## David L Kirchman

List of Publications by Year in descending order

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137 papers 17,291 citations

68 h-index 126 g-index

147 all docs

147 docs citations

147 times ranked

12367 citing authors

#	Article	IF	Citations
1	Dead Zones. , 2021, , .		5
2	The First "Dead Zone― Limnology and Oceanography Bulletin, 2020, 29, 107-109.	0.4	1
3	A marine virus as foe and friend. Nature Microbiology, 2020, 5, 982-983.	13.3	1
4	Editorial: Metagenomics in <i>Limnology and Oceanography</i> . Limnology and Oceanography, 2020, 65, S1.	3.1	2
5	Microbial proteins for organic material degradation in the deep ocean. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 445-447.	7.1	9
6	Seasonal variability of the inorganic carbon system in a large coastal plain estuary. Biogeosciences, 2017, 14, 4949-4963.	3.3	48
7	Environmental Drivers of Dissolved Organic Matter Molecular Composition in the Delaware Estuary. Frontiers in Earth Science, 2016, 4, .	1.8	65
8	Transcriptional Control in Marine Copiotrophic and Oligotrophic Bacteria with Streamlined Genomes. Applied and Environmental Microbiology, 2016, 82, 6010-6018.	3.1	45
9	Single-cell activity of freshwater aerobic anoxygenic phototrophic bacteria and their contribution to biomass production. ISME Journal, 2016, 10, 1579-1588.	9.8	32
10	Growth rates and rRNA content of four marine bacteria in pure cultures and in the Delaware estuary. ISME Journal, 2016, 10, 823-832.	9.8	63
11	Growth Rates of Microbes in the Oceans. Annual Review of Marine Science, 2016, 8, 285-309.	11.6	218
12	Patterns in Abundance, Cell Size and Pigment Content of Aerobic Anoxygenic Phototrophic Bacteria along Environmental Gradients in Northern Lakes. PLoS ONE, 2015, 10, e0124035.	2.5	45
13	Bacterial diversity in relatively pristine and anthropogenically-influenced mangrove ecosystems (Goa,) Tj ETQq $1\ 1$	0.784314	4 rgBT /Overlo
14	Growth activity of gammaproteobacterial subgroups in waters off the west <scp>A</scp> ntarctic <scp>P</scp> eninsula in summer and fall. Environmental Microbiology, 2014, 16, 1513-1523.	3.8	17
15	Metagenomic analysis of organic matter degradation in methaneâ€rich Arctic Ocean sediments. Limnology and Oceanography, 2014, 59, 548-559.	3.1	25
16	Uptake of Dissolved Organic Carbon by Gammaproteobacterial Subgroups in Coastal Waters of the West Antarctic Peninsula. Applied and Environmental Microbiology, 2014, 80, 3362-3368.	3.1	20
17	Leucine incorporation by aerobic anoxygenic phototrophic bacteria in the Delaware estuary. ISME Journal, 2014, 8, 2339-2348.	9.8	27
18	Biodiversity and Biogeography of the Lower Trophic Taxa of the Pacific Arctic Region: Sensitivities to Climate Change., 2014, , 269-336.		32

