 1977. Squaxin Island manila clam reseeding studies. (abstract) Vol. 68, p. 90 1978. Growth, recovery, and movement of manila clams, *Venerupis japonica* (Deshayes) at Squaxin Island, Washington. Vol. 69, pp. 15-20
186. GLOCK, J. W. and K. K. CHEW 1979. Growth, recovery and movement of manila clams, *Venerupis japonica* (Deshayes) at Squaxin Island, Washington. Vol. 69, pp. 15-20
187. GLOCK, J. W., E. HURLBURT, P. BECKER and M. KYTE 1978. The development of a management plan for a clam farm in South Puget Sound, Washington. (abstract) Vol. 69, p. 203
188. GLUDE, J. B. 1954. The tidal spat trap, a new method for collecting seed clams. Vol. 45, pp. 106-115 1956. Copper, a possible barrier to oyster drills. Vol. 47, pp. 73-82 1964. The effect of scoter duck predation on a clam population in Dabob Bay, Washington. Vol. 55, pp. 73-86 1968. The effects of oil from the wrecked tanker, Torrey Canyon, on shellfisheries resources of England and France. Vol. 58, pp. 11-12 1974. Identification of oysters of the South Pacific Islands. (abstract) Vol. 64, p. 11
189. GOLDBERG, R. 1980. Biological and technological studies on the aquaculture of yearling surf clams. Part I: aquacultural production. Vol. 70, p. 55-60
190. GOLDMINTZ, D. and R. ERNST 1979. Pasteurization of oysters. (abstract) Vol. 69, p. 200
191. GOOCH, D. M. 1970. Studies on brackish water clams of the genus *Rangia* in Louisiana. (abstract) Vol. 60, pp. 3-4
192. GOODWIN, C. L. 1975. Observations on spawning and growth of subtidal geoducks (*Panope generosa*, Gould). Vol. 65, pp. 49-58
193. GOODWIN, C. LYNN 1968. Subtidal shellfisheries development. (abstract) Vol. 58, p. 12 1970. Some observations on laboratory spawning of the geoduck *Panope generosa*, and the culture of its larvae. (abstract) Vol. 60, pp. 13-14 1972. Distribution of subtidal hardshell clams in Puget Sound, Washington. (abstract) Vol. 62, pp. 4-5 1973. Effects of salinity and temperature on embryos of the geoduck clam (*Panope generosa* Gould) Vol. 63, pp. 93-95 1974. Diver observations on disposal of dredge spoil at Dana Passage, Washington. (abstract) Vol. 64, p. 12 1975. The assessment of subtidal geoduck clam populations by visual and photographic techniques. (abstract) Vol. 65, p. 7
194. GOODWIN, C. L., W. SHAUL and C. BUDD 1979. Larval development of the geoduck clam (*Panope generosa*, Gould). Vol. 69, pp. 73-76
195. GORDON, J. 1980. Evidence for sclerotization of the shell matrix of a marine bivalve. (abstract) Vol. 70, p. 125
196. GORDON, J., C. TOMASZEWSKI and M. R. CARRIKER 1980. Role of the organic matrix in calcification of the molluscan shell. (abstract) Vol. 70, pp. 126-127
197. GRACY, R. C. 1976. Survey of South Carolina's hard clam (*Mercenaria mercenaria*) resource. (abstract) Vol. 66, p. 101
198. GRANT, W. S., L. BARTLETT and F. M. UTTER 1977. Biochemical genetic identification of species and hybrids of the Bering Sea tanner crab, *Chionocetes bairdi* and *C. opilio*. (abstract) Vol. 67, p. 127
199. GREEN, R. S. 1954. Sanitary aspects of importation of shellfish into the United States. Vol. 45, pp. 246-252
200. GREENE, G. T. 1979. Growth of the clams (*Mercenaria mercenaria*) in Great South Bay, New York. (abstract) Vol. 69, pp. 194-195
201. GREGORY, R. H., R. T. HILL and J. A., JR. HOPE 1957. Bacteriological studies of harvesting and processing oysters in Virginia. Vol. 48, pp. 30-43
202. GRISCHKOWSKY, R. S. and J. LISTON 1974. Bacterial pathogenicity in laboratory-induced mortality of the Pacific oyster (*Crassostrea gigas*, Thunberg). Vol. 64, pp. 82-91
203. GUILLARD, R. R. 1957. Some factors in the use of nanoplankton cultures as food for larval and juvenile bivalves. Vol. 48, pp. 134-142
204. GUNTER, G. 1957. An abnormal Virginia oyster with a bifurcated muscle. Vol. 48, pp. 152-153 1975. An example of oyster production decline with a change in the salinity characteristics of an estuary, Delaware Bay 1800-1973 (abstract) Vol. 65, p. 3 1979. The grit principle and the morphology of oyster reefs. Vol. 69, pp. 1-5
205. GUNTER, G. and D. W. BURKE 1978. Further notes on how oysters land when planted. Vol. 68, pp. 1-4
206. GUNTER, G., C. E. DAWSON and W. J. DEMORAN 1956. Determination of how long oysters have been dead by studies of their shells. Vol. 47, pp. 31-42
207. GUNTER, G. and K. A. MCGRAW 1974. Basic studies on oyster culture I. How do single oysters land on the bottom when planted? Vol. 64, pp. 122-123
208. GUSTAFSON, A. H. 1954. Growth studies in the quahog. Vol. 45, pp. 140-150
209. HAEFNER, P. A., JR. 1978. Seasonal aspects of the biology, distribution and relative abundance of the deep-sea red crab, *Geryon quinque-dens* Smith, in the vicinity of the Norfolk Canyon, Western North Atlantic. Vol. 68, pp. 49-62
210. HAINES, M. L. 1976. The reproductive cycle of the sunray Venus clam *Macrocallista nimbosa* (Lightfoot 1786). Vol. 66, pp. 6-12
211. HALEY, L. E. 1979. Genetics of sex determination in the American oyster. Vol. 69, pp. 54-57
212. HAMONS, F. L. and R. M. SAPP 1971. Reconnaissance and inventory of shellfish in Chesapeake Bay—present techniques and proposed systems—a management problem. (abstract) Vol. 61, p. 3

213. HAMWI, A. 1968. Pumping rate of *Mercenaria mercenaria* as a function of salinity and temperature. (abstract) Vol. 58, p. 4 1969. The respiratory physiology of *Mercenaria mercenaria*. (abstract) Vol. 59, p. 3
214. HANKS, R. W. 1961. Chemical control of the green crab, *Carcinus maenas* (L.). Vol. 52, pp. 75-86
215. HARGIS, W. J., JR., M. F. ARRIGHI, R. W. RAMSEY and R. WILLIAMS 1956. Some effects of high-frequency x-ray on the oyster drill, *Urosalpinx cinerea*. Vol. 47, pp. 68-72
216. HASKIN, H. H. 1966. Recent observations on "MSX" in Delaware Bay. (abstract) Vol. 56, p. 4 1969. Population dynamics of oyster drills on a Delaware Bay oyster ground. (abstract) Vol. 59, p. 3 1974. Comparison of resistance to disease in native Delaware Bay oysters and selected lab-reared oysters. (abstract) Vol. 64, p. 2 1978. The onshore surf clam resource along the southern New Jersey coast. (abstract) Vol. 68, p. 79
217. HASKIN, H. H. and W. J. CANZONIER 1969. Recent evidence of MSX-resistance in various stocks of oysters. (abstract) Vol. 59, p. 4
218. HASKIN, H. H. and W. R. DOUGLAS 1971. Experimental approach to oyster-"MSX" interactions. (abstract) Vol. 61, p. 4
219. HASKIN, H. H. and S. E. FORD 1978. Mortality patterns and disease resistance in Delaware Bay oysters. (abstract) Vol. 68, p. 80
220. HASKIN, H. H. and F. E. KRUEGER 1970. "MSX" mortalities in resistant and susceptible oyster stocks. (abstract) Vol. 60, p. 4
221. HASKIN, H. H., F. E. KRUEGER and S. TWEED 1971. River flow and salinity on Delaware Bay. (abstract) Vol. 61, p. 4
222. HASKIN, H. H., R. R. SCHNEIDER and M. TARNOWSKI 1979. Recent studies of the surf clam populations in southern New Jersey. (abstract) Vol. 69, p. 195
223. HATHAWAY, R. R. 1957. The crown conch *Melongena corona* Gmelin; its habits, sex ratios and possible relations to the oyster. Vol. 48, pp. 189-194
224. HAVEN, D. S. 1958. Effects of pea crabs *Pinnotheres ostreum* on oysters, *Crassostrea virginica*. Vol. 49, pp. 77-86 1960. Seasonal cycle of condition index of oysters in the York and Rappahannock Rivers. Vol. 51, pp. 42-66 1977. Growth and survival of cultchless spat planted in Nomini and lower Machodoc Creeks in 1973. (abstract) Vol. 67, p. 118
225. HAVEN, D. S. and J. D. ANDREWS 1956. Survival and growth of *Venus mercenaria*, *Venus campechiensis*, and their hybrids in suspended trays and on natural bottoms. Vol. 47, pp. 43-49
226. HAVEN, D. S., V. DUNNINGTON, A. ELGIN and K. G. DROBECK 1975. Growing of hatchery reared spat in the Potomac River. (abstract) Vol. 65, p. 4
227. HAVEN, D. S., W. J. HARGIS, JR. and P. C. KENDALL 1978. The oyster industry of Virginia 1931 to 1975. (abstract) Vol. 68, p. 80
228. HAVEN, D. S. and R. MORALES-ALAMO 1971. Filtration of particles from suspension by the American oyster, *Crassostrea virginica*. (abstract) Vol. 61, p. 4
229. HAVEN, D. S. and K. W. TURGEON 1968. Influence of small quantities of cornstarch and dextrose on glycogen levels of *Crassostrea virginica*. (abstract) Vol. 58, p. 4
230. HAVEN, D. S., J. P. WHITCOMB and P. C. KENDALL 1979. The distribution of oyster rocks in the Rappahannock River, Virginia. (abstract) Vol. 69, p. 195
231. HAVEN, D. S., J. P. WHITCOMB, J. M. ZIEGLER and W. C. HALE 1979. The use of sonic gear to chart locations of natural oyster bars in lower Chesapeake Bay. Vol. 69, pp. 11-14
232. HAYNES, E. B. 1968. Relation of fecundity and egg length to carapace length in the king crab, *Paralithodes camtschatica*. Vol. 58, pp. 60-62 1970. Age and growth of giant Pacific sea scallops in the Gulf of Alaska. (abstract) Vol. 60, p. 14
233. HAYNES, E. B. and J. C. McMULLEN 1970. Relation between meat weight and shell height of the giant Pacific sea scallop, *Patinopecten caurinus*, from the Gulf of Alaska. Vol. 60, pp. 50-53
234. HEFFERNAN, P. and V. J. CABELLI 1971. The elimination of bacteria by the northern quahaug; variability in the response of individual animals and the development of criteria. Vol. 61, pp. 102-108
235. HELLER, J. and F. B. TAUB 1971. The production of extracellular products by the marine alga *Monochrysis lutheri* as a nutrient source for bacteria. (abstract) Vol. 61, p. 8
236. HERMANN, R. B. 1966. The Pacific oyster and certain environmental conditions in Grays Harbor. (abstract) Vol. 56, p. 7 1968. Seasonal changes in the condition of *Crassostrea gigas* and possible relations to nutrient sources. (abstract) Vol. 58, pp. 12-13 1973. Clam distribution and abundance in Grays Harbor as related to environmental factors. (abstract) Vol. 63, pp. 7-8
237. HERITAGE, G. D. and N. BOURNE 1980. Sampling Pacific oyster *Crassostrea gigas* Thunberg larvae and predicting spatfall in Pendrell Sound, British Columbia. (abstract) Vol. 70, p. 126
238. HERSHBERGER, W. 1976. An approach to developing a stock of disease resistant oysters. (abstract) Vol. 66, p. 108 1978. Oyster breeding: where can it go. (abstract) Vol. 68, p. 90
239. HERSHBERGER, W. and K. K. CHEW 1975. Genetic manipulation and breeding in the Pacific oyster, *Crassostrea gigas*. (abstract) Vol. 65, p. 8
