

**Curriculum Vitae**  
**ALICE LOUISE ALLDREDGE**

Department of Ecology, Evolution and Marine Biology  
University of California, Santa Barbara, California 93106  
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**Education:** B.A. 1971, Carleton College, Northfield, Minnesota (Biology)  
Ph. D. 1975 University of California, Davis (Ecology)

**Research interests:** Biological oceanography, role of marine snow and gels in ocean carbon cycling, ecology of gelatinous marine zooplankton

**Professional Experience:**

1975-1976 NATO Postdoctoral Fellow, Australian Institute of Marine Science,  
1976-1982 Assistant Professor of Biology, University of California, Santa Barbara  
1982-1986 Associate Professor of Biology, UCSB  
1986-present Professor of Biology, UCSB  
1996-2004 Chair, Interdepartmental Graduate Program in Marine Science, UCSB  
2004-present Chair, Department of Ecology, Evolution and Marine Biology, UCSB

**Honors and Awards:** NSF Graduate Fellowship

NATO Postdoctoral Fellowship  
Henry Bryant Bigelow Gold Medal in Oceanography (1992)  
Elected Fellow of AAAS (1990)  
Campus Distinguished Teaching Award; Sciences, UCSB (1996)  
Elected Fellow of AGU (1998)  
Most highly cited researcher (top 0.5%)- ISI Web of Knowledge  
Sverdrup Lecturer, American Geophysical Union, 2004

**Major National Service**

Executive Advisory Committee, NSF (1981-83)  
USJGOFS Steering Committee (1987-1990)  
Elected Member-at-Large, ASLO (1986-1989)  
Chair, Nominating Committee, ASLO (1987-88)  
Committee on the Future of ASLO (1989)  
ASLO Budgetary Planning Committee (1991)  
CoOP (Coastal Ocean Processes) Steering Committee (1993-1996)  
NSF Panels, Ocean Sciences (1982, 1994, 1999)  
Ocean Studies Board (1997-1999)  
NRC Study on Grand Challenges in The Environmental Sciences, 1998-2000  
Smithsonian Science Commission (2001-2003)  
DIALOG V Selection Committee (2003)  
AGU Fellows Selection Committee-Biogeosciences (2002-2005)

**Ph. D. Committees Chaired (completed degrees):**

Purcell, J. E. 1981. The trophic ecology of predatory epipelagic siphonophores (Coelenterata, Hydrozoa).

Stretch, J. J. 1983. Habitat selection and vertical migration of sand-dwelling demersal gammarid amphipods.

Schoen, S.S. 1987. Langmuir circulation and small-scale patchiness of marine phytoplankton and zooplankton.

Fabry, V. J. 1988. Aragonite production by pteropod molluscs: implications for the oceanic calcium carbonate cycle.

Crocker, K.M. 1993. Diatom aggregation and dimethylsulfide production in phytoplankton blooms.

Frazer, T. K. 1995. On the ecology of larval krill, *Euphausiia suberba*, during winter: krill-sea ice interactions. (Co-chaired with Langdon Quetin)

Herrlinger, T.J. 1995. The effects of a fish predator on the nocturnal vertical migration of demersal plankton.

Dilling, L. 1998 Consumption and fragmentation of marine snow by euphausiids and copepods.

Silguero, J. M. 2001 The seasonal abundance and vertical distribution of rocketship siphonophores over a seven year period, including the impact of the 1997-1999 ENSO and their metabolic demand and prey requirements.

Herren, C. M. 2002 Bioluminescent Plankton: Association with thin layers and marine snow in coastal oceans (co-chaired with James Case)

McDougal, C. 2003. Bioluminescence and the Actin Cytoskeleton in the Dinoflagellate *Pyrocystis fusiformis*: An Examination of Organelle Transport and Mechanotransduction. (co-chaired with James Case)

Goldthwait, S. 2004. Ecological consequences of the fragmentation of marine snow by swimming euphausiids.

