

Department of GEOGRAPHY

Environment, Society, Technology

*I chose three words that were meant to drive my work as Chair during the pandemic year: **flexibility, patience and kindness.***

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Greetings from the Chair

I could not start these welcoming remarks without first acknowledging the impact that the COVID-19 pandemic has had on all of us. The last year has been extremely challenging and I hope that all of you—alumni, emeritus faculty, and all friends of SDSU geography—have found the strength to cope and take care of yourself and your loved ones. I became Chair last fall semester. I never imagined I would be a “virtual” Chair operating through Zoom. Then again, no one in our Geography family thought about doing their jobs this way. And yet, here we are, a year later, resilient and hopeful that a brighter day is closer. This newsletter provides evidence that despite the challenges and difficulties we have faced, SDSU Geography remains as dynamic and active as ever.

During our first virtual faculty meeting in fall 2020, I chose three words that were meant to drive my work as Chair during the pandemic year: **flexibility, patience, and kindness.** I hoped that these words would inspire all of us to exemplify these qualities. Our faculty, lecturers, staff, and students all found creative ways to adapt to an on-line and physically distant environment for working and learning. Instruction continued, with virtual labs, break out rooms in Zoom for group projects, and a whole set of untried innovations. Our department created a

brand-new class on the human and environmental dimensions of COVID-19. Led by Professor Jankowski, this class brought all of our expertise together in one virtual room for an entire semester. The majority of faculty in the department gave lectures as part of this college-wide class, together with world-class experts. We continued with our Friday colloquia, and were able to host and connect with scholars all over the world. Our graduate students organized virtual lunches, coffee hours, and a number of academic and scientific activities and workshops that enriched the intellectual life of the department. And the research mission of the department did not stop. Our faculty and students were crucial in producing knowledge about the COVID-19 pandemic, researching everything from its patterns of spread and diffusion in San Diego County to writing critically about its impacts on vulnerable communities, in particular in terms of the class and racial inequalities that the pandemic exacerbated. Beyond the topic of the pandemic, there were



many other important accomplishments: research grants, books and articles published, invited presentations, honors received, and much more. You can read about all the accomplishments of our faculty and students in this newsletter.

I am extremely proud of the vitality of our department and it is an honor for me to have been working collaboratively with everyone to get us through this tough spot. Has everything been perfect? Hardly. But we have truly learned a lot, supported each other and our students, and made big plans to continue making our department one of the best places to learn and research what is at the heart of

geography: the complex interdependencies of people, places and environments. I hope that you enjoy reading these updates from us and I ask you that you consider supporting SDSU Geography in any way you can, so that we can continue thriving in an even brighter future.

Fernando J. Bosco
Professor and Chair.



The California Geographic Alliance (CGA)

The CGA continues to support geography and social studies teachers in California and to advocate for a greater focus on geographic thinking in K-12 instruction. While the pandemic disrupted the usual teacher professional learning activities, responding to emerging needs and also advancing new projects has resulted in a very busy time. Read about these projects and more at calgeography.org.

The CGA's popular student atlas, *California: A Changing State* was completely updated for 2020. The updated maps, aligned with 4th grade social studies standards in the state, are now available on the CGA website along with related instructional resources. In partnership with the CA Global Education Project, we look forward to providing new professional learning opportunities and distributing printed copies of the atlas throughout the state.



CGA Director Tom Herman hosted daily webinars during Geography Awareness Week. These webcasts were designed as an opportunity for both students and teachers across the state to hear from experts in a wide range of fields who are using geography to address complex problems and guide society toward sustainable and equitable solutions to

those problems. SDSU graduate students Krista West, Sam Orndorff, Corrie Monteverde, Jasmine Arpagian, and Thomas Smith all contributed excellent presentations.

Following up on the UC-CSU Environmental and Climate Change Literacy Summit held in December 2019, the CGA secured a grant from National Geographic to support the development of the California Hub for Environmental Learning and Action (CHELA). This exciting new resource, created under the auspices of the CA Environmental Literacy Initiative and scheduled for launch in late Summer of 2021, utilizes Esri's ArcGIS Online cloud-based software to incorporate an interactive environmental atlas and a storytelling showcase. Selected student projects submitted to the annual My California GIS Mapping Competition are also being integrated into the interactive atlas.

