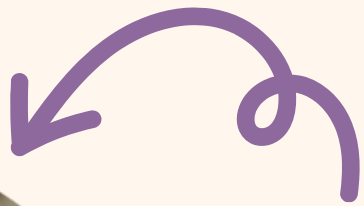




Simposio de Investigación de Biología

3 de mayo de 2024

Edificio de Biología



Keynote Speaker

Lic. Fernando E. Lloveras

Presidente de Para la Naturaleza

para la
Naturaleza

*Charlas comenzarán a las 8:30am @ B-392

*Afiches y Exposición en el Lobby de 12-1:45pm

Animate y Comparte con Nosotros



Auspiciado por:

Autorizado por la Oficina del Contralor Electoral OCE-SA-2024-06282

Simposio de Investigación de Biología

3 de mayo de 2024

Sesión A (B-392) Sesión B (B-280a) Sesión C (B-282a) Sesión D (B-184) Sesión E (B-390)

Plenaria

8:40	Dr. Benjamin van Ee
8:50	Dra. Olgamary Rivera
9:00	Keynote - Lic. Lloveras
9:40	Leonel Vélez Román
10:00	Camila Martínez
10:20	Estela Cruz García

10:40 Coffee Break

	Ecología Molecular I	Ecología I	Biomédica & Biotecnología I	Microbiología I	Salud Ambiental
11:00	Adriana P. Santos	Lyanne S. Caro	Alaina Camasta	Yareliz N. Nieves	Gabriel J. Martínez
11:15	María Gabriela Díaz	Ruber Rodríguez	Amanda C. Rivera	Verónica G. Bado	Nahíra Arocho
11:30	Marco A. Acosta	Ana S. Cabrera Isaza	Olga M Rodríguez	Amanda R. García	María S. Seda
11:45	Gabriel M. Torres	Bárbara Sánchez	Valeria Gómez	Valeria A. Prats	Nick A. López
12:00	Rosemarie Casiano	Amanda Reyes	Deiver Suárez	Alex Veglia	Marianela Oliveras
12:15	Jesús D. Quiñones	Lesly Rosa Rivera	Sebastián A. Cruz		

12:30 Afiches y Exposición - Lobby de Biología

	Ecología Molecular II	Ecología II	Biomédica & Biotecnología II	Microbiología II
2:00	Timothy J. Colston	Thomas D. Clayton	Alejandra Harris	Katiushka Berrocales
2:15	Brittney Burris	María V. Viggiano	Edwin Ramírez	Jan Morales
2:30	Aslin Almeda Castro	Arianna Corujo	Clara Isaza	Isabelle Figueroa
2:45	Jacob D. Adam	Gabriel Curbelo	Alibeth E. Luna	Rania Rodríguez
3:00	Yeissette M. Burgos	Arianna Altiery Vélez	Carlos J. González	Ivy Margarita Cruz
3:15	Norelis L. López	Estefanía Torrez	Valeria Arroyo	Lizmar M. Luna
3:30	Diana M. B. Perales	María A. Coca	Jennifer Pellicier	Yadira Malavez
3:45	Alanis M. Torres	Ariana Hernández	Denishka N. Sostre	Carlos J. González
4:00	Andrea T. Vélez	Edgardo Vélez-Torres	Felnor Maldonado	Jessica Páez-Díaz
4:15	Aurea E. Rodriguez	Edwin X. García Ríos	Wilmary Santana	Miguel González

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Programa Sesión A (B-392)