**MS Committees Chaired or Co-chaired (completed degrees):**

Michael Elias  
Chris Gotschalk  
Sheila Weisman

Michael Gilchrist  
Tracy Shaw  
Stephanie White

Joshua Schneider

**Post-Docs Supervised**

Monty Graham  
Uta Passow  
Ulf Riebesell  
Anja Engel

## Recent Presentations

<u>Year</u>	<u>Topic/Place</u>
1994	Aggregation of a diatom in a mesocosm, American Society of Limnology and Oceanography (ASLO)
1994	Formation of TEP during diatom blooms, ASLO
1994	Feeding by <i>Euphausia pacifica</i> on marine snow, ASLO
1994	Abundances of marine aggregates and vertical distributions of salinity density and Richardsons number, ASLO
1994	Passow, U. and A.L. Alldredge Abiotic formation of TEP from polysaccharides excreted by phytoplankton, American Chemical Society (This paper received a best paper award)
1994	The significance of a new class of transparent exopolymer particles in the ocean, 25th Anniversary of MSI, UCSB
1994	MacIntyre, S. and Alldredge, A.L. Accumulation of marine snow at density discontinuities in the water column, 25th Anniversary of MSI, UCSB
1994	Dilling, L. and A.L. Alldredge. Consumption of marine snow by zooplankton, 25th Anniversary of MSI, UCSB
1995	The carbon and dry mass content of marine snow as a function of aggregate size: Implications for estimating particulate flux, The Oceanography Society (TOS), Rhode Island
1996	Dilling, L. and A.L. Alldredge. Consumption rates of Marine Snow by <i>Euphausia pacifica</i> and <i>Calanus pacificus</i> , ASLO/American Geophysical Union (AGU), San Diego
1996	Jackson, G.A., B.E. Logan, D.K. Costello, R. Maffione, A.L. Alldredge, and H.G. Dam. Particle size distribution and coagulation rates in Monterey Bay, CA, Ocean Sciences Meeting, San Diego
1996	Alldredge, A.L. and U. Passow. A dye-binding assay for the colorimetric determination of Transparent Exopolymer Particles (TEP), ASLO/AGU, San Diego
1996	Zhang, A., C. Weng, G. Yang, and A.L. Alldredge. Evidence of Chordate Evolution in the Early Cambrian-Comparison of Tadpole-like fossils to the Larvacean, 30th International Geological Congress, Beijing, China
1996	The Role of Transparent Exopolymer Particles in the ecology of the ocean. Virginia Institute of Marine Science
1996	The Role of Transparent Exopolymer Particles in the ecology of the ocean. Scripps Institution of Oceanography
1997	Fowler, P., E. Delong and A. Alldredge, Biochemistry and population dynamics of free-living and attached microbes during a diatom bloom in a 1200 liter mesocosm. ASLO, Santa Fe
1997	Alldredge, A., What have we learned from in situ investigations of marine snow. ASLO, Santa Fe, Invited
1997	Passow, U. and A. Alldredge, Is sedimentation driven by TEP? ASLO, Santa Fe
1997	Dilling, L. and A. Alldredge, Can Feeding by vertically migrating zooplankton impact marine snow abundances in surface waters? ASLO, Santa Fe
1997	Graham and Alldredge. Evaluation of camera-derived POC flux by comparison with a drifting sediment trap. ASLO, Santa Fe
1997	Thin layers of marine snow in East Sound Washington. Oregon State - ONR Thin Layers symposium
1997	The contribution of Transparent Exopolymer Particles to mucilage formation in the Adriatic Sea. Symposium on Mucilage in the Adriatic, Trieste, Italy, Invited
1998	S. MacIntyre, A. L Alldredge, Layering of Turbulence and Marine Snow in East Sound, WA. ASLO/AGU, San Diego
1998	A.L. Alldredge and S. MacIntyre. Formation of a Thin Layer of Marine Snow During Aggregation of a Diatom Bloom. ASLO/AGU, San Diego
1998	S.H. Haddock, R.D. Harper, A.L. Alldredge, J.F. Case. Bioluminescence of Marine Snow. ASLO/AGU, San Diego

