HUMBOLDT STATE UNIVERSITY

Friday, April 17, 2015

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ideaFest

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Vote for your favorite by placing a purple voting sticker on the poster title card.

Award certificates will be delivered to the winner's academic department office following the ideaFest presentation.

Research Presentations

Library 2nd Floor

1. 2015 Humboldt International Film Festival Poster

Anna Ladd, Studio Arts, Undergraduate Student

College of Arts, Humanities & Social Sciences

This poster was created for the Humboldt International Film Festival. Working as a team, the HIFF crew were able to come up with an idea, and then follow through with creating and perfecting the poster. It's designed to catch the eye, draw the audience in, and deliver the information in a pseudo-minimalistic way. Its primary focuses were to be readability, text hierarchy backed by an eye-catching illustration.

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2. A Descending Resistance Sets Produces Greater Training Volume than a Constant Resistance Sets

Young Sub Kwon, Kinesiology, Faculty
Kyra B. Hans, Kinesiology, Graduate Student

College of Professional Studies

There is no standard method for optimizing resistance to maximize training volume when using multiple sets with short rest periods. In this study, we hypothesized that a greater training volume (sets-reps-resistance) would be produced using a four week training method where resistance is decreased with each set (DR) compared to a four week CR method. In order to develop DR sets, we used the subject's fatigue ratio (using an individualized regression equation) from a CR protocol where the number of repetitions declines with each set. In males, a greater training volume is attained using a four week DR method based on subject's fatigue ratio than when using a four week CR training method.

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3. A Descending Resistance Training Program Produces Greater 1RM than a Constant Resistance Training Program

Young Sub Kwon, Kinesiology, Faculty
Kyra B. Hans, Kinesiology, Graduate Student

College of Professional Studies

There is no standard method for optimizing resistance to maximize training volume

when using multiple sets with short rest periods. In this study, we hypothesized that a heavier one repetition maximum (1RM) would be produced using a four week training method where resistance is decreased with each set (DR) compared to a four week CR method. In order to develop DR sets, we used the subject's fatigue ratio (using an individualized regression equation) from a CR protocol where the number of repetitions declines with each set. In males, a heavier 1RM is attained using a four week DR method based on subject's fatigue ratio than when using a four week CR training method.

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4. A Separation of Women and Rights: the Reproductive Equality Fight

Jacqueline Farrington, Geography & Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

Through focusing specifically on the relevance of spatial organization of territory and women's rights concerning reproduction, a case that can exemplify the age-old struggle of the belief of the majority governing the private lives of all would be the Texas case of Roe v. Wade. The political and geographic results of this monumental court decision centered around abortion may be seen in the torrent of other similar cases that deal with women's rights in relation to reproductive care across the U.S. When more scrutiny is applied to this singularly defining case, it becomes more than a few fast facts. Through the ages, Roe v. Wade has been the political foundation upon which women's reproductive rights has been shakily constructed, each new addition added only when a media outcry brought its relevancy to the public at large. It is a consuming effort to trace the effects of each case, which is why the foundation is ideal to begin with. By turning to the original matter at hand, that of a "constitutional right to privacy" (Roe v. Wade Supreme Court 1973) and its effect on the current state of abortion availability within the U.S., the effect of Roe v. Wade on the legislature of the U.S. and its subsequent policy concerning women's reproductive rights has proved inefficient in implementation among the varied United States in modern day America.

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5. Activating Creativity in Elementary EFL Writing

Benjamin Taylor, English, Graduate Student

College of Arts, Humanities & Social Sciences

I served 27 months as an elementary EFL (English as a Foreign Language) teacher on the island of Pohnpei in the Federated States of Micronesia and found that rote memorization was the dominant teaching strategy. Pohnpeian teachers wanted interactive classrooms that engaged students creatively, but they often lacked the

resources or training to create such an environment. The presented activities are the product of collaborative efforts with 4th- through 8th-grade Pohnpeian teachers over a two-year period. Activities could be modified for a range of second-language learning contexts and environments.

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6. An Analysis of Resin Flow and Growth Characteristics of Sugar Pine *(Pinus lambertiana)* in an Old-Growth Fire Excluded Stand in the Western Sierra Nevada, California

Nickolas Zeibig-Kichas, Forestry & Wildland Resources, Undergraduate Student

College of Natural Resources & Sciences

Sugar pine *(Pinus lambertiana)* represents a culturally, ecologically, and economically important species that is threatened due to impacts from drought, fire exclusion, and beetle-disease complexes. One of the main defensive strategies of sugar pine to bark beetles and pathogens is the production of resin ducts structures, which secrete oleoresin compounds. In this study we look to analyze resin flow and growth traits, assessed as basal area increment (mm2), of older, larger (> 200 years) sugar pine to determine whether there are relationships between tree growth characteristics and oleoresin flow.

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7. Anabaena Sensory Rhodopsin Nanodiscs to Probe Transcriptional Regulation

Jenny A. Cappuccio, Department of Chemistry, Faculty
Sean de la O, Biology, Undergraduate Student
Edward Sandoval, Chemistry, Undergraduate Student
Alexandra Shigenaga, Biology, Undergraduate Student

College of Natural Resources & Sciences

The membrane protein Anabaena Sensory Rhodopsin (ASR) is a prokaryotic retinal containing photoactive protein, from Anabaena sp. PCC 7120, undergoes a conformational change upon absorption of light. This causes the release of an associated so-called transducer protein ASRT. It has been proposed that this protein complex directly controls transcription of the cpc genes. The goal of this project is to study photo-induced transcriptional regulation properties of ASR and ASRT. To do this we will assemble ASR nanolipoprotein particles or ASR-NLPs. NLPs are unique in that they allow for a membrane protein to be solubilized while still allowing both ends of the membrane protein to be accessed.

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8. Analysis of Soil pH in Relation to Decomposition

Erika Ebel, Anthropology, Undergraduate Student
Alyssa Haggard, Anthropology, Undergraduate Student
Kiaya Charlton-Grant, Anthropology, Undergraduate Student
Casey Hegel, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

This research attempts to observe the effects organic decomposition has on the soil pH and aims to determine if pH levels are altered when remains are frozen opposed to unfrozen. Weekly qualitative observations and soil tests were conducted on six naturally decomposing swine limbs. We hypothesized that there would be a slight delay in the cycling of pH levels for frozen remains. Three frozen and three control limbs were deposited atop of undisturbed soil and observed for five consecutive weeks at the Simulated Archaeology Site at HSU. This research intends to address the correlation between pH levels and decomposition, which can be beneficial for future taphonomic research.

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9. Analyzing Bloodstain Patterns using Animals' Blood Versus Synthetic Alternatives

Taylor Ernest, Anthropology, Undergraduate Student
Claudia Alvarado, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

Passive stains, transfer stains, and projected/impact stains will be created with various tools and tested on multiple surfaces including: cotton, linen, and carpets. The components of the Bovine blood versus stage blood will be used for analysis and comparison. This research will help determine if synthetic blood provides an accurate representation for bloodstain pattern analysis in research. After all experimental work and calculations are complete, statistical analysis will be conducted to determine the statistical validity of using synthetic blood alternatives to analyze bloodstain patterns.