The CGA is also part of an innovative Researcher Practitioner Partnership funded by the National Science Foundation and involving researchers at SDSU (PI Dr. Atsushi Nara), the AAG, UC Riverside, and Texas State University. *Encoding Geography* looks to generate increased incorporation of geo-computational thinking skills in K-12 courses while at the same time aiming to increase engagement of diverse learners to address the need for increased diversity among college majors and the career fields related to both computer science and geography.

Geography Class Examines Impact of COVID-19 on Campus Community

Students in San Diego State University's [Geography Department's](#) course on **Qualitative Methods in Geography** (taught by [Dr. Kate Swanson](#)) worked together to produce [this excellent StoryMap](#) that examines the impact of COVID-19 on the SDSU community.

This is information and perspective that you won't get anywhere else, and geography helps pull it all together. Congrats to Dr. Swanson and the whole team!

From Dr. Swanson: "Overall, our findings pull from 458 student surveys, 131 faculty surveys, as well as 24 interviews with students and

faculty. The StoryMap integrates graphics, recordings, maps, office space photos, and compelling first-hand testimony to uncover how students and faculty are coping. Key sections include: student financial report; housing, food security and education

impacts; impacts of online learning on student well-being; and impacts of online learning on faculty well-being. We conclude with a series of recommendations."

<https://storymaps.arcgis.com/collections/0023fd7aa0e9441181d1037630240755>

Mental Health

74%

experience "negative" effects on their mental health due to virtual learning

Top Contributors

zoom fatigue, school related stress, & relationship related stress

71%

wake up still feeling tired either "always" or "most nights"

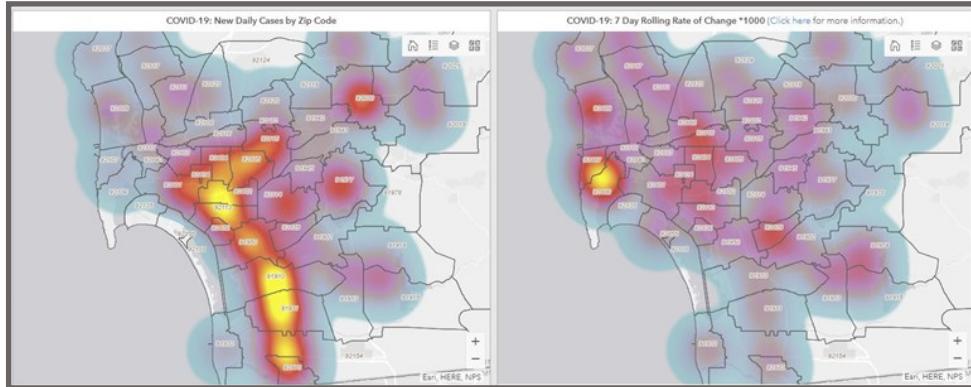
Impacts of Online Learning on SDSU Students' Well-Being Survey, 209 respondents

Mapping and Tracking COVID-19 Outbreaks in San Diego

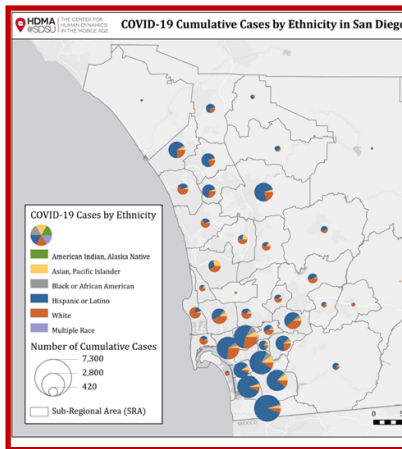
[Dr. Ming-Hsiang Tsou](#), Professor of Geography, Director of the Center for Human Dynamics in the Mobile Age.