240. HEWATT, W. G. 1955. Temperature control experiments on the fungus disease, *Dermocystidium marinum* of oysters. Vol. 46, pp. 129-133
241. HICKEY, M. T. 1978. Age, growth, reproduction and distribution of the bay scallop, *Aequipecten irradians irradians* (Lamarck), in three embayments of eastern Long Island, New York as related to the fishery. (abstract) Vol. 68, p. 80
242. HIDU, H. 1968. Inshore settlement of *Crassostrea virginica* in Delaware Bay. (abstract) Vol. 58, pp. 4-5 1971. Field oyster setting—component systems. (abstract) Vol. 61, p. 5 1972. Factors in the regional advance of marine aquaculture. (abstract) Vol. 62, p. 5 1976. The suitability of marine waters for culturing oysters (*C. virginica* and *O. edulis*). (abstract) Vol. 66, p. 102
243. HIDU, H., S. CHAPMAN and P. W. SOULE 1975. Cultchless setting of European oysters, *Ostrea edulis*, using polished marble. Vol. 65, pp. 13-14
244. HIDU, H., R. D. CLIME and S. R. CHAPMAN 1978. Oyster setting—evolution of commercial hatchery technique. (abstract) Vol. 68, p. 81
245. HIDU, H., K. DONNELLY, J. HAYNES, W. VALLEAU and F. RICKER 1974. Factors in the recruitment of European oysters in Maine. (abstract) Vol. 64, p. 3
246. HIDU, H. and J. E. HANKS 1968. Vital staining of bivalve mollusk shells with alizarin sodium monosulfonate. Vol. 58, pp. 37-41 1969. Vital marking the shells of mollusks with alizarin—additional experiments. (abstract) Vol. 59, p. 4
247. HIDU, H. and H. H. HASKIN 1971. Setting of the American oyster related to environmental factors and larval behavior. Vol. 61, pp. 35-50
248. HIDU, H., F. P. VEITCH, JR. and P. E. O'BRIEN 1970. Gregarious setting in the American oyster. (abstract) Vol. 60, p. 4
249. HIDU, H., M. S. RICHMOND and A. H. PRICE, II 1977. Morphological variability in sea scallops, *Placopecten magellanicus* (Gmelin) related to meat yields and what it means. (abstract) Vol. 67, pp. 75-79

250. HIDU, H., W. H. ROOSENBURG and K. G. DROBECK 1974. Thermal tolerance of oyster larvae, *Crassostrea virginica* Gmelin, as related to power plant operation. Vol. 64, pp. 102-110
251. HIDU, H. and J. E. TAYLOR 1966. Spawning and rearing of Delaware Bay stocks of *Crassostrea virginica*. (abstract) Vol. 56, p. 4
252. HIDU, H. and H. S. TUBIASH 1963. A bacterial basis for the growth of antibiotic-treated bivalve larvae. Vol. 54, pp. 25-39
253. HIDU, H. and R. UKELES 1962. Dried unicellular algae as food for larvae of the hard shell clam, *Mercenaria mercenaria*. Vol. 53, pp. 85-101
254. HIDU, H., W. G. VALLEAU and F. P. VEITCH 1978. Gregarious setting in European oysters—response to surface chemistry vs. waterborne pheromones. Vol. 68, pp. 11-16
255. HILL, W. F., JR., F. E. HAMBLET and W. H. BENTON 1969. Kelly-Purdy UV seawater treatment unit: kinetics of polio-virus inactivation. (abstract) Vol. 59, p. 4
256. HILL, W. F., JR., E. W. AKIN, F. E. HAMBLET and W. B. BENTON 1969. Poliovirus uptake and elimination by the American oyster, *Crassostrea virginica*. (abstract) Vol. 60, p. 5
257. HILLMAN, R. E. 1969. Histochemistry of mucosubstances in the second fold of the mantle of the quahog. (abstract) Vol. 59, p. 5 1970. An unusual occurrence of internal calcification in the mantle of the quahog. (abstract) Vol. 60, p. 5 1971. The role of mucosubstances in the quahog. (abstract) Vol. 61, p. 5 1974. Effect of salinity on mucus in the mantle of the quahog, *Mercenaria mercenaria*. (abstract) Vol. 64, p. 3
258. HILLMAN, R. E. and H. E. BENNETT 1979. The fourth fold and secretory ridge of the mantle edge of the littleneck clam, *Protothaca staminea*. (abstract) Vol. 69, p. 195
259. HILLMAN, R. E. and R. A. MARCONI 1980. A microcell disease of the bay scallop *Argopecten irradians*. (abstract) Vol. 70, p. 126-127
260. HILLMAN, R. E. and C. N. SCHUSTER, JR. 1960. Observations on the mantle of the northern quahog, *Mercenaria mercenaria* L. Vol. 51, pp. 15-22
261. HITZ, C. R. 1970. Hydraulic clam dredge trials in coastal waters of Washington and Oregon. (abstract) Vol. 60, p. 14
262. HOESE, H. D. 1962. Studies on oyster scavengers and their relation to the fungus *Dermocystidium marinum*. Vol. 53, pp. 161-174 1973. Abundance of the low salinity clam, *Rangia cuneata*, in Southwestern Louisiana. Vol. 63, pp. 99-106
263. HOFF, J. C., W. JAKUBOWSKI and W. J. BECK 1966. Accumulation and elimination of a bacteriophage by the Pacific oyster, *Crassostrea gigas*. (abstract) Vol. 56, p. 7
264. HOFFMAN, E. G. 1968. Description of laboratory-reared larvae of *Paralithodes platypus* (Brandt). (abstract) Vol. 58, p. 13
265. HOLLAND, D. A. and K. K. CHEW 1974. Reproductive cycle of the Manila clam (*Venerupis japonica*), from Hood Canal, Washington. Vol. 64, pp. 53-58
266. HOPKINS, S. H. 1954. Oyster setting on the Gulf Coast. Vol. 45, pp. 52-56 1956. Our present knowledge of the oyster parasite *Bucephalus*. Vol. 47, pp. 58-61 1970. Studies on brackish water clams of the genus *Rangia* in Texas. (abstract) Vol. 60, pp. 5-6 1978. An oyster family tree: ancestry of *Crassostrea virginica*. (abstract) Vol. 68, p. 81
267. HOPKINS, S. H., J. W. ANDERSON and K. HORVATH 1974. Biology of the clam *Rangia cuneata*: what we now know and what it means. (abstract) Vol. 64, p. 4
268. HOUGHTON, J. P. 1977. Age and growth of *Protothaca staminea* (Conrad) and *Saxidomus giganteus* (Deshayes) at Kiket Island, Washington. (abstract) Vol. 77, p. 119
269. HSU, B. C. C. and A. K. SPARKS 1967. The identification and methods of reproduction of the causative organism of shellfish toxicity in Washington State. (abstract) Vol. 57, p. 7
270. HUDSON, J. H. 1972. Marking scallops with quick-setting cement. Vol. 62, pp. 59-61
271. HUGUENIN, J. E. 1977. The reluctance of the oyster drill (*Urosalpinx cinerea*) to cross metallic copper. Vol. 67, pp. 80-84
272. HUNER, J. V. 1979. Observations on the molt cycles of two species of juvenile shrimp, *Penaeus californiensis* and *Penaeus stylirostris* (Decapoda: Crustacea). Vol. 69, pp. 77-84
273. HUNT, D. A. 1979. Microbiological standards for shellfish growing waters—past, present and future utilization. Vol. 69, pp. 142-146
274. HUNTLEY, B. E. 1970. An experimental depuration plant: operation and evaluation. (abstract) Vol. 60, p. 6
275. IM, K. H. and R. S. JOHNSTON 1976. The economics of hatchery production of Pacific oyster seed: a research progress report. Vol. 66, pp. 81-94
276. IM, K. H. and D. LANGMO 1977. Economic analysis of producing Pacific oyster seed in hatcheries. Vol. 67, pp. 17-28
277. IVANOV, B. G. 1972. Geographic distribution of the northern shrimp, *Pandalus borealis* Kr. (Crustacea, Decapoda). Vol. 62, pp. 9-14
278. JAKUBOWSKI, W. and G. J. VASCONCELOS 1967. Studies on wet storage of oyster and clam shellstock. (abstract) Vol. 57, p. 7
279. JENSEN, E. T. 1954. Development of recommended practices for sanitary control of the breeding and freezing of shellfish. Vol. 45, pp. 253-260 1955. Proposed changes in PHS manual for sanitary control of harvesting and processing of shellfish. Vol. 46, pp. 196-204 1959. Progress in the cooperative State-Public Health Service—industry program for the certification of interstate shellfish shippers. Vol. 50, pp. 171-179
280. JOHNSON, K. W. 1979. The relationship between *Mytilus edulis* larvae in the plankton and settlement in Holmes Harbor, Washington (abstract) Vol. 69, p. 203
281. JOHNSTON, R. S. and L. O. ROGERS 1977. The economic feasibility of brine shrimp culture under semi-controlled conditions. (abstract) Vol. 67, p. 127
282. JOHNSTON, R. S. and N. A. SWARTZ 1977. The demand for Pacific oysters: a preliminary report. (abstract) Vol. 67, p. 127
283. JONES, C. 1977. Sea urchins—Washington's newest fishery presents some prickly problems. (abstract) Vol. 67, p. 128 1978. A comparison of survival, growth and yield of Pacific oysters (*Crassostrea gigas*) from different sources. (abstract) Vol. 68, pp. 90-91 1979. Oyster culture in Washington—problems of shifting to domestically produced seed. (abstract) Vol. 69, pp. 195-196
284. JONES, C. and K. K. CHEW 1975. Planting hatchery spawned Manila clams (*Venerupis japonica*) in Puget Sound beaches. (abstract) Vol. 65, p. 8
285. JONES, E. J. and A. K. SPARKS 1969. An unusual histopathological condition in *Ostrea lurida* from Yaquina Bay, Oregon. (abstract) Vol. 59, p. 11
286. JOYNER, T. and J. SPINELLI 1970. Mussels a potential source of protein concentrate. (abstract) Vol. 68, pp. 14-15
287. JURKOWICH, J. E. 1971. The shrimp-fish separator trawl: preliminary observations on its introduction into the Oregon fishery. (abstract) Vol. 61, p. 8
288. KARINEN, J. F. 1970. Progress in tanner crab research in the Southeastern Bering Sea. (abstract) Vol. 60, p. 15

289. KARINEN, J. F. and D. T. HOOPES 1971. Occurrence of tanner crabs (*Chionoectes* sp.) in the eastern Bering Sea with some characteristics intermediate between *C. bairdi* and *C. opilio*. (abstract) Vol. 61, pp. 8-9
290. KARNA, D. W. 1974. Epizootiology of *Margaritifera margaritifera* (L.) (Mollusca: Margaritanidae) infection in salmonid fishes. (abstract) Vol. 64, p. 13
291. KATKANSKY, S. C., A. K. SPARKS and K. K. CHEW 1967. Distribution and effects of the endoparasitic copepod, *Mytilicola orientalis*, on the Pacific oyster, *Crassostrea gigas*, on the Pacific Coast. Vol. 57, pp. 50-58
292. KECK, R., D. MAURER, J. C. KAUER and W. A. SHEPPARD 1971. Chemical stimulants affecting larval settlement in the American oyster. Vol. 61, pp. 24-28
293. KECK, R., D. MAURER and R. MALOUF 1974. Factors influencing the setting behavior of larval hard clams, *Mercenaria mercenaria*. Vol. 64, pp. 59-67
294. KELLY, D. C. B 1955. Public Health Service research on shellfish bacteriology. Vol. 46, pp. 21-36
295. KENK, V. C. 1964. A new crab host of the gregarine *Nematopsis ostrearum*. Vol. 55, pp. 87-88
296. KENNEDY, V. S. 1968. Temperature mortality studies on *Mya arenaria*. (abstract) Vol. 58, p. 5 1969. Aspects of temperature stress and respiratory metabolism in soft-shell clams, *Mya arenaria*. (abstract) Vol. 59, p.5 1980. Comparison of recent and past patterns of oyster settlement and seasonal fouling in Broad Creek and Tred Avon River, Maryland. Vol. 70, p. 36-46.
