

引用文献

- Abbott, M. R., T. M. Powell, and P. J. Richardson (1980): The effects of transect direction observed spatial patterns of chlorophyll in Lake Tahoe. *Limnol. Oceanogr.*, 25, 534-537.
- Adams, S. M., R. B. Mclean, and M. M. Huffaman (1982): Structuring of a predator population through temperature-mediated effects on prey availability. *Can. J. Fish. Aquatic. Sci.*, 39, 1175-1184.
- Ahlstrom, E. J. (1958): Vertical distribution of pelagic fish eggs and larvae off California and Baja California. U. S. Fish and Wildlife Service, Fishery Bull. No. 161, 107-143.
- Alexander, V. and H. J. Niebauer (1981): Oceanography of the eastern Bering Sea ice-edge zone in spring. *Limnol. Oceanogr.*, 26, 1111-1125.
- Allredge, A. L. (1982): Aggregation of spawning appendicularians in surface windrows. *Bull. Mar. Sci.*, 32, 250-254.
- Allredge, A. L., B. H. Robinson, A. Fleminger, J. J. Torres, J. M. King, and W. M. Hamner (1984): Direct sampling and in situ observation of a persistent copepod aggregation in the mesopelagic zone of the Santa Barbara Basin. *Mar. Biol.*, 80, 75-81.
- Anger, K. and R. R. Dawirs (1982): Elemental composition (C, N, H) and energy of growing and starving larvae of Hyas araneus. *Fish. Bull.*, 80, 419-433.
- 安楽正照 (1975): かいあし類のマイクロ・ディストリビューションに関する一考察、日本プランクトン学会報、22, No. 1, 2, 17-26.
- Anraku, M. (1975): Microdistribution of marine copepods in a small inlet. *Mar. Biol.*, 30, 79-87.
- Arlt, G. (1973): Vertical and horizontal microdistribution of the meiofauna in the Greiswalder Bodden. *OIKOS Supplement*, 15, 105-111.
- Aron, W. (1958): The use of a large capacity portable pump for plankton patchiness. *J. Mar. Res.*, 16, 158-173.
- Arthur, D. K. (1980): Differences in heart size between ocean-caught and laboratory-grown larvae of the northern anchovy, Engraulis mordax Girad. *J. exp. mar. Biol. Ecol.*, 43, 99-106.

- 浅見忠彦(1958): 海洋に於ける卵・稚仔の拡散、収斂の状況について- 1、南海区水研報、No. 7, 19-29.
- 畔田正格 (1976): 卵・稚仔の減耗に関する 2, 3の考察、水産海洋研究会報、No. 28, 102-107.
- 畔田正格 (1981): 初期減耗研究の方法論について、漁業資源研究会議報、No. 22, 7-28.
- Bailey, K.M. (1981): Larval transport and recruitment of Pacific hake Merluccius productus. Mar. Ecol. Prog. Ser., 6, 1-9.
- Bailey, K.M. and R. S. Batty (1983): A laboratory study of predation by Aurelia aurita on larval herring (Clupea harengus): Experimental observations compared with model predictions.
- Bailey, K.M. and R. S. Batty (1984): Laboratory study of predation by Aurelia aurita on larvae of cod, flounder, plaice and herring: Development and vulnerability to capture. Mar. Biol., 83, 287-291.
- Bainbridge, R. (1952): Underwater observations on the swimming of marine zooplankton. J. mar. biol. Ass. U. K., 31, 107-112.
- Bainbridge, R. (1953): Studies on the interrelationships of zooplankton and phytoplankton. J. mar. biol. Ass. U. K., 32, 385-347.
- Barnet, M. A. (1983): Species structure and temporal stability of mesopelagic fish assemblages in the Central Gyres of the North and South Pacific Ocean. Mar. Biol., 74, 245-256.
- Barker, S. L., D. W. Townsend, and J. S. Hacund (1981): Mortalities of Atlantic herring, Clupea harengus, Smooth flounder, Liopsetta putnami, and Rainbow smelt, Osmerus mordax, larvae exposed to acute thermal shock. Fishery Bull., 79, 198-200.
- Battarbee, R. W. and M. J. Kneen (1982): The use of electronically counted microspheres in absolute diatom analysis. Limnol. Oceanogr., 27, 184-188.
- Bernhard M. and L. Rampi (1965): Plankton patchiness. Botan. Gothoburgensia 3, 13- 24.
- Brandt, S. B. (1983): Temporal and spatial patterns of lanternfish (family Myctophidae) communities associated with a warm-core eddy. Mar. Ecol., 74, 231-244.