Started in April 2020, the faculty and students from the Center for Human Dynamics in the Mobile Age (HDMA) created a [Research Hub Website](#) to track and analyze COVID19 outbreaks in San Diego using GIS, social media, and data science methods.

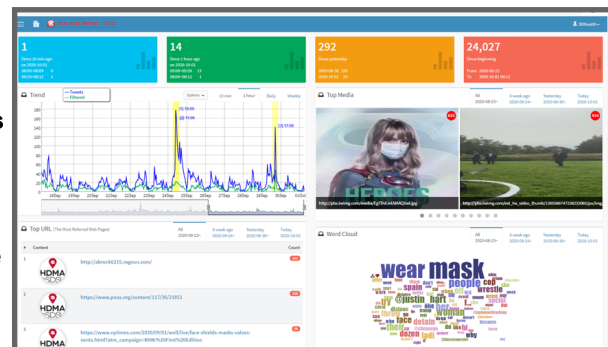
[Web GIS maps are created for tracking and mapping the spatial distribution patterns of COVID19](#) and identify the hot spot areas and clusters in San Diego Zipcode regions. We collaborate with the County of San Diego Staff and provide these daily updated maps to help them to make better decision and monitor the public health status in San Diego. For example, the following map is the Heatmaps to identify the hotspots and cluster regions:



In addition, we also create maps to visualize **vulnerable population locations in San Diego**, such as senior citizens, nursing facilities, homeless, and diabetes patients. So the county staff can provide the needed resources and help to these people. We also focus on the impact of COVID19 to the Hispanic population and minority groups in San Diego. We have identified that the Hispanic population received the highest impacts of COVID19 in terms of confirmed cases, hospitalization and mortality.



Finally, we use the social media analytics tools, called SMART dashboard to help the County staff to analyze the public opinions about critical public health issues, such as wearing masks, social distancing, stay-at-home policies, etc. with weekly reports. These social media analysis also help our San Diego County Administrative to make better decisions during the last few months.



http://44.232.212.248:8080/SMART2/SDHealth_Masks_092320

Cybersecurity Seminar Attracts 170+ Participants



The [Center for Information Convergence and Strategy](#) (CICS) hosted a seminar titled "Cybersecurity: Era of 5G" that was presented by the

[FBI San Diego Citizens Academy Alumni Association](#), in collaboration with [Intelligence Research Institute](#) (IRI).

With Akshay Pottathil as moderator, expert speakers representing private and government sectors discussed how individuals and organizations are targeted, as well as the driving factors, threat landscapes, techniques, and actors, from groups to nation states. Emphasis was given to

current and emerging trends and the resources available to detect, deter, and defend against such threats.



Journey with Geography Students

Geography Graduate Student Association (GGSA) has been hard at work keeping students, faculty and staff connected throughout the pandemic. Along with staying connected, they have earned funding for events and created lasting accomplishments for future geography graduate students.

The student success fee proposal was a huge achievement with the total



amount awarded \$20,380!

GGSA successfully grew from four officers in the summer of 2020 to eleven during the fall 2020 semester. This showed the commitment graduate students have to the department and each other.

A new website was created to showcase the work and accomplishments of the association. Visit ggsa.sdsu.edu.

Geography awareness week comes once a year in November, GGSA jumped in to host a panel of five alumni with an audience of 30.

GGSA has built a platform to showcase the amazing work of the geography department and we cannot wait to see what else is in store.



"Fueling the Burn"
presented by
Krista West
September 2021

Geography JDP student, **Krista West** has been presenting and showcasing her geography expertise with multiple presentations in 2021.