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10. Analyzing Variation in Taphonomic Processes within Artificial Substrates

Carolyn Hinson, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

This study aims to increase understanding of the taphonomic processes associated with the decomposition of nonhuman mammalian remains (as a proxy for human remains) in human altered substrates. Most prior taphonomic research has been

restricted to regional studies focusing on the decomposition in environments outside of direct human interaction. This study will focus on temperature, weight, and organic matter fluctuations between the various artificial substrates in the beginning and termination of the decomposition process in order to better understand the effects substrates have on taphonomic processes.

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11. Assaying the Substrate Activities and Enantioselectivities of Recombinant Flavin-Dependent Monooxygenases toward Aryl Sulfides

Paige Jefford, Chemistry, Undergraduate Student
Georgia Kaufman, Chemistry, Undergraduate Student
Brian Kyte, Chemistry, Faculty

College of Natural Resources & Sciences

Certain Flavin Monooxygenases (FMO) are enzymes with the potential to catalyze single-enantiomer oxidation of aryl sulfides to chiral sulfoxides. Aryl sulfoxides have a wide array of pharmaceutical and agricultural applications, but many of these enantiomers have yet to be selectively and efficiently synthesized. The enzymes examined in this study are FMOs from *Mus musculus, Xenopus tropicalis, Homo sapiens,* and BVMO4 and BVMO24 from *Rhodococcus jostii* RHA1. The genes were cloned into a vector for expression in *Escherichia coli* and whole-cell mediated reactions with various aryl sulfides were performed to determine their activity toward the substrates and to determine the enantioselectivity.

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12. Assessing Responses of Intertidal Communities to Ocean Acidification and Hypoxia in Northern California

Jaclyn Schneider, Biological Sciences, Undergraduate Student
Krystal Brander, Biological Sciences, Undergraduate Student
Aria Armendariz Peavy, Undergraduate Student
Andrew Buderi, Biological Sciences, Undergraduate Student
Mahallelah Shauer, Biological Sciences, Undergraduate Student
Jana Hennessy, Biological Sciences, Graduate Student
Georgia Bennett, Biological Sciences, Undergraduate Student

College of Natural Resources & Sciences

During bouts of strong upwelling near shore areas in northern California can experience extended periods of hypoxic, corrosive waters due to a relatively narrow shelf and poleward shoaling of isotherms. To assess the response of intertidal

communities to these conditions we established and surveyed a series of intertidal sites in Humboldt County that vary in the extent of nearshore mixing and are likely to vary in exposure to hypoxia and low pH conditions. We report the results of initial surveys of our sites, including data on sea star wasting disease, and relationships to variation in temperature, salinity, pH and dissolved oxygen.

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13. Breath of Life: Revitalizing California's Native Languages Through Archives

Susan Gehr, Library/Native American Studies, Faculty

College of Arts, Humanities & Social Sciences

The Advocates for Indigenous California Language Survival held its first Breath of Life Workshop in 1996. The Breath of Life Workshop connects tribal participants with Native American language archival collections at the University of California at Berkeley for the purpose of bringing back into use languages with no living fluent speakers. During Breath of Life, participants use archives to complete a research project that can be completed in a week. Participants finish the workshop prepared to conduct archival research independently at any archive, including Humboldt State University's Humboldt Room, home of the Center for Indian Community Development Collection.

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14. California Assembly Bill 32: GHG Cap and Trade Program

Sam Barton, Economics, Undergraduate Student
Alexa Kandaris, Economics, Undergraduate Student

College of Professional Studies

In 2006, the California State Assembly passed Assembly Bill 32, or the California Global Warming Solutions Act. AB-32 appointed the Air Resources Board as lead agency to implement a reduction in greenhouse gas (GHG) emissions back to 1990 levels by 2020. One of the ways that the ARB is facilitating this reduction is through the development and implementation of California's first GHG emissions cap and trade program. The program sets a maximum amount of allowable emissions for the industry (the "cap") then enables individual businesses to "trade" emissions allowances. Trading creates incentives to reduce GHGs below allowable levels through investments in clean technologies.

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15. Chinese Governmentality: Emerging Greenhouses on Rural Tibetan Landscapes

Lucas Reyes, Geography, Undergraduate Student

College of Arts, Humanities & Social Sciences

This study explores changing agricultural conditions and practices on the Tibetan Plateau. Through textual discourse supported by field observations, agricultural practices are assessed. I explore the works of Goldstein, Paltridge and past HSU field research to argue that the Chinese government addresses this nourishment problem through policy, an intricate display of governmentality. The rural Tibetan livelihood is marginalized and degraded through Chinese policies noted by Goldstein designed to bring the Tibetan population into a market-driven economy. While rural farmer adopt green revolution technologies and weigh the economic benefit of grain subsides I see greenhouses on the horizon.

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16. Climate, Grasslands, and Policies; The Changing Livelihood of Tibetan Nomads

Maria Tonn, Geography, Undergraduate Student

College of Arts, Humanities & Social Sciences

The research interviews with nomads have shown that climate, grasslands, and policies are changing the livelihood of Tibetan nomads. Tibetan nomads have established a way to graze their livestock and keep the grasslands healthy by moving based on the seasons. Climate change will decrease the grassland quality results in unhealthy livestock and decreases their resistance to winter storms. Herders express that policies that encourage or demand a sedentary livelihood have restricted mobility, decreased livestock conditions, and resulted in an increase in livestock loss. Today, Tibetan nomads are stuck between their traditional ways and the way the government has established for them.

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17. Collecting Seed at the Hot, Dry Margins of a Tree Species' Natural Range: Do the Progeny of these Extreme Trees Have Drought Tolerance and Water-Use Efficiency Needed for Restoration of Harsh Sites?

John-Pascal Berrill, Forestry & Wildland Resources, Faculty

College of Natural Resources & Sciences

Trees growing in the hottest/driest parts of their natural range may be better-adapted

to hot, dry conditions and hold promise for restoration and resistance to climate change. If drought tolerance and water-use efficiency were heritable genetic traits, we could select for these characteristics and raise seedlings for reforestation on marginal sites or in areas where adverse changes in climate were forecast. 3000 redwood seedlings originating from wet and dry locations were planted by HSU students in 2010 and 2011. The experiment provides insights into outcomes of reclamation and "assisted migration" forest conservation/restoration strategies and impact of climate change on redwood forests.

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18. Computational Fluid Dynamics Models of RO-PRO and FO-RO Hybrid Processes

Lori Jones, Environmental Resources Engineering, Undergraduate Student

College of Natural Resources & Sciences

To address the two main issues of using reverse osmosis (RO) for desalination purposes (high energy demand and brine disposal), two hybrid systems have been proposed. One uses forward osmosis (FO) as pre-treatment while the other augments the RO step with pressure-retarded osmosis (PRO). To meaningfully compare the energy reductions from both systems, computational fluid dynamics models of the PRO and FO processes are being developed to encapsulate the complex geometries of the membrane modules and the system response to these geometries.