- Blanton, J. O., L. P. Atkinson, L. J. Pietrafesa, and T. N. Lee (1981): The intrusion of Gulf Stream Water across the continental shelf due to topographically-induced upwelling. *Deep-Sea Res.*, 28A, 393-405.
- Blaxter, J. H. and G. Hempel (1974): The influence of egg size on herring larvae (Clupea harengus L.), in "The Early Life History of Fishes" ed. J. H. Blaxter, Springer-Verlag, 211-240.
- Borstad, G. A. (1982): The influence of the meandering Guiana Current on surface conditions near Barbados-temporal variations of Trichodesmium (Cyanophyta) and other plankton. *J. Mar. Res.*, 40, 435-452.
- Brandt, S. B. (1981): Effects of a warm-core eddy on fish distributions in the Tasman Sea off East Australia. *Mar. Ecol. Prog. Ser.*, 6, 19-33.
- Breder, C. M. (1954): Equations descriptive of fish schools and other animal aggregations. *Ecology*, 35, 361-370.
- Brewer, G. D., G. S. Kleppel, and M. Dempsey (1984): Apparent predation on ichthyoplankton by zooplankton and fishes in nearshore waters of southern California. *Mar. Biol.*, 80, 17-28.
- Brock, V. E. and R. H. Riffenburgh (1970): Fish schooling: A possible factor in reducing predation. *Science*, 307-317
- Buckley, L. J. (1982): Effects of temperature on growth and biochemical composition of larval winter flounder Pseudopleuronectes americanus. *Mar. Ecol. Prog. Ser.*, 8, 181-186.
- Buckley, L. J. (1984): RNA-DNA ratio: an index of larval fish growth in the sea. *Mar. Biol.*, 80, 291-298.
- Buskey, E. J. (1984): Swimming pattern as an indicator of the roles of copepod sensory systems in the recognition of food. *Mar. Biol.*, 79, 165-175.
- Cassie, R. M. (1959a): An experimental study of factors inducing aggregation in marine plankton. *N. Z. J. Sci.*, 2, 339-365.
- Cassie, R. M. (1959b): Micro-distribution. *N. Z. J. Sci.*, 2, 398-409.
- Checkley, D. M. (1982): Selective feeding by Atlantic herring (Clupea harengus) larvae on zooplankton in natural assemblages. *Mar. Ecol. Prog. Ser.*, 9, 245-253.
- Chew, F. (1981): Shingles, spin-off eddies and an hypothesis. *Deep-Sea Res.*,

28A, 379-391.

- Clutter, R. (1969): The microdistribution and social behavior of some pelagic mysid shrimps. *J. exp. mar. Biol. Ecol.*, 3, 125-155.
- Cohen, R. E. and R. G. Lough (1983): Prey field of larval herring *Clupea harengus* on a continental shelf spawning area. *Mar. Ecol. Prog. Ser.*, 10, 211-222.
- Coombs, S. H. (1981): A density-gradient column for determining the specific gravity of fish eggs, with particular reference to eggs of the Mackerel *Scomber scombrus*. *Mar. Biol.*, 63, 101-106.
- Currie, D. J. (1984): Microscale nutrient patches: Do they matter to the phytoplankton?. *Limnol. Oceanogr.*, 29, 211-214.
- Cushing, D. H. (1978): Biological effects of climatic change. *Rapp. P.-V. Cons. int Explor. Mer.*, 173, 107-116.
- Cushing, D. H. and D. S. Tungate (1963): Studies on a Calanus patch. 1. The identification of a Calanus patch. *J. mar. biol. Ass. U. K.*, 43, 327-337.
- Dagg, M. (1977): Some effects of patchy food environments on copepods. *Limnol. Oceanogr.*, 22, 99-107.
- Denman, K. L. and A. E. Gargett (1983): Time and space scales of vertical mixing and advection of phytoplankton in the upper ocean. *Limnol. Oceanogr.*, 28, 801-815.
- Derenbach, J. B., H. S. Therimer, H. P. Hansen, and H. Leach (1979): Vertical microscale distribution of phytoplankton in relation to the thermocline. *Mar. Ecol. Prog. Ser.*, 1, 187-193
- Dowd, C. E. and E. D. Houde (1980): Combined effects of prey concentration and photoperiod on survival and growth of larval sea bream, *Archosargus rhomboidalis* (Sparidae). *Mar. Ecol. Prog. Ser.*, 3, 181-185.
- Dubois, D. M. (1975): A model of patchiness for prey-predation plankton populations. *Ecol. Model.*, 1, 67-80.
- El-Sayed, S. Z. and B. D. Lee (1963): Evaluation of an automatic technique for counting unicellular organisms. *J. Mar. Res.*, 21, 59-73.
- Enomoto, Y. (1956): On the occurrence and the food of Noctiluca in the waters adjacent to the Coast of Kyushu, with special reference to the possibility of the damage caused to the fish eggs by that planktons. *Bull. Jap. Soc. Sci. Fish.*, 22, 82-89.