- 1998 C. Herren, A.L. Alldredge, S. MacIntyre, Bioluminescence, Turbulence, Marine Snow, and Zooplankton: Associations in the Santa Barbara Channel. ASLO/AGU, San Diego
- 1998 The contribution of Transparent Exopolymer Particles to mucilage formation in the Adriatic Sea. Stazione Zoologica, Napoli, Italy
- 1999 Alldredge, A.L. Oceanography as Path and Passion: Perspectives from Midcareer. ASLO GALA Invited speaker, Santa Fe
- 1999 Passow, U. and A.L. Alldredge. Grazing of euphausiids on transparent exopolymer particles. ASLO, Santa Fe
- 1999 Herren, C.M., A.L. Alldredge, J. F. Case, and D.V. Holliday. Bioluminescence and zooplankton distributions in East Sound, WA. ASLO, Santa Fe
- 1999 MacIntyre, S. and A.L. Alldredge. Layering of marine snow in East Sound, Washington. ASLO, Santa Fe
- 2000 Effects of the 1997-98 El Niño on seasonal variations in suspended and sinking particles in the Santa Barbara Basin. ASLO/AGU Ocean Sciences Meeting, San Antonio
- 2000 Temporal patterns in planktonic thin layer formation/maintenance as revealed by integrated instrumentation approaches. ASLO/AGU Ocean Sciences Meeting, San Antonio
- 2000 Impacts of migrating zooplankton on the abundance and flux of marine aggregates. Texas A&M (College Station, Texas)
- 2001 Impact of Euphausiid swimming on marine snow size and flux. ASLO., *Albuquerque*
- 2001 The contribution of discarded appendicularian houses to the flux of particulate organic carbon from oceanic surface waters. NATO Symposium on Appendicularian Biology, Ville Franche Sur Mer, France, (Invited speaker)
- 2002 Jeannette Yen, Sarah Goldthwait, Jason Brown, Donald Webster, and Alice Alldredge Velocity and Shear Stress Fields of Krill, *Euphausia pacifica*. ASLO/TOS, Honolulu
- 2002 Goldthwait, S and A. Alldredge. Diel Synchronicity between water column marine snow concentration and particulate carbon flux in surface waters of the Santa Barbara Channel. ASLO/TOS, Honolulu
- 2002 Herren, C., A.L. Alldredge, and J. F. Case. Coastal Bioluminescent Marine Snow. ASLO/TOS, Honolulu
- 2002 The Impact of zooplankton swimming on particle dynamics and sedimentation in the water column. Invited Seminar, Alfred Wagner Institute of Marine and Polar Research, Bremerhaven, Germany
- 2003 Goldthwait, S and A. Alldredge . Does fragmentation affect marine snow remineralization? ASLO, Albuquerque
- 2003 Measurement and significance of Transparent Exopolymer Particles (TEP). Symposium on New Approaches in Marine Organic Biogeochemistry, Friday Harbor Washington
- 2004 The contribution of discarded appendicularian houses to the flux of particulate organic carbon from oceanic surface waters ASLO, Honolulu
- 2004 Sources of Structure in the Pelagic Zone, ASLO , Honolulu, Invited talk
- 2004 Goldthwait, S and A. Alldredge Transparent Exopolymer Particles (TEP) degrade slowly in laboratory incubations. ASLO, Honolulu
- 2004 Marine Snow and Gels: Hot Spots of Biogeochemical Cycling, Biological Activity, and Sedimentation in the Sea. *Sverdrup Lecture in Oceanography*. American Geophysical Union annual meeting invited Lecture, San Francisco
- 2005 Marine Snow and Gels: Hot Spots of Biogeochemical Cycling, Biological Activity, and Sedimentation in the Sea. Seminar, USC
- 2005 Goldthwait, S. and Alldredge, A. Aggregation and fragmentation dynamics of sedimenting particles in marine environments, invited, European Geophysical Union

### **Extra-mural Funding**

NSF: Mucus-producing zooplankton: Sources of particulate organic matter. Dec. 1976-Nov. 1978, \$58,000

National Geographic Society: Distribution, substrate specificity and adaptations of demersal zooplankton on coral reefs. Sept.- Dec. 1978, \$8,490.

NSF: Ecology of herbivorous zooplankton: The impact of appendicularian grazing on phytoplankton assemblages in situ. Feb. 1979- Jan. 1981, \$120,295.

NSF: Ecological studies of marine snow and associated algae from the deep sea ( with Dr. Mary Silver, UCSC). Feb. 1981- Jan. 1982, \$26,141.

NSF: Ecology of herbivorous zooplankton: Continued studies on the impact of appendicularian grazing in situ. April 1981- Mar. 1983, \$141,687.

NSF: In situ studies of mesopelagic biology: WASP. Sept. 1981- Feb. 1983, \$256,134.

NSF -Supplement: Aug 1982- Feb. 1983, \$39,996.