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19. Critical Multicultural Literacy for Social Justice

Marisol Ruiz, Education, Faculty
Janette Ramirez, CRGS, Undergraduate Student
Maria Torres Martinez, LSEE, Undergraduate Student
Rachel Sauvage, LSEE, Undergraduate Student
Gabriel Aquino, LSEE, Undergraduate Student

College of Professional Studies

This case study took place in a diverse school setting. We implemented critical multicultural literature to 3rd and 4th graders. Our question is: How do students respond to critical multicultural pedagogy and literature? We used dialogue journals, literature circles, critical dialogue, and art to build community and raise consciousness. We found that the single story approach is prevalent in schools and that multiple stories have fostered an understanding and empathy towards the diversity of struggles people face in this world. In conclusion, critical multicultural literature helps build community and empower students to be able to make changes in their community.

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20. Determination of Metal Accumulation and Loading in the Oxidation Ponds at the Arcata Wastewater Treatment Facility

Pedro Alvaro, Chemistry, Undergraduate Student

College of Natural Resources & Sciences

The determination of temporal variations of metals, in the primary effluent and oxidation ponds, were collected biweekly (2007-2008) and weekly (2012-2013) at the Arcata Wastewater Treatment Facility. The data demonstrates the removal of contaminant metals in the oxidation ponds through sludge deposition as well as the role weather events play in elevated metal concentrations. The sludge in the oxidation pond systems where also measured to allow the projection of the accumulation of metals in the sludge within the system 30 years from now.

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21. Determining Magma Mixing Duration and Dynamics Through Analysis of Reaction Rims on Olivine Crystals in Natural Samples of Black Dacite From the 1915 Eruption of Lassen Peak, CA

Nathan A. Graham, Department of Geology, Undergraduate Student

College of Natural Resources & Sciences

Disequilibrium reaction rim textures on olivine grains from black dacite from the 1915 eruption of Lassen Peak were measured and coupled with experimental reaction rim growth rates to estimate the duration of magma mixing that took place prior to the 1915 eruption. Reaction rims on 100 olivine grains were measured and the duration of magma mixing prior to the 1915 eruption was estimated to be between 12-17 months. The abundance of reaction rim growth varies during the duration of magma mixing and is evidence that the eruption of Lassen Peak was catalyzed by multiple injections of hot basaltic andesite into a relatively cool and mushy dacitic reservoir magma chamber prior to eruption.

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22. Development and Psychometric Characteristics of the Chocolate Craving Inventory

Haley Whitham, Psychology, Graduate Student

College of Professional Studies

One of the most popularly craved foods in the United States is chocolate. Yet, current definitions and ways to assess chocolate craving vary from study to study. The purpose of this investigation was to create a reliable and valid measure that

can be used to assess problematic chocolate craving and its correlates. Preliminary findings indicate that the Chocolate Craving Inventory (CCI) is both a reliable and valid measure. Our investigation yielded high internal consistency and test-retest reliability in a college sample (N = 100). In addition, evidence for convergent and discriminant validity were also found. Future studies will further assess the psychometric properties of the CCI.

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23. Development and Psychometric Properties of the College Help-Seeking Behavior Scale

Zahra S. Shine, Psychology, Undergraduate Student
Megan Kissinger, Psychology, Undergraduate Student
Sarah Olivarria, Psychology, Undergraduate Student

College of Professional Studies

Although college students have access to many free or low-cost services, a majority do not take advantage of these resources. For decades, researchers have sought solutions to this misalignment of service availability, need, and utilization. Impeding this goal is the lack of a sufficiently broad psychometric instrument that can measure and predict help-seeking in an individual. At this time, no such measure currently exists. The purpose of this study was to develop the College Help-Seeking Behavior Scale (CHSB) to assess college students' intention and past behavior regarding seeking help from social networks and on-campus services for various problems.

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24. Development and Validation of the Humboldt Idealism Questionnaire

Kashia Axthelm, Psychology, Undergraduate Student
Desiree Ryan, Psychology, Graduate Student
Angela Galioto-Marquez, Psychology, Undergraduate Student
Laura Kiewel, Psychology, Undergraduate Student

College of Professional Studies

Idealism is defined as believing that desirable consequences can, with the "right" action, always be obtained. This involves decreasing the amount of negative outcomes and increasing the amount of positive outcomes. Due to the lack of a reliable and valid existing measure of idealism, our goal was to create a psychometrically sound scale. Morality and justice are two important domains that were addressed during item creation. The HIQ was compared to the Global Belief in a Just World Scale in order to establish criterion validity; the short form of the Marlowe-Crowne Social Desirability Scale was used for discriminant validity.

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25. Early Cretaceous Cupressaceae in the Budden Canyon Formation of Northern California

Ashley Ortiz, Botany, Undergraduate Student

College of Natural Resources & Sciences

The Early Cretaceous Budden Canyon Formation of North America contains a few anatomically preserved plant fossils ca. 125 Ma old (Barremian-early Aptian). Recent investigations of the Budden Canyon Formation have revealed a preserved seed cone assignable to the Cupressaceae. Based on serial sections and a 3-D reconstruction, the fossil cone was compared with living Cupressaceae and revealed significant differences from most genera and closest similarity, but not identity, with Sequoia. The age and morphology of the cone also suggests that it may represent an extinct member of the sequoioid, a lineage which gave rise to modern redwoods (*Sequoia*) and giant sequoias (*Sequoiadendron*).

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26. Effect of Size at Release on Tendency of Trinity River Hatchery Steelhead *(Oncorhynchus mykiss)* to Return as Half-Pounders

Kaitlyn Manishin, Fisheries Biology, Undergraduate Student

College of Natural Resources & Sciences

I used scale analysis to estimate the half-pounder frequency among wild and hatchery steelhead from the Trinity River 2011 and 2012 smolt years and compare those estimates to the half-pounder frequency from 1993 until 2008. Hatchery steelhead from 2011 and 2012 had higher half-pounder tendencies than those from 1993 until 2008. Wild steelhead from 2011 and 2012 also showed increased half-pounder tendencies. This supports the hypothesis that increased size at release of hatchery steelhead is related to decline in the half-pounder life history, but also suggests that another factor influences the half-pounder tendency of these steelhead.

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27. Engineering the S-Layer Protein RsaA in Caulobacter vibrioides for Heavy Metal Bioremediation

Jenny A. Cappuccio, Department of Chemistry, Faculty
Skye Merrick-Stammers, Biology, Undergraduate Student
Christopher De Alba, Biology, Undergraduate Student
Michael Olvera, Biology, Undergraduate Student
Azariah Coblentz, Chemistry, Undergraduate Student

College of Natural Resources & Sciences

One major contemporary environmental issues is the pollution of heavy metals into waterways. However, removal of heavy metal ions via bioremediation may be a possible solution. Using modified C. vibrioides paracrystalline RsaA surface layer proteins (S-layer proteins), our team hopes to bind lead, and other metal ions for decontamination through use of a filtration system. It is known that modified S-layers can be displayed on the microbial surface. Our initial target sequence (TNTLSNN) was chosen for its ability to bind Pb. Our future goals are the observation of heavy metal binding efficiency of each engineered RsaA surface, and the generation of prototype binding cartridges.