- Enright, J. T. (1977): Diurnal vertical migration: Advantage significance and timing. Part 1. Selective advantage: A metabolic model. *Limnol. Oceanogr.*, 22, 856-872.
- Enright, J. T. and H.-W. Honegger (1977): Diurnal vertical migration: Adaptive significance and timing. Part 2. Test of the model: details of timing. *Limnol. Oceanogr.*, 22, 873-886.
- Eppley, R. W., F. M. H. Reid, J. J. Cullen, C. D. Winant, and E. Stewart (1984): Subsurface patch of a dinoflagellate (Ceratium tripos) off Southern California: patch length, growth rate, associated vertically migrating species. *Mar. Biol.*, 80, 207-214.
- Evans, G. T. and F. J. R. Taylor (1980): Phytoplankton accumulation in Langmuir cells. *Limnol. Oceanogr.*, 25, 840-845.
- Fabre-Domergue & Biatrix (1897): La periode critique post-larvaire des poissons marins. *Bull. Mus. Hist. Nat. Paris*, 3, 57-58.
- Faller, A. J. (1978): Experiments with controlled Langmuir circulations. *Science*, 201, 618-620.
- Faller, A. J. and A. H. Woodcock (1964): The spacing of windrows of Sargassum in the ocean. *J. Mar. Res.*, 22, 22-29.
- Fasham, M. J. R., M. V. Angel, and H. S. J. Roe (1974): An investigation of the spatial pattern of zooplankton using the Longhurst-Hardy Plankton Recorder. *J. exp. mar. Biol. Ecol.*, 16, 93-112.
- Fevre, J. L. and J. R. Grall (1970): On the relationships of Noctiluca swarming off the western coast of Brittany hydrological features and plankton characteristics of environment. *J. exp. mar. Biol. Ecol.*, 4, 287-306.
- Fortier, L. and W. C. Leggett (1982): Fickian transport and the dispersal of fish larvae in estuaries. *Can. J. Fish. Aquat. Sci.*, 39, 1150-1163.
- 福原修 (1974): 初期の飢餓がマダイ仔魚の生き残り、成長および発育に及ぼす影響について、南西海区水研業績40, 19-29.
- 福所邦彦 (1976): イシダイ仔魚の消化時間、水産増殖、24(4), 134-139.
- 福所邦彦 (1977): イシダイ稚魚の飽食時間と消化時間、魚類学雑誌、24, 193-198.
- Gabric, A. J. (1983): Effect of shear and surface boundary on contaminant diffusion in the ocean. *Aust. J. Mar. Freshw. Res.*, 34, 693-706.
- Gordon, A. L., D. G. Martinson, and H. W. Taylor (1981): The wind-driven circulation