Presentación Oral

Programa	Sesión A (B-392)	Presentación Oral
8:40am	Plenaria	Moderador - Alondra M. Díaz Lameiro
8:40	Bienvenida	Dr. Benjamin van Ee - Director del Departamento de Biología
8:50	Bienvenida	Dra. Olgamary Rivera - Decana Asociada de Asuntos Academicos de la Facultad de Artes y Ciencias
9:00	Orador Principal	Lic. Fernando E. Lloveras San Miguel - Presidente de Para la Naturaleza
9:40	Orador Destacado - Graduado	Leonel Velez Roman - SonicVision: Early Breast Cancer Detection with SHH-GFP Biosensor
10:00	Orador Destacado - Subgraduado	Camila Martínez Llaurador - Assessing the Biodistribution and Toxicity of Fluorescently Dyed Nanopolystyrene in <i>Artemia salina</i>
10:20	Orador - Medalla Departamental	Estella M. Cruz Garcia - Research Adventures: Navigating Diverse Paths to Discovery
11:00am	Ecología Molecular I	Moderador - Alondra M. Díaz Lameiro; Tech - Marco A. Acosta Leon
11:00	Adriana P. Santos Bagué	Potential Variant Associated with Four-Beat Gait Upstream of <i>MYH7</i> Gene
11:15	Maria Gabriela Diaz Gonzalez	Clarifying Genus Boundaries of Bird Parasites Through Morphological and Molecular Analysis
11:30	Marco A. Acosta Leon	Gene Flow Analysis of the Velvet Worms of Puerto Rico (<i>Peripatus juanensis</i> Bouvier 1900)
11:45	Gabriel M. Torres Nieves	Discovery of a novel species of Pseudoparacreptotrema parasite in Puerto Rico, with insights into the biogeographic history of the genus
12:00	Rosemarie Casiano	Comparación de microbiota intestinal de Spirobellus, Docodesmus, Prostemillus por medio de la metagenómica
12:15	Jesús D. Quiñones Llópiz	Genetic diversity of the land crab <i>Cardisoma guanhumí</i> in Puerto Rico
2:00pm	Ecología Molecular II	Moderador - Sean Locke; Tech - Maria Gabriela Diaz Gonzalez
2:00	Timothy J. Colston	Venom-Microbiomics and the Venom Microenvironment
2:15	Brittney Burris	Unveiling the White Grub: Parasite Prevalence in Rosy Red Minnows
2:30	Aslin Almeda Castro	Monitoring the incidence of Reptarenavirus in wild-caught <i>Boa constrictor</i> and <i>Malayopython reticulatus</i> in Puerto Rico.
2:45	Jacob D. Adam	Fungal Microbiome Associated with the Puerto Rican Boa (<i>Chilabothrus inornatus</i> ; Reinhardt, 1843)
3:00	Yeissette M. Burgos-Amengual	Identification of Microbial Factors Influencing Mucous Toxin Secretions of Invasive Cuban Tree Frogs
3:15	Norelis L. Lopez Martiz	Annotating <i>SCNN1</i> as a possible candidate that causes eggshell weakness in the Puerto Rican parrot
3:30	Diana M. B. Perales Macedo	Survey of parasitic biodiversity from introduced freshwater snails in Puerto Rico
3:45	Alanis M. Torres Colón	The Predicted Effects of <i>PI4KA</i> Gene Mutations in <i>A. vittata</i> Eggshell Strength
4:00	Andrea T. Vélez Tosado	Isolation, Purification and Exploration of Lytic Phages as Bioindicators in Environmental Water Analysis for Different Bacterial Species
4:15	Aurea E. Rodriguez Santiago	Educación para Conocer Nuestras Costas

Simposio de Investigación de Biología
3 de mayo de 2024

Programa Sesión B (B-280a)

Presentación Oral

11:00am	Ecología I	Moderador - Ruber Rodríguez Barreras; Tech - Jacob D. Adam
11:00	Lyanne S. Caro Morales	Comparative Analysis of the Songs of the Northern Mockingbird in Rural and Urban Areas
11:15	Ruber Rodríguez Barreras	Seasonal and life-stage changes in the gut digesta microbiota of the sea urchin <i>Tripneustes ventricosus</i>
11:30	Ana Sofía Cabrera Isaza	Model-free Forecasting Method with Pareto Efficient Configuration
11:45	Bárbara Sánchez-Sanatana	Careers at Natural Resources Conservation Service: What you need to know?
12:00	Amanda Reyes Nieves	Soil, Fish, or Water? A Comparison of Lettuce (<i>Lactuca sativa</i>) Growth and Cost Using Hydroponics, Aquaponics, and Soil
12:15	Lesly Rosa Rivera	Effect of Morphology and Shell Size on the Running Speed of Hermit Crabs in Puerto Rico