297. KENNISH, M. J. and R. E. LOVELAND 1980. Growth models of the northern quahog *Mercenaria mercenaria* (Linne). Vol. 70, p. 230-239
298. KERN, F. G., L. C. SULLIVAN and M. TAKATA 1973. *Labyrinthomyxa*-like organisms associated with mass mortalities of oysters, *Crassostrea virginica*, from Hawaii. Vol. 63, pp. 43-46
299. KESSLER, D. W. and C. R. HITZ 1971. Subtidal clam explorations in Southeastern Alaska. (abstract) Vol. 61, p. 9
300. KOPFLER, F. C. 1970. A study of the elimination of zinc from oysters from Upper Mobile Bay. (abstract) Vol. 60, pp. 6-7
301. KOPFLER, F. C. and J. MAYER 1968. Occurrence of trace metals in oysters from the South Atlantic and Gulf of Mexico. (abstract) Vol. 59, p. 5 1972. Concentrations of five trace metals in the waters and oysters (*Crassostrea virginica*) of Mobile Bay, Alabama. Vol. 63, pp. 27-34
302. KRANTZ, G. E., L. R. BUCHANAN, C. A. FARLEY and H. A. CARR 1972. *Minchinia nelsoni* in oysters from Massachusetts waters. Vol. 62, pp. 83-85
303. KRANTZ, G. E. and J. F. CHAMBERLIN 1978. Blue crab predation on cultchless oyster spat. Vol. 68, pp. 38-41
304. KRANTZ, G. E. and D. W. MERITT 1977. An analysis of trends in oyster spat set in the Maryland portion of the Chesapeake Bay. Vol. 67, pp. 53-59
305. KRYGIER, E. E. 1975. *Crangon nigricauda* and *Crangon franciscorum* in Yaquina Bay, Oregon. (abstract) Vol. 65, p. 9
306. KRZYNOWEK, J., R. J. LEARSON and K. WIGGIN 1980. Biological and technological studies on the aquaculture of yearling surf clams. Part II: technological studies on utilization. Vol. 70, p. 61-64
307. KUNKLE, DONALD E. 1957. Vertical distribution of oyster larvae in Delaware Bay. Vol. 48, pp. 90-91
308. LANDERS, W. S. 1966. Infestation of the hard clam, *Mercenaria mercenaria*, by the boring polychaete worm, *Polydora ciliata*. (abstract) Vol. 56, pp. 4-5 1967. Infestation of the hard clam, *Mercenaria mercenaria*, by the boring polychaete worm, *Polydora ciliata*. Vol. 57, pp. 63-66 1973. Early development in the ocean quahog, *Arctica islandica* (L.). (abstract) Vol. 63, p. 3
309. LANDERS, W. S. and E. W. RHODES, JR. 1968. Growth of young clams, *Mercenaria mercenaria*, in tanks of running sea water. (abstract) Vol. 58, p. 5
310. LANGEFOSS, C. M. and D. MAURER 1975. Energy partitioning in the American oyster, *Crassostrea virginica* (Gmelin). Vol. 65, pp. 20-25
311. LANNAN, J. E. 1972. Estimating heritability and predicting response to selection for the Pacific oyster, *Crassostrea gigas*. Vol. 62, pp. 62-66
312. LASSER, G. 1975. Amino-acid requirements of the Dungeness crab. (abstract) Vol. 65, p. 9
313. LAVOIE, R. E. 1977. The systematic identification of commercially useable sources of natural oyster spat in eastern Canada. (abstract) Vol. 67, p. 119
314. LAWRENCE, D. R. 1969. Shell orientation in recent and fossil oyster communities. (abstract) Vol. 59, p. 6
315. LEARSON, R. J. 1979. Food science—increasing demand for shellfish products. Vol. 69, pp. 157-160
316. LeBOSQUET, M., JR. 1955. Sewage treatment protects shellfish growing areas. Vol. 46, pp. 35-38
317. LEE, C. F. 1956. Freezing and processing southern oysters. Vol. 47, pp. 144-145
318. LeGORE, R. S. 1974. A preliminary assessment of the effects of Alaskan north slope crude oil on developing larvae of the Pacific oyster, *Crassostrea gigas*. (abstract) Vol. 64, p. 4
319. LEIBOVITZ, L. 1978. Bacteriologic studies of Long Island shellfish hatcheries. (abstract) Vol. 68, p. 81 1979. A study of vibriosis at a Long Island shellfish hatchery. (abstract) Vol. 69, p. 196
320. LEIBOVITZ, L. and R. ELSTON 1980. Detection of Vibriosis in hatchery larval oyster cultures: study of the interrelationship of diagnosis and management variables in an experimental model. (abstract) Vol. 70, pp. 123-124
321. LEIBOVITZ, L. and J. H. GORDON, II 1978. Water quality studies of Long Island shellfish hatcheries. (abstract) Vol. 68, p. 81
322. LEIBOVITZ, L., S. B. HITCHNER, P. CHANLEY, D. DELYEA and J. ZATILA 1976. A study of shellfish hatchery bacterial diseases. (abstract) Vol. 66, p. 102
323. LINDSAY, CEDRIC E. 1961. Pesticide tests in the marine environment in the state of Washington. Vol. 52, pp. 87-97 1969. Results of recent surveys on subtidal geoduck populations in Washington State. (abstract) Vol. 59, p. 11
324. LINDSAY, C. E., R. E. WESTLEY and C. S. SAYCE 1958. Prediction of oyster setting in the state of Washington. Vol. 49, pp. 59-70
325. LIPOVSKY, V. P. 1973. Why "fat" oysters die: a theory on mortality in southern Puget Sound. (abstract) Vol. 64, p. 13
326. LIPOVSKY, V. P. and K. K. CHEW 1971. Preliminary report on Pacific oyster (*Crassostrea gigas*) mortality after transfer from a natural bed into 10 C and 20 C water in the laboratory. (abstract) Vol. 61, p. 9 1972. Mortality of Pacific oysters (*Crassostrea gigas*): influence of temperature and enriched seawater on oyster survival. Vol. 62, pp. 72-82 1973. Laboratory control of oyster (Pacific) mortality by manipulation of temperature and nutrient concentration. (abstract) Vol. 63, p. 3
327. LIPP, P. R., B. BROWN, J. LISTON and K. CHEW 1975. Recent findings on the summer diseases of Pacific oysters. (abstract) Vol. 65, p. 9
328. LIPSCHULTZ, F. and G. KRANTZ 1978. An analysis of oyster hatchery production of culched and cultchless oysters utilizing linear programming optimization techniques. Vol. 68, pp. 5-10
329. LITTLE, E. J., JR. 1974. Summary of Florida's Pensacola area oyster culture program. (abstract) Vol. 64, p. 4
330. LOCKWOOD, G. S. 1979. The culture of abalone. (abstract) Vol. 69, p. 200

331. LOESCH, J. G. and D. S. HAVEN 1973. Preliminary estimates of growth functions and the size-age relationship for the hard clam *Mercenaria mercenaria* in the York River, Virginia. (abstract) Vol. 63, p. 3
332. LOESCH, J. G. and J. W. ROPES 1977. Assessment of surf clam stocks in nearshore waters along the Delmarva Peninsula and in the Virginia fishery south of Cape Henry. Vol. 67, pp. 29-34
333. LOGUE, M. D. 1979. Abnormalities in the shell of the Maine-grown European oyster (*Ostrea edulis*). (abstract) Vol. 69, pp. 196-197
334. LONGWELL, A. C. and S. S. STILES 1972. Cross incompatibility and inbreeding in the American oyster, (*Crassostrea virginica*). (abstract) Vol. 62, p. 4
335. LOOSANOFF, V. L. 1954. How to increase production of seed oysters in Connecticut. Vol. 45, pp. 19-22 1957. Honorary Member: Paul Simon Galtsoff. Vol. 48, pp. 4-5 1966. Problems in identification of bivalve larvae. (abstract) Vol. 56, p. 5 1969. Behavior of oysters of different geographical areas under comparatively low temperatures. (abstract) Vol. 59, pp. 11-12 1973. Cultivation of green mussel in New Zealand. (abstract) Vol. 63, p. 8
336. LOOSANOFF, V. L., H. C. DAVIS and P. E. CHANLEY 1954. Food requirements of some bivalve larvae. Vol. 45, pp. 66-83
337. LOOSANOFF, V. L. and C. A. NOMEJKO 1957. Burial as a method for control of the common oyster drill, *Urosalpinx cinerea*, in Long Island Sound. Vol. 48, pp. 83-89
338. LORDA, E. and J. W. ZAHRADNIK 1976. Operating characteristics of a heated, raw seawater, oyster finishing pilot plant. (abstract) Vol. 66, p. 102
339. LOUGH, R. G. 1974. A re-evaluation of the combined effects of temperature and salinity on survival and growth of *Mytilus edulis* larvae using response surface techniques. Vol. 64, pp. 73-76
340. LOVELACE, T. E., H. TUBIASH and R. R. COLWELL 1968. Quantitative and qualitative commensal bacterial flora of *Crassostrea virginica* in Chesapeake Bay. Vol. 58, pp. 82-87
341. LOWE, J. I., P. D. WILSON, A. J. RICK and A. J. WILSON, JR. 1971. Chronic exposure of oysters to DDT, toxaphene and parathion. Vol. 61, pp. 71-79
342. LOY, G. and A. E. EBLE 1975. Locomotion and phagocytic behavior of amebocytes of the hard clam, *Mercenaria mercenaria*, as revealed by time-lapse cinemicrography. (abstract) Vol. 65, p. 4
343. LUND, D. S. 1971. Laboratory studies on setting of the Pacific oyster. (abstract) Vol. 61, pp. 9-10 1973. Feeding studies with Pacific oyster larvae. (abstract) Vol. 63, p. 8
344. LUND, W. A. and L. L. STEWART 1970. Abundance and distribution of larval lobsters, *Homarus americanus*, off the coast of southern New England. Vol. 60, pp. 40-49
345. LUNZ, G. R. 1954. General pattern of oyster setting in South Carolina. Vol. 45, pp. 47-51 1955. Cultivation of oysters in ponds at Bears Bluff Laboratories. Vol. 46, pp. 83-87 1957. Unused oyster shell in South Carolina suitable for seed oyster production. Vol. 48, pp. 44-51
346. LUTZ, R. A. 1974. Annual periodicity and its relation to the internal shell morphology of *Mytilus edulis*. (abstract) Vol. 64, p. 5 1977. Annual structural changes in the inner shell layer of *Geukensia (Modiolus) demissa*. (abstract) Vol. 67, p. 120 1978. A comparison of hinge-line morphogenesis in larval shells of *Mytilus edulis* L. and *Modiolus modiolus* (L.). (abstract) Vol. 68, p. 83 1979. The bivalve "larval ligament pit" as an exclusively post-larval feature. (abstract) Vol. 69, p. 197
347. LUTZ, R. and H. HIDU 1978. Some observations on the occurrence of pearls in the blue mussel, *Mytilus edulis* L. Vol. 68, pp. 17-37
348. LUTZ, R. A., H. HIDU and K. G. DROBECK 1970. Acute temperature increase as a stimulus to setting in the American oyster, *Crassostrea virginica* (Gmelin). Vol. 60, pp. 68-71
349. LUTZ, R. A. and D. JABLONSKI 1979. Micro- and ultramorphology of larval bivalve shells: ecological, paleoecological, and paleoclimatic applications. (abstract) Vol. 69, pp. 197-198
350. LUTZ, R. A. and D. C. RHOADS 1980. Shell structure, mineralogy and micromorphology of deep-sea thermal vent bivalves from the Galapagos Rift: ecological implications. (abstract) Vol. 70, p. 127
351. LYNCH, P. L. and W. P. BREESE 1974. An oyster hatchery evaluation method. (abstract) Vol. 64, p. 13
352. MacINNES, J. R. and F. P. THURBERG 1973. A new technique for measuring the oxygen consumption of larvae of the American oyster, *Crassostrea virginica*. Vol. 63, pp. 60-62.