NSF -Supplement: Mar. 1983-Aug. 1983, \$40,000.

NSF: The ecological significance of macroscopic particulates: Biological processes occurring on marine snow. Nov. 1983-April 1985, \$74,164.

NSF -Supplement: Dec. 1984- Oct. 1985, \$37,450.

ONR: The production and sedimentation of marine snow. Aug 1985- July, 1987, \$160,051 ( N00014-85-K-0771)

NSF: The significance of marine snow as a site of carbon fixation and heterotrophic activity in the marine pelagic zone. Jan 1986- Dec. 1987, \$281,574

ONR Supplement: Workshop of Aggregate dynamics in the Sea. Aug 85-July,87, \$49,810 .(N00014-85-K-0771)

ONR: Particle Dynamics in the sea, Oct 1988-Sept. 1989, \$109,996.(N00014-85-K-0771)

NSF: Diatom aggregation as a significant source of marine snow in the ocean. July, 1988-June 1990. \$164,910 (OCE88-00396)

NSF: Acquisition of an automated carbonate preparation device for studies of paleoceanography, paleoecology, geochemistry and marine biology. Feb. 1989-Feb., 1990, \$51,081.(OCE88-171135) with Kennett, Boles, Tilton

ONR: Effects of physical and biological factors on aggregate dynamics in situ. Oct. 1989-Sept. 1991. \$366,665 (N00014-89-J-3206)

NSF: Continued studies on the ecology of marine snow. July 1990-June 1993, \$123,566 (OCE89-22825)

ONR: Continued studies of the properties and in situ distributions of marine aggregates. Dec 1991-Nov, 1992, \$100,354. (N00014-89-3206)

ONR: The role of non-living particles in aggregation. Dec, 1992-Oct. 1994, \$176,094. (N00014-89-3206)

NSF: Consumption of marine snow by macrozooplankton, Jan 1993-Dec, 1996, \$275,313. (OCE 92-16117)

NSF: Ph. D. Training Program in Coastal Ocean Processes, Sept. 1994-Aug. 2002, \$562,500. (NSF 94-53991)

NSF: Initial Investigations of newly discovered Transparent Exopolymer Particles in the Ocean (with U. Passow) , July 1994-June 1996, \$151,134. (OCE 94-00698)

ONR: Formation and distribution of marine aggregates and associated organisms. Oct, 1994-Sept., 1995. \$37,000 (N00014-89-3206)

ONR: Mechanisms Generating Fine-Scale Vertical Distributions of Microzooplankton, Jan 1996-Dec, 1997, \$146,285 (N00014-96-10069)

NSF: An automated nutrient analyzer for biological research, Jan, 1996-Dec., 1997, \$50,398. (OCE-95-12945) with Graham, Petty

ONR: Diurnal patterns of persistence of “Thin-layers” of marine snow, zooplankton, and turbulent microstructure in coastal waters. ONR \$255,479 1/1/97-12/31/00 (with MacIntyre) (N00014-96-10069)

NOAA: Impact of El Nino on linkages between the water column and sedimentation in the Santa Barbara Basin. (with Mark Brzezinski) 6/1/98 – 02/15/00 \$67,070 (NA77RJ0453)

NSF: Collaborative Research: Fragmentation of Marine Snow by swimming Macrozooplankton, NSF 11/01/1999-10/31/2004, \$251,726 (OCE 99-06827)

NSF : LTER: Long-Term Dynamics of a Coral Reef Ecosystem 2004-2009, \$4,100,000. Schmitt, Holbrook, Edmunds and Carpenter, PI's. (OCE-0417412) Alldredge is an LTER “Affiliated PI “overseeing water column and zooplankton studies.

## **PUBLICATIONS**

Allredge, A.L. 1972. Abandoned larvacean houses: A unique food source in the pelagic environment. Science 177: 885-887.