- in the Weddell-Enderby Basin. Deep-Sea Res., 28A, 151-163.
- Greenblatt, P. R. (1982): Small-scale horizontal distributions of zooplankton taxa. Mar. Biol., 67, 97-111.
- Griffiths, F. B. and S. B. Brandt (1983): Distribution of mesopelagic decapod Crustacea in and around a warm-core eddy in the Tasman Sea. Mar. Ecol. Prog. Ser., 12, 175-184.
- Hamann, I., H.-Ch. John, and E. Mittelstaedt (1981): Hydrography and its effect on fish larvae in the Mauritanian upwelling area. Deep-Sea Res., 28A, 561-575.
- Hamner, W. M. and J. H. Carleton (1979): Copepod swarms: Attributes and role in coral reef ecosystems. Limnol. Oceanogr., 24, 1-14.
- Hamner, W. M. and I. R. Hauri (1981): Effects of island mass: water flow and plankton pattern around a reef in the Great Barrier Reef lagoon, Australia. Limnol. Oceanogr., 26, 1084-1102.
- Harden, F. R., G. P. Arnold, M. Greer, and P. Scholes (1975): Selective tidal stream transport and the migration of plaice (Pleuronectes platessa L.) in the southern North Sea. J. Cons. int. Explor. Mer., 38, 331-337.
- Harder, W. (1968): Reactions of plankton organisms to water stratification. Limnol. Oceanogr., 13, 156-168.
- Hardy, A. C. (1926): A new method of plankton research (as appendix 2, in The Discovery Expedition, ed. by S. Kemp), Nature, 118, 630-632.
- Hardy, J. T. and C. W. Apts (1984): The sea-surface microlayer: phytoplankton productivity and effects of atmospheric particulate matter. Mar. Biol., 82, 293-300.
- Harris, G. P. and R. E. H. Smith (1977): Observations of small-scale spatial patterns in phytoplankton populations. Limnol. Oceanogr., 22, 887-899.
- Hattori, S. (1962): Predatory activity of Noctiluca on anchovy eggs. Bull. Tokai Reg. Fish. Res. Lab., (9), 211-220.
- Haury, L. R., M. G. Briscoe, and M. H. Orr (1979): Tidally generated internal wave packets in Massachusetts Bay. Nature, 278, 312-315.
- Hay, D. E. (1982): Fixation shrinkage of herring larvae: Effects of salinity, formalin concentration and other factors. Can. J. Fish. Aquat. Sci., 39, 1138-1143.

- Hecht, A. and P. Hughs (1971): A note on short period temperature fluctuations in the North Sea. *J. Cons. int. Explor. Mer.*, 34, 6-17.
- Hensen, R. (1911): Das leben im Ozean nach zahlungen seiner Bewohner Übersicht und Resultaten der quantitativen Untersuchungen. *Ergelen. Plankton Expdn. der Humboldt Stiftung.* pp. 406.
- 平井光行 (1985): 赤外線リモートセンシング技術の水産海洋研究への応用 - NOAA - 6 の熱赤外画像によるサンマ漁場の水温分布の微細構造の解析 -、*空と海*、No. 7、1-9.
- 平野敏行 (1965): 卵、稚仔漂流に関する一試算、*東海区水研報*、No. 44, 25-29.
- Hirano, T. and M. Fujimoto (1965): Preliminary results of investigation of the Kuroshio functioning as a means of transportation and diffusion of fish eggs and larvae. in "Kuroshio", ed. J. C. Marr, East-West Press Center, 405-416.
- Hjort, J. (1914): Fluctuation in the great fisheries of northern Europe viewed in the light of biological research, *Rapp. P.-V. Reun. Cons. perm. int. Explor. Mer.*, 20, 1-288.
- Hjort, J. (1926): Fluctuations in the year classes of important food fisheries. *J. Cons. int. Explor. Mer.*, 1, 5-38.
- Houde, E. D. (1974): Effects of temperature and delayed feeding on growth and survival of larvae of three species of subtropical marine fishes. *Mar. Biol.*, 26, 271-285.
- Houde, E. D. (1975): Effects of stocking density and food density on survival, growth and yield of laboratory reared larvae of sea bream Archosargus rhomboidalis (L.) (Sparidae). *J. Fish. Biol.*, 7, 115-127.
- Houde, E. D. (1977): Food concentration and stocking density effects on survival and growth of laboratory-reared larvae of bay anchovy Anchoa mitchilli and lined sole Achirus lineatus. *Mar. Biol.*, 43, 333-341.
- Houde, E. D. (1978): Critical food concentrations for larvae of three species of subtropical marine fishes. *Bull. Mar. Sci.*, 28, 395-411.
- Hunter, J. R. (1972): Swimming and feeding behaviour of larval anchovy Engraulis mordax. *Fishery Bull.*, 70, 821-838.
- Hunter, J. R. and C. A. Kinbrell (1980): Egg cannibalism in the northern anchovy, Engraulis mordax. *Fishery Bull.*, 78, 811-816.