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19	Carbon Biogeochemistry of the Western Arctic: Primary Production, Carbon Export and the Controls on Ocean Acidification., 2014,, 223-268.		15
20	Bioenergetics of photoheterotrophic bacteria in the oceans. Environmental Microbiology Reports, 2013, 5, 188-199.	2.4	79
21	Summer community structure of aerobic anoxygenic phototrophic bacteria in the western Arctic Ocean. FEMS Microbiology Ecology, 2013, 85, 417-432.	2.7	41
22	Killers of the winners. Nature, 2013, 494, 320-321.	27.8	3
23	Arsenite modifies structure of soil microbial communities and arsenite oxidization potential. FEMS Microbiology Ecology, 2013, 84, 270-279.	2.7	25
24	Bacterial diversity, community structure and potential growth rates along an estuarine salinity gradient. ISME Journal, 2013, 7, 210-220.	9.8	363
25	Marine archaea take a short cut in the nitrogen cycle. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 17732-17733.	7.1	7
26	Phylogenetic and functional diversity of Bacteria and Archaea in a unique stratified lagoon, the Clipperton atoll (N Pacific). FEMS Microbiology Ecology, 2012, 79, 203-217.	2.7	25
27	Temporal study of Helicobacter pylori presence in coastal freshwater, estuary and marine waters. Water Research, 2011, 45, 1897-1905.	11.3	31
28	The microbial carbon pump and the oceanic recalcitrant dissolved organic matter pool. Nature Reviews Microbiology, 2011, 9, 555-555.	28.6	73
29	Effects of composition of labile organic matter on biogenic production of methane in the coastal sediments of the Arabian Sea. Environmental Monitoring and Assessment, 2011, 182, 385-395.	2.7	28
30	Picoplankton diversity in the Arctic Ocean and surrounding seas. Marine Biodiversity, 2011, 41, 5-12.	1.0	30
31	Activity of abundant and rare bacteria in a coastal ocean. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12776-12781.	7.1	513
32	Phosphate and adenosineâ€5'â€triphosphate uptake by cyanobacteria and heterotrophic bacteria in the Sargasso Sea. Limnology and Oceanography, 2011, 56, 323-332.	3.1	58
33	Abundance, Diversity, and Activity of Ammonia-Oxidizing Prokaryotes in the Coastal Arctic Ocean in Summer and Winter. Applied and Environmental Microbiology, 2011, 77, 2026-2034.	3.1	97
34	Abundance and singleâ€eell activity of bacterial groups in Antarctic coastal waters. Limnology and Oceanography, 2010, 55, 2526-2536.	3.1	42
35	Summer distribution and diversity of aerobic anoxygenic phototrophic bacteria in the Mediterranean Sea in relation to environmental variables. FEMS Microbiology Ecology, 2010, 74, 397-409.	2.7	39
36	Bacteriochlorophyll and community structure of aerobic anoxygenic phototrophic bacteria in a particle-rich estuary. ISME Journal, 2010, 4, 945-954.	9.8	66

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37	Microbial production of recalcitrant dissolved organic matter: long-term carbon storage in the global ocean. Nature Reviews Microbiology, 2010, 8, 593-599.	28.6	1,278
38	The structure of bacterial communities in the western Arctic Ocean as revealed by pyrosequencing of 16S rRNA genes. Environmental Microbiology, 2010, 12, 1132-1143.	3.8	223
39	Geographic and Phylogenetic Variation in Bacterial Biovolume as Revealed by Protein and Nucleic Acid Staining. Applied and Environmental Microbiology, 2009, 75, 4028-4034.	3.1	54
40	Photoheterotrophic Microbes in the Arctic Ocean in Summer and Winter. Applied and Environmental Microbiology, 2009, 75, 4958-4966.	3.1	141
41	The GAAS Metagenomic Tool and Its Estimations of Viral and Microbial Average Genome Size in Four Major Biomes. PLoS Computational Biology, 2009, 5, e1000593.	3.2	177
42	Unique archaeal assemblages in the Arctic Ocean unveiled by massively parallel tag sequencing. ISME Journal, 2009, 3, 860-869.	9.8	163
43	Microbial growth in the polar oceans — role of temperature and potential impact of climate change. Nature Reviews Microbiology, 2009, 7, 451-459.	28.6	297
44	Lightâ€dependent growth and proteorhodopsin expression by <i>Flavobacteria</i> and SAR11 in experiments with Delaware coastal waters. Environmental Microbiology, 2009, 11, 3201-3209.	3.8	62
45	Standing stocks, production, and respiration of phytoplankton and heterotrophic bacteria in the western Arctic Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 2009, 56, 1237-1248.	1.4	117
46	Ecology of the rare microbial biosphere of the Arctic Ocean. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 22427-22432.	7.1	488
47	MYSTERIES OF METAGENOMICS REVEALED. Limnology and Oceanography Bulletin, 2009, 18, 2-6.	0.4	2
48	Abundant proteorhodopsin genes in the North Atlantic Ocean. Environmental Microbiology, 2008, 10, 99-109.	3.8	84
49	Diversity and abundance of glycosyl hydrolase family 5 in the North Atlantic Ocean. FEMS Microbiology Ecology, 2008, 63, 316-327.	2.7	26
50	New light on an important microbe in the ocean. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 8487-8488.	7.1	19
51	Diversity and Distribution of Ecotypes of the Aerobic Anoxygenic Phototrophy Gene <i>pufM</i> in the Delaware Estuary. Applied and Environmental Microbiology, 2008, 74, 4012-4021.	3.1	67
52	Light-Stimulated Bacterial Production and Amino Acid Assimilation by Cyanobacteria and Other Microbes in the North Atlantic Ocean. Applied and Environmental Microbiology, 2007, 73, 5539-5546.	3.1	104
53	High Abundances of Aerobic Anoxygenic Photosynthetic Bacteria in the South Pacific Ocean. Applied and Environmental Microbiology, 2007, 73, 4198-4205.	3.1	116
54	Aerobic Anoxygenic Phototrophic Bacteria Attached to Particles in Turbid Waters of the Delaware and Chesapeake Estuaries. Applied and Environmental Microbiology, 2007, 73, 3936-3944.	3.1	93