- Allredge, A.L. and B. M. Jones 1973. *Hastigerina pelagica*: Foraminiferal habitat for planktonic dinoflagellates. Mar. Biol 22:121-153.
- Wagenbach, G.E. and A.L. Allredge 1974. The effects of light on the emergence pattern of *Plagiochis micracanthos* cercariae from *Stagnicola exilis*. J. Parasitol. 60:782-785.
- Hamner, W.M., L.P. Madin, A.L. Allredge, R.W. Gilmer and P.P. Hamner 1975. Underwater observations of gelatinous zooplankton: Sampling problems, feeding biology and behavior. Limnol. Oceanogr. 20:907-917.
- Allredge, A.L. 1976. Discarded appendicularian houses as sources of food, surface habitats and particulate organic matter in planktonic environments. Limnol. Oceanogr. 21:14-23.
- Allredge, A.L. 1976. The Appendicularia. Scientific American 235:94-102
- Allredge, A.L. 1976. Field behavior and adaptive strategies of appendicularians (Chordata:Tunicata). Mar. Biol. 23:29-39.
- Allredge, A.L. 1977. House morphology and mechanisms of feeding in the Oikopleuridae. J. Zoology (London) 181:175-188.
- Allredge, A.L. and J.M. King 1977. Distribution, abundance and substrate preferences of demersal reef zooplankton at Lizard Island Lagoon, Great Barrier Reef. Mar. Biol. 41:217-233.
- Allredge, A.L. 1979. Tunicata: Yearbook of Science and Technology. McGraw-Hill.
- Allredge, A.L. 1979. The chemical composition of macroscopic aggregates in two neritic seas. Limnol. Oceanogr. 24:855-866.
- Allredge, A.L. and J. M. King 1980. Effects of moonlight on the vertical migration patterns of demersal zooplankton. J. Exp. Mar. Biol. Ecol. 44:133-156.
- Allredge, A.L. and W.M. Hamner 1980. Recurring aggregation of zooplankton by a tidal current. Estuarine and Coastal Mar.Sci. 10:31-37.
- Allredge, A.L. 1981. The impact of appendicularian grazing on natural food concentrations *in situ*. Limnol. Oceanogr. 26:247-257.
- Silver M.W. and A.L. Allredge 1981. Bathypelagic marine snow: Vertical transport system and deep-sea algal and detrital community. J. Mar. Res. 39:501-530.
- Allredge, A.L. 1982. Aggregation of spawning appendicularians in surface windrows. Bull. Mar. Sci. 32:250-254.

- Allredge A.L. and M. W. Silver 1982. Abundance and production rates of floating diatom mats (*Rhizosolenia castracanei* and *R. imbricata* var. *shrubsolei*) in the eastern Pacific Ocean. *Mar. Biol.* 66:83-88.
- Allredge, A.L. and J.L. Cox 1982. Primary production and chemical composition of marine snow in surface waters of the Southern California Bight. *J. Mar. Res.* 40:517-527.
- Allredge, A.L. and L.P. Madin 1982. Pelagic tunicates: Unique herbivores in the marine plankton. *Bio. Sci.* 32:655-661.
- Martinez, L.A., M.W. Silver, J.M. King and A. L. Allredge 1983 Nitrogen fixation by floating diatom mats: A source of new nitrogen to oligotrophic oceanic waters. *Science* 221: 152-154.
- Prezelin, B.P. and A. L. Allredge 1983. Primary production of marine snow during and after an upwelling event. *Limnol. Oceanogr.* 28:1156-1167.
- Allredge, A.L. 1984. The quantitative significance of gelatinous zooplankton as pelagic consumers. In NATO Advanced Research Institute on the Flow of Energy and Materials in Marine Ecosystems. pp. 407-436, New York: Plenum Press.
- Allredge, A.L., B. H. Robison, 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.
- Allredge, A.L. 1984. Macroscopic organic aggregates (Marine snow). In: Global Ocean Flux Study, Proceedings of a Workshop. pp. 166- 179. Washington D.C.: National Academy Press.
- Allredge, A.L. and J. M. King 1985. The distance demersal zooplankton migrate above the benthos: Implications for predation. *Mar. Biol.* 84: 253-260.
- Allredge. A.L. 1985. Abundance of demersal zooplankton in tropical seagrass meadows. *National Geographic Research Reports.* 19: 95-101.
- Allredge, A.L. and M. J. Youngbluth 1985. The significance of macroscopic aggregates (marine snow) as sites of heterotrophic bacterial production in the mesopelagic zone of the subtropical Atlantic. *Deep Sea Res.* 32: 1445-1456.
- Allredge, A. L., J. Cole and D. A. Caron 1986. Production of heterotrophic bacteria inhabiting organic aggregates (marine snow) from surface waters. *Limnol. Oceanogr.* 31: 68-78.