- Hunter, J.R. and C. Sanchez(1976): Diel changes in swim bladder inflation of the larvae of the northern anchovy, Engraulis mordax. Fishery Bull., 74, 847-855.
- Hunter, J.R. (1981): Feeding ecology and predation of marine fish larvae. in "Marine Fish Larvae. (ed. R. Lasker)", Univ. of Washington Press Seattle, pp. 34-77.
- 石坂・高橋(1984): 黒潮分枝流のフロント域におけるクロロフィルの生産と集積、沿岸海洋研究ノート、21, 148-155.
- Iwasa, Y. (1982): Vertical migration of zooplankton: A game between predator and prey. Am. Nat., 120, 171-180.
- 岩田静夫・松田優治・細田昌宏(1980): 相模湾の流れの変動について、神奈川水試研報、1, 61-71
- Inaba, H. (1981): Circulation pattern and current variations with respect to tidal frequency in the sea near the head of Suruga Bay. J. Oceanogr. Soc. Japan, 37, 149-159.
- Kamykowski, D. (1974): Possible interactions between phytoplankton and semi-diurnal internal tides. J. Mar. Res., 32, 67-89.
- Kamykowski, D. (1976): Possible interactions between plankton and semidiurnal internal tides. II. Deep thermoclines and trophic effects. J. Mar. Res., 34, 499-509
- Kamykowski, D. (1981): Laboratory experiments on the diurnal vertical migration of marine dinoflagellates through temperature gradients. Mar. Biol., 62, 57-64.
- 川合英夫・坂本久雄(1979): 黒潮表層水の収束発散に関する研究-II, 表層混合層の上部と下部における収束・発散の実測、南西海区水研報、2, 19-38.
- 川合英夫・坂本久雄・百田方子(1979): 黒潮表層水の収束発散に関する研究-I, 海面における収束・発散の実測とその解析、南西海区水研報、1, 1-14.
- Kelly, P., S.D. Sulkin, and W.F. Van Heukelem(1982): A dispersal model for larvae of the deep sea red crab Geryon quinquedens based upon behavioral regulation of vertical migration in the hatching. Mar. Biol., 72, 35-43.
- Kierstead, H. and L.B. Slobodkin(1953): The size of water masses containing plankton blooms. J. Mar. Res., 12, 141-147.
- 近藤恵一 (1966): カタクチイワシの生活様式、東海区水研報、47, 51-84.

- Koslow, J. A. (1981): Feeding selectivity of schools of northern anchovy, Engraulis mordax, in the southern California Bight. Fishery Bull., 79, 131-142.
- 黒田一紀(1986): 潮岬沖黒潮前線付近における魚類プランクトン、特にマイワシとマサバの卵・仔魚の分布特性、東海区水研報、No.119, 109-122.
- 黒田一紀・木立孝・友定彰・瀬川恭平(1985): 潮岬沖の黒潮前線付近における海洋構造とプランクトンの微細分布に関する研究、東海区水研報、No.115, 47-64.
- 桑原昭彦(1982): 内湾におけるプランクトンの集中分布パターンの形成に及ぼす水温躍層の影響、京都府立海洋センター研究論文、第1号、pp.1-46.
- Lance, J. (1962): Effects of water of reduced salinity on the vertical migration of zooplankton. J.mar. biol. Ass. U. K., 42, 131-154.
- Lasker, R. (1975): Field criteria for survival of anchovy larvae: The relation between inshore chlorophyll maximum layers and successful first feeding. Fishery Bull., 73, 453-462.
- Lasker, R. (1981): Factors contributing to variable recruitment of the northern anchovy (Engraulis mordax) in the California Current: Contrasting years, 1975 through 1978. Rapp. P.-V. Reun. Cons. int. Explor. Mer., 178, 375-388.
- Lasker, R., H. M. Feder, G. H. Theilacker, and R. C. May (1970): Feeding, growth, and survival of Engraulis mordax larvae reared in the laboratory. Mar. Biol., 5, 345-353.
- Langmuir (1938): Surface motion of water induced by wind, Science, 87, 119-123.
- Laurence, G. C. (1974): Growth and survival of haddock (Melanogrammus aeglefinus) larvae in relation to planktonic prey concentration. J. Fish. Res. Bd. Canada, 31, 1415-1419.
- Laurence, G. C. (1977): A bioenergetic model for the analysis of feeding and survival potential winter flounder, Pseudopleuronectes americanus, larvae during the period from hatching to metamorphosis. Fishery Bull., 75, 529-546.
- Lee, T. N., L. P. Atkinson, and R. Legeckis (1981): Observations of a Gulf Stream frontal eddy on the Georgia continental shelf, April 1977. Deep-Sea Res., 28A, 347-378.
- Legeckis, R. and G. Cresswell (1981): Satellite observations sea-surface tempe-

