

# V M De Oliveira

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1829197/publications.pdf>

Version: 2024-02-01

120  
papers

3,662  
citations

136740

32  
h-index

174990

52  
g-index

122  
all docs

122  
docs citations

122  
times ranked

4646  
citing authors

#	ARTICLE	IF	CITATIONS
1	Hydrogen and organic acid production from dark fermentation of sugarcane vinasse without buffers in mesophilic and thermophilic conditions. <i>Journal of Chemical Technology and Biotechnology</i> , 2022, 97, 1585-1596.	1.6	6
2	Hydrogen and organic acid production from dark fermentation of cheese whey without buffers under mesophilic condition. <i>Journal of Environmental Management</i> , 2022, 304, 114253.	3.8	15
3	Antarctic environments as a source of bacterial and fungal therapeutic enzymes. <i>Anais Da Academia Brasileira De Ciencias</i> , 2022, 94, e20210452.	0.3	0
4	Antarctic organisms as a source of antimicrobial compounds: a patent review. <i>Anais Da Academia Brasileira De Ciencias</i> , 2022, 94, e20210840.	0.3	3
5	Potential for resistance to freezing by non-virulent bacteria isolated from Antarctica. <i>Anais Da Academia Brasileira De Ciencias</i> , 2022, 94, e20210459.	0.3	1
6	Extracellular hydrolytic enzymes produced by yeasts from Antarctic lichens. <i>Anais Da Academia Brasileira De Ciencias</i> , 2022, 94, e20210540.	0.3	7
7	Interactive analysis of biosurfactants in fruit-waste fermentation samples using BioSurfDB and MEGAN. <i>Scientific Reports</i> , 2022, 12, 7769.	1.6	3
8	A genomic catalog of Earth's microbiomes. <i>Nature Biotechnology</i> , 2021, 39, 499-509.	9.4	457
9	Marine associated microbial consortium applied to RBBR textile dye detoxification and decolorization: Combined approach and metatranscriptomic analysis. <i>Chemosphere</i> , 2021, 267, 129190.	4.2	15
10	Dynamics of microbial stress responses driven by abiotic changes along a temporal gradient in Deception Island, Maritime Antarctica. <i>Science of the Total Environment</i> , 2021, 758, 143671.	3.9	9
11	Microbiome taxonomic and functional profiles of two domestic sewage treatment systems. <i>Biodegradation</i> , 2021, 32, 17-36.	1.5	7
12	Pigments from Antarctic bacteria and their biotechnological applications. <i>Critical Reviews in Biotechnology</i> , 2021, 41, 809-826.	5.1	31
13	Antarctic lichens as a source of phosphate-solubilizing bacteria. <i>Extremophiles</i> , 2021, 25, 181-191.	0.9	6
14	Enzymatic routes to hydrogen and organic acids production from banana waste fermentation by autochthonous bacteria: Optimization of pH and temperature. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 8454-8468.	3.8	21
15	Evaluation of anaerobic and anoxic reactors installed in serial to treat fish tank effluent. <i>Revista Ambiente &amp; Água</i> , 2021, 16, 1.	0.1	0
16	Pharmaceutical biotechnological potential of filamentous fungi isolated from textile industry. <i>Archives of Microbiology</i> , 2021, 203, 3933-3944.	1.0	4
17	Antimicrobial activity against <i>Microcystis aeruginosa</i> and degradation of microcystin-LR by bacteria isolated from Antarctica. <i>Environmental Science and Pollution Research</i> , 2021, 28, 52381-52391.	2.7	7
18	Effect of biostimulation and bioaugmentation on hydrocarbon degradation and detoxification of diesel-contaminated soil: a microcosm study. <i>Journal of Microbiology</i> , 2021, 59, 634-643.	1.3	4