353. MacINTOSH, R. and A. J. PAUL 1977. The relation of shell length to total weight, tissue weight, edible-meat weight, and reproductive organ weight of the gastropods *Neptunea heros*, *N. lyrata*, *N. pribiloffensis*, and *N. ventricosa* of the eastern Bering Sea. Vol. 67, pp. 103-112
354. MacKENZIE, C. L., JR. 1968. Feeding rates of starfish, *Asterias forbesi* (Desor), at controlled water temperatures, and during different seasons of the year. (abstract) Vol. 58, p. 6 1969. Factors causing mortalities of oysters in Long Island Sound: a quantitative study. (abstract) Vol. 59, p. 6 1970. Causes of oyster spat mortality, conditions of oyster setting beds, and recommendations for oyster bed management. Vol. 60, pp. 59-67 1975. Increasing earnings and production in the oyster industry of Prince Edward Island. (abstract) Vol. 65, p. 4 1977. Sea anemone predation of larval oysters in Chesapeake Bay (Maryland). Vol. 67, pp. 113-117
355. MacKENZIE, C. L., JR. and A. S. MERRILL 1977. Observations of sea scallop stocks on Georges Bank and Middle Atlantic Shelf in 1975. (abstract) Vol. 67, p. 120
356. MacKENZIE, C. L., JR. and L. W. SHEARER 1959. Chemical control of *Polydora websteri* and other annelids inhabiting oyster shells. Vol. 50, pp. 105-111
357. MACKIE, G. 1969. Quantitative studies of feeding in the oyster, *Crassostrea virginica*. (abstract) Vol. 59, pp. 6-7
358. MACKIN, J. G. 1955. *Dermocystidium marinum* and salinity. Vol. 46, pp. 116-128 1959. Mortalities of oysters. Vol. 50, pp. 21-40 1959. A method of estimation of mortality rates in oysters. Vol. 50, pp. 41-51
359. MACKIN, J. G. and J. L. BOSWELL 1955. The life cycle and relationships of *Dermocystidium marinum*. Vol. 46, pp. 112-115
360. MACKIN, J. G. and H. LOESCH 1954. Haplosporidian hyperparasite of oysters. Vol. 45, pp. 182-183
361. MACKIN, J. G. and S. M. RAY 1954. Studies on the effect of infection by *Dermocystidium marinum* on ciliary action in oysters (*Crassostrea virginica*). Vol. 45, pp. 168-181
362. MAGOON, C. D. 1979. Potential for mussel culture in Budd Inlet, Washington. (abstract) Vol. 69, pp. 203-204
363. MALOUF, R. 1971. The food consumption and growth of the larvae of the Pacific oyster, *Crassostrea gigas*. (abstract) Vol. 61, p. 10
364. MALOUF, R. E. and W. P. BREESE 1977. Food consumption and growth of larvae of the Pacific oyster *Crassostrea gigas* (Thunberg), in a constant flow rearing system. Vol. 67, pp. 7-16

365. MANNING, J. H. and E. A. DUNNINGTON 1955. The Maryland soft-shell clam fishery: a preliminary investigational report. Vol. 46, pp. 100-110
366. MANNING, J. H. and H. T. PFITZENMEYER 1957. The Maryland soft-shell clam industry: its potentials and problems. Vol. 48, pp. 110-114.
367. MANNING, J. H. and H. H. WHALEY 1954. Distribution of oyster larvae and spat in relation to environmental factors in a tidal estuary. Vol. 45, pp. 56-65
368. MANZI, J. J. 1970. The combined effects of salinity and temperature on the feeding, reproductive and survival rates of *Eupleura caudata* (Say) and *Urosalpinx cinerea* (Say) (Prosobranchia: Muricidae). (abstract) Vol. 60, p. 7 1970. The effect of temperature on the feeding rate of the rough oyster drill, *Eupleura caudata* (Say). Vol. 60, pp. 54-58
369. MANZI, J. J. and V. G. BURRELL, JR. 1977. A comparison of growth and survival of subtidal *Crassostrea virginica* (Gmelin) in four South Carolina salt marsh impoundments. (abstract) Vol. 67, p. 120
370. MARASCO, R. J. 1973. An appraisal of the alternative earning power of the Maryland oystermen. Vol. 63, pp. 47-52
371. MARSH, B. L., A. W. MORRISON and F. A. COSTELLO 1974. Systems engineering of oyster production. (abstract) Vol. 64, p. 5
372. MARSHALL, N. 1963. Mortality rates and the life span of the bay scallop, *Aequipecten irradians*. Vol. 54, pp. 87-92
373. MARSHALL, N. and K. LUKAS 1970. Preliminary observations on the properties of bottom sediments with and without eelgrass, *Zostera marina*, cover. Vol. 60, pp. 107-111
374. MARTIN, A. 1971. Cytology and cytochemistry of leucocytes of the Atlantic surf clam, *Spisula solidissima*. (abstract) Vol. 61, p. 5
375. MARTIN, S. G. 1974. Status and potential of oyster culture in Puerto Rico. (abstract) Vol. 64, p. 6
376. MARTIN, S. G. and A. K. SPARKS 1971. Histopathologic effects of copper sulfate on the Asiatic freshwater clam, *Corbicula fluminea*. (abstract) Vol. 61, p. 10
377. MAURER, D. and K. S. PRICE, JR. 1968. Holding and spawning Delaware Bay oysters (*Crassostrea virginica*) out of season; laboratory facilities for retarding spawning. Vol. 58, pp. 71-77
378. MAY, E. B. 1972. The effect of floodwater on oysters in Mobile Bay. Vol. 62, pp. 67-71 1974. The distribution of mud crabs (Xanthidae) in Alabama estuaries. Vol. 64, pp. 33-37
379. MAY, E. B. and K. R. McLAIN 1970. Advantages of electronic positioning and profiling in surveying buried oyster shell deposits. Vol. 60, pp. 72-74
380. MAYER, J. 1970. Determination of mercury in oysters by dithizone. (abstract) Vol. 60, pp. 7-8
381. McCRARY, J. A. 1972. The Kodiak Island shrimp fishery. (abstract) Vol. 62, pp. 5-6
382. McERLEAN, A. J. and J. HOWARD 1971. Photographic method for surveying clam populations. Vol. 61, pp. 91-94
383. McFARREN, E. F., M. L. SCHAFER, J. E. CAMPBELL, K. H. LEWIS, E. T. JENSEN and E. J. SCHANTZ 1956. Public health significance of paralytic shellfish poison: A review of literature and unpublished research. Vol. 47, pp. 114-141
384. McGRAW, K. A. 1979. Growth and survival of hatchery-reared and wild oyster spat in Mississippi Sound and adjacent waters. (abstract) Vol. 69, p. 198
385. McGRAW, K. A. and G. GUNTER 1972. Observations on killing of the Virginia oyster by the Gulf oyster borer, *Thais haemastoma*, with evidence for a paralytic secretion. Vol. 62, pp. 95-97
386. McHUGH, J. L. 1955. Trapping oyster drills in Virginia. II. The time factor in relation to the catch per trap. Vol. 46, pp. 155-168 1956. Trapping oyster drills in Virginia. III. The catch per trap in relation to condition of bait. Vol. 47, pp. 83-102 1964. Research and the oyster industry. Vol. 53, pp. 1-10
387. McHUGH, J. L. and J. D. ANDREWS 1954. Computation of oyster yields in Virginia. Vol. 45, pp. 217-239
388. MEDCOF, J. C. 1958. Studies on stored oysters (*Crassostrea virginica*). Vol. 49, pp. 13-28 1959. Trial introduction of European oysters (*Ostrea edulis*) to Canadian East coast. Vol. 50, pp. 113-124 1959. Effect of hydraulic escalator harvester on under-size soft-shell clams. Vol. 50, pp. 151-161 1975. Living marine animals in a ship's ballast water. Vol. 65, pp. 11-12
389. MEDCOF, J. C. and N. BOURNE 1964. Causes of mortality of the sea scallop, *Placopecten magellanicus*. Vol. 53, pp. 35-50
390. MEDCOF, J. C. and J. S. MacPHAIL 1964. A new hydraulic rake for soft-shell clams. Vol. 53, pp. 11-31 1967. Fishing efficiency of clam hacks and mortalities incidental to fishing. Vol. 55, pp. 53-72
391. MENZEL, R. W. 1955. Some additional differences between *Crassostrea virginica* and *Ostrea equestris* in the Gulf of Mexico area. Vol. 46, pp. 76-81 1955. Crabs as predators of oysters in Louisiana. Vol. 46, pp. 177-184 1961. Seasonal growth of the northern quahog, *Mercenaria mercenaria* and the southern quahog, *Mercenaria campechiensis*, in Alligator Harbor, Florida. Vol. 52, pp. 37-46 1962. Seasonal growth of northern and southern quahogs, *Mercenaria mercenaria* and *Mercenaria campechiensis*, and their hybrids in Florida. Vol. 55, pp. 111-119 1967. Studies of the F1 and F2 hybrids of the northern and southern quahog clams. (abstract) Vol. 57, p. 2 1968. Hybridization in species of *Crassostrea*. (abstract) Vol. 58, p. 6 1970. The species and distribution of quahog clams *Mercenaria*. (abstract) Vol. 60, p. 8
392. MENZEL, R. W., E. W. CAKE, M. L. HAINES, R. E. MARTIN and L. A. OLSEN 1975. Clam mariculture in northwest Florida: field study on predation. Vol. 65, pp. 59-62 1976. Clam mariculture in northwest Florida: observations on selection and hybridization. (abstract) Vol. 66, p. 103
393. MENZEL, R. W. and S. H. HOPKINS 1954. Effects of parasites on the growth of oysters. Vol. 45, pp. 184-186
394. MENZEL, R. W., H. C. HULINGS and R. R. HATHAWAY 1957. Causes of depletion of oysters in St. Vincent Bar, Apalachicola Bay, Florida. Vol. 48, pp. 66-71
395. MENZEL, R. W. and H. W. SIMS 1962. Experimental farming of hard clams, *Mercenaria mercenaria*, in Florida. Vol. 53, pp. 103-109
396. MENZIES, J. R. 1954. Shellfish sanitation as related to the export and import trade in Canada. Vol. 45, pp. 240-245
397. MERRILL, A. S. 1960. Abundance and distribution of sea scallops off the middle Atlantic coast. Vol. 51, pp. 74-80
398. MERRILL, A. S. and K. J. BOSS 1966. Benthic ecology and faunal change relating to oysters from a deep river basin in the lower Patuxent River, Maryland. Vol. 56, pp. 81-87
399. MERRILL, A. S. and J. W. ROPES 1969. The general distribution of the surf clam and ocean quahog. Vol. 59, pp. 40-45
400. MESSMER, L. and J. M. SMITH 1974. Grays Harbor shellfish investigations. (abstract) Vol. 64, p. 14
401. MICHAEL, P. C. and K. K. CHEW 1976. Growth of Pacific oysters, *Crassostrea gigas* and related fouling problems under tray culture at Seabeck Bay, Washington. Vol. 66, pp. 34-41
402. MILLER, M. B., C. H. HANSON and K. K. CHEW 1975. Shell growth of butter clams and littleneck clams near Madrona Beach on Camano Island. (abstract) Vol. 65, p. 10

403. MILLER, M., C. D. MAGOON, L. GOODWIN and C. JONES 1977. Manila clam reseeding studies in Puget Sound. (abstract) Vol. 67, p. 128
404. MILLER, M., K. CHEW, C. D. MAGOON, L. GOODWIN and C. JONES 1978. Preliminary report on Manila clam reseeding program at five Puget Sound beaches. (abstract) Vol. 68, p. 91
405. MIX, M. C. 1972. Wound repair of the gonad in *Crassostrea gigas* following acute irradiation: a clue to leucocyte radiosensitivity. (abstract) Vol. 62, p. 6 1974. Diseases of shellfish in Yaquina Bay, Oregon. (abstract) Vol. 64, p. 14
406. MIX, M. C. and A. K. SPARKS 1969. Histopathological effects of ionizing radiation on the Pacific oyster, *Crassostrea gigas*. (abstract) Vol. 59, p. 7 1970. Cellular mechanisms involved in the repair of digestive tissues of the Pacific oyster destroyed by ionizing radiation. (abstract) Vol. 60, pp. 8-9 1971. Histopathological effects of various doses of ionizing radiation on the gonad of the oyster, *Crassostrea gigas*. Vol. 61, pp. 64-70