She gave a presentation for L3Harris Geospatial's first Spectral Sessions on January 27th



titled "Approaches for Satellite-Derived Maps of California Shrublands for Fire Mitigation": Visit the [Event link](#) and [Recording link](#) for more details. Her next presentation titled "Hot Mess: Remote

Sensing Applications for Wildfires and Other Natural Disasters" occurred on

March 17 - [L3Harris Geospatial Distancing LIVE](#). Finally her upcoming presentation in September is scheduled with the San Diego Natural History Museum, time and exact date are to be determined. Click the link to stay up to date on this presentation titled "Fueling the Burn". [San Diego Natural History Museum Nat Talk](#)

2020 Retirement ~ John O'Leary

John O'Leary retired last August after 35 years of service to the department and entered the Faculty Early Retirement Program last fall. Under this program a retired faculty member may

teach one semester a year for up to five years, and John is teaching Geography 101 this spring semester. He was involved as a co-principal investigator along with Dr. Doug Stow, Dr. Kellie Uyeda, and two



master's students (Rachel Snively and Kelsie Warkentin) on a nearly five-year long project that entailed the mapping of vegetation and shrub cover monitoring and sensitivity analysis of vegetation community maps of San Clemente Island. The research was funded by U.S. Navy which has jurisdiction over the island.

Bringing the Child-Friendly City Initiative to La Mesa

What is a Child-Friendly City (CFC)?

According to UNICEF's website, a CFC is a "city, town, community or any system of local governance committed to improving the lives of children within their jurisdiction by realizing their rights as articulated in the UN Convention on the Rights of the Child" The 5 CFC goals created from the UN Convention of the Rights of the Child are:

- 1) The right to be valued, respected and treated fairly
- 2) The right to be heard
- 3) The right to social services
- 4) The right to be safe
- 5) The right to family life, play and leisure.

In a CFC, children's voices, needs, priorities and rights are recognized and are taken into consideration to help guide city government's policies, programs, and decisions.

There are about 45 countries and about 3,000 municipalities participating and waiting to be recognized as a Child-Friendly City (see figure 1). There are currently no CFCs in America but there are a

handful of pilot and pipeline cities that are in the process.

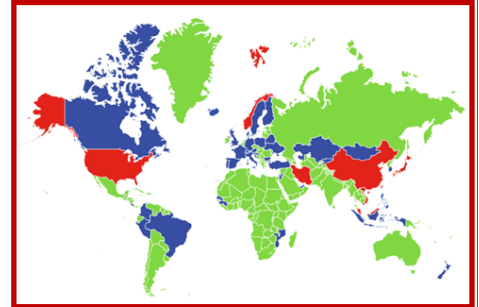
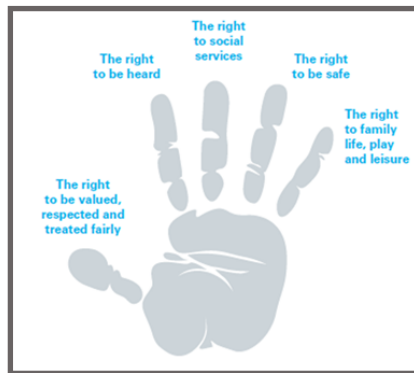


Figure 1 - Highlights the countries participating in UNICEF's CFCI

Source: <https://childfriendlycities.org/initiatives/>



Helping La Mesa receive recognition:

UNICEF USA requires cities to conduct a situational analysis report before they can be recognized as a CFC. SDSU's Geography Department and Young People's Environments, Society and Space (YESS) Research Center has been working with La Mesa's Hope Alliance and Community

Services Department in the City of La Mesa to complete this report.

We also want to acknowledge Jasmine Arpagian and Empress Holiday for their time and dedication in creating a community resource map for the youth in La Mesa (see figure 2). Jasmine outlines the purposes of their resource map below:

- 1) to see what kind of resources and programs are available to the city's youth
- 2) to identify schools, organizations, and programs that are stakeholders in this initiative and could partner with us (research team)
- 3) connect with local children/adolescents through these potential community partners to collect youth

perspectives and potentially enlist young volunteers.

This resource map played an essential role in guiding the governmental analysis report and we hope it can serve as a tool for the youth community.