- perature fronts off the coast of western and southern Australia. Deep-Sea Res., 28A, 297-306.
- Lehmann, J. T. and D. Scavia (1984): Measuring the ecological significance of microscale nutrient patches. Limnol. Oceanogr., 29, 214-216.
- Levasseur, M., J.-C. Therriault, and L. Legendre (1983): Tidal currents, winds and the morphology of phytoplankton spatial structures. J. Mar. Res., 41, 655-672.
- Lillelund and Lasker (1971): Laboratory studies on predation by marine copepods on fish larvae, Fish. Bull., 69, 655-667.
- Lindahl, O. (1983): On the development of a Gymnodinium aureolum occurrence on the Swedish west coast in 1982. Mar. Biol., 77, 143-150.
- Longhurst, A. R., A. D. Reith, R. E. Bower, and D. L. R. Seibert (1966): A new system for the collection of multiple serial plankton samples. Deep Sea Res., 13, 213-222.
- Maeda, A. (1974): A description of short period temperature fluctuations in the upper ocean. J. Oceanogr. Soc. Japan, 30, 121-136.
- Marra, J., R. W. Houghton, D. C. Boardman, and P. J. Neale (1982): Variability in surface chlorophyll-a at a shelf-break front. J. Mar. Res., 40, 575-591.
- Mackas, D. L. and C. M. Boyd (1983): Spectral analysis of zooplankton spatial heterogeneity. Science, 204, 62-64.
- Matsuike, K., K. Okuda, and K. Uehara (1983): Turbidity distributions near oceanic fronts in the coastal region of the East China Sea. La mer, 21, 133-144.
- May, R. C. (1971): Effects of delayed initial feeding on larvae of the grunion, Leuresthes tenuis (Ayres). Fishery Bull., 69, 411-425.
- Matsushita, K., M. Shimizu, and Y. Nose (1982): Micro-distribution of anchovy eggs and larvae in Sagami Bay. Bull. Jap. Soc. Sci. Fish., 48, 355-362.
- Matsushita, K., M. Shimizu, and Y. Nose (1985): An apparatus for continuous sampling of surface plankton during cruise. Bull. Plankton Soc. Japan, 32, 155-168.
- McAlice, B. J. (1970): Observations on the small-scale distribution of estuarine phytoplankton. Mar. Biol., 7, 100-111.
- McGurk, M. D. (1984): Effects of delayed feeding and temperature on the age of