407. MIYAUCHI, D., G. KUDO and M. PATASHNIK 1973. Test for flavor differences in Pacific oysters related to differences in growing areas or methods of culture. (abstract) Vol. 63, pp. 8-9 1973. Fish protein used to bind pieces of minced geoduck. (abstract) Vol. 63, p. 9
408. MONICAL, J. B., JR. 1980. Comparative studies on growth of the purple-hinge rock scallop *Hinnites multirugosus* (Gale) in the marine waters of Southern California. Vol. 70, p. 14-21
409. MOORE, C. and A. F. EBLE 1973. Cytology and cytochemistry of amebocytes of *Mercenaria mercenaria*. (abstract) Vol. 63, p. 4
410. MOORE, D. and L. TRENT 1971. Setting, growth and mortality of *Crassostrea virginica* in a natural marsh and a marsh altered by a housing development. Vol. 61, pp. 51-58
411. MOORE, J. K. and N. MARSHALL 1967. An analysis of the movements of the bay scallop, *Aequipecten irradians*, in a shallow estuary. Vol. 57, pp. 77-82
412. MORSE, D. E. 1980. Recent advances in biochemical control of reproduction, settling, metamorphosis and development of abalones and other molluscs: applicability for more efficient cultivation and reseeding. (abstract) Vol. 70, pp. 132-133
413. MORTON, B. and K. F. SHORTRIDGE 1975. Coliform bacteria levels correlated with the tidal cycle of feeding and digestion in the Pacific oyster (*Crassostrea gigas*) cultured in Deep Bay, Hong Kong. Vol. 65, pp. 78-83
414. MULHERN, J. A. 1967. A preliminary report on mortality and MSX levels in oyster spat. (abstract) Vol. 57, p. 3
415. MULLER, E. 1965. Studies on oyster serum. (abstract) Vol. 56, p. 5 1967. Electron microscope studies of *Minchinia nelsoni*. (abstract) Vol. 57, p. 3
416. MURAWSKI, S. A. and F. M. SERCHUK 1979. Shell length-meat weight relationships of ocean quahogs, *Arctica islandica*, from the middle Atlantic shelf. Vol. 69, pp. 40-46 1980. Dynamics of ocean quahog *Arctica islandica* populations off the Middle Atlantic coast of the United States. (abstract) Vol. 70, pp. 127-128 1980. Assessment and status of ocean quahog *Arctica islandica* populations off the Middle Atlantic coast of the United States. (abstract) Vol. 70, p. 128
417. MURPHY, W. A. 1976. Oyster development in Atlantic Canada-the potential and the problems. (abstract) Vol. 66, p. 103
418. MYHRE, J. L. 1966. Some histochemical observations on "MSX". (abstract) Vol. 56, pp. 5-6 1968. Some cytochemical observations on *Minchinia nelsoni*, Haskin, Stauber and Mackin, a sporozoan parasite of *Crassostrea virginica*. (abstract) Vol. 58, pp. 6-7 1969. Nucleic acid and nucleic protein patterns in vegetative stages of the haplosporidian oyster parasite, *Minchinia nelsoni* Haskin, Stauber and Mackin. Vol. 59, pp. 52-59
419. MYHRE, J. L. and H. H. HASKIN 1968. Some observations on the development of early *Minchinia nelsoni* infections in *Crassostrea virginica*, and some aspects of the host-parasite relationship. (abstract) Vol. 58, p. 7 1969. MSX-prevalence in various stocks of laboratory-reared oyster spat. (abstract) Vol. 59, p. 7 1970. "MSX" infections in resistant and susceptible oyster stocks. (abstract) Vol. 60, p. 9
420. NAIDU, K. S. 1978. Culture of the sea scallop, *Placopecten magellanicus* in Newfoundland. (abstract) Vol. 68, p. 83 1980. Preliminary observations on the effect of substrate color on larval settlement in the sea scallop *Placopecten magellanicus*. (abstract) Vol. 70, p. 128
421. NEAL, R. A., A. K. SPARKS and K. K. CHEW 1966. Shellfish toxicity studies in southeastern Alaska. (abstract) Vol. 56, pp. 7-8
422. NEFF, J. M. and J. W. ANDERSON 1974. Uptake and depuration of petroleum hydrocarbons by the estuarine clam *Rangia cuneata*. (abstract) Vol. 64, p. 6
423. NEILSON, B. J. 1976. A mathematical approach to depuration. Vol. 66, pp. 76-80 1978. Engineering considerations in the design of oyster depuration plants. (abstract) Vol. 68, p. 84
424. NEILSEN, J. 1971. The Oregon red abalone resource, its management possibilities. Vol. 61, pp. 10-11
425. NELSON, J. R. 1954. Report as president of Oysters Growers and Dealers Association of North America. Vol. 45, pp. 9-11 1954. Oyster setting. Vol. 45, pp. 16-18 1955. Annual report of the president of the Oyster Growers and Dealers Association of North America. Vol. 46, pp. 9-11
426. NELSON, R. W. 1971. Development of a scallop shucker. (abstract) Vol. 61, p. 11
427. NELSON, R. W., J. C. WEKELL and J. W. JOY 1979. Evaluation of clam resources of the S. E. Bering Sea. (abstract) Vol. 69, p. 204
428. NELSON, T. C. 1954. Observations of behavior and distribution of oyster larvae. Vol. 45, pp. 23-28 1956. Summary, symposium on the production and utilization of seed oysters. Vol. 47, pp. 23-29
429. NELSON, V. A. and A. H. SEYMOUR 1972. Oyster research with radionuclides, a review of selected literature. Vol. 62, pp. 89-94
430. NEVE, R. A. 1973. A chemical assay for paralytic shellfish poisoning. (abstract) Vol. 63, p. 9
431. NEWKIRK, G. F. 1980. Selection for faster growth in the European oyster *Ostrea edulis*: first generation results. (abstract) Vol. 70, p. 128
432. NEWMAN, M. W. 1971. A parasite and disease survey of Connecticut oysters. Vol. 61, pp. 59-63
433. NICHY, F. E. and R. W. MENZEL 1960. Mortality of intertidal and subtidal oysters in Alligator Harbor, Florida. Vol. 51, pp. 33-41
434. NICKELSON, S. and S. B. MATTHEWS 1975. Energy efficiency in the Pacific oyster industry. (abstract) Vol. 65, p. 10
435. NICKERSON, R. B. 1977. A study of the littleneck clam (*Protothaca staminea* Conrad) and the butter clam (*Saxidomus giganteus* Deshayes) in a habitat permitting coexistence, Prince William Sound, Alaska. Vol. 67, pp. 85-102
436. NOBORIKAWA, D. K. 1979. The determination of cellulases in the giant prawn, *Macrobrachium rosenbergii* (deMan). (abstract) Vol. 69, p. 205
437. NORMAN, K. E. and K. K. CHEW 1978. The spatial occurrence of the cladoceran *Moina macrocopa* in a kraft pulp mill treatment lagoon. (abstract) Vol. 69, pp. 205-206
438. NOSHO, T. Y. and K. K. CHEW 1971. A preliminary survey into the setting and growth of the Manila clam, *Venerupis japonica* (Deshayes). (abstract) Vol. 61, p. 11 1972. The setting and growth of the Manila clam, *Venerupis japonica* (Deshayes), in Hood Canal, Washington. Vol. 62, pp. 50-58
439. NOVAK, A. F. 1963. Radiation pasteurization of oysters. Vol. 54, pp. 71-74
440. NOVAK, A. F. and E. A. FIEGER 1956. Research on handling and processing southern oysters. Vol. 47, pp. 148-150

441. NOYES, G. S. and H. H. HASKIN 1980. Petroleum hydrocarbons and the oyster: the effects of oil adsorbed on pure kaolin clay and naturally polluted sediments. (abstract) Vol. 70, pp. 128-129
442. NOYES, G. S., H. H. HASKIN and C. VAN DOVER 1978. Oil and the oyster in Delaware Bay. (abstract) Vol. 68, p. 84
443. OGLE, J. 1980. Rationale for oyster hatchery development in an area of high natural production based upon an experimental hatchery. (abstract) Vol. 70, p. 129
444. OLSEN, L. A. 1973. Comparative functional morphology of feeding mechanisms in *Rangia cuneata* (Gray) and *Polymesoda caroliniana* (Bosc). (abstract) Vol. 63, p. 4 1976. Ingested material in two species of estuarine bivalves: *Rangia cuneata* (Gray) and *Polymesoda caroliniana* (Bosc). (abstract) Vol. 66, p. 103
445. ORCUTT, H. G. 1958. California oyster ground utilization plan. Vol. 49, pp. 98-100
446. OTTO, S. V. 1970. Evidence for a potential spat producing area in Chesapeake Bay. (abstract) Vol. 60, p. 9 1972. Hermaphroditism in the soft clam, *Mya arenaria*. Vol. 62, pp. 47-49 1973. Hermaphroditism in two species of pelecypod mollusks. Vol. 63, pp. 96-98
447. OTTO, S. V., J. B. HAMMED and A. ROSENFELD 1975. Decline of *Minchinia nelsoni* in Maryland waters of Chesapeake Bay. (abstract) Vol. 65, p. 4
448. OTTO, S. V. and G. E. KRANTZ 1977. An epizootic of "Dermo" disease in oysters in the Maryland portion of the Chesapeake Bay. (abstract) Vol. 67, p. 12
449. PALMER, R. E. 1979. Effects of cultural conditions on morphology of the shell of the oyster *Crassostrea virginica*. Vol. 69, pp. 58-72
450. PALMER, R. E. and M. E. CARRIKER 1979. Chalky deposits in the shell of *Crassostrea virginica* ultrastructure and environmental interactions. (abstract) Vol. 69, p. 198-199
451. PANCIERA, M. 1968. The toxicity of Rhodamine-b to eggs and larvae of *Crassostrea virginica*. (abstract) Vol. 58, pp. 7-8
452. PARRISH, P. R. 1974. Arochlor 1254, DDT and DDD, and Dieldrin: accumulation and loss by American oysters (*Crassostrea virginica*) exposed continuously for 56 weeks. (abstract) Vol. 64, p. 7
453. PARRISH, P. R., K. S. BUXTON and J. R. GIBSON 1976. Oysters (*Crassostrea virginica*) exposed to a complex industrial waste: survival, growth and uptake of antimony compounds. (abstract) Vol. 66, p. 104
454. PARRISH, P. R., J. M. PATRICK and J. FORESTER 1977. Effects of three toxicants in oysters (*Crassostrea virginica*) exposed continuously for two years. (abstract) Vol. 67, p. 121
455. PARSONS, A. D. 1973. Prey selection in the oyster leech *Stylochus ellipticus*. (abstract) Vol. 63, p. 4
456. PASCO, W. C. A. JOHNSON and J. W. ZAHRADNIK 1969. A systems approach to oyster propagation off the bottom-optimization of yield estimates subject to the constraint of pumping cost estimates. (abstract) Vol. 59, pp. 7-8
457. PAUL, A. J., J. M. PAUL and H. M. FEDER 1976. Age, growth and recruitment of the butter clam, *Saxidomus gigantea*, on Porpoise Island, Southeast Alaska. Vol. 66, pp. 26-28
458. PAULEY, G. B. 1968. The pathology of "spongy" disease in freshwater mussels. (abstract) Vol. 58, p. 13 1971. Bacterial clearance in the marine gastropod mollusk *Aplysia californica* (Cooper). (abstract) Vol. 61, p. 11
459. PAULEY, G. B., A. K. SPARKS, K. K. CHEW and E. J. ROBBINS 1966. Infection in Pacific coast mollusks by thigmotrichid ciliates. (abstract) Vol. 56, p. 8
460. PAULEY, G. B. and R. E. NAKATANI 1967. The uptake of the radioscope ^{65}Zn by various tissues of the freshwater mussel, *Anodonta californiensis* Lea. Vol. 57, pp. 7-8
461. PEARCY, W. G. 1972. Distribution and diet changes in the behavior of pink shrimp, *Pandalus jordani*, off Oregon. Vol. 62, pp. 15-20
462. PENDLETON, J. A. 1963. Serological studies on the bay scallop, *Aequipecten irradians*. Vol. 54, pp. 93-100
463. PERDUE, J. 1980. A physiological approach to the summer mortality problem of Pacific oysters in Washington State. (abstract) Vol. 70, pp. 133-134