#	ARTICLE	IF	CITATIONS
19	Cold-adapted chitinases from Antarctic bacteria: Taxonomic assessment and enzyme production optimization. <i>Biocatalysis and Agricultural Biotechnology</i> , 2021, 34, 102029.	1.5	5
20	Fibrinolytic enzymes from extremophilic microorganisms in the development of new thrombolytic therapies: Technological Prospecting. <i>Recent Patents on Biotechnology</i> , 2021, 15, .	0.4	0
21	Technological Prospecting: Mapping Patents on L-asparaginases from Extremophilic Microorganisms. <i>Recent Patents on Biotechnology</i> , 2021, 15, .	0.4	1
22	New Insights into Controlling Homoacetogenesis in the Co-digestion of Coffee Waste: Effect of Operational Conditions and Characterization of Microbial Communities. <i>Applied Biochemistry and Biotechnology</i> , 2021, , 1.	1.4	2
23	Mangrove soil as a source for novel xylanase and amylase as determined by cultivation-dependent and cultivation-independent methods. <i>Brazilian Journal of Microbiology</i> , 2020, 51, 217-228.	0.8	16
24	Optimization of key factors affecting hydrogen production from coffee waste using factorial design and metagenomic analysis of the microbial community. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 4205-4222.	3.8	34
25	Taxonomic and functional diversity of the microbiome in a jet fuel contaminated site as revealed by combined application of in situ microcosms with metagenomic analysis. <i>Science of the Total Environment</i> , 2020, 708, 135152.	3.9	20
26	Characterization of amylase produced by cold-adapted bacteria from Antarctic samples. <i>Biocatalysis and Agricultural Biotechnology</i> , 2020, 23, 101452.	1.5	21
27	Exploring the genetic potential of a fosmid metagenomic library from an oil-impacted mangrove sediment for metabolism of aromatic compounds. <i>Ecotoxicology and Environmental Safety</i> , 2020, 189, 109974.	2.9	16
28	Undecane production by cold-adapted bacteria from Antarctica. <i>Extremophiles</i> , 2020, 24, 863-873.	0.9	3
29	Metagenomic Insights Into the Mechanisms for Biodegradation of Polycyclic Aromatic Hydrocarbons in the Oil Supply Chain. <i>Frontiers in Microbiology</i> , 2020, 11, 561506.	1.5	40
30	Actinobacteria from Antarctica as a source for anticancer discovery. <i>Scientific Reports</i> , 2020, 10, 13870.	1.6	38
31	Anaerobic reactor applied to laundry wastewater treatment: Unveiling the microbial community by gene and genome-centric approaches. <i>International Biodeterioration and Biodegradation</i> , 2020, 149, 104916.	1.9	15
32	Physicochemical characterization of <i>Pseudomonas stutzeri</i> UFV5 and analysis of its transcriptome under heterotrophic nitrification/aerobic denitrification pathway induction condition. <i>Scientific Reports</i> , 2020, 10, 2215.	1.6	17
33	In depth metagenomic analysis in contrasting oil wells reveals syntrophic bacterial and archaeal associations for oil biodegradation in petroleum reservoirs. <i>Science of the Total Environment</i> , 2020, 715, 136646.	3.9	28
34	The influence of upflow velocity and hydraulic retention time changes on taxonomic and functional characterization in Fluidized Bed Reactor treating commercial laundry wastewater in co-digestion with domestic sewage. <i>Biodegradation</i> , 2020, 31, 73-89.	1.5	12
35	Metagenomic analysis of autochthonous microbial biomass from banana waste: Screening design of factors that affect hydrogen production. <i>Biomass and Bioenergy</i> , 2020, 138, 105573.	2.9	24
36	Heterotrophic nitrifying/aerobic denitrifying bacteria: Ammonium removal under different physical-chemical conditions and molecular characterization. <i>Journal of Environmental Management</i> , 2019, 248, 109294.	3.8	57