- irreversible starvation and on the rates of growth and mortality of Pacific herring larvae. *Mar. Biol.*, 84, 13-26.
- Methot, Jr. R. D. (1983): Seasonal variation in survival of larva; northern anchovy, Engraulis mordax, estimated from the age distribution of juveniles. *Fishery Bull.*, 81, 741-750.
- Miller, J. M. (1973): A quantitative push-net system for transect studies of larval fish and macro-zooplankton, *Limnol. Oceanogr.*, 13, 205-217.
- Miller, J. M., W. Watson, and J. M. Leis (1979): An atlas of common nearshore marine fish larvae of the Hawaiian Islands. Univ. of Hawaii Sea Grant College Program, pp3-5.
- Morioka, Y. (1981): A multilayer surface zooplankton sampler. *Bull. Japan, Sea Reg. Fish. Res. Lab.*, 32, 65-71.
- Morisita, M. (1935): Measuring the dispersion of individuals and analysis of the distributional patterns. *Mem. Fac. Sci. Kyushu Univ. Ser. E(Biol)* 39, 160-167.
- 三谷勇 (1982): 神奈川県沿岸に來遊するイワシ類の生態に関する研究-II、神奈川県鎌倉沖におけるマイワシとカタクチイワシの生物的特性と水塊変動との関係、神奈川県水試研究報告、No. 3, 39-50.
- 水戸敏 (1967): プラクトン期における仔稚魚の生態、日本プラクトン研究連絡会報、No. 14, 33-49.
- 農林水産技術會議 (1961): イワシ類後期子魚の食餌と加入量との関係、水産資源に関する共同研究推進會議報告書、pp. 102-121.
- Nicol, S. (1984): Cod end feeding by the euphausiid *Meganyctiphanes norvegica*. *Mar. Biol.*, 80, 29-33.
- Nishizawa, S. and K. Nakajima (1971): Concentration of particulate organic materials in the sea surface layer. *Bull. Plankton Soc. Japan*, 18, 12-19.
- Obrebski, S. (1979): Larval colonizing strategies in marine benthic invertebrates. *Mar. Ecol. Prog. Ser.*, 1, 293-300.
- O'Connell, C. P., and Raymond (1970): The effect of food density on survival and growth of early post yolk-sac larvae of the northern anchovy (Engraulis mordax Girard) in the laboratory. *J. exp. mar. Biol. Ecol.*, 5, 187-197.
- O'Connell, C. P. (1980): Percentage of starving northern anchovy, Engraulis mordax, larvae in the sea as estimated by histological methods.

Fishery Bull., 78, 475-489.

冲山宗雄 (1979): 稚魚分類学入門、(1) 稚魚の定義と型分け、海洋と生物、1, 54-59.

Ozmidov(1962): The dynamics of the ocean. Cambridge Univ, Press, pp261.

Owen, R. W. (1966): Small-scale, horizontal vortices in the surface layer of the sea. J.Mar.Res., 24, 56-66.

Pianka(1975): Niche relation of desert lizards. in "Ecology and Evolution of Communities" ed. by M. L. Cody and J. M. Diamon, Berknep Press, pp292-314

Platt, T. (1972): Local phytoplankton abundance and turbulence. Deep-Sea Res., 19, 183-187.

Platt, T., L. M. Dickee, and R. W. Trites(1975): Spatial heterogeneity of phytoplankton in near-shore environment. J. Fish. Res. Bd Can., 27, 1453-1473.

Pullian, H. R. (1973): On the advantages of flocking. J. Theor. Biol., 38, 419-422.

Riis-Vestergaard, J. (1982): Water and salt balance of halibut eggs and larvae. Mar. Biol., 70, 135-139.

Riley, D. J. (1966): Marine fish culture in Britain-VII. Plaice(Pleuronectes platessa L.) Post-larval feeding on Artemia salina L. nauplii and the effects of varying feeding levels. J. Cons. int. Explor. Mer, 30, 204-221.

Saksena, V. P. and E. D. Houde(1972): Effect of food level on the growth and survival of laboratory-reared larvae of bay anchovy (Anchoa mitchilli Valenciennes) and scaled sardine (Harengula pensacolatae Good & Bean). J. exp. mar. Biol. Ecol., 8, 249-258.

佐々木克之・山下きわ・黒田一紀(1985): 潮岬黒潮前線付近における栄養物質の微細分布、東海区水研報、No. 118, 1-10.

Scura, E. D. and C. W. Jerde(1977): Various species of phytoplankton as food for larval northern anchovy, Engraulis mordax, and relative nutritional value of the dinoflagellates Gymnodinium splendens and Gonyalux polyedra. Fishery Bull., 75, 577-583.

Seki, H. (1973): Red tide of Oikopleura in Saanich Inlet. La mer, 11, 17-22.

Seliger, H. H., J. H. Carpenter, M. Loftus, and W. D. McElroy(1970): Mechanisms for the accumulation of high concentrations of dinoflagellates in a bioluminescent bay. Limnol. Oceanogr., 15, 234-245.