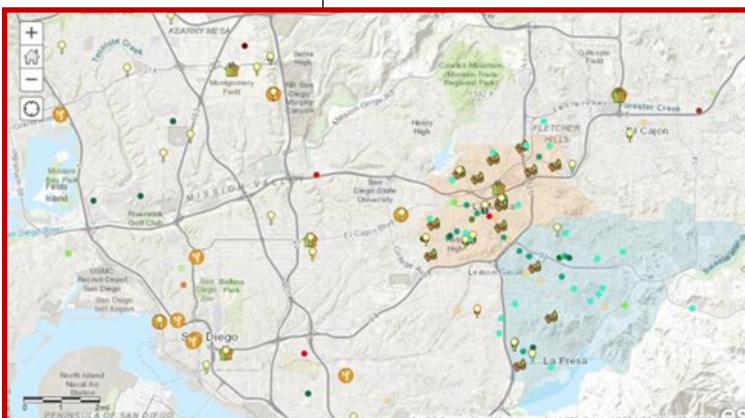
Our government analysis report created a baseline summary, revealed which data were available to the public, and helped facilitate discussions on areas for improvement. For example, our data collection showed little data on children's participation, family displacement, and emergency preparedness. We can address these findings in our action plans.

For our next step, we hope to invite youth and other stakeholders to this project.

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Figure 2 - Community Resource Map

Source: <https://www.arcgis.com/home/webmap/>



Introducing GEOG 496 with Amy Quandt

GEOG 496, Student Feedback:

"This course has given me a well-rounded look at how human actions can have a butterfly effect on the world around us."

"It's interesting to see how natural hazards affect us in San Diego... it really puts it into perspective when you have to think about how climate change specifically affects you and where you live."

"My favorite part of the course is having real-life applications and stories of events."

Summary for GEOG 496:

Starting this semester our newest faculty member, **Dr. Amy Quandt**, is offering an exciting and relevant new course called the Human Dimensions of Climate Change. The goal of this course is to help students understand how people all over the globe can mitigate their contributions to climate change, as well as adapt to the impacts of climate change that are projected to increase in the next few decades.

Climate change is a growing concern among SDSU student body, and this course provides a nice complement to existing courses that focus on the biophysical aspects of climate change and climate

modeling. Students this semester are learning about a broad range of climate change topics including renewable energy, geoengineering, natural hazards, wildfire, climate justice and race, as well as

fewer greenhouse gases, analyze a climate change adaptation policy, interview a friend or family member about their experiences and perspectives on climate change, as well as present to the class about a potential

new and innovative solution addressing the climate crisis. Dr. Quandt plans to continue teaching Human Dimensions of Climate Change as a graduate seminar in Fall 2021, and again as an undergraduate course in Spring 2022. After 2022 she plans to make it a permanent course

within the department. Within the course, she shares her own research and experiences in East Africa studying how smallholder farmers are adapting to the impacts of climate change such as drought and floods.



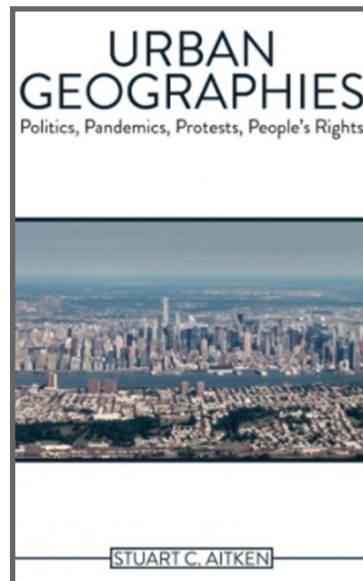
international, national, and local policies addressing climate change mitigation and adaptation. Course assignments include having students change their behavior for a week to emit

STUART AITKEN – LATEST BOOK

Stuart's most recent book (his 16th) came out in January.

It is his first attempt at a text-book monograph, and he is grateful to Kendall-Hunt for letting him creatively push the boundaries of what these tomes should be. Rather than the usual hard-backed book with glossy maps, diagrams, graphs, theory and data, Stuart tells a series of stories about how we came to these uncertain times and how they are referenced in the structures and livability of urban societies. Globalization and the excesses of capitalism seem to have prescribed a world of greater urban risk. For example, densely packed urban populations live alongside bats, rodents, pets, birds and other living things. The

Covid-19 pandemic mandated a global shut-down with consequential changes in urban health, economies and lifestyles. This book looks closely at how our urban stories changed, and the spatial importance of local and global connectivity. In addition to pandemic threats, which are weaved through the narrative, **Stuart** tackles pressing issues such urban gentrification, revitalization, political, economic and social restructuring, and social and political activism. Within cities, nature, healthy living and economic security are at the forefront of concerns, but there is also a rise of communities of care and mutual aid. This book covers these matters in storied way and describes how they



produce and are produced by space and urban living.