#	ARTICLE	IF	CITATIONS
37	Hydrogen, alcohols and volatile fatty acids from the co-digestion of coffee waste (coffee pulp, husk,) Tj ETQq1 1 0.784314 rgBT /Overbo Hydrogen Energy, 2019, 44, 21434-21450.	3.8	50
38	The Challenge of Making Wastewater Treatment Plants Composed by Anaerobic Reactors Capable of Removing Nitrogen. Water, Air, and Soil Pollution, 2019, 230, 1.	1.1	5
39	Unveiling resistome profiles in the sediments of an Antarctic volcanic island. Environmental Pollution, 2019, 255, 113240.	3.7	15
40	Laundry wastewater and domestic sewage pilot-scale anaerobic treatment: Microbial community resilience regarding sulfide production. Journal of Environmental Management, 2019, 251, 109495.	3.8	27
41	Antarctic Fungi as Producers of Pigments. , 2019, , 305-318.		6
42	Hydrocarbon-associated substrates reveal promising fungi for poly (ethylene terephthalate) (PET) depolymerization. Brazilian Journal of Microbiology, 2019, 50, 633-648.	0.8	19
43	Microbial enhanced oil recovery using a biosurfactant produced by Bacillus safensis isolated from mangrove microbiota - Part I biosurfactant characterization and oil displacement test. Journal of Petroleum Science and Engineering, 2019, 180, 950-957.	2.1	25
44	Land Use and Seasonal Effects on the Soil Microbiome of a Brazilian Dry Forest. Frontiers in Microbiology, 2019, 10, 648.	1.5	61
45	The metagenomic landscape of xenobiotics biodegradation in mangrove sediments. Ecotoxicology and Environmental Safety, 2019, 179, 232-240.	2.9	17
46	Wide diversity of methane and short-chain alkane metabolisms in uncultured archaea. Nature Microbiology, 2019, 4, 603-613.	5.9	187
47	Chemical Characterization and Biotechnological Applicability of Pigments Isolated from Antarctic Bacteria. Marine Biotechnology, 2019, 21, 416-429.	1.1	31
48	Comparative metatranscriptomic analysis of anaerobic digesters treating anionic surfactant contaminated wastewater. Science of the Total Environment, 2019, 649, 482-494.	3.9	33
49	Pigments in an iridescent bacterium, Cellulophaga fucicola, isolated from Antarctica. Antonie Van Leeuwenhoek, 2019, 112, 479-490.	0.7	9
50	Warming weakens facilitative interactions between decomposers and detritivores, and modifies freshwater ecosystem functioning. Global Change Biology, 2018, 24, 3170-3186.	4.2	27
51	Integrated diversity analysis of the microbial community in a reverse osmosis system from a Brazilian oil refinery. Systematic and Applied Microbiology, 2018, 41, 473-486.	1.2	11
52	Effect of salinity in heterotrophic nitrification/aerobic denitrification performed by acclimated microbiota from oil-produced water biological treatment system. International Biodeterioration and Biodegradation, 2018, 130, 1-7.	1.9	52
53	Bacteria from Antarctic environments: diversity and detection of antimicrobial, antiproliferative, and antiparasitic activities. Polar Biology, 2018, 41, 1505-1519.	0.5	33
54	Exploring the potential of halophilic bacteria from oil terminal environments for biosurfactant production and hydrocarbon degradation under high-salinity conditions. International Biodeterioration and Biodegradation, 2018, 126, 231-242.	1.9	60