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28. Establishment Patterns of Oregon White Oak and California Black Oak Woodlands in Northwestern California

Madelinn Schriver, Natural Resources Forestry and Wildland Sciences, Graduate Student

College of Natural Resources & Sciences

Oregon white oak *(Quercus garryana)* and California black oak *(Q. kelloggii)* woodlands are unique ecosystems, yet little is known about their tree establishment patterns, nor the variability of stand structure. Research objectives were: to describe age, stand structure, and tree regeneration in 4 mixed oak-conifer woodlands in northwestern California. Most white and black oaks established from 1850-1910 with rare establishment since 1950 (< 0.05%). Most Douglas-fir trees established since ~ 1950. All sites had high proportions of oak seedling mortality in open stands. These trends likely reflect the effects of altered disturbance regimes enabling the transition to conifer-dominant stands.

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29. Eureka CPI Project

Rory Weie, Economics, Undergraduate Student
Katie Nazzario, Economics, Undergraduate Student

College of Professional Studies

This projects calculated the Consumer Price Index for Eureka area using local prices and data.

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30. Examining Capabilities of Various Single Bacterial Strains on Peptide Degradation in Seawater

Kerollos Halim, Oceanography, Undergraduate Student

College of Natural Resources & Sciences

The research aimed to compare the capabilities of two single strains of bacteria in their ability to hydrolyze a common peptide found in the seawater. The research is important in adding to knowledge of the carbon cycle, and how organic matter is processed on incredibly small scales. The data collected over the course of ten weeks turned out significant and more data is going to be added in the future to compile a database for the different bacteria strains which may one day help in environmental restoration projects.

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31. Feasibility of Pressure Retarded Osmosis

Galen O'Toole, Engineering, Graduate Student

College of Natural Resources & Sciences

Pressure Retarded Osmosis (PRO) is a renewable energy technology which captures energy from the osmotic pressure of salinity gradients across membranes. This poster presents a feasibility study of PRO at the Samoa Pulp Mill site by employing a pseudo-2-dimensional model to approximate the pressure drops and the salt and water fluxes across a spiral-wound membrane module. The net energy of the system accounts for parasitic loads including pretreatment, conveyance turbine and generator efficiency, and friction losses in the pipe networks. Technical and economic feasibility are evaluated in the project. The conclusions are that PRO is barely technically feasible and not economically feasible.

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32. Features of the Coastal Atmospheric Marine Boundary Layer

William Fairchild, Oceanography, Undergraduate Student

College of Natural Resources & Sciences

The marine boundary layer is a semi-annual atmospheric feature occuring along the Humboldt coastline. Fourteen years worth of weather balloon data provided by the NOAA atmospheric observatory in Trinidad, CA, have been used to characterize seasonal and spatial patterns of the boundary layer. Preliminary results show that the boundary layer is highly dynamic and occurs in high frequency. It is most common in summertime as a result of warm inland temperatures and strong coastal upwelling. Seasonally, the boundary layer changes height, rising to 1500m in winter and lowering to 900m in summer. A five year time series provides evidence that the California drought may reduce the layer's frequency.

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33. Food Insecurity and SNAP Participation Among International Students Working on a College Campus

Min Hee Park, Social Work, Graduate Student
Jennifer Maguire, Social Work, Faculty

College of Professional Studies

This study is intended to investigate food insecurity among international students who are working on campus, and to provide greater understanding of the barriers for them and/or their families in accessing SNAP benefits. Twelve individuals who had experience working on campus 20 hours per week as an international student were recruited. A survey based on demographic and financial information and interviews were conducted to identify their financial situation and barriers to access SNAP benefits. The study identified that without the financial support of parents, international students with children face the risk of food insecurity.

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34. Forest Attributes of Reproductive Habitat for Harpy Eagles in Darien Province, Panama

Jilma Rachel Guinea, Wildlife Department, Undergraduate Student

College of Natural Resources & Sciences

A Harpy Eagle's *(Harpia harpyja)* reproductive cycle is distinctive amongst all raptors, therefore, obtaining detailed knowledge of their reproductive habitat would assist in creating new management policies and conservation guidelines. We measured

variables describing forest characteristics within 0.5-ha plots around each of ten nesting and control trees in the Pacific region of Darien Province, Panama. Variables measured were: tree family richness; tree density, height and diameter; shrub density; and coverage of understory and canopy foliage. We then used Akaike's Information Criterion (AIC) to compare a series of models specified a priori to assess the importance of forest attributes.

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35. Forest Response to Severe Drought: Do Restoration Thinning Treatments in Coast Redwood-Douglas Fir Forests Increase Resiliency to Drought?

Laura Lalemand, Forestry, Graduate Student

College of Natural Resources & Sciences

Coast redwood-Douglas-fir forest hold important economic, ecological, and cultural values which will likely be threatened by changing climate and increased drought stress. Restoration thinning has been used by forest managers with the goals of decreasing stand competition and accelerating maturation to old-growth conditions. However, uncertainty still remains on whether restoration treatments provide forests with increased resiliency to disturbances such as severe drought. The aim of this research is to investigate the effectiveness of different restoration treatments in improving second-growth forest resiliency to drought stress in coast redwood-Douglas-fir forests of Redwood NP.

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36. Frequency and Intensity of Exposure to Carbonate Corrosive Waters in a Near-shore Upwelling Environment

Jasen Jacobsen, Oceanography, Undergraduate Student

College of Natural Resources & Sciences

A primary consequence of increasing atmospheric CO2 is the lowering of ocean pH and associated stress on calcium carbonate bearing organisms. Coastal regions are vulnerable to low-pH due to seasonal upwelling which periodically introduces CO2–enriched deep water to the surface. Time-series of pH at Trinidad Head, California, were analyzed to ascertain the frequency and intensity of exposure to carbonate corrosive waters from 2006-2011. Most years experienced 11-35 days of exposure to corrosive water, while enhanced upwelling in 2010 resulted in 61-84 days of exposure. Some instances show that corrosive conditions were ameliorated by enhanced photosynthesis in response to upwelled nutrients.

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37. Human Perception of Vocal and Visual Beauty in Male Passerines

Jane Wong, Wildlife, Undergraduate Student

College of Natural Resources & Sciences

Charles Darwin hypothesized that bird song and plumage might replace each other. Other studies have also found a negative correlation in the relationship of song and plumage. I surveyed 40 students in Ornithology and Advanced Ornithology classes at HSU in January and February of 2015. Each survey consisted of a song listening portion and a photo slideshow where each participant rated the vocal and visual attractiveness on a scale of 1 to 3. The results showed a negative correlation and found that more experienced birders on average thought that birds were more attractive than less experienced birders.

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38. Humboldt State University Student-Parents: Strengths, Challenges, and Needs

Kayla Masengale, Child Development, Undergraduate Student

College of Professional Studies

The Student-Parent Support Initiative is a student-run initiative whose purpose is to bring a campus-wide awareness of student-parents at Humboldt State University. Our goal is to identify student-parents and to help students with children connect with one another and provide a space to find resources that support their family and academic goals. This presentation highlights the strengths, challenges, and needs of 18 student-parents who participated in focus groups and completed a questionnaire during the 2014-2015 academic year.