- Allredge, A. L., M. Elias and C. C. Gotschalk 1986. Effects of drilling muds and mud additives on the primary production of natural assemblages of marine phytoplankton. *Mar. Environ. Res.* 19: 157-176.
- Allredge, A.L. and Y. Cohen 1987. Can microscale chemical patches persist in the sea? Microelectrode study of marine snow, fecal pellets. *Science* 235:689-691.
- Allredge, A.L. and E. O. Hartwig 1987. Office of Naval Research Workshop on Aggregate Dynamics in the Sea. American Association of Biological Sciences, Washington D.C. pp. 211.
- Allredge, A.L. 1987. Aggregate dynamics: Biological processes which form, alter and destroy aggregates in the ocean. In Workshop on Aggregate Dynamics in the Sea, Allredge and Hartwig, eds., American Association of Biological Sciences, Washington D.C. pp. 109-130.
- Allredge, A. L., C. Gotschalk and S. MacIntyre 1987. Evidence for sustained residence of macrocrustacean fecal pellets in surface waters off southern California. *Deep Sea Research* 34:1641-1652.
- Allredge, A.L. and C. Gotschalk. 1988. *In situ* settling behavior of marine snow. *Limnology and Oceanography*. 33:339-351.
- Allredge, A.L. and M. W. Silver 1988. Characteristics, dynamics and significance of marine snow. *Progress in Oceanography* 20:41- 82.
- Allredge, A.L. and C. C. Gotschalk 1989. Direct observations of the mass flocculation of diatom blooms: characteristics, settling velocities and formation of diatom aggregates. *Deep-Sea Res.* 36:159-171.
- Logan, B. E. and A. L. Allredge 1989. Potential for increased nutrient uptake by flocculating diatoms. *Marine Biol.* 101:443-450.
- Gotschalk, C.C. and A.L. Allredge. 1989 Enhanced primary production and nutrient regeneration within aggregated marine diatoms. *Mar. Biol.* 103:119-129.
- Allredge, A.L. 1989. The significance of suspended detrital aggregates of marine snow as microhabitats in the pelagic zone of the ocean. In *Recent Advances in Microbial Ecology, Proceedings of the Fifth International Symposium on Microbial Ecology*, T. Hattori et al. (eds.), Japan Scientific Societies Press. pp. 108-112.
- Allredge, A.L. and Gotschalk 1990. The relative contribution of marine snow of different origins to biological processes in coastal waters. *Cont. Shelf Res.* 10:41-58.

- Simon, M. , A.L. Alldredge, and F. Azam 1990. Bacterial carbon dynamics on marine snow. *Mar. Ecol. Prog. Ser.* 65:205-211.
- Allredge, A.L., T. C. Granata, C. C. Gotschalk, and T. D. Dickey 1990. The physical strength of marine snow and its implications for particle disaggregation in the ocean. *Limnol. Oceanogr.* 35: 1415-1428.
- Crocker, K. M., A. L. Alldredge, and D. Steinberg 1991. Feeding rates of the doliolid, *Dolioletta gegenbauri*, on diatoms and bacteria. *J. Plank. Res.* 13:77-82.
- Allredge, A.L. and P. McGillivray 1991. The attachment probabilities of marine snow and their implications for particle aggregation processes in the ocean. *Deep-Sea Res.* 38: 431-443.
- Allredge, A.L. 1991 In situ collection and laboratory analysis of marine snow and large fecal pellets. in *The Analysis and Characterization of Marine Particles*. D. Spencer and J. Hurd, eds. pp 43-46.
- Allredge, A.L. 1992 Marine Snow in Oceanic Cycling. in *Encyclopedia of Earth System Science*, 3:139-147.
- Smith, D.C., M. Simon, A.L. Alldredge, and F. Azam 1992. Intense hydrolytic enzyme activity on marine aggregates and implications for rapid particle dissolution. *Nature* 359: 139-142.
- Dilling, L. and A.L. Alldredge 1993. Can Chaetognath pellets contribute significantly to carbon flux? *Mar. Ecol. Prog. Ser.* 92:51-58.
- Allredge, A.L., U. Passow, and B. Logan 1993. The abundance and significance of a class of large, transparent organic particles in the ocean. *Deep-Sea Res.* 40:1131-1140
- Delong, E. F., D. G. Franks, and A.L. Alldredge 1993. Phylogenetic diversity of aggregate-attached vs. free-living marine bacterial assemblages. *Limnol. Oceanogr.* 38:924-934.
- Allredge, A.L. 1993. Production of heterotrophic bacteria inhabiting marine snow. In *Current Methods in Aquatic Microbial Ecology*. Kemp, P.F., B. F. Sherr, E.B. Sherr and J.J. Cole, editors, PP. 531-536.
- Passow, U., A. L. Alldredge and B. E. Logan 1994. The role of particulate carbohydrate exudates in the flocculation of diatom blooms. *Deep-Sea Res.* 41: 335-357.
- Passow, U. and A.L. Alldredge 1994. Distribution, size, and bacterial colonization of transparent exopolymer particles (TEP) in the ocean. *MEPS* 113:185-198.