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55	Standing stocks and activity of Archaea and Bacteria in the western Arctic Ocean. Limnology and Oceanography, 2007, 52, 495-507.	3.1	190
56	Predictions for the Future of Microbial Oceanography. Oceanography, 2007, 20, 166-171.	1.0	3
57	Bacterial Community Structure of Biofilms on Artificial Surfaces in an Estuary. Microbial Ecology, 2007, 53, 153-162.	2.8	161
58	The metabolic balance between autotrophy and heterotrophy in the western Arctic Ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 2006, 53, 1831-1844.	1.4	43
59	Effects of naphthalene on microbial community composition in the Delaware estuary. FEMS Microbiology Ecology, 2006, 56, 55-63.	2.7	39
60	Aerobic Anoxygenic Phototrophic Bacteria in the Mid-Atlantic Bight and the North Pacific Gyre. Applied and Environmental Microbiology, 2006, 72, 557-564.	3.1	139
61	Biogeography of major bacterial groups in the Delaware Estuary. Limnology and Oceanography, 2005, 50, 1697-1706.	3.1	204
62	Dimethylsulfoniopropionate (DMSP) assimilation by <i>Synechococcus</i> in the Gulf of Mexico and northwest Atlantic Ocean. Limnology and Oceanography, 2005, 50, 1924-1931.	3.1	56
63	Bacterial diversity of metagenomic and PCR libraries from the Delaware River. Environmental Microbiology, 2005, 7, 1883-1895.	3.8	112
64	Aerobic anoxygenic photosynthesis genes and operons in uncultured bacteria in the Delaware River. Environmental Microbiology, 2005, 7, 1896-1908.	3.8	63
65	AN OCEANOGRAPHER'S REFLECTIONS ON 49 VOLUMES AND 50 YEARS OF L&O. Limnology and Oceanography Bulletin, 2005, 14, 30-34.	0.4	1
66	Sequence and Expression Analyses of <i>Cytophaga</i> -Like Hydrolases in a Western Arctic Metagenomic Library and the Sargasso Sea. Applied and Environmental Microbiology, 2005, 71, 8506-8513.	3.1	61
67	Assimilation of Polysaccharides and Glucose by Major Bacterial Groups in the Delaware Estuary. Applied and Environmental Microbiology, 2005, 71, 7799-7805.	3.1	123
68	Biomass Production and Assimilation of Dissolved Organic Matter by SAR11 Bacteria in the Northwest Atlantic Ocean. Applied and Environmental Microbiology, 2005, 71, 2979-2986.	3.1	150
69	Control of bacterial growth by temperature and organic matter in the Western Arctic. Deep-Sea Research Part II: Topical Studies in Oceanography, 2005, 52, 3386-3395.	1.4	117
70	A bacterium that inhibits the growth of Pfiesteria piscicida and other dinoflagellates. Harmful Algae, 2005, 4, 221-234.	4.8	79
71	Contribution of SAR11 Bacteria to Dissolved Dimethylsulfoniopropionate and Amino Acid Uptake in the North Atlantic Ocean. Applied and Environmental Microbiology, 2004, 70, 4129-4135.	3.1	200
72	The oceanic gel phase: a bridge in the DOM–POM continuum. Marine Chemistry, 2004, 92, 67-85.	2.3	576