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39. Hybrid Membrane Processes for Water Reuse

Jairo Luque Villanueva, Environmental Resources Engineering, Undergraduate Student
Gavin Zirkel, Environmental Resources Engineering, Undergraduate Student
Dr. Andrea Achilli, Environmental Resources EngineeringFaculty

College of Natural Resources & Sciences

A paradigm shift that utilizes water reuse strategies such as sewer mining is necessary as water resources become more stringent. Sewer mining is the beneficial reuse of wastewater before it is conventionally treated and discharged. This novel hybrid sewer mining system is a unique combination of proven unit processes: forward osmosis (FO), direct contact membrane distillation (DCMD), anaerobic membrane bioreactors (AnMBR), Sharon, Annamox, and struvite precipitation

arranged in an innovative way. This poster will present the experimental results from a bench-scale automated FO-DCMD system to produce a high quality potable effluent under different operating conditions.

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40. I Cannot Believe It's Not Gluten

Christopher Ames, Anthropology, Undergraduate Student
Edward Escude, Anthropology

College of Arts, Humanities & Social Sciences

Celiac Disease is defined by intolerance to gluten, similar to that of an allergic reaction. The only published treatment is abstaining from gluten, in any form. Gluten-free products became widely offered in grocery stores and restaurants soon followed suit. The FDA has ruled that after August 5, 2014, that food that is gluten-free can have up to 20 parts per million (ppm) of "unavoidable" gluten contamination. This project tests for the occurrence of gluten contamination found within restaurants that serve food labeled as gluten–free, in Arcata, Ca. The study focuses on three local restaurants: Luke's Joint, Smug's Pizza, and Hey Juan's.

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41. Income Inequality in the U.S. 1922-2012

William O'Neill, Economics, Undergraduate Student

College of Arts, Humanities & Social Sciences

Data and historically significant factors which are thought as primary. The poster also considers comparison internationally in recent time.

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42. Investigating Coseismic vs. Interseismic Uplift of Marine Terraces at the Southern Terminus of the Cascadia Subduction Zone: Cape Mendocino to Punta Gorda, Petrolia, CA

Brandon Crawford, Geology, Undergraduate Student

College of Natural Resources & Sciences

The Cascadia subduction zone of the Pacific Northwest terminates in the south at the Mendocino Triple Junction, a region of elevated seismic activity. Here, tectonically driven uplift is likely responsible for the formation of Holocene-aged marine terraces. In 1992, a M 7.1 thrust mainshock and two ~M 6.5 aftershocks occurred offshore of Cape Mendocino, resulting in 1.4 meters of uplift. However, it is unknown whether these marine terraces formed due solely to large episodic coseismic uplift caused by moderately large to large magnitude earthquakes, or

whether interseismic deformation plays a role in their formation. This study seeks to investigate the formation of these terraces.

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43. Jet Propulsion at the Smallest Size Scales: Kinematics and Fluid Dynamics of Swimming Siphonophores

Mary Colleen Hannon, Biological Sciences, Undergraduate Student

College of Natural Resources & Sciences

Siphonophores (Cnidaria: Hydrozoa) inhabit pelagic waters where representative species occupy depths ranging from the surface to the abyss. Locomotion by siphonophores is achieved by nectophore muscular contractions, which generate vortex ring wakes similar to jet-propelled medusa and squid. Using high-speed video analysis, we compare the kinematics and characterize wake structures of two different species of siphonophores during straight and turning swimming. By extracting the kinematics of individual nectophores, we quantify the formation time (T*) to characterize the jet wake. We show the T* generated by swimming physonect siphonophores are larger than other jet-propelled swimmers.

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44. Literacy: an Asset Based Approach

Dr. Marisol Ruiz, Education, Faculty
Iris Rodriguez, Education, Undergraduate Student
Rachel Sauvage, Education, Undergraduate Student
Shayne Sines, Education, Undergraduate Student
Kayla Thurlough, Education, Undergraduate Student
Olivia Bright, Education, Undergraduate Student

College of Professional Studies

With No Child Left Behind (NCLB) and Common Core there are misconception on literacy, specifically, false research being promoted for corporate greed. We are not saying that skills-based literacy is useless but it should not be the main nor the only approach when engaging students in literacy. In this case study we explored multiple literacies, specifically we implemented side by side sessions where we used a whole language multiliteracy approach through play, creative spelling, drawing, dialogue, and children as authors. We conclude that children love to read when they engage in language play, create their own stories, choose, and discuss books.

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45. Making of a Monster: Media Constructions of Transgender Victims of Homicide

Meredith Williams, Sociology, Faculty
Janae Teal, Sociology, Graduate Student
Ashley Rose, Florian Sociology, Undergraduate Student
Julian Rivera, Sociology, Undergraduate Student
Lizbeth Olmedo, Sociology, Undergraduate Student

College of Arts, Humanities & Social Sciences

There is a general sentiment in public discourse that victims are good and innocent, and offenders are bad. This dichotomy is blurred when the victim is somehow socially undesirable, such as people who do not conform to society's expectation for gender, or victims who are not white. In the case of gender non-conforming victims of homicide, especially transwomen of color, the media often portray the victims as deceivers, or criminal, insinuating the victim is to blame for their attack. This study focuses on the media portrayal of 259 homicide victimizations that occurred between 1995 and 2014. Using content analysis, we explore these cases through the victims, offenders, and news media.

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46. Mothers of Children with Autism

Maya Hoene, Liberal Studies Child Development, Undergraduate Student
Hyun-Kyung You, Child Development, Faculty

College of Professional Studies

This research project is about mothers of children with autism. Interviews were conducted with 12 different mothers, and were carefully transcribed and analyzed. The focus of the research is on the way that they see themselves as mothers, either good, ambivalent, or self-critical, in regards to their child's disability. Three components which are looked at are primary caregiver status, degree of sacrifice for the child, and role as advocates.

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47. My Self, My Community, My World

Rachael A Sauvage, LSEE, Undergraduate Student
Janette Ramirez,, Undergraduate Student
Gabriel Aquino,, Undergraduate Student

College of Arts, Humanities & Social Sciences

The LSEE 380 pilot class has been working in South Fortuna the past semester, working with 3rd and 4th graders on the concepts of Social Justice. We have asked the classes to help us determine the problems they see around their selves,

community, and world. We asked "what would you do to change the problems around you?" This is the outcome.

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48. Natural History and Basking Habits of Western Pond Turtles

Gaby Ruso, Wildlife Biology, Undergraduate Student

College of Natural Resources & Sciences

This research represents the preliminary results of a longer term project in Sequoia National Park, California. I used temperature dataloggers to investigate western pond turtle behavior to better understand their natural history and thus inform monitoring protocol and conservation. These data suggest that snorkel surveys used to monitor turtle populations may be more effective if conducted at night. In addition, these data indicate the potential for intraspecific niche partitioning among turtles according to age. These early results hint at unique turtle behavior that is otherwise difficult to observe for a cryptic species and thereby warrant further investigation.