SAN DIEGO STATE
UNIVERSITY

Presenting TEAM FIRE

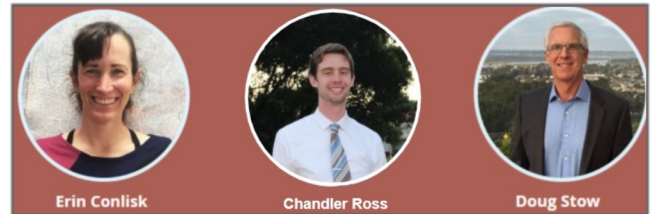
Connecting Wildlands and Communities (CWC)

Alumni, faculty and staff from SDSU Geography are collaborating on the Fire Team of the Connecting Wildlands & Communities (CWC) project. The project is funded by the California State Strategic Growth Council through the California Climate Investments initiative. It is a collaborative effort of the Institute for Ecological Monitoring and Management (IEMM) at SDSU and the Climate Science Alliance.

The Fire Team is led by Distinguished Professor Emeritus Doug Stow, and includes postdoctoral researcher and former graduate student, Dr. Emanuel Storey, doctoral student, Krista West, MS student,

wildfire scientist for the southern California region, Dr. Alexandra Syphard.

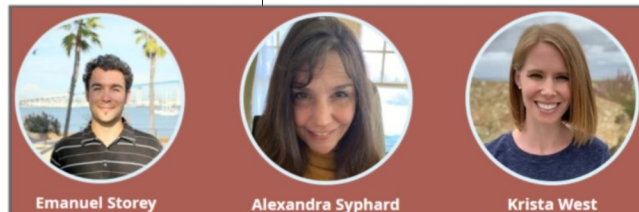
The primary research and development activities by the CWC Fire Team pertain to conducting research that yields knowledge and information products pertaining to wildfire processes and management for the Southern California Ecoregion. Research and product development activities primarily concern exploitation of the Landsat satellite image data record to map, monitor and understand wildfire related patterns and processes. These include recovery of chaparral



Erin Conlisk

Chandler Ross

Doug Stow

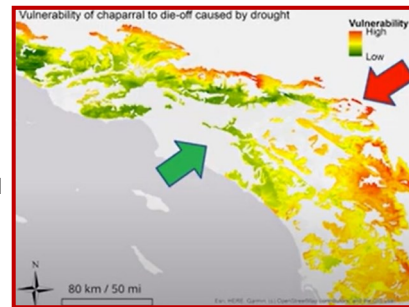


Emanuel Storey

Alexandra Syphard

Krista West

Chandler Ross, and alumnus of the joint doctoral program and leading



Assessing Vegetation Recovery

shrubs as influenced by fire frequency and drought (Storey doctoral dissertation and postdoctoral studies), expansion of non-native grasses and its effects on wildfire regime changes (West doctoral dissertation), and refined mapping of burned areas and fire history (Ross MS thesis). The Fire team recently highlighted its research results and information products at the Southwest Adaptation Forum, sponsored by the Climate Science Alliance.