2:00pm	Ecología II	Moderador - Dimaris Acosta; Tech - Jesús D. Quiñones Llópiz
2:00	Thomas D. Clayton López	Unveiling the Invasion: Understanding <i>Boa constrictor</i> Population and Diet in an Important Wildlife Conservation Area
2:15	Maria V. Viggiano	Assessing NEON Aquatic Data: Case studies of the response of aquatic life to stream flow in Puerto Rico sites
2:30	Arianna Corujo, Emmanuel Nazario, José Borrero, y Yaviel González	An Individual Decision-Making Framework to Achieve Mitigation of Climate Change Effects with a Local Perspective
2:45	Gabriel Curbelo y Ariana Pascual	A Story of Toxic Relationships: The Effects of Invasive Plant Species on Ciliate Biodiversity in the Cartagena Lagoon, Lajas, Puerto Rico.
3:00	Arianna Altiery Vélez	Evaluating the Different Physico-Chemical Parameters in Different Mangroves of Puerto Rico as an Effect of Climate Change
3:15	Estefanía Torrez Marrero	Bosque Estatal del Bosque Toro Negro
3:30	María A. Coca Bellalfores	Silent Invaders: The Online Trade of Illegal Reptiles in Puerto Rico
3:45	Ariana Hernández Colón	Diet Analysis for the Invasive <i>Boa constrictor</i> in Western Puerto Rico Between 2019-2023
4:00	Edgardo Vélez-Torres	Abundance Estimate and behavior analysis of the Dry Forest Anole (<i>Anolis cooki</i>) in the Guánica State Forest
4:15	Edwin X. García Ríos	First Report of the ant <i>Nylanderia semitincta</i> in the northern karst

Simposio de Investigación de Biología

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Programa Sesión C (B-282a)

Presentación Oral

11:00am	Biomédica & Biotecnología I	Moderador - Luis Rios
11:00	Alaina Camasta Benítez	Hepatitis C virus and the risk of Parkinson's disease: A Comprehensive Sex-Stratified Meta-Analysis Using BioOptimatics Approach
11:15	Amanda C. Rivera Morales	Class Forecasting Method Applications to Public Health: Heart Disease, Suicide Rate, Pre-term Birth, and Infant Mortality Rates
11:30	Olga M Rodriguez Martinez	Engineered nanoclusters to reduce melanoma cell proliferation: evidence for focal adhesion kinase (FAK/SRC) regulation in cancer cells
11:45	Valeria Gomez, Nayarid Torres, y Melvin Pagan	<i>Campylobacter jejuni</i> and <i>Campylobacter coli</i> resistance profile and virulence factors from isolates of chicken samples in Puerto Rico local markets
12:00	Deiver Suárez	Toward Understanding Calcium Signaling Dynamics: Integrative Analysis Framework and Case Study in T Cell Populations
12:15	Sebastián A. Cruz Romero	Identifying Epigenetic Alterations within the Orbitofrontal Cortex linked to Opioid User Disorder

2:00pm	Biomédica & Biotecnología II	Moderador - Clara Isaza; Tech - Diego Morales
2:00	Alejandra Harris Lugo	Comparison of Brain Waves, Blinking, and Reading Comprehension when Reading on an Electronic Device and a Printed Text
2:15	Edwin Ramirez Aponte	Filaggrin loss of function mutations in the Puerto Rican population and their prevalence in patients with ichthyosis vulgaris, atopic dermatitis, asthma and allergies
2:30	Clara Isaza	Interdisciplinary research
2:45	Alibeth E. Luna Alvear	Assessment of the Degree of Coincidence between Differentially Expressed Genes in Pancreatic Cancer with and without CAR T Cell treatment
3:00	Miguel González, Carlos González, y Karlianie Rivera	Crafting a T7 RNA polymerase production system using synthetic biology
3:15	Valeria Arroyo	Effect of Engineering Nanosulfides on Focal Adhesion Points in Melanoma Cells of Mesenchymal and Epithelial Phenotypes
3:30	Jennifer Pellicier Caraballo	Mutation in the <i>SAMD7</i> Gene Could Potentially Impact the Eggshell Strength of <i>A. vittata</i> Species
3:45	Denishka Nicole Sostre Palanuk	Allergen biomarker sensor for <i>Aspergillus fumigatus</i>
4:00	Felnor Maldonado Cotto	Synthetic Biology against Marine Microplastic Pollution
4:15	Wilmery Santana Rodriguez	Life Detection Approach on Mars Automated Vehicle for Innovative Science