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49. Novel Tests of Gravity Below Fifty Microns

Crystal Cardenas, Physics & Astronomy, Undergraduate Student

College of Natural Resources & Sciences

Due to the incompatibility of the Standard Model and General Relativity, tests of gravity remain at the forefront of experimental physics research. At HSU, undergraduates and faculty are developing an experiment that will test gravitational interactions at the twenty-micron distance scale, well below what has currently been tested. The experiment will measure the twist of a torsion pendulum as an attractor mass is oscillated nearby in a parallel-plate configuration which will provide a time-varying torque on the pendulum. The size and distance dependence of the torque variation will provide means to determine deviations from accepted models of gravity on untested distance scales.

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50. Observer Bias of Giant Kangaroo Rat Precinct Indexing

Brianna N. Doran, Wildlife, Undergraduate Student

College of Natural Resources & Sciences

This was a side-project of the Carrizo Ecosystem Project where two observers independently surveyed precincts of the Federally Endangered Giant kangaroo rat *(Dipodomys ingens)* on 10 plots in the Carrizo Plain National Monument, San Luis

Obispo County, California. The goals were to note the bias between observers, to determine if the number of active precincts correlate with the current population density estimates, and to determine if indexing Giant kangaroo rat (GKR) precincts is a reliable method for determining the current GKR population status.

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51. *Ophiocordyceps Sinensis*: A Study of Tibet's Caterpillar Fungus, and the Possible Anthropogenic Nature of its Recent Population Decline

Nicholas Fox, Geography, Undergraduate Student

College of Arts, Humanities & Social Sciences

Ophiocordyceps sinensis, or Caterpillar fungus, has been used as a cure all for millennia by Tibetan nomads. The fungus which parasitizes the larva of moths is also used in China. Supply of the prized fungus, which only grows on the Tibetan plateau and northern slope of the Himalayas, was not always available to the Chinese given the remote nature of the plateau. In recent decades however, developing relations between China and the Tibetan region have led to increased gathering of the fungus. This poster will discuss the history of *O. sinensis* as medicine, as well as the modern relationships between the fungus and the people who use it, and what that means for the fungi's future.

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52. Permanence in an Ephemeral Collection: The History and Future of the Pamphlet Collection at Humboldt State University Library

Carly Marino, Library, Faculty

HSU Library

Is a vertical file of newspaper clippings and ephemera still relevant in the digital age? This poster describes the changing nature of vertical files, pamphlets, and other ephemeral collections in the 21st century using the Humboldt State University Library Pamphlet Collection as a case study. The poster also considers how archivists and librarians continue to encourage student and researcher participation with ephemeral materials, whether paper or digital.

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53. Predicting Phosphorus Retention in Two Volcanic-Derived Forest Soils of Northern California

Nichole R. Besyk, Forestry & Wildland Resources, Graduate Student

College of Natural Resources & Sciences

Plant available phosphorus (P) occurs in anionic forms which become plant-unavailable ("fixed" or "retained") when iron and aluminum oxides form insoluble phosphate complexes. P-retention is especially likely to occur under acid conditions in soils containing short range order (SRO; poorly crystalline) materials, namely allophane and imogolite. This set of characteristics is common in volcanic-derived forest soils in Pacific Northwest timber regions. We built upon 25 years of research by investigating phosphorus retention on two well-studied sites, Whitmore and Feather Falls. Simple soil assays were used in a mixed-effects model to predict P-retention on these soils.

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54. Queers in the Pre-Stonewall Media

Meredith Williams, SociologyFaculty
Rudolph Bielitz, Sociology, Graduate Student
Marina Moya, Sociology, Undergraduate Student
Elmer Rodriguez, Sociology, Undergraduate Student
Joanna Robles, Sociology, Undergraduate Student

College of Arts, Humanities & Social Sciences

The Stonewall Riots in June of 1969 started the modern lesbian, gay, bisexual, transgender, and queer (LGBTQ) rights movement in the United States. It took four more years for "homosexuality" to be removed from the Diagnosis and Statistical Manual (DSM). This study looks at the 20 years before the Stonewall Riots, exploring how LGBTQ people were discussed in the media. Using content analysis on more than 300 articles from the *New York Times* (1950-1969), we explore the evolution of language used to describe members of the LGBTQ communities, through the McCarthy era (1950-1956), the decriminalization of homosexuality in the UK in 1967, and social movements, like the riots in the summer of 1969.

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55. Regain Literacy: A Proactive Approach

Rachael A. Sauvage, LSEE, Undergraduate Student

College of Arts, Humanities & Social Sciences

The LSEE 411 class at Humboldt State University has been working with elementary schools in Northern California this semester, trying to bring back the play and fun

of reading. We have build a relationship with our students, we have learned that even of our students understand differently, learn differently, and can explain the world to them differently. We have an amazing experience working in one-on-one reading interventions with these students. We as the LSEE 411 classroom have learned that the education system is not what the schools need, we need a whole new approach on literacy.

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56. Reliability and Validity of the Humboldt Appreciation of Humor Scale

Kelly Makela, Psychology, Graduate Student
Margaret Groves-Bradley, Psychology, Undergraduate Student
Shaylyn Swartz, Psychology, Undergraduate Student

College of Professional Studies

This study was conducted to assess the reliability and validity of the Humboldt Appreciation of Humor Scale (HAHS). The HAHS was assessed with undergraduate and, graduate students from Humboldt State University. The scale is a 21-item Likert-type measure that was found to have good internal consistency (r = .93) and good test-retest reliability (r = .86). It was validated with a criterion-related measure, Humor Styles Questionnaire (r = .53), a discriminant measure, substance use questionnaire (r = .19), and a convergent measure, Beck's Hopelessness Scale (r = .55)

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57. Study of Hornblende Reaction Rims in Regard to Magma Rate Through the Conduit in California's Mt. Lassen's 1915 Eruption

Nicholas Richard, Geology, Undergraduate Student

College of Natural Resources & Sciences

Interpretation of hornblende reaction rims through the use of a scanning electron microscope to establish accent rate and path of magma through Mt. Lassen's volcanic conduit in the 1915 eruption.

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58. The Effects of Artificial Substrates on Larvel Settlement and Community Structure in Humboldt Bay, California

Jaclyn H. Schneider, Biology (Marine), Undergraduate Student
Marke Sinclaire, Biology (Marine), Undergraduate Student

College of Natural Resources & Sciences

Different anthropogenic substrates have been shown to have a strong effect on larval recruitment and subsequent community development in estuarine fouling communities. Docks and piers have been shown to have an increased abundance of invasive species relative to natural substrates such as rock. We examined community structure in accordance to initial barnacle settlement on concrete, treated wood, untreated wood, tire rubber, and plastic settling plates. Results show that there were marked differences in initial barnacle settlement as well as final community structure (after 4 months) between treatments, revealing the importance of early settlement and substrate type on community composition.