#	ARTICLE	IF	CITATIONS
55	Microbes and Petroleum Bioremediation. , 2018, , 97-123.		2
56	Antimicrobial, antiparasitic and antiproliferative effects of the extract of <i>Bacillus safensis</i> SG-32 isolated from a Brazilian oil reservoir. <i>African Journal of Microbiology Research</i> , 2018, 12, 897-907.	0.4	2
57	Microbial functional responses to long-term anthropogenic impact in mangrove soils. <i>Ecotoxicology and Environmental Safety</i> , 2018, 160, 231-239.	2.9	19
58	Environmental change and predator diversity drive alpha and beta diversity in freshwater macro and microorganisms. <i>Global Change Biology</i> , 2018, 24, 3715-3728.	4.2	32
59	Anaerobic co-digestion of commercial laundry wastewater and domestic sewage in a pilot-scale EGSB reactor: The influence of surfactant concentration on microbial diversity. <i>International Biodeterioration and Biodegradation</i> , 2018, 127, 77-86.	1.9	46
60	Microbial diversity of a full-scale UASB reactor applied to poultry slaughterhouse wastewater treatment: integration of 16S rRNA gene amplicon and shotgun metagenomic sequencing. <i>MicrobiologyOpen</i> , 2017, 6, e00443.	1.2	43
61	Metagenomic analysis of the microbiome in three different bioreactor configurations applied to commercial laundry wastewater treatment. <i>Science of the Total Environment</i> , 2017, 587-588, 389-398.	3.9	45
62	Ammonium removal from high-salinity oilfield-produced water: assessing the microbial community dynamics at increasing salt concentrations. <i>Applied Microbiology and Biotechnology</i> , 2017, 101, 859-870.	1.7	25
63	Functional metagenomics of oil-impacted mangrove sediments reveals high abundance of hydrolases of biotechnological interest. <i>World Journal of Microbiology and Biotechnology</i> , 2017, 33, 141.	1.7	20
64	Diversity of aromatic hydroxylating dioxygenase genes in mangrove microbiome and their biogeographic patterns across global sites. <i>MicrobiologyOpen</i> , 2017, 6, e00490.	1.2	11
65	Microbial diversity in degraded and non-degraded petroleum samples and comparison across oil reservoirs at local and global scales. <i>Extremophiles</i> , 2017, 21, 211-229.	0.9	34
66	Potential of semiarid soil from Caatinga biome as a novel source for mining lignocellulose-degrading enzymes. <i>FEMS Microbiology Ecology</i> , 2017, 93, fiw248.	1.3	15
67	Taxonomic and functional patterns across soil microbial communities of global biomes. <i>Science of the Total Environment</i> , 2017, 609, 1064-1074.	3.9	32
68	Functional and genetic characterization of hydrocarbon biodegrader and exopolymer-producing clones from a petroleum reservoir metagenomic library. <i>Environmental Technology (United Kingdom)</i> , 2017, 38, 1139-1150.	1.2	3
69	A Novel Multifunctional $\hat{1}^2$ -N-Acetylhexosaminidase Revealed through Metagenomics of an Oil-Spilled Mangrove. <i>Bioengineering</i> , 2017, 4, 62.	1.6	13
70	Bioaugmentation strategy employing a microbial consortium immobilized in chitosan beads for oil degradation in mesocosm scale. <i>Marine Pollution Bulletin</i> , 2016, 107, 107-117.	2.3	50
71	Enzymatic potential of heterotrophic bacteria from a neutral copper mine drainage. <i>Brazilian Journal of Microbiology</i> , 2016, 47, 846-852.	0.8	5
72	Anthropogenic impact on mangrove sediments triggers differential responses in the heavy metals and antibiotic resistomes of microbial communities. <i>Environmental Pollution</i> , 2016, 216, 460-469.	3.7	80

#	ARTICLE	IF	CITATIONS
73	Evaluation of bacterial diversity recovered from petroleum samples using different physical matrices. <i>Brazilian Journal of Microbiology</i> , 2016, 47, 712-723.	0.8	10
74	Detoxification of Atrazine by Endophytic <i>Streptomyces</i> sp. Isolated from Sugarcane and Detection of Nontoxic Metabolite. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2015, 95, 803-809.	1.3	18
75	Identification of oxidoreductases from the petroleum <i>Bacillus safensis</i> strain. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2015, 8, 152-159.	2.1	17
76	Genomic and chemical insights into biosurfactant production by the mangrove-derived strain <i>Bacillus safensis</i> CCMA-560. <i>Applied Microbiology and Biotechnology</i> , 2015, 99, 3155-3167.	1.7	30
77	Slurry Phase Biological Treatment of Latosol Contaminated with Phthalates, Adipate, and Alcohols. <i>Journal of Environmental Engineering, ASCE</i> , 2015, 141, 04014046.	0.7	2
78	Compositional profile of epoxide hydrolase fold proteins in mangrove soil metagenomes: prevalence of epoxide hydrolases and haloalkane dehalogenases in oil-contaminated sites. <i>Microbial Biotechnology</i> , 2015, 8, 604-613.	2.0	17
79	The use of the carbon/nitrogen ratio and specific organic loading rate as tools for improving biohydrogen production in fixed-bed reactors. <i>Biotechnology Reports (Amsterdam, Netherlands)</i> , 2015, 5, 46-54.	2.1	106
80	Molecular diversity of fungal and bacterial communities in the marine sponge <i>Dracopis reticulatum</i> . <i>Journal of Basic Microbiology</i> , 2015, 55, 207-220.	1.8	17
81	New FeFe-hydrogenase genes identified in a metagenomic fosmid library from a municipal wastewater treatment plant as revealed by high-throughput sequencing. <i>Research in Microbiology</i> , 2015, 166, 9-19.	1.0	12
82	Classification and Identification of Petroleum Microorganisms by MALDI-TOF Mass Spectrometry. <i>Journal of the Brazilian Chemical Society</i> , 2015, . .	0.6	2
83	New Hydrocarbon Degradation Pathways in the Microbial Metagenome from Brazilian Petroleum Reservoirs. <i>PLoS ONE</i> , 2014, 9, e90087.	1.1	83
84	Bioremediation potential of microorganisms derived from petroleum reservoirs. <i>Marine Pollution Bulletin</i> , 2014, 89, 191-200.	2.3	61
85	Production and Properties of a Surface-Active Lipopeptide Produced by a New Marine <i>Brevibacterium luteolum</i> Strain. <i>Applied Biochemistry and Biotechnology</i> , 2014, 174, 2245-2256.	1.4	29
86	Culturable bacterial diversity from a feed water of a reverse osmosis system, evaluation of biofilm formation and biocontrol using phages. <i>World Journal of Microbiology and Biotechnology</i> , 2014, 30, 2689-2700.	1.7	25
87	Genome Sequence of <i>Bacillus safensis</i> CFA06, Isolated from Biodegraded Petroleum in Brazil. <i>Genome Announcements</i> , 2014, 2, .	0.8	5
88	Chromosome numbers and karyotypes of <i>Catasetum</i> species (Orchidaceae). <i>Plant Biosystems</i> , 2014, 148, 499-507.	0.8	1
89	The Effect of Biomass Immobilization Support Material and Bed Porosity on Hydrogen Production in an Upflow Anaerobic Packed-Bed Bioreactor. <i>Applied Biochemistry and Biotechnology</i> , 2013, 170, 1348-1366.	1.4	45
90	Investigation of the FeFe-hydrogenase gene diversity combined with phylogenetic microbial community analysis of an anaerobic domestic sewage sludge. <i>World Journal of Microbiology and Biotechnology</i> , 2013, 29, 2003-2014.	1.7	10