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73	Growth rate of the major phylogenetic bacterial groups in the Delaware estuary. Limnology and Oceanography, 2004, 49, 1620-1629.	3.1	69
74	Composition of estuarine bacterial communities assessed by denaturing gradient gel electrophoresis and fluorescence in situ hybridization. Limnology and Oceanography: Methods, 2004, 2, 303-314.	2.0	37
75	Identification and enumeration of bacteria assimilating dimethylsulfoniopropionate (DMSP) in the North Atlantic and Gulf of Mexico. Limnology and Oceanography, 2004, 49, 597-606.	3.1	117
76	A Primer on Dissolved Organic Material and Heterotrophic Prokaryotes in the Oceans., 2004, , 31-63.		13
77	Fluxes of dissolved combined neutral sugars (polysaccharides) in the Delaware estuary. Estuaries and Coasts, 2003, 26, 894-904.	1.7	12
78	Diversity and Abundance of Uncultured Cytophaga -Like Bacteria in the Delaware Estuary. Applied and Environmental Microbiology, 2003, 69, 6587-6596.	3.1	82
79	Microbial community structure and variability in the tropical Pacific. Deep-Sea Research Part II: Topical Studies in Oceanography, 2002, 49, 2669-2693.	1.4	84
80	The ecology of Cytophaga–Flavobacteria in aquatic environments. FEMS Microbiology Ecology, 2002, 39, 91-100.	2.7	963
81	Glucose fluxes and concentrations of dissolved combined neutral sugars (polysaccharides) in the Ross Sea and Polar Front Zone, Antarctica. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 48, 4179-4197.	1.4	146
82	The seasonal development of the bacterioplankton bloom in the Ross Sea, Antarctica, 1994–1997. Deep-Sea Research Part II: Topical Studies in Oceanography, 2001, 48, 4199-4221.	1.4	100
83	Dynamics and molecular composition of dissolved organic material during experimental phytoplankton blooms. Marine Chemistry, 2001, 75, 185-199.	2.3	144
84	Measuring bacterial biomass production and growth rates from leucine incorporation in natural aquatic environments. Methods in Microbiology, 2001, 30, 227-237.	0.8	242
85	Selected Chitinase Genes in Cultured and Uncultured Marine Bacteria in the $\hat{I}\pm$ - and $\hat{I}^3$ -Subclasses of the Proteobacteria. Applied and Environmental Microbiology, 2000, 66, 1195-1201.	3.1	109
86	Community Composition of Marine Bacterioplankton Determined by 16S rRNA Gene Clone Libraries and Fluorescence In Situ Hybridization. Applied and Environmental Microbiology, 2000, 66, 5116-5122.	3.1	404
87	Carbon versus iron limitation of bacterial growth in the California upwelling regime. Limnology and Oceanography, 2000, 45, 1681-1688.	3.1	147
88	Constraining bacterial production, conversion efficiency and respiration in the Ross Sea, Antarctica, January–February, 1997. Deep-Sea Research Part II: Topical Studies in Oceanography, 2000, 47, 3227-3247.	1.4	76
89	Natural Assemblages of Marine Proteobacteria and Members of the Cytophaga-Flavobacter Cluster Consuming Low- and High-Molecular-Weight Dissolved Organic Matter. Applied and Environmental Microbiology, 2000, 66, 1692-1697.	3.1	998
90	Phytoplankton death in the sea. Nature, 1999, 398, 293-294.	27.8	64