Three Year NSF Grant for Geocomputation Education Dr. Nara & Dr. Herman

The geospatial services industry is a profitable and rapidly growing field; however, employers find it difficult to hire scientists with expertise in both geography and computer science. The limited availability of training opportunities in both computer science and geography has created a shortage of workers with the necessary knowledge and skill sets for those jobs. To tackle this challenge, **Drs. Nara and Herman** have a new project entitled "Encoding Geography - Scaling up an RPP (Researcher-Practitioner Partnership) to achieve inclusive geocomputational education", funded by the NSF-CS4All program (Award #: 2031407, Award



Amount: \$400,000, Dates: 01/2021-12/2023, PI: Nara). The collaborating institutions in the Encoding Geography RPP, which was piloted with prior NSF support (Award #:1837577), include American Association of Geographers, Texas State University, University of California-Riverside, California Geographic

Alliance, Sweetwater Union High School District, San Diego Mesa College, and San Diego State University. Through

the RPP, Drs. Nara and Herman will work closely with teachers, college/university faculty, and education researchers who have combined backgrounds in geography and computer science to address the need to research and develop a school-to-college curriculum pathway that bridges concepts in computer science and geography. This RPP will support the development of a curriculum that is conceptually rigorous, inclusive, and culturally relevant. It will also produce a replicable approach for teaching geocomputation that is accessible and motivational for all learners.



CONTACT US

The Department of Geography at SDSU would love to hear from you. For newsletter submissions, change of address or to be added to our alumni e-mail list, please send an email to geography@sdsu.edu

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INSTAGRAM
SDSUGEOGRAPHY

Geography Department
San Diego State
5500 Campanile Drive
San Diego, CA 92182

Phone: 619-594-5437
Fax: 619-594-4938

Awards and More

Dr. Li An has been nominated and elected as a Fellow of The American Association for the Advancement of Science (AAAS) in November 2020, a lifetime distinction awarded to leading scientists across the world. **Dr. An** was recognized for his "distinguished contributions to complex human-environmental systems theory and methodological breakthroughs in modeling human decisions, agent-based modeling, land survival & latent trajectory analysis".

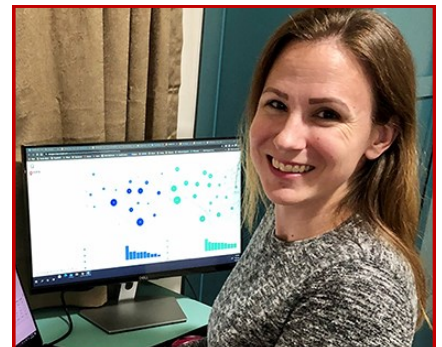
William Nicewonger is a geography undergraduate student, he received the Provost's Award: Arts and Letters at the 2021 Student Research Symposium for his presentation titles "Regional

Effects of Deforestation on Dry-Season Climate in the Brazilian Amazon".

Jessica Embury, a senior geography major and a member of the HDMA center, has been selected as one of two recipients of the 2021 AAG Marble-Boyle Undergraduate Achievement Award in Geographic Science. This is one of the prestigious awards to recognize excellence in academic performance by undergraduate students from the United States and Canada who are putting forth an effort to bridge geographic science and computer science.

Using GIS and Geocomputation techniques, Jessica has helped several research projects including dynamic mapping of coronavirus cases as well as mapping old dry cleaners in San Diego.

The award consists of a cash prize of \$1,000 and a certificate of recognition.



2020-21 Scholarship/Award Recipients



McFarland Award

Ryoko Araki (MS)
Christina Bock (UG)
Jessica Embury (UG)

Post Award

William Nicewonger (UG)
Joshua Rey (UG)

Finch Award (Remote Sensing Emphasis):
Ye Mu (MS)

Greenwood Award (Physical Geography):
Liana Heberer (MS)

Alvena Storm Award:

Karen Robinet (MS)

Citizenship Award

Noah Young (MS)

Jasmine Arpagian (PhD)

YESS Center Award (Human Geography)

Jasmine Arpagian (PhD)

Parrott Scholarship

(Incoming GIS emphasis)

Emily Deardorff (MS)

Giving ~ Support Geography

The Geography Department awards a number of student scholarships and awards each year to recognize excellence and achievement at the undergraduate and graduate level. If you would like to support Geography student awards, you can now donate directly to our Department Award Fund via the Campanile Foundation. Click [here](#) to

make your donation to the student award fund today. (Be sure to select "Other" under award designation, and input the following fund: **Geography Awards C04485**. Please contact the department if you'd like

more information on supporting student awards.



Geography faculty at our last in-person social event, 2019