#	ARTICLE	IF	CITATIONS
91	Diversity analyses of microbial communities in petroleum samples from Brazilian oil fields. <i>International Biodeterioration and Biodegradation</i> , 2013, 81, 57-70.	1.9	84
92	Draft Genome Sequence of the Biosurfactant-Producing Bacterium <i>Gordonia amicalis</i> Strain CCMA-559, Isolated from Petroleum-Impacted Sediment. <i>Genome Announcements</i> , 2013, 1, .	0.8	5
93	Draft Genome Sequence of <i>Bacillus pumilus</i> CCMA-560, Isolated from an Oil-Contaminated Mangrove Swamp. <i>Genome Announcements</i> , 2013, 1, .	0.8	8
94	Identification of Genes and Pathways Related to Phenol Degradation in Metagenomic Libraries from Petroleum Refinery Wastewater. <i>PLoS ONE</i> , 2013, 8, e61811.	1.1	47
95	Taxonomic Diversity and Biodegradation Potential of Bacteria Isolated from Oil Reservoirs of an Offshore Southern Brazilian Basin. <i>Journal of Petroleum &amp; Environmental Biotechnology</i> , 2013, 03, .	0.3	4
96	Diversity of Hydrocarbon-Related Catabolic Genes in Oil Samples from Potiguar Basin (Rn, Brazil). <i>Journal of Petroleum &amp; Environmental Biotechnology</i> , 2013, 04, .	0.3	1
97	Phylogenetic and functional diversity of metagenomic libraries of phenol degrading sludge from petroleum refinery wastewater treatment system. <i>AMB Express</i> , 2012, 2, 18.	1.4	55
98	Correlation of soil microbial community responses to contamination with crude oil with and without chromium and copper. <i>International Biodeterioration and Biodegradation</i> , 2012, 70, 104-110.	1.9	21
99	Could petroleum biodegradation be a joint achievement of aerobic and anaerobic microorganisms in deep sea reservoirs?. <i>AMB Express</i> , 2011, 1, 47.	1.4	37
100	Cultivation-independent methods applied to the microbial prospection of oil and gas in soil from a sedimentary basin in Brazil. <i>AMB Express</i> , 2011, 1, 35.	1.4	22
101	The potential for hydrocarbon biodegradation and production of extracellular polymeric substances by aerobic bacteria isolated from a Brazilian petroleum reservoir. <i>World Journal of Microbiology and Biotechnology</i> , 2011, 27, 1513-1518.	1.7	29
102	Molecular analysis of microbial diversity in corrosion samples from energy transmission towers. <i>Biofouling</i> , 2011, 27, 435-447.	0.8	13
103	Searching for monooxygenases and hydrolases in bacteria from an extreme environment. <i>Applied Microbiology and Biotechnology</i> , 2010, 87, 319-329.	1.7	16
104	Screening and Production Study of Microbial Xylanase Producers from Brazilian Cerrado. <i>Applied Biochemistry and Biotechnology</i> , 2010, 161, 333-346.	1.4	53
105	Microbial diversity associated with algae, ascidians and sponges from the north coast of São Paulo state, Brazil. <i>Microbiological Research</i> , 2010, 165, 466-482.	2.5	137
106	Treatment of linear alkylbenzene sulfonate in a horizontal anaerobic immobilized biomass reactor. <i>Bioresource Technology</i> , 2010, 101, 606-612.	4.8	33
107	Screening for hydrocarbon biodegraders in a metagenomic clone library derived from Brazilian petroleum reservoirs. <i>Organic Geochemistry</i> , 2010, 41, 675-681.	0.9	43
108	Reprint of: Screening for hydrocarbon biodegraders in a metagenomic clone library derived from Brazilian petroleum reservoirs. <i>Organic Geochemistry</i> , 2010, 41, 1067-1073.	0.9	10