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91	Chitinases from Uncultured Marine Microorganisms. Applied and Environmental Microbiology, 1999, 65, 2553-2557.	3.1	177
92	Uptake of ammonium and nitrate by heterotrophic bacteria and phytoplankton in the sub-Arctic Pacific. Deep-Sea Research Part I: Oceanographic Research Papers, 1998, 45, 347-365.	1.4	97
93	A timescale for dissolved organic carbon production in equatorial Pacific surface waters. Global Biogeochemical Cycles, 1997, 11, 435-452.	4.9	49
94	A meeting place of great ocean currents: shipboard observations of a convergent front at $2\hat{A}^{\circ}N$ in the Pacific. Deep-Sea Research Part II: Topical Studies in Oceanography, 1997, 44, 1827-1849.	1.4	42
95	High bacterial production, uptake and concentrations of dissolved organic matter in the Central Arctic Ocean. Deep-Sea Research Part II: Topical Studies in Oceanography, 1997, 44, 1645-1663.	1.4	166
96	Concentration and composition of dissolved combined neutral sugars (polysaccharides) in seawater determined by HPLC-PAD. Marine Chemistry, 1997, 57, 85-95.	2.3	149
97	Laboratory evidence for microbially mediated silicate mineral dissolution in nature. Chemical Geology, 1996, 132, 11-17.	3.3	229
98	Concentrations and uptake of neutral monosaccharides along $14 \hat{A}^{\circ}W$ in the equatorial Pacific: Contribution of glucose to heterotrophic bacterial activity and the DOM flux. Limnology and Oceanography, 1996, 41, 595-604.	3.1	153
99	Active cycling of organic carbon in the central Arctic Ocean. Nature, 1996, 380, 697-699.	27.8	232
100	Microbial ferrous wheel. Nature, 1996, 383, 303-304.	27.8	47
101	Ammonium uptake by heterotrophic bacteria in the Delaware estuary and adjacent coastal waters. Limnology and Oceanography, 1995, 40, 886-897.	3.1	69
102	Measurement of dissolved free and combined amino acids in unconcentrated wastewaters using high performance liquid chromatography. Water Environment Research, 1995, 67, 118-125.	2.7	35
103	Biomass and biomass production of heterotrophic bacteria along 140°W in the equatorial Pacific: Effect of temperature on the microbial loop. Deep-Sea Research Part II: Topical Studies in Oceanography, 1995, 42, 603-619.	1.4	104
104	Editorial comment: Natural history of a manuscript, revisited. Limnology and Oceanography, 1994, 39, 739-741.	3.1	0
105	Abiotic transformation of labile protein to refractory protein in sea water. Marine Chemistry, 1994, 45, 187-196.	2.3	145
106	Biomass and nitrogen uptake by heterotrophic bacteria during the spring phytoplankton bloom in the North Atlantic Ocean. Deep-Sea Research Part I: Oceanographic Research Papers, 1994, 41, 879-895.	1.4	90
107	lsotope fractionation during ammonium uptake by marine microbial assemblages. Geomicrobiology Journal, 1994, 12, 113-127.	2.0	53
108	Induction of Chitin-Binding Proteins during the Specific Attachment of the Marine Bacterium <i>Vibrio harveyi</i> to Chitin. Applied and Environmental Microbiology, 1994, 60, 4284-4288.	3.1	47