464. PEREYRA, W. T. 1962. Mortality of Pacific oysters, *Crassostrea gigas* (Thunberg), in various exposure situations in Washington. Vol. 53, pp. 51-63 1968. Distribution of juvenile Tanner crabs (*Chionoecetes tanneri* Rathbun), life history model and fisheries management. Vol. 58, pp. 66-70 1971. The use of PVC coatings in Dungeness crab pot construction. (abstract) Vol. 61, p. 12
465. PEREYRA, W. T. and C. R. HITZ 1969. Exploratory scallop (*Painopecten caurinus*) surveys off the Oregon and Washington coast. (abstract) Vol. 59, p. 12
466. PERKINS, F. O. and R. W. MENZEL 1966. Morphological and cultural studies of a motile stage in the life cycle of *Dermocystidium marinum*. Vol. 56, pp. 23-30
467. PERLMUTTER, A. and R. F. NIGRELLI 1960. A possible hybrid population of the starfish, *Asterias forbesi* (Desor), in Western Long Island Sound. Vol. 51, pp. 93-96
468. PETROCELLI, S. R., J. W. ANDERSON and A. R. HANKS 1974. Biological magnification of Dieldrin in a two part food chain. (abstract) Vol. 64, p. 7
469. PFITZENMEYER, H. T. 1970. Effects of spoil disposal on the benthos of Upper Chesapeake Bay. (abstract) Vol. 60, pp. 9-10
470. PHIBBS, F. D. 1969. Larval rearing of bivalve mollusks. (abstract) Vol. 59, p. 12 1971. Temperature, salinity and clam larvae. (abstract) Vol. 61, p. 12
471. PLUNKET, L. 1978. The role of *Uronema marinum* (Protozoa) in oyster hatchery production. (abstract) Vol. 68, p. 85
472. PORTER, H. J. 1962. Incidence of *Malacobdella* in *Mercenaria campechiensis* off Beaufort Inlet, North Carolina. Vol. 53, pp. 133-145 1964. Seasonal gonadal changes of adult clams, *Mercenaria mercenaria* (L.), in North Carolina. Vol. 55, pp. 35-52
473. PORTER, H. J. and A. F. CHESTNUT 1960. The offshore clam fishery of North Carolina. Vol. 51, pp. 67-73
474. PORTER, H. and F. J. SCHWARTZ 1976. Seasonal variations in tissue weight and total solids of the calico scallop, *Argopecten gibbus*, and their relationship to changes in gonad condition. (abstract) Vol. 66, p. 104
475. PORTER, R. G. 1973. Preliminary report on growth rate and reproductive cycle of the soft-shell clam at Skagit Bay, Washington. (abstract) Vol. 63, pp. 9-10
476. POWELL, E. H. 1973. A potential use of the waste heat byproducts of a steam turbine electric generating plant. (abstract) Vol. 63, p. 5
477. POWELL, E. H. and J. D. ANDREWS 1967. Progress in artificial culture of Virginia oysters. (abstract) Vol. 57, pp. 3-4
478. POWELL, G. C., B. SHAFFORD and M. JONES 1973. Reproductive biology of young adult king crabs, *Paralithodes camtschatica* (Thalesius) at Kodiak, Alaska. Vol. 63, pp. 77-87

479. PRESNELL, M. W., J. M. CUMINGS and J. J. MIESCIER 1968. Influence of selected environmental factors on the elimination of bacteria by *Crassostrea virginica*. (abstract) Vol. 58, p. 8
480. PRICE, A. H., II, C. T. HESS and C. W. SMITH 1976. Observations of *Crassostrea virginica* cultured in the heated water effluent and discharged radionuclides of a nuclear power reactor. Vol. 66, pp. 54-68
481. PRICE, K. S., JR. and D. MAURER 1971. Holding and spawning Delaware Bay oysters (*Crassostrea virginica*) out of season. II. Temperature requirements for maturation of gonads. Vol. 61, pp. 29-34
482. PRICE, T. J., G. W. THAYER, M. W. LaCROIX and G. P. MONTGOMERY 1975. The organic content of shells and soft tissues of selected estuarine gastropods and pelecypods. Vol. 65, pp. 26-31
483. PRICE, V. A. and K. K. CHEW 1968. Post-embryonic development of laboratory-reared "spot" shrimp, *Pandalus platyceros* Brandt. (abstract) Vol. 58, p. 13 1969. Post-embryonic development of laboratory-reared "spot" shrimp. (abstract) Vol. 59, p. 8 1970. A progress report on pandalid shrimp culture. (abstract) Vol. 60, p. 15
484. PROVENZANO, A. J., JR. 1959. Effects of the flatworm *Stylochus ellipticus* (Girard) on oyster spat in two salt water ponds in Massachusetts. Vol. 50, pp. 83-88
485. PROVENZANO, A. J., JR. and J. W. GOY 1977. Evaluation of a sulphate like strain of *Artemia* as a food for the grass shrimp, *Palaemonetes pugio*. (abstract) Vol. 67, p. 122
486. QUAYLE, D. B. 1958. Prediction of oyster setting in British Columbia (*Crassostrea gigas*). Vol. 49, pp. 50-53 1958. Pacific oyster seed production (*Crassostrea gigas*). Vol. 49, pp. 54-58 1961. Mortality in Pacific oyster seed. Vol. 52, pp. 53-63
487. QUAYLE, D. B. and F. R. BERNARD 1976. Purification of basket-held oysters in the natural environment. Vol. 66, pp. 69-75
488. QUAYLE, D. B. and T. TERHUNE 1967. A plankton sampler for oyster larvae. (abstract) Vol. 57, p. 4
489. RAY, S. M. 1963. Notes on the occurrence of *Dermocystidium marinum* on the Gulf of Mexico coast during 1961 and 1962. Vol. 54, pp. 45-54 1963. A review of the culture method for detecting *Dermocystidium marinum*, with suggested modifications and precautions. Vol. 54, pp. 55-69 1966. Cycloheximide: inhibition of *Dermocystidium marinum* in laboratory stocks of oysters. Vol. 56, pp. 31-36
490. RAY, S. M. and J. G. MACKIN 1954. Study of pathogenesis of *Dermocystidium marinum*. Vol. 45, pp. 164-167
491. RAY, S. M., D. V. ALDRICH, W. B. WILSON and A. M. SIEVERS 1970. Response of shellfish to two toxic dinoflagellates from the Gulf of Mexico. (abstract) Vol. 60, p. 10
492. REED P. H. 1968. Larval rearing studies of the Dungeness crab, *Cancer magister*. (abstract) Vol. 58, pp. 13-14 1969. Studies of diet and diet concentration effects on Dungeness crab zoea. (abstract) Vol. 59, p. 12
493. REID, R. G. B. 1980. The utilization of food by bivalve molluscs. (abstract) Vol. 70, p. 134
494. RENSEL, J. 1976. Site comparison for the culture of the spot prawn *Pandalus platyceros* Brandt in and adjacent to salmon net pens. (abstract) Vol. 66, p. 109
495. RHODES, E. E. and R. GOLDBERG 1978. The use of pumped raceway systems for the intermediate grow-out of hatchery reared bivalves. (abstract) Vol. 68, p. 85
496. RHODES, E. W., JR. 1970. Growth of oyster larvae, *Crassostrea virginica*, of various sizes in different concentrations of the chrysophyte *Isochrysis galbana*. (abstract) Vol. 60, p. 10
497. RHODES, E. W., JR. and W. S. LANDERS 1973. Growth of oyster larvae, *Crassostrea virginica*, of various sizes in different concentrations of the chrysophyte, *Isochrysis galbana*. Vol. 63, pp. 53-59
498. RHODES, R. J., M. WOLFF and J. L. MUSIC 1978. Status report on the commercial blue crab fishery of the Carolinas and Georgia. (abstract) Vol. 68, p. 85
499. RHODES, R. J., W. J. KEITH, P. J. ELDRIDGE and V. G. BURRELL, JR. 1977. An empirical evaluation of the Leslie-DeLury method applied to estimating hard clam, *Mercenaria mercenaria*, abundance in the Santee River, South Carolina. Vol. 67, pp. 44-52
500. RHODES, R. J., W. J. KEITH and V. G. BURRELL, JR. 1977. South Carolina's hydraulic escalator harvester fishery. (abstract) Vol. 67, p. 122
501. RICE, R. L., K. I. McCUMBY and H. M. FEEDER 1980. Food of *Pandalus borealis*, *Pandalus hypsinotus* and *Pandalus goniurus* (Pandalidae, Decapoda) from Lower Cook Inlet, Alaska. Vol. 70, p. 47-54
502. RICHARDS, T. L. 1978. Seed oyster production in the Salton Sea, California. (abstract) Vol. 68, p. 91
503. RILEY, R. T. 1975. Changes in the total protein, lipid, carbohydrate and extracellular body fluid free amino acids of the Pacific oyster, *Crassostrea gigas*, during starvation. Vol. 65, pp. 84-90
504. RINALDO, R. G. 1972. Larval distribution of *Pandalus borealis* in the northern Gulf of Maine. (abstract) Vol. 62, p. 6
505. RITCHIE, T. P. and R. W. MENZEL 1968. Influence of light on larval settlement of American oysters. Vol. 59, pp. 116-120
506. RITTERS, J. 1973. Surf clams and society: a rationale for sound management. (abstract) Vol. 63, pp. 5-6
507. ROBINSON, J. G. 1972. Variations in reproductive potential of *Pandalus jordani*. (abstract) Vol. 62, p. 6
508. ROCKWOOD, C. 1974. A management program for the oyster resource of Apalachicola Bay, Florida. (abstract) Vol. 64, p. 7
509. RODDE, K. M. and J. B. SUNDERLIN 1976. The mariculture potential of *Tapes semidecussata* (Reeve) in an artificial upwelling system. (abstract) Vol. 66, p. 105
510. ROESIJADI, G. 1980. Influence of copper on the gills of the littleneck clam *Protothaca staminea*. (abstract) Vol. 70, p. 129
511. ROELS, O. A., T. E. DORSEY, K. RODDE, S. LAWRENCE, R. LYON and P. W. McDONALD 1977. The efficiency of "nitrogen" transfer in artificial upwelling mariculture. I. The conversion of deep-sea water dissolved nitrate to phytoplankton protein to *Tapes semidecussata* meat protein in a fully managed system. (abstract) Vol. 67, p. 123
512. ROGERS, B. A., J. S. COBB and N. MARSHALL 1968. Size comparisons of inshore and offshore larvae of the lobster, *Homarus americanus*, off southern New England. Vol. 58, pp. 78-81
513. ROOSENBURG, W. H. 1969. Greening, copper uptake and condition in oysters in relation to a steam electric generating station. (abstract) Vol. 59, p. 8 1976. Can the oyster industry learn from livestock breeders? Vol. 66, pp. 95-99
514. ROOSENBURG, W. H., K. G. DROBECK, H. HIDU, A. J. McERLEAN and J. A. MIHURSKY 1970. Acute temperature tolerance of oyster larvae as related to power plant operation. (abstract) Vol. 60, p. 11
515. ROOSENBURG, W. H., J. C. RHODERICK, R. M. BLOCK, V. S. KENNEDY and S. M. VREENEGOR 1980. Survival of *Mya arenaria* larvae (Mollusca: Bivalvia) exposed to chlorine-produced oxidants. Vol. 70, p. 105-111
516. ROPES, J. W. 1962. Tests of internal tags for green crabs (*Carcinus maenas*). Vol. 53, pp. 147-159 1967. The locomotion and behavior of surf clams, *Spisula solidissima*. (abstract) Vol. 57, p. 4 1968. Hermaphroditism in the surf clam, *Spisula solidissima*. Vol. 58, pp. 63-65 1968. The

- reproductive cycle of surf clams from the New Jersey coast. (abstract) Vol. 58, pp. 8-9 1971. Percentage of solids and length-weight relationship of the ocean quahog. Vol. 61, pp. 88-90 1979. Shell length at sexual maturity of surf clams, *Spisula solidissima*, from an inshore habitat. Vol. 69, pp. 85-91
517. ROPES, J. W., A. S. MERRILL and T. M. GROUTAGE 1967. Marking surf clams for growth studies. (abstract) Vol. 57, p. 4
518. ROPES, J. W., R. M. YANCEY and A. S. MERRILL 1967. The growth of juvenile surf clams at Chincoteague Inlet, Virginia. (abstract) Vol. 57, p. 5
519. ROPES, J. W. and A. S. MERRILL 1970. Marking surf clams. Vol. 60, pp. 99-106
520. ROSENFELD, A. and C. SINDERMANN 1966. The distribution of "MSX" in middle Chesapeake Bay. (abstract) Vol. 56, p. 6