- Logan, B. E., Passow, U. and A. L. Alldredge 1994. Variable retention of diatoms on screens during size separations. *Limnol. Oceanogr.* 39:390-395.
- Kilps, J. R., B. E. Logan, and A. L. Alldredge 1994. Fractal dimensions of marine snow determined from image analysis of in situ photographs. *Deep-Sea Res.* 41: 1159-1169.
- Alldredge, A.L. and K. M. Crocker 1995. Why do sinking mucilage aggregates accumulate in the water column. *The Science of the Total Environment* 165:15-22.
- MacIntyre, S., A.L. Alldredge and C.C. Gotschalk 1995. Accumulation of marine snow at density discontinuities in the water column. *Limnol. Oceanogr.* 40:449-468.
- Alldredge, A.L., C. Gotschalk, U. Passow and U. Riebesell 1995. Mass aggregation of diatom blooms: Insights from a mesocosm study. *Deep-Sea Research.* 42:9-28.
- Alldredge, A.L. and G. A. Jackson 1995. Aggregation in marine systems *Deep-Sea Research* 42: 1-8.
- Passow, U. and A.L. Alldredge 1995. Aggregation of a diatom bloom in a mesocosm: The role of transparent exopolymer particles (TEP). *Deep-Sea Research* 42:99-110.
- Logan, B.E., U. Passow, A.L. Alldredge, H-P Grossart and M. Simon 1995. Rapid formation and sedimentation of large aggregates is predictable from coagulation rates (half lives) of transparent exopolymer particles (TEP). *Deep-Sea Research* 42:203-214.
- Jackson, G.A. , B.E. Logan, A.L. Alldredge and H. G. Dam 1995. Combining particle size spectra from a mesocosm experiment measured using photographic and aperture impedance (Coulter and Elzone) techniques. *Deep-Sea Research* 42: 139 - 158.
- Passow, U. and A.L. Alldredge 1995. A dye binding assay for spectrophotometric measurements of Transparent Exopolymer Particles (TEP). *Limnology and Oceanography* 40:1326-1335.
- Hansen, J.L.S., T. Kiorboe and A.L. Alldredge 1996. Marine snow derived from abandoned larvacean houses: Sinking rates, particle content and mechanisms of aggregate formation. *Marine Ecology Progress Series* 141:205-215.
- Kiorboe, T, J. Hansen, A.L. Alldredge, G. Jackson, U. Passow, H. Dam, D. Drapeau, A. Waite and C. Garcia 1996. Sedimentation of phytoplankton during a spring diatom bloom: rates and mechanisms. *J. Mar. Res.* 54:1123-1148.

- Allredge, A.L. 1996. The future of science teaching, IN Teaching and learning: The classroom and beyond. Occasional papers of the Office of Academic Programs, University of California, Santa Barbara. Pp 12-14.
- Jackson, G., and R.E. Maffione, D. K. Costello, A. L. Allredge, B.E. Logan, and H. G Dam, K. 1997. Particle size spectra between 1 um and 1 cm at Monterey Bay determined using multiple instruments. Deep-Sea Res. 44:1739-1767.
- Brzezinski, M. A. , A.L. Allredge and L. M. O'Bryan. 1997. Silica cycling within marine snow. Limnol. Oceanogr. 42:1706-1713.
- Allredge, U. Passow and S. H. D. Haddock 1998. The characteristics and transparent exopolymer (TEP) content of marine snow formed from thecate dinoflagellates. J. Plankton Res. 20: 393-406.
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