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109	Direct and indirect effects of grazing by Neocalanus plumchrus on plankton community dynamics in the subarctic Pacific. Progress in Oceanography, 1993, 32, 239-258.	3.2	34
110	Biomass and production of heterotrophic bacterioplankton in the oceanic subarctic Pacific. Deep-Sea Research Part I: Oceanographic Research Papers, 1993, 40, 967-988.	1.4	156
111	Dissolved combined amino acids: Chemical form and utilization by marine bacteria. Limnology and Oceanography, 1993, 38, 1256-1270.	3.1	128
112	Attachment Stimulates Exopolysaccharide Synthesis by a Bacterium. Applied and Environmental Microbiology, 1993, 59, 3280-3286.	3.1	254
113	Role of Chitin-Binding Proteins in the Specific Attachment of the Marine Bacterium <i>Vibrio harveyi</i> to Chitin. Applied and Environmental Microbiology, 1993, 59, 373-379.	3.1	73
114	Isotope fractionation associated with ammonium uptake by a marine bacterium. Limnology and Oceanography, 1992, 37, 1447-1459.	3.1	194
115	Bacterial Hydrolysis of Protein and Methylated Protein and Its Implications for Studies of Protein Degradation in Aquatic Systems. Applied and Environmental Microbiology, 1992, 58, 1374-1375.	3.1	30
116	Release of dissolved free and combined amino acids by bacterivorous marine flagellates. Limnology and Oceanography, 1991, 36, 433-443.	3.1	93
117	High turnover rates of dissolved organic carbon during a spring phytoplankton bloom. Nature, 1991, 352, 612-614.	27.8	384
118	Dissolved combined amino acids in marine waters as determined by a vapor-phase hydrolysis method. Marine Chemistry, 1991, 33, 243-259.	2.3	123
119	Carbon limitation of ammonium uptake by heterotrophic bacteria in the subarctic Pacific. Limnology and Oceanography, 1990, 35, 1258-1266.	3.1	71
120	Degradation of Adsorbed Protein by Attached Bacteria in Relationship to Surface Hydrophobicity. Applied and Environmental Microbiology, 1990, 56, 3643-3648.	3.1	60
121	Adsorption of proteins to surfaces in seawater. Marine Chemistry, 1989, 27, 201-217.	2.3	41
122	The effect of amino acids on ammonium utilization and regeneration by heterotrophic bacteria in the subarctic Pacific. Deep-sea Research Part A, Oceanographic Research Papers, 1989, 36, 1763-1776.	1.5	121
123	Diel periodicity in ammonium uptake and regeneration in the oceanic subarctic Pacific: Implications for interactions in microbial food webs. Limnology and Oceanography, 1989, 34, 1025-1033.	3.1	59
124	Estimating Bacterial Production in Marine Waters from the Simultaneous Incorporation of Thymidine and Leucine. Applied and Environmental Microbiology, 1988, 54, 1934-1939.	3.1	175
125	Microbial Lectins and Agglutinins. Properties and Biological Activity.David Mirelman. Quarterly Review of Biology, 1987, 62, 88-89.	0.1	0
126	Utilization of inorganic and organic nitrogen by bacteria in marine systems1. Limnology and Oceanography, 1986, 31, 998-1009.	3.1	315

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127	Metabolic regulation of amino acid uptake in marine waters1. Limnology and Oceanography, 1986, 31, 339-350.	3.1	24
128	Does adenine incorporation into nucleic acids measure total microbial production?1. Limnology and Oceanography, 1986, 31, 627-636.	3.1	27
129	Adenine and total microbial production: A reply. Limnology and Oceanography, 1986, 31, 1395-1400.	3.1	8
130	Ribulose Bisphosphate Carboxylase from Three Chlorophyll c-Containing Algae. Plant Physiology, 1986, 80, 685-691.	4.8	35
131	Depth Distribution of Bacterial Production in a Stratified Lake with an Anoxic Hypolimnion. Applied and Environmental Microbiology, 1986, 52, 992-1000.	3.1	80
132	Inhibition by Peptides of Amino Acid Uptake by Bacterial Populations in Natural Waters: Implications for the Regulation of Amino Acid Transport and Incorporation. Applied and Environmental Microbiology, 1984, 47, 624-631.	3.1	58
133	Bacterial dynamics and distribution during a spring diatom bloom in the Hudson River plume, USA. Journal of Plankton Research, 1983, 5, 333-355.	1.8	90
134	The production of bacteria attached to particles suspended in a freshwater pond1. Limnology and Oceanography, 1983, 28, 858-872.	3.1	93
135	Contribution of Particle-Bound Bacteria to Total Microheterotrophic Activity in Five Ponds and Two Marshes. Applied and Environmental Microbiology, 1982, 43, 200-209.	3.1	222
136	Production and Vertical Flux of Attached Bacteria in the Hudson River Plume of the New York Bight as Studied with Floating Sediment Traps. Applied and Environmental Microbiology, 1982, 43, 769-776.	3.1	52
137	Bacteria induce settlement and metamorphosis of Janua (Dexiospira) brasiliensis Grube (Polychaeta:Spirprbidae). Journal of Experimental Marine Biology and Ecology, 1981, 56, 153-163.	1.5	150