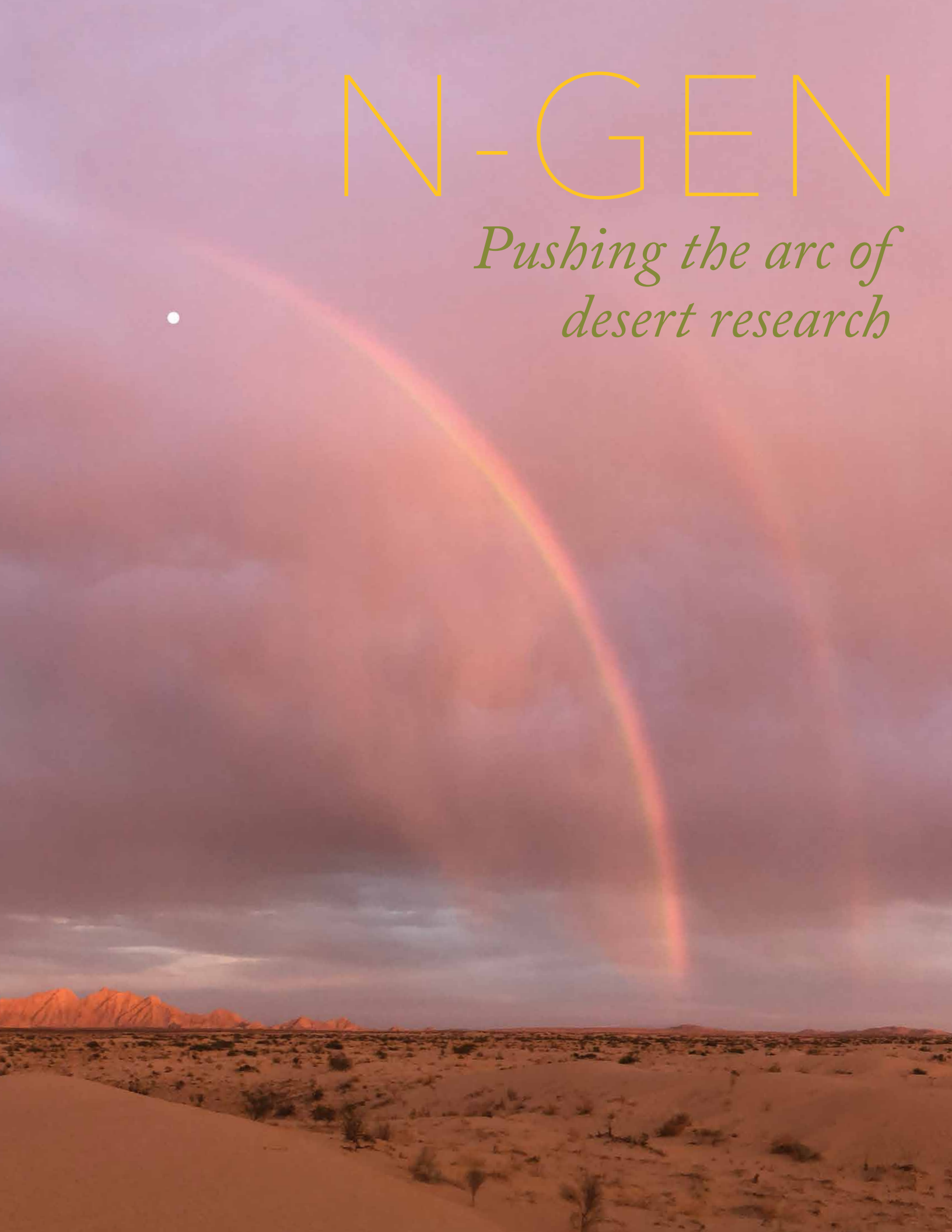


N-GEN

*Pushing the arc of
desert research*





Alan Harper © 2011

OUR VISION

The Next Generation Sonoran Desert Researchers is a network of individuals committed to the rich social and ecological landscape that spans the mainland Sonoran Desert, the Baja California Peninsula, the Gulf of California, and the US-Mexico borderlands. This interdisciplinary network addresses the research and conservation challenges of our time within this multinational region. Dedicated to the spirit of the Sonoran Desert, N-Gen (1) catalyzes research and biocultural collaboration, (2) develops capacity for innovative transdisciplinary action, and (3) influences decision makers in both countries to promote a conservation ethic that matches the grandeur of the landscape.