521. RYTHER, J. H. 1969. The potential of the estuary for shellfish production. Vol. 59, pp. 18-22
522. SADDLER, J. B. and F. B. TAUB 1972. Chemical variability of algal shellfish feeds. (abstract) Vol. 62, pp. 6-7
523. SAILA, S. B., J. M. FLOWERS and M. T. CANNARIO 1967. Factors affecting the relative abundance of *Mercenaria mercenaria* in the Providence River, Rhode Island. Vol. 57, pp. 83-89
524. SAILA, S. B. and T. A. GAUCHER 1966. Estimation of the sampling distribution and numerical abundance of some mollusks in a Rhode Island salt pond. Vol. 56, pp. 73-80
525. SALOMAN, C. H. and J. L. TAYLOR 1969. Age and growth of large southern quahogs from a Florida estuary. Vol. 59, pp. 46-51
526. SANDIFER, P. A. and T. I. J. SMITH 1977. Preliminary observations on a short-claw growth form of the Malaysian prawn, *Macrobrachium rosenbergii* (deMan). (abstract) Vol. 67, p. 123
527. SAVAGE, N. B. and R. GOLDBERG 1976. Investigation of practical means of distinguishing *Mya arenaria* and *Hyatella* sp. larvae in plankton samples. Vol. 66, pp. 42-53
528. SAWYER, T. K. 1969. Preliminary study on the epizootiology and host-parasite relationship of *Paramoeba* sp. in the blue crab, *Callinectes sapidus*. Vol. 59, pp. 60-64
529. SAWYER, T. K., M. W. NEWMAN and S. V. OTTO 1975. A gregarine-like parasite associated with pathology in the digestive tract of the American oyster, *Crassostrea virginica*. Vol. 65, pp. 15-19
530. SAYCE, C. S. 1963. A method for increasing survival of locally-caught Pacific oyster seed in Willapa Bay, Washington. Vol. 54, pp. 41-44 1966. Oyster bed cultivation in Willapa Bay. (abstract) Vol. 56, p. 8
531. SAYCE, C. S. and D. F. TUFTS 1968. The supplemental feeding of *Crassostrea gigas* in the laboratory. (abstract) Vol. 58, p. 14 1970. Experimental treatment of the Japanese oyster drill *Ocenebra japonica* with Polystream in Willapa Bay, Washington. (abstract) Vol. 60, p. 15 1972. The effect of high water temperature on the razor clam, *Siliqua patula* (Dixon). Vol. 62, p. 31-34
532. SCHAFFER, G. U., F. W. WHEATON and A. J. INGLING 1975. Cooling methods for soft shell clams. (abstract) Vol. 65, pp. 5-6
533. SCHINK, T. D. and C. E. WOELKE 1971. Development of an *in situ* marine bioassay with clams. (abstract) Vol. 61, p. 13
534. SCHOLZ, A. J. 1973. Preliminary evaluation of oyster seed holding trays. (abstract) Vol. 63, p. 10 1974. Relationship between number and size of Pacific oyster spat and subsequent growth. (abstract) Vol. 64, p. 15 1976. Relationship between Pacific oyster seed density and first year growth. (abstract) Vol. 66, p. 109
535. SCHOLZ, A. J. and R. E. WESTLEY 1970. Second year survival and growth of Pacific oysters held at a North Bay oyster reserve. (abstract) Vol. 61, p. 13 1971. The effect of delayed planting on Pacific oyster seed survival and growth. (abstract) Vol. 61, p. 13
536. SCHOLZ, A. J., R. E. WESTLEY and M. A. TARR 1970. Pacific oyster mortalities and environmental conditions in Washington State. (abstract) Vol. 60, pp. 15-16
537. SEREHUK, F. M., P. W. WOOD, J. A. POSGAY and B. E. BROWN 1979. Assessment and status of sea scallop (*Placopecten magellanicus*) populations off the northeast coast of the United States. Vol. 69, pp. 161-191
538. SHAW, W. N. 1960. Raft culture of eastern oysters in Chatham, Massachusetts. Vol. 51, pp. 81-92 1961. Index of conditions and percent solids of raft-grown oysters in Massachusetts. Vol. 52, pp. 47-52 1962. Seasonal gonadal changes in female soft-shell clams, *Mya arenaria*, in the Tred Avon River, Maryland. Vol. 53, pp. 121-132 1966. The growth and mortality of seed oysters, *Crassostrea virginica*, from Broad Creek, Chesapeake Bay, Maryland, in high and low salinity waters. Vol. 56, pp. 59-63 1968. Farming oysters in artificial ponds—its problems and possibilities. (abstract) Vol. 58, p. 9 1970. Raft production of seed oysters in Upper Chesapeake Bay. (abstract) Vol. 60, p. 11 1972. An off-bottom oyster culture demonstration at Oxford, Maryland. (abstract) Vol. 62, p. 7 1976. Scallop culture in Mutsu Bay, Japan. (abstract) Vol. 66, p. 105
539. SHAW, W. N. and G. T. GRIFFITH 1967. Effects of Polystream and Drillex on oyster setting in Chesapeake Bay and Chincoteague Bay. Vol. 57, pp. 17-23
540. SHAW, W. N. and F. HAMONS 1974. The present status of the soft-shell clam in Maryland. Vol. 64, pp. 38-44
541. SHAW, W. N. and A. S. MERRILL 1966. Setting and growth of the American oyster, *Crassostrea virginica*, on navigation buoys in the lower Chesapeake Bay. Vol. 56, pp. 67-72
542. SHEARER, L. W. and C. L. MacKENZIE, JR. 1960. The effects of salt solutions of different strengths on oyster enemies. Vol. 50, pp. 97-103
543. SHERMAN, K. and R. D. LEWIS 1967. Seasonal occurrence of larval lobsters in coastal waters of Central Maine. Vol. 57, pp. 27-30
544. SHUSTER, C. N., JR. 1956. On the shell of bivalve mollusks. Vol. 47, pp. 34-42 1966. A three-ply representation of the major organ systems of a quahog. (abstract) Vol. 57, p. 5 1968. What's with a salt marsh? (abstract) Vol. 58, p. 9 1969. Trace metal accumulation by the American eastern oyster, *Crassostrea virginica*. Vol. 59, pp. 91-103
545. SHUSTER, C. N., JR. and A. F. EBLE 1961. Techniques in visualization of organ systems in bivalve mollusks. Vol. 52, pp. 13-24
546. SHUSTER, C. N., JR. and B. H. PRINGLE 1968. Trace metal accumulation by the oyster. (abstract) Vol. 58, p. 9
547. SIDDALL, S. E. 1978. The development of the hinge line in tropical mussel larvae of the genus *Perna*. (abstract) Vol. 68, p. 86 1979. Effects of temperature and salinity on metamorphosis in two tropical mussels. (abstract) Vol. 69, p. 199
548. SIELING, F. W. 1954. Report on certain phases of the Chincoteague Bay investigations. Vol. 45, pp. 212-216 1971. Economic value of research in resources management; an exposition of direct economic benefits to management from research. Vol. 61, pp. 15-19
549. SIELING, F. W., S. V. OTTO and A. ROSENFELD 1969. Distribution of some microparasites in oysters from Chesapeake Bay, 1963-1968. (abstract) Vol. 59, pp. 8-9
550. SIMS, H. W., JR. 1967. The present status of Florida spiny lobster research. (abstract) Vol. 57, p. 5
551. SINDERMANN, C. 1979. Environmental stress in oceanic bivalve mollusc populations. Vol. 69, pp. 147-156
552. SINGARAJAH, K. V. 1980. Some observations on spat settlement, growth rate, gonad development and spawning of a large Brazilian oyster. Vol. 70, p. 190-200

553. SMITH, D. W. 1979. How do you keep an oyster down on the farm, or recent developments in the British Columbia oyster industry. (abstract) Vol. 69, p. 206
554. SMITH, D. W. and N. BOURNE 1973. Larval development of the rough piddock *Zirphaea pilsbryi* Lowe. (abstract) Vol. 63, p. 10
555. SMITH, R. J. 1957. Filtering efficiency of hard clams in mixed suspensions of radioactive phytoplankton. Vol. 48, pp. 115-124
556. SMITH, R. F. 1970. The role and responsibility of estuarine biologists in the accelerated development of coastal areas. Vol. 60, pp. 18-21
557. SMITH, W. L. 1974. Pharmacology and chemistry of natural gums used as binders in foods for mariculture. (abstract) Vol. 65, p. 5
558. SOLANGI, M. A. and R. M. OVERSTREET 1980. Control of a filamentous bacterial disease of brine shrimp. (abstract) Vol. 70, p. 130
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561. SPARKS, A. K., J. L. BOSWELL and J. G. MACKIN 1957. Studies on the comparative utilization of oxygen by living and dead oysters. Vol. 48, pp. 92-102
562. SPARKS, A. K. and K. K. CHEW 1959. Preliminary report on growth and survival of the Pacific oyster in Washington waters. Vol. 50, pp. 125-132
563. SPARKS, A. K., G. B. PAULEY and K. K. CHEW 1969. A second mesenchymal tumor from a Pacific oyster (*Crassostrea gigas*). Vol. 59, pp. 35-39
564. SPRAGUE, V., E. A. DUNNINGTON, JR. and E. DROBECK 1969. Decrease in incidence of *Minchinia nelsoni* in oysters accompanying reduction of salinity in the laboratory. Vol. 59, pp. 23-26
565. SPRAGUE, V. and J. COUCH 1971. An annotated list of protozoan parasites, hyperparasites and symbionts of decapod crustacea. (abstract) Vol. 61, p. 6
566. SQUIRE, D. R. 1973. The Japanese oyster drill, *Ocenebra japonica* Dunker, in Netarts Bay, Oregon. (abstract) Vol. 63, p. 10
567. SQUIRES, H. J. 1970. Lobster (*Homarus americanus*) fishery and ecology in Port au Port Bay, Newfoundland, 1960-1965. Vol. 60, pp. 22-39
568. SQUIRES, H. J., G. P. ENNIS and G. E. TUCKER 1974. Lobsters of the northwest coast of Newfoundland, 1964-1967. Vol. 64, pp. 16-27
569. SQUIRES, H. J. and G. RIVEROS 1978. Fishery biology of spiny lobster (*Panulirus argus*) of the Guajira Peninsula of Colombia, South America, 1969-1970. Vol. 68, pp. 63-74
570. ST. AMANT, L. S. 1958. Successful use of reef oyster shells (mud shells) as oyster cultch in Louisiana. Vol. 49, pp. 71-76
571. STAUBER, L. A. 1959. Immunity in invertebrates, with special reference to the oyster. Vol. 50, pp. 7-20
572. STEIN, J. E. and J. G. DENISON 1959. *Hexamita* sp. and an infectious disease in the commercial oyster *Ostrea lurida*. Vol. 50, pp. 67-81
573. STEINBERG, M. A. and D. MIYAUCHI 1969. Preliminary studies on utilization of Pacific scallops. (abstract) Vol. 59, p. 13
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575. STENECK, R. E., R. A. LUTZ and R. M. CERRATO 1978. Age and morphometric variation in subtidal populations of mussels. Vol. 68, pp. 86-76
576. ST. JOHN, L. and E. W. CAKE, JR. 1980. Observations on the predation of hatchery-reared spat and seed oysters by the striped burrfish *Chilomycterus schoepfi* (Walbaum) Diodontidae. (abstract) Vol. 70, p. 130
577. STOLPE, N. E. 1976. Recirculating systems for embryo incubation and larval rearing of the freshwater prawn *Macrobrachium rosenbergii* (deMan). (abstract) Vol. 66, p. 105
578. SUNDERLIN, J. B., W. J. TOBIAS and O. A. ROELS 1975. Growth of the European oyster, *Ostrea edulis* Linne, in the St. Croix artificial upwelling mariculture system and in natural waters. Vol. 65, pp. 43-48
579. SUOMELA, A. J. 1955. The Fish and Wildlife Service and the shellfish industry. Vol. 46, pp. 15-19
580. SUPAN, J. E. and E. W. CAKE, JR. 1980. Observations on containerized relaying of polluted oysters in Mississippi Sound. (abstract) Vol. 70, pp. 130-131
581. TAUB, F. B. 1974. A continuous algal culture system for feeding shellfish. (abstract) Vol. 64, p. 15