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3 de mayo de 2024

Programa Sesión D (B-184)

Presentación Oral

11:00am	Microbiología I	Moderador - Carlos Rios Velazquez
11:00	Yareliz N. Nieves Jimenez	Isolation of Purple Non-Sulfur Bacteria Specific Bacteriophages from Microbial Mats
11:15	Verónica G. Bado García	Monitoring the Spread of IBD in Puerto Rico by the Invasive <i>Boa constrictor</i>
11:30	Amanda R. García Flores	Hongos cultivables asociados al erizo de mar <i>Echinoidea lucunter</i> en Playa Buyé, Cabo Rojo, Puerto Rico
11:45	Valeria A. Prats Pérez	Identification and Characterization of Tetracycline-Resistant Bioprospects in <i>Caracolus marginella</i> 's gut Metagenomic Library
12:00	Alex Veglia	Exploring the environmental virosphere across diverse habitats in Puerto Rico

2:00pm	Microbiología II	Moderador - Ana Velez; Tech - Jan Morales
2:00	Katiushka P. Berrocales Vázquez	Detection and characterization of Gram-positive and Gram-negative bacteria in stormwater from Quebrada del Oro at Mayagüez
2:15	Jan Morales	Exploring Bioactive Cyanobacteria Metabolites in Marine Invertebrate Holobiont
2:30	Isabelle Figueroa y Lyan Lugo	Antimicrobial Resistance and Virulence Profile on <i>Salmonella enterica</i> Isolated from Retail Meat
2:45	Rania Rodriguez y Joyce Reyes	Unveiling the double threat: Antibiotic Resistance and Virulence Factors in <i>Escherichia coli</i> isolated from Retail Meat
3:00	Ivy Margarita Cruz Barreto	Identification and Characterization of Tetracycline-Resistant Bioprospects from Guánica's Dry Forest Metagenomic Library
3:15	Lizmar M. Luna Pirela	Proponiendo soluciones: Propiedades antibióticas en <i>Sargassum fluitans</i>
3:30	Yadira Malavez Acevedo	Tracking the Invisible Threat: Antimicrobial Resistance in Retail Meat Across Puerto Rico
3:45	Carlos J. Gonzalez Lugo	Detection of Genes Involved in the Production of Biofilms in Metagenomic Libraries of <i>Holothuria glaberrima</i>
4:00	Jessica Páez-Díaz	Screening Metagenomic Libraries generated from the Digestive System of <i>Holothuria glaberrima</i> for Protease-Secreting Bioprospects
4:15	Miguel Gonzalez y Karlianie Rivera	Virulence factors and antibiotic resistance profiles of <i>Staphylococcus aureus</i> isolated from retail meats

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Programa Sesión E (B-390)

Presentación Oral

11:00am Salud Ambiental

Moderador - Danimar Lopez Hernandez

11:00 Gabriel J. Martínez Montalvo

Boa constrictor in Puerto Rico: Unraveling the Influence of Island Life on Sexual Dimorphism in the Invasive Species

11:15 Nahíra Arocho-Hernández

Caribbean Islands National Wildlife Refuge Complex: Restoration and Conservation Projects

11:30 María S. Seda Morales

Analysis of Reproductive Seasonality of the Invasive Red Tailed Boa (*Boa Constrictor*) in Western Puerto Rico Between 2019-2023

11:45 Nick A. López Nieves

Less diversity of freshwater fish communities linked with lower environmental conditions

12:00 Marianela Oliveras Martínez

StreamFRE: Effects of Low Flow on Leaf Retention in Tropical Headwater Streams, Quebrada Prieta, Puerto Rico