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59. The Effects of Simulated Acid Rain on Web-spinning Spiders in the Luquillo Experimental Forest, Puerto Rico

Yuliana Rowe-Gaddy, Wildlife, Undergraduate Student

College of Natural Resources & Sciences

Our objective of this study was to assess the effects of simulated acid rain on web-spinning spider assemblages in the Luquillo Experimental Forest, and we hypothesized that acid rain would decrease the richness and abundance of web-spinning spider taxa. Spiders are an ideal bioindicator to study the effects of anthropogenic pollutants due to their abundance, position as apex predators, various foraging behaviors and the feasibility in collecting them. In our field experiment, quadrats were sprayed with water of varying pH levels. After the treatments, all web-spinning spiders in the quadrats were collected and identified and results were statistically analyzed.

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60. The Emotional Response to Social Gaze is a Domain Specific Cognitive Mechanism

Ethan Gahtan, Psychology, Faculty
Nathaniel Lapolla, Psychology, Undergraduate Student
Benjamin Bishop, Psychology, Undergraduate Student

College of Professional Studies

Eye contact with another person (social gaze) produces a reflexive emotional responses measurable using skin conductance (SCR). A 'domain specificity' model of the social gaze response mechanism was tested by comparing SCRs during social and 'self-gaze' (gazing at one's own eyes in a mirror). Domain specificity (versus generality) predicts responses only during social gaze and has theoretical implications for how this reflex evolved. Participants (N=76) completed ten, 20 second, social or self-gaze trials. Social gaze produced significantly greater mean SCR's and showed more habituation across trials. There were no effects of sex or sex match on gaze-evoked SCRs. Results support domain specificity and suggest the social gaze mechanism evolved for social communication outside the mating domain.

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61. The Importance of Covariate Spatial Factors in Building Growth Models for Old Growth Sugar Pine *(Pinus lambertiana)* in the Sierra Nevada

Andrew W. Slack, Forestry & Wildland Resources, Graduate Student

College of Natural Resources & Sciences

A century of fire exclusion in the Sierra Nevada has altered the structure and composition of many old-growth forests. As a result many older sugar pines *(Pinus lambertiana)* are more prone to mortality due to uncharacteristically severe wildfire, pathogens and insect outbreaks, drought, and competition-induced stress, and many of these factors are exacerbated by the impacts of climate change. Examining tree growth is an excellent approach to understanding the influence of these factors on sugar pine vigor and survival. This study is a preliminary analysis to understand the importance spatial factors such as slope and distance to creek as covariates in building growth models for sugar pine.

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62. The Integration of Small Unmanned Aircraft Systems with Geospatial Science and Information Technology

Chris Muhl, Environmental Science & Management, Undergraduate Student

College of Natural Resources & Sciences

My research has two components. The first component explores field research techniques involving the integration of small unmanned aircraft systems (sUAS), with mobile mapping tools and geospatial analysis, to generate layers of data for a target study area. The layers include georeferenced orthophotographs, digital elevation models (DEMs), 3D models, common GIS raster transformations, supervised classifications, and false-color composites. The second component explores the use of information technology to develop effective methods for displaying and communicating scientific information to a broader audience.

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63. The Response of Breeding Western Snowy Plovers to Habitat Restoration and Sea Level Rise in Coastal Northern California

Stephanie Leja, Wildlife, Graduate Student

College of Natural Resources & Sciences

The Western Snowy Plover is threatened by habitat loss from invasive European Beachgrass. Habitat restoration is implemented to counteract this threat. A second threat to this beach-nesting bird is flooding from sea level rise due to global warming. To inform managers, we evaluated these threats using GIS geospatial analyses to compare nesting habitat features in restored areas and evaluate sea level inundation. In this preliminary study, we found plovers nested on wider beaches with more woody debris, open sand, and other nests than at random. Most nests (84%) were in restored habitat, and a two meter increase from mean sea level would result in 53% of plover nests becoming inundated.

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64. The Role of the Transcription Factor cJun in the Regulation of Murine Embryonic Stem Cell Potency

Manal Mosa Hosawi, Biological Sciences, Graduate Student

College of Natural Resources & Sciences

The OCT4 gene is a POU class V transcription factor essential for establishment of the inner cell mass, pluripotency and self -renewal of embryonic stem cells

(ESs). OCT4 gene expression is controlled by various mechanisms including transcription factor regulation. The AP-1 transcription factor c-Jun is known to affect proliferation, apoptosis, and cell survival. Its transcriptional activity is increased by phosphorylation of L40/42 by Jun N-terminal kinase (JNK). In this study, we examine the role of c-Jun on the regulation of Oct4 expression.

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65. The Sodium Channel Blocker Tricaine Reduces Regeneration in *Lumbriculus variegatus*: a Study at the Ultrastructural and Light Microscopic Levels

Manal Alkhathlan, Biological Sciences, Graduate Student

College of Natural Resources & Sciences

Lumbriculus variegatus has great ability to regenerate from small fragments into a new worm. In this study, we expose the worms to the voltage-gated sodium channel blocker Tricaine (MS-222) and examine somatic regeneration of heads and tails following body transection. Images of regenerating worms under normal conditions and treated worms with (1700_m) of tricaine were examined after amputation through TEM, SEM, and light level. Regeneration of both new head and tail body segments was reduced in the presence of tricaine, especially in the tail regeneration. Therefore, voltage- gated sodium channels showed to affect regeneration in the blackworms.

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66. The Upscaling of Direct Contact Membrane Distillation for Direct Potable Reuse of Wastewater

Joanna Murphy, Environmental Resources Engineering, Undergraduate Student
Rebecca Ransom, Environmental Resources Engineering, Graduate Student
Laurel Smith, Environmental Resources Engineering, Undergraduate Student
Andrea Achilli, Environmental Resources Engineering, Faculty

College of Natural Resources & Sciences

Direct contact membrane distillation is a thermally driven separation process that can be used for treating wastewater. A solution of hot water and a solution of cold water are placed in direct contact on opposite sides of a polytetrafluoroethylene membrane, causing the contents to separate into distilled water and brine. Due to these properties, DCMD has potential to be used on a larger scale, transforming impaired water bodies into viable sources of drinking water. This particular project is a bench-scale DCMD system and will be used to treat leachate from a landfill in Eureka, before being sent to University of Nevada-Reno to be coupled with a membrane bioreactor.

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67. Threats Mediate the Relationship Between Contact and Same-Sex Marriage Attitudes

Desiree Ryan, Psychology, Graduate Student
Haley Whitham, Psychology, Graduate Student

College of Professional Studies

This study examines a mediating relationship between positive contact, perceived threat, and same-sex marriage. We hypothesized that perceived threat, both symbolic and realistic, mediates the relationship between positive contact and attitudes toward same-sex marriage. Findings indicate that positive contact relates to more positive attitudes toward same-sex marriage and in turn, less realistic and symbolic threat. For instance, if an individual had more positive contact with a gay acquaintance then they were less likely to believe that the legalization of same-sex marriage would threaten such things as their religious freedom (symbolic) or financial well-being (realistic).