#	ARTICLE	IF	CITATIONS
109	Monitoring the Bacterial Community Dynamics in a Petroleum Refinery Wastewater Membrane Bioreactor Fed with a High Phenolic Load. <i>Journal of Microbiology and Biotechnology</i> , 2010, 20, 21-29.	0.9	24
110	Isolation, biodegradation ability and molecular detection of hydrocarbon degrading bacteria in petroleum samples from a Brazilian offshore basin. <i>Organic Geochemistry</i> , 2009, 40, 574-588.	0.9	45
111	Evaluation of the microbial diversity in a horizontal-flow anaerobic immobilized biomass reactor treating linear alkylbenzene sulfonate. <i>Biodegradation</i> , 2008, 19, 375-385.	1.5	38
112	Bacterial diversity characterization in petroleum samples from Brazilian reservoirs. <i>Brazilian Journal of Microbiology</i> , 2008, 39, 445-452.	0.8	30
113	Interaction of endophytic diazotrophic bacteria and <i>Fusarium oxysporum</i> f. sp. <i>cubense</i> on plantlets of banana "Maçã"™. <i>Plant and Soil</i> , 2007, 298, 47-56.	1.8	27
114	Analysis of the composition of bacterial communities in oil reservoirs from a southern offshore Brazilian basin. <i>Antonie Van Leeuwenhoek</i> , 2007, 91, 253-266.	0.7	85
115	A ribosomal RNA gene intergenic spacer based PCR and DGGE fingerprinting method for the analysis of specific rhizobial communities in soil. <i>Journal of Microbiological Methods</i> , 2006, 64, 366-379.	0.7	25
116	Biodegradation and detoxification of -nitrophenol by <i>Rhodococcus wratislaviensis</i> . <i>International Biodeterioration and Biodegradation</i> , 2005, 55, 103-108.	1.9	81
117	Isolation and characterization of alachlor-degrading actinomycetes from soil. <i>Antonie Van Leeuwenhoek</i> , 2005, 87, 81-89.	0.7	25
118	Relationship between cyclohexyl-alkanoic acids and the acidothermophilic bacterium <i>Alicyclobacillus</i> spp.: Evidence from Brazilian oils. <i>Organic Geochemistry</i> , 2005, 36, 1443-1453.	0.9	11
119	Discrimination of <i>Rhizobium tropici</i> and <i>R. leguminosarum</i> strains by PCR-specific amplification of 16S-23S rDNA spacer region fragments and denaturing gradient gel electrophoresis (DGGE). <i>Letters in Applied Microbiology</i> , 1999, 28, 137-141.	1.0	23
120	Evaluation of the diversity of rhizobia in Brazilian agricultural soils cultivated with soybeans. <i>Applied Soil Ecology</i> , 1999, 13, 159-167.	2.1	42