- Seliger, H. H., K. R. McKinley, W. H. Biggley, R. B. Rivkin, and K. R. H. Aspden (1981):
Phytoplankton patchiness and frontal regions. *Mar. Biol.*, 61, 119-131.
- Sette, O. E. (1950): Structure of a research program to determine how fishing affects the resources. *Special Scientific Reports Fisheries*, (1), 1-30.
- Sette, O. E. (1943): Biology of the Atlantic mackerel of North America. Early life history including growth, drift, and mortality of the eggs and larvae populations. *U. S. Fish. Wildl. Serv. Fish. Bull.*, 38, 149-239.
- Shelton, P. A. and L. Hutchings (1982): Transport of anchovy, Engraulis capensis Gilchris, eggs and early larvae by a frontal jet current. *J. Cons. int. Explor. Mer.*, 40, 185-198.
- Shelbourne, J. E. (1957): The feeding and condition of plaice larvae in good and bad plankton patches. *J. mar. biol. Ass. U. K.*, 36, 539-552.
- Shelbourne, J. E. (1962): A predator-prey size relationship for plaice larvae feeding on *Oikopleura*. *J. mar. biol. Ass. U. K.*, 42, 243-252.
- Sheldon, R. W. and T. R. Parsons (1967): A continuous size spectrum for particulate matter in the sea. *J. Fish. Res. Bd. Canada*, 24, 909-915.
- Sheldon, R. W., A. Prakash, and W. H. Sutcliffe, Jr. (1972): The size distribution of particles in the ocean. *Limnol. Oceanogr.*, 17, 327-340.
- Shelton, P. A. and L. Hutchings (1982): *J. Cons. int. Explor. Mer.*, 40, 185-193.
- 代田昭彦 (1975): 水産餌料生物学、恒星社厚生閣、東京、pp. 514.
- Stavn, R. H. (1971): The horizontal-vertical distribution hypothesis: Langmuir circulations and *Daphnia* distributions. *Limnol. Oceanogr.*, 16, 453-466.
- Steel, J. H. (1974): Spatial heterogeneity and population stability. *Nature*, 248, 83.
- Stommel, H. (1949): Trajectories of small bodies sinking slowly through convection cells. *J. Mar. Res.*, 8, 24-29.
- 鈴木啓一 (1960): 平均変動率について、日本生態学会誌、10, 168-171.
- Theilacker, G. H. (1980): Changes in body measurements of larval northern anchovy, Engraulis mordax, and other fishes due to handling and preservation. *Fishery Bull.*, 78, 685-692.
- Tranter, D. J., G. S. Leech, and D. Airey (1983): Edge enrichment in an ocean eddy. *Aust. J. Mar. Freshw. res.*, 34, 665-680.
- Uda, M. and M. Ishino (1958): Enrichment pattern resulting from eddy systems in relation to fishing grounds. *J. Tokyo Univ. Fish.*, 44, 105-129.

- 魚谷逸朗・出羽敦・浅井克敏(1978): カタクチシラスの食性と摂餌選択性について、日水誌、44, 427-434.
- Ware, D. M., B. R. Mendiola, and D. S. Newhouse(1981): Behaviour of first feeding Peruvian anchoveta larvae. J. Rapp. P.-V. perm. Cons. int. Explor. Mer., 175, 467-474.
- Wiebe, P. H. (1970): Small-scale spatial distribution in oceanic zooplankton. Limnol. Oceanogr., 15, 205-217.
- Wiebe, P. H. (1971): A computer model study of zooplankton patchiness and its effects on sampling error. Limnol. Oceanogr., 16, 29-38.
- Wiebe, P. H. (1972): A field investigation of the relationship between length of tow, size of net and sampling error. J. Cons. int. Explor. Mer., 34, 268-275.
- Wiebe, P. H. and W. R. Holland(1968): Plankton patchiness: Effects on repeated net tows. Limnol. Oceanogr., 13, 315-321.
- Yoder, J. A. and L. P. Atkinson(1981): Role of Gulf Stream frontal eddies in forming phytoplankton patches on the outer southeastern shelf. Limnol. Oceanogr., 26, 1103-1110.
- Wroblewski, T. S. (1977): Vertical migration herbivorous plankton -their possible role in the small scale phytoplankton patchiness. in "Oceanic Sound Scattering Production (ed. by G. Anderson)", Plenum Press, New York.