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Afiches	Presentador	Titulo	Lobby de Biología 12:30 - 1:45 pm
1	Katia Pitre Montalvo	Morphological Comparison Of Three Populations Of Guava (<i>Psidium guajava</i>)	
2	Héctor M. González Rivera	The <i>RASD1</i> gene, its Evolutionary Adaptation and Potential Implications to Eggshell Weakness in <i>Amazona vittata</i>	
3	Alibeth Luna, Cristina Marin, Sthepanie Odhe, Gustavo González	Robustness of Alzheimer's Biomarkers Identification through Multiple Criteria Optimization (MCO)	
4	Arianis Cartagena Burgos	Investigating the Role of Ribosomal Associated Proteins in Nonsense-mediated mRNA decay (NMD)	
5	Ariana Negroni Santiago	Insights into Stomach Ulcers Treatment using H ₂ S, Hemoglobin I, and Collagen Moiety	
6	Alibeth Luna, Patricia Malave y Gustavo Bertran	Analysis of RNA-seq experiments involving CAR T cells through BioOptimatics	
7	Claudia Jimenez	Raman Spectroscopy for In-Vivo Ecotoxicological Analysis: Investigating Oxybenzone- Induced Biomolecular Changes in Zebrafish (<i>Danio rerio</i>) Larvae	
8	Geraldine K. Fontanillas Montes	Immunogenetic profiling of HLA-E polymorphisms among Puerto Ricans using PCR-SSP	
9	Natalia Pérez Santos	Isolation and Characterization of Lethal Factor Interacting Peptides Using T7 Phage Display of Human Lung Libraries	
10	Diane M. Vega Torres	Unlocking Potential: CDI Laboratories Inc.'s Revolutionary Approach to Monoclonal Antibody Development	
11	Abram J. Velazquez Aviles	Microbial Poly(hydroxybutyrate-co-hydroxyvalerate) Scaffold for Periodontal Tissue Engineering	
12	Darío A. Lugo Pérez	Characterization and control of <i>Rhizoctonia solani</i> affecting lucky bamboo (<i>Dracaena sandieriana</i> hort. ex. Mast.) using some bioagents	
13	Nicol M. Ríos Ortiz	Defining Allelic Variants in High Frequency Among the Puerto Rican Population in Genes Associated with Coronary Heart Diseases	
14	Claudia S. Pantoja Negrón	Correlation between gait speed and the <i>MSTN</i> g. 66493737 C>T genotype in Puerto Rican Paso Fino horses	
15	Andrea Carolina Torres Santiago	<i>ROS1</i> Gene Mutations and Eggshell Calcification in the Puerto Rican Parrot, <i>Amazona vittata</i>	
16	Natalia Delgado Giraldo	The analysis of genes expression data as a starting point for the lupus puzzle	
17	Vanessa Colón Badillo	The effect of <i>P2RX4</i> gene mutations in <i>A.vittata</i> eggshell weakness	
18	Fabiola Toledo Alayón	Investigating the potential for virus driven extremophily in two Puerto Rico lagoons	
19	Yanella Colón-Marty	Caracterización molecular y morfológica de un Juvenil Didimozoide del Tipo Allomonilicaecum	
20	Ilihery Ramirez	Assesment of Cytochrome P450 Responses in Zebrafish (<i>Danio rerio</i>) Exposed to BP-3	
21	Melanie Salinas Vega	Impact Of Benzophenone-2 (2,2' 4,4' Tetrahydroxybenzophenone) On CYP1A In Zebrafish (<i>Danio rerio</i>) Through Etoxyresorufin-O-Deethylase (Erod) Assay	