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68. Tibetan Nationality: Tourism, Commodification, and Souvenirs Preserving Identity

Kristopher Anderson, Geography, Undergraduate Student

College of Arts, Humanities & Social Sciences

Over the summer of 2014 research was conducted in China and Tibet. The main focus of the research involved the social identity of the Tibetan people and the perception of the people and place through the yes of a tourist. In order to find the perceptions and identity of the people, the tourism industry was analyzed using textual analysis and participant observation. Souvenirs in particular were a focal point of the research leading the author to a belief that however difficult and even destructive the tourism industry can be on a place and people in this case it seems that the industry may be serving as an mechanism of national identity preservation.

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69. Water Management System of the Classic Maya of Palenque (A.D. 250-900)

Walter Tovar Saldana, Anthropology, Undergraduate Student

College of Arts, Humanities & Social Sciences

The scope of this research is to understand the dynamic relationship between the Classic Maya of Palenque and water. The research presents geographical features, climate, techniques, and technology used to harness water. Furthermore, the activities of the Classic Maya of Palenque (A.D. 250-900) involving water will be presented and elaborated as dynamic casual processes revealing and recon-

structing cultural aspects. The investigation of the water management of Palenque system reveals the relationship between functionality and Maya ideology .The dynamic relationship between the Classic Maya of Palenque water management

70. Where Kitsch Meets Custom: Recent Native American Architecture in Northern California

Julie Alderson, Art, Faculty

College of Arts, Humanities & Social Sciences

A wave of new construction projects sponsored by Native American tribes is currently sweeping across Northern California. Federal recognition and Indian gaming have brought with them a flurry of development opportunities, particularly for casinos and tribal services buildings. An overview of such structures illustrates significant differences between the buildings tribes build for the general public, versus those that they construct for their own use. Such analysis helps demonstrate both the vision the general public has of Indian tribes, as well as the vision tribes have of themselves.

Featured Presentations

Library Fishbowl (2nd Floor)

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3:10-3:20pm

Early Cretaceous Cupressaceae in the Budden Canyon Formation of Northern California

Ashley Ortiz, Botany, Undergraduate Student,
College of Natural Resources & Sciences

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3:30-3:40pm

Sustainability Reporting for Small Businesses

Sheri Woo, Business Administration, Graduate Student,
College of Professional Studies

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3:50-4:00pm

Making of a Monster: Media Constructions of Transgender Victims of Homicide

Meredith Williams, Sociology Faculty,
College of Arts, Humanities & Social Sciences
Janae Teal, Sociology Graduate Student
Ashley Rose Florian, Sociology Undergraduate Student
Julian Rivera, Sociology Undergraduate Student
Lizbeth Olmedo, Sociology Undergraduate Student

4:10-4:20pm

Effect of Size at Release on Tendency of Trinity River Hatchery Steelhead (*Oncorhynchus mykiss*) to Return as Half-Pounders

Kaitlyn Manishin, Fisheries Biology, Undergraduate Student,
College of Natural Resources & Sciences

4:30-4:40pm

Humboldt State University's Student-Parents: Strengths, Challenges, and Needs

Kayla Masengale, Child Development, Undergraduate Student,
College of Professional Studies

4:50-5:00pm

Queers in the Pre-Stonewall Media

Meredith Williams, Sociology Faculty,
College of Arts, Humanities & Social Sciences
Rudolph Bielitz, Sociology Graduate Student
Marina Moya, Sociology Undergraduate Student
Elmer Rodriguez, Sociology Undergraduate Student
Joanna Robles, Sociology Undergraduate Student

Musical Performances

Library Lobby (1st Floor)

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"What shall poor Aeneas do" from *Dido and Aneas,* Henry Purcell (1659-1695)

Olivia Bright, soprano • **Alberto Rodriguez,** baritone • **John Chernoff,** piano

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Sonata No. 7 in D Major, Op. 10, No. 3 Ludwig van Beethoven (1770-1827)

IV. Rondo: Allegro

Ryan McGaughey, piano

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Le Travail due Peintre: Sept Mélodies sur des poèms de Paul Éluard Francis Poulenc (1899-1963)

Pablo Picasso
George Braque
Paul Klee

Alberto Rodriguez, baritone • **John Chernoff,** piano

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Concerto in C Major Dmitry Kabalevsky (1904-1987)

II. Andantino cantabile

Michael Donovan, violin • **Levi Walls,** piano

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Selfless, Cold, and Composed Ben Folds (b. 1966)

Arr. Kerry Marsh

Syncopations, **Alberto Rodriguez,** director

Olivia Bright, soprano • **Greta Goshorn,** soprano • **Elizabeth Thorne,** soprano
Melodia Gonzales, alto • **Mari Harsh,** alto • **Linh Pham,** alto
Christian Lesko, tenor • **Ian Taylor,** tenor • **Andrew Henderson,** bass
Alberto Rodriguez, bass • **Corey Tamondong,** bass
Ryan Woempner, bass

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Sonata No. 2 in d minor, Op. 14 Sergei Prokofiev (1891-1953)

II. Scherzo: Allegretto marcato

Zhelin Wu, piano

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The Dignified Lonely Person Song Cycle Michael Barrett Donovan (b. 1994)

I. Space

Olivia Bright, soprano • **John Chernoff,** piano

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History of the Tango Astor Piazzola (1921-1992)

Erin Laetz, flute • **Andrew Heavelin,** guitar

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Sonata for Cello and Piano, Op. 143 — Francis Poulenc (1899-1963)

I. Allegro – Tempo di Marcia
II. Cavatine

Kira Weiss, cello • **Ryan McGaughey,** piano

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Mambo Inn Maria Bauza, — Grace Sampson, Bobby Woodlen

Erin Laetz, flute • **Kenneth Bozanich,** guitar • **Leo Plummer,** guitar
Ryan Woempner, bass • **Tyler Burkhart,** congas

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Strange Humors — John Mackey (b. 1973)

Abraham Loaiza, soprano saxophone • **Kyle McInnis,** alto saxophone
Corey Tamondong, tenor saxophone • **Bret Johnson,** baritone saxophone
Niamh Mercer, djembe

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Waking Life — Kenneth Bozanich (b. 1987)

Erin Laetz, flute

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Guardame las Vacas — Luis de Navarez (fl. 1526-1549)

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Cordoba — Isaac Albeniz (1860-1909)

Andrew Heavelin, guitar

• • •

Duet for Saxophone — Kyle McInnis (b. 1989)

Kyle McInnis, alto saxophone • **Sabrina Fisher,** alto saxophone

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Moonstone — Kenneth Bozanich (b. 1987)

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Mas que Nada — Jorge Ben (b. 1945)

Olivia Bright, soprano • **Erin Laetz,** flute • **Kenneth Bozanich,** guitar
Leo Plummer, guitar • **Ryan Woempner,** bass
Tyler Burkhart, congas

humboldt.edu/ideafest

This event is sponsored by the Office of Research, Economic and Community Development, University Advancement and the HSU Library in collaboration with the Colleges.

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Enjoyed IdeaFest and want to see more student research? Check out HSU's History Conference on Saturday, April 18th, 2015 in Founders Hall Room 25. Get a glimpse of the type of research and creative work that's coming out of the HSU History Department. This event is from 8:00 am to 5:30 pm and open to the public.

HUMBOLDT STATE UNIVERSITY