582. TAUB, F., K. BALLARD and F. PALMER 1973. Production of shellfish feed by continuous algal culture. (abstract) Vol. 63, p. 10
583. TEGELBERG, H. C. 1968. Some effects of a dense razor clam set in Washington. (abstract) Vol. 58, p. 14 1972. Sex change in *Pandalus jordani* of the Washington coast. (abstract) Vol. 62, pp. 7-8
584. TEGELBERG, H. and R. ARTHUR 1977. Dungeness crab mortality from channel maintenance dredging in Gray's Harbor, Washington. (abstract) Vol. 67, p. 128
585. TEGELBERG, H. C. and C. D. MAGOON 1969. Growth, survival and some effects of a dense razor clam set in Washington. Vol. 59, pp. 126-135 1971. Handling mortality on softshell Dungeness crabs. Vol. 61, pp. 13-14
586. TEMPLETON, W. L. 1967. Transport and distribution of radioactive effluents in coastal and estuarine waters of the U.K. (abstract) Vol. 57, p. 8
587. THATCHER, T. O. 1977. An effect of chlorination on the hatching of Coon stripe shrimp eggs: so what? Vol. 67, pp. 71-74
588. THOMAS, M. L. H. 1969. Sediment-biota relationships in a Prince Edward Island estuary. (abstract) Vol. 59, p. 9
589. TINKLEPAUGH, W. C., J. J. CHARBONNEAU and R. J. MARASCO 1974. The U.S. regional oyster product flow. (abstract) Vol. 64, p. 8
590. TONER, M. A. 1978. Preliminary studies on the development of a synthesized diet for juvenile oyster, *Crassostrea gigas*. (abstract) Vol. 68, pp. 91-92
591. TORPEY, J., R. M. INGLE, L. GILLESPIE and W. K. HAVENS 1966. Experiments with oyster purification in Florida. Vol. 56, pp. 43-47
592. TOWNSLEY, P. M., R. A. RICHY and P. C. TRUSSELL 1966. The laboratory rearing of the shipworm, *Bankia setacea* (Tryon). Vol. 56, pp. 49-52
593. TRAIN, R. E. 1969. The challenge of the estuary. Vol. 59, pp. 14-17
594. TRETSVEN, WAYNE I. 1971. A crab meat separator. (abstract) Vol. 61, p. 14
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596. TRIPP, M. R. 1957. Disposal by the oyster of intracardially injected red blood cells of vertebrates. Vol. 48, pp. 143-147
597. TUBIASH, H. S. 1975. The role of *Serratia marcescens* in the coloration of "red" oysters and soft-shell clams. (abstract) Vol. 65, p. 6
598. TUBIASH, H. S., S. V. OTTO and R. HUGH 1973. Cardiac edema associated with *Vibrio anguillarum* in the American oyster. Vol. 63, pp. 39-42

599. TUFTS, N. R. 1967. Topical labeling of shellfish. Vol. 57, pp. 73-76
600. TUNG, K. and J. W. ZAHRADNIK 1974. Submerged plastic net structures for oyster propagation. (abstract) Vol. 64, p. 8
601. TURNER, L. and H. J. ZAHRADNIK 1976. Physical parameters of the American oyster, *Crassostrea virginica* (Gmelin) from the Wareham River. (abstract) Vol. 66, p. 106
602. TUTMARK, G. J., W. Q. B. WEST and K. K. CHEW 1967. Preliminary study on the use of Bergman-Jefferts coded tags on crabs. Vol. 57, pp. 24-26
603. TWEED, S. 1974. Settlement and survival of *Crassostrea virginica* in Delaware Bay seed oyster beds. (abstract) Vol. 64, p. 8
604. UDELL, H. F. 1955. Sanitary surveys of shellfish areas. Vol. 46, pp. 27-31
605. VALIULIS, G. A. and H. H. HASKIN 1973. Resistance of *Crassostrea virginica* to *Minchinia nelsoni* and *Labyrinthomyxa marina*. (abstract) Vol. 63, p. 6
606. VAN ENGEL, W. A. 1979. Climatological effects on distribution, catch, and abundance of the blue crab. (abstract) Vol. 69, p. 200
607. VAN SICKLE, V., B. B. BARRETT and T. B. FORD 1977. Barataria Basin: salinity changes and oyster distribution. (abstract) Vol. 67, p. 124
608. VAN WINKLE, W. 1966. Gill tissue respiration as a function of salinity and temperature in four species of pelecypods. (abstract) Vol. 56, p. 6
1967. Ciliary activity and oxygen consumption in pelecypod gill tissue. (abstract) Vol. 57, pp. 5-6 1968. The effects of additives on the pumping rate of *Mercenaria mercenaria*. (abstract) Vol. 58, pp. 9-10
609. VANDERHORST, J. R. and P. WILKINSON 1978. Clam resource management for estimation of pollution damage. (abstract) Vol. 68, p. 91
610. VASCONCELOS, G. J., J. C. HOFF and T. H. ERICKSON 1968. Bacterial accumulation-elimination response of Pacific oysters (*Crassostrea gigas*) and Manila clams (*Tapes philippinarum*) maintained under commercial wet storage conditions. (abstract) Vol. 58, pp. 14-15
611. VASCONCELOS, G. J., W. JAKUBOWSKI and T. H. ERICKSON 1969. Bacteriological changes in shellfish maintained in an estuarine environment. Vol. 59, pp. 67-83
612. WACHSMUTH, L. J. 1979. Comparison of seven types of oysters grown in Yaquina Bay, Oregon, from an oyster farmer's point of view. (abstract) Vol. 69, p. 206
613. WALKER, P. N. and J. W. ZAHRADNIK 1974. A model relating filter feeder food uptake, metabolic wastes, and water flow, and an apparatus to test the concept. (abstract) Vol. 64, p. 9 1975. Scale-up of food utilization by the American oyster *Crassostrea virginica* (Gmelin). Vol. 65, pp. 63-75
614. WALLACE, D. E. 1954. Use of equipment and techniques in applied shellfish management. Vol. 45, pp. 209-211
615. WALLACE, D. H. 1954. Report as Director of the Oyster Institute of North America. Vol. 45, pp. 12-15 1955. Report as Director of the Oyster Institute of North America. Vol. 46, pp. 12-14
616. WATERSTRAT, P. 1978. Musseling in on a new market. (abstract) Vol. 68, p. 93
617. WATSON, J. 1972. Reproductive potential of the Atlantic snow crab, *Chionoecetes opilio*. (abstract) Vol. 62, p. 8
618. WATTS, B., H. LEWIS and M. SCHWARTZ 1956. Oyster research from Florida State University. Vol. 47, pp. 151-154
619. WEATHERBY, M. E. 1968. Studies on the Japanese oyster drill. (abstract) Vol. 58, p. 15
620. WEAVER, A. 1978. Pigeon Point shellfish hatchery: past, present and future. (abstract) Vol. 68, p. 93
621. WEBSTER, J. R. and R. Z. MEDFORD 1959. Flatworm distribution and associated oyster mortality in Chesapeake Bay. Vol. 50, pp. 89-95
622. WEITKAMP, D. and A. K. SPARKS 1972. Early life history of *Mytilicola orientalis* Mori. (abstract) Vol. 62, p. 8
623. WELCH, W. R. 1963. The European oyster, *Ostrea edulis*, in Maine. Vol. 54, pp. 7-23
624. WELLER, C. and K. CHEW 1973. Experiments in oyster raft culture at Clam Bay, Washington. (abstract) Vol. 63, p. 11
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626. WESTENHOUSE, R. G. 1968. Developments in the methodology for glycogen determination in oysters. Vol. 58, pp. 88-92
627. WESTLEY, R. E. 1957. An automatic water sampler for marine shore stations. Vol. 48, pp. 79-82 1959. Selection and evaluation of a method for quantitative measurement of oyster condition. Vol. 50, pp. 145-149 1964. Some relationships between Pacific oyster (*Crassostrea gigas*) condition and the environment. Vol. 55, pp. 19-33 1968. Relation of hydrography and *Crassostrea gigas* setting in Dabob Bay, Washington. Vol. 58, pp. 42-45 1969. Growth and survival of Korean oyster seed in waters of Washington State. (abstract) Vol. 59, p. 13 1971. Observations on oyster and shrimp culture in southern Japan. (abstract) Vol. 61, p. 14 1971. The oyster producing potential of Puget Sound. Vol. 61, pp. 20-23 1973. A partial review of problems and prospects of the Pacific coast oyster industry. (abstract) Vol. 63, p. 11 1975. A lawsuit (environmentally oriented) brought against mechanical clam harvest in Washington state with a Hanks type harvester. (abstract) Vol. 65, p. 6 1976. The present status and future outlook of shellfish farming in Puget Sound, Washington. (abstract) Vol. 66, p. 106 1977. Current status of shellfish harvest problems in Washington state. (abstract) Vol. 67, p. 129
628. WESTLEY, R. E. and C. L. GOODWIN 1970. Management of the developing Washington geoduck fishery. (abstract) Vol. 60, p. 16
629. WESTLEY, R. E. and A. J. SCHOLZ 1970. Comparative mortality of Pacific oyster from five source areas. (abstract) Vol. 60, pp. 16-17
630. WHEATON, F. W. 1970. An engineering study of the Chesapeake Bay area oyster industry. Vol. 60, pp. 75-85 1974. Design constraints on an oyster shucking machine. Vol. 64, pp. 118-121
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634. WILLIAMS, J. G. 1979. Growth and survival in newly settled spat of the Manila clam, *Tapes japonica*. (abstract) Vol. 69, p. 206
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636. WINGET, R. R., D. MAURER and L. ANDERSON 1973. The feasibility of closed system mariculture: preliminary experiments with crab molting. Vol. 63, pp. 88-92
637. WINGET, R. R., C. E. EPIFANIO, T. RUNNELS and P. AUSTIN 1976. Effects of diet and temperature on growth and mortality of the blue crab, *Callinectes sapidus*, maintained in a recirculating culture system. Vol. 66, pp. 29-33
638. WOELKE, C. E. 1956. The flatworm *Pseudostylochus ostreophagus* Hyman, a predator of oysters. Vol. 47, pp. 62-67 1959. Growth of the Pacific oyster *Crassostrea gigas* in the waters of Washington State. Vol. 50, pp. 133-143 1959. Pacific oyster *Crassostrea gigas* mortalities with notes

- on common oyster predators in Washington waters. Vol. 50, pp. 53–66 1966. Some results of a study on mass mortalities of Pacific oysters. (abstract) Vol. 56, p. 8 1970. Some relationships between temperature and Pacific Northwest shellfish production. (abstract) Vol. 60, p. 17
639. WOOD, L. and B. A. ROBERTS 1963. Differentiation of effects of two pesticides upon *Urosalpinx cinerea* Say from the eastern shore of Virginia. Vol. 54, pp. 75–85
640. WOODBURN, K. D. 1961. Survival and growth of laboratory-reared northern clams (*Merccenaria mercenaria*) and hybrids (*M. mercenaria* × *M. campechiensis*) in Florida waters. Vol. 52, pp. 31–36
641. WOODWARD, G. M. 1955. The demand for eastern oysters. Vol. 46, pp. 186–191
642. YANCEY, R. M. 1966. Review of oyster culture in Alaska, 1910–1961. Vol. 56, pp. 65–66 1967. A review of progress in surf clam research. (abstract) Vol. 57, p. 6 1968. Surf clam research, 1966. (abstract) Vol. 58, p. 10 1970. The surf clam fishery—1968. (abstract) Vol. 60, pp. 11–12
643. YEVICh, P. and R. G. RINALDO 1972. Black spot gill disease of *Pandalus borealis*. (abstract) Vol. 62, p. 8
644. ZAHRADNIK, J. W., C. A. JOHNSON, W. PASKO and E. A. JOHNSON 1969. A systems approach to oyster propagation off the bottom-unit reactor concepts applied to experimental determination of water requirements for juvenile oysters—a progress report. (abstract) Vol. 59, p. 9
645. ZAHRADNIK, J. W. and C. A. JOHNSON 1970. Proposed 50 bushel pilot plant for oyster production. (abstract) Vol. 60, p. 12
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