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Afiches	Presentador	Titulo	Lobby de Biología 12:30 - 1:45 pm
22	Alejandro D. Rodríguez Aponte y Sarah C. Solano González	Substrate effects on demographic and morpho-physiological traits in the red sea urchin <i>Echinometra lucunter</i>	
23	Ahmed E. Gandia Rodriguez	Effect of Morphology and Shell Size on the Running Speed of Hermit Crabs in Puerto Rico	
24	Mitzael Santiago Casiano	Consexual interactions of the geckolets <i>Shpaerodactylus verdeluzicola</i>	
25	Darma Ramos Negrón	Foraminiferal Assemblages Along an Anthropogenic Gradient in Jobos Bay National Estuarine Research Reserve, Puerto Rico	
26	Valeria Pérez Kercadó y Carolina Torres Báez	Determination of LC50 for Benzophenone – 2 (2,2' 4,4' tetrahydroxybenzophenone) in Zebrafish (<i>Danio rerio</i>) embryos under Visible and UV Light Exposure	
27	Stacy Santiago Garay	Development of electrochemical sensor infused with lanthanum to detect phosphate in water	
28	Nashally A. Folch Mercado	Fighting Philornis (Diptera: Muscidae): Increasing Productivity of an Endangered Insular Raptor	
29	Adrián Córdova Acosta y Julián Córdova Acosta	Microplastics as Vectors for Benzophenone-2: Sorption Studies and Uptake of Microplastics by <i>Artemia salina</i>	
30	Maria Santaliz	Reutilization of tennis balls	
31	Kabir Toraño	Unveiling the Color Diversity of Puerto Rican Boas: A Methodological Approach to Morph Characterization	
32	Mariela I. Cortés Medina	Population dynamics resulting from interaction between two freshwater gastropods <i>Panorbella duryi</i> and <i>Physella acuta</i>	
33	Ángel E. Hernández-Rosario	Detection and Quantification of Benzophenone-2 on the zebrafish (<i>Danio rerio</i>) by Gas Chromatography Mass Spectrometry	
34	Camilla Molina	Erradicación de la malaria en Puerto Rico: Posibles consecuencias socioambientales en la actualidad	
35	Sabrina Ng Torres y Andrea Borrero Rodríguez	Educational Project: Reutilization of Tennis Balls	
36	Stephanie M. Rivera Morales	Impact of Microbial Contamination on <i>Artemia salina</i> Hatching and Survival in Aquatic Environments	
37	René G. Nieves Morales	Detection and Isolation of Gentamicin Resistant Clones from <i>Holothuria glaberrima</i> 's Gut Anatomic Regions Metagenomic Libraries	
38	Alejandro E. Casiano Rosado	<i>Pseudomonas aeruginosa</i> induced aggregation of <i>Stenotrophomonas maltophilia</i> is protective against antimicrobials	
39	Allan A. Torres Cordero	Identification of Emerging Industrial Biotechnology Chassis <i>Vibrio natriegens</i> as a Novel High Salt-Tolerant and Feedstock Flexibility Electroactive Microorganism for Microbial Fuel Cells	
40	Gabriela B Meléndez Martínez	Fungal Diversity Analysis from ITS Sequencing Data of Large Insert Metagenomic Libraries from the <i>Holothuria glaberrima</i> Eviscerated Gut	

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3 de mayo de 2024

Afiches	Presentador	Titulo	Lobby de Biologia 12:30 - 1:45 pm
41	Layza M. Cordero Campos	Monitoring the incidence of Reptarenavirus in wild-caught <i>Boa constrictor</i> and <i>Malayopython reticulatus</i> in Puerto Rico	
42	Lina Blanco Rodríguez	Characterization of the Microbial Diversity in Invasive Reticulated Pythons (<i>Malayopython reticulatus</i>) of Puerto Rico: Comparative Analysis of Sampling Location	
43	Alondra Urrutia, Carola Puig y Mairin Mendez	Tracking Abundance and Diversity of Marine Cyanophages Over Time in Coastal Waters of Puerto Rico	
44	Angelica Tirado	Isolation and characterization of bioprospects capable of metabolizing 17 β -estradiol and 17 - ethinylestradiol in Puerto Rico, using culture-dependent techniques	
45	Lorraine N. Nieves García	Exploratory analysis of antibiotic resistance and pathogenic <i>E. coli</i> profiles in Puerto Rico's dairy cattle	
46	Claudia M. Ramos-Lugo	Isolation and Characterization of <i>Staphylococcus aureus</i> and <i>Pseudomonas aeruginosa</i> bacteriophages from a wastewater treatment plant in Puerto Rico	
47	Fabiola M. Quintana-Pérez	Exploring <i>Staphylococcus aureus</i> Virulence: Staphylococcal Enterotoxins Analysis in Retail Meat	
48	Christian J. Lorenzo Feliciano	Antimicrobial Resistance and Virulence Factors of <i>Staphylococcus aureus</i> in Subclinical Mastitis among Cattle on a Dairy Farm in Puerto Rico	
49	Leonel Rojas Cordero	Reduction of microbial diversity in contrast to salinity	