N-GEN IS A COMMUNITY UNITED TO PROMOTE A CONSERVATION ETHIC THAT MATCHES THE GRANDUER OF THE SONORAN DESERT

N-GEN IS THE COLLABORATIVE UNDERSTANDING OF THE REGION THAT INSPIRES US

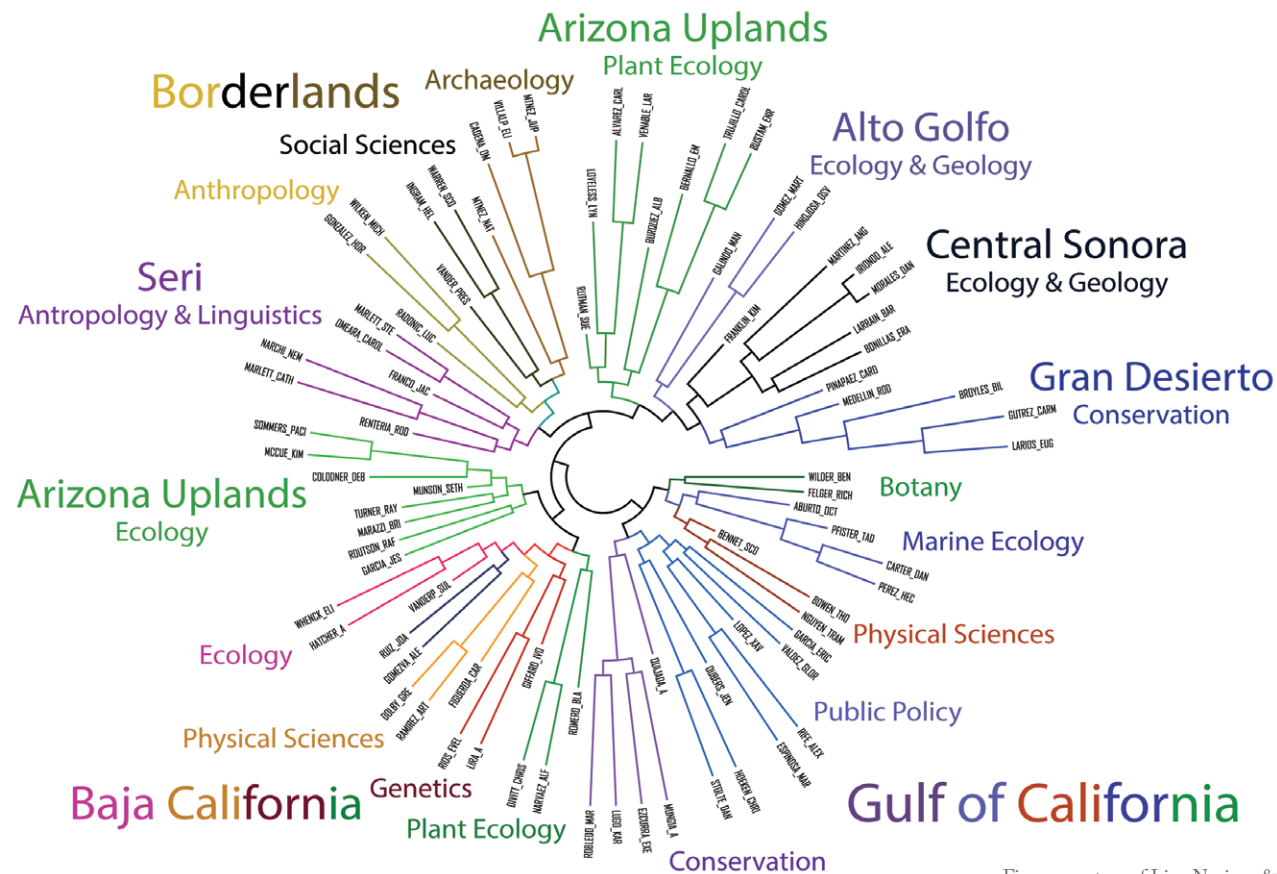


Figure courtesy of Lira-Noriega & Duberstein, 2015

THE REGION



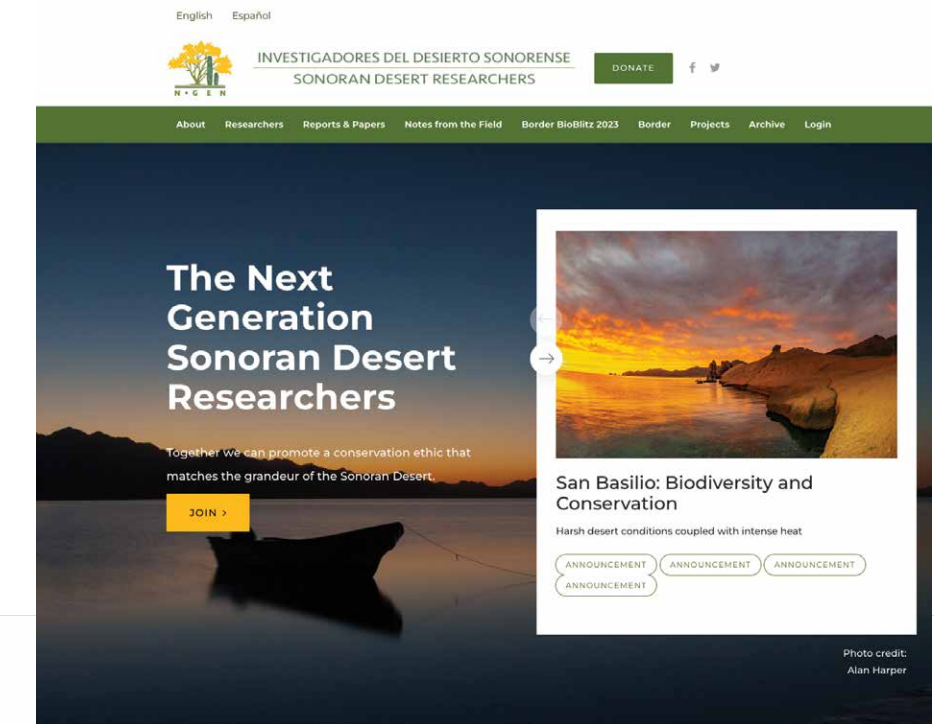
The Sonoran Desert—the mainland Sonoran Desert, the Baja California Peninsula, the Gulf of California, and the US-Mexico borderlands—is an endless laboratory. From the Sierra Madre, to the waters and islands of the Gulf, to the desert flats, this is our world.



WEBSITE

www.nextgensd.com IS THE CENTER FOR RESEARCH IN THE SONORAN DESERT

Our bilingual website is the platform to facilitate access and communication for a network of collaborators. It is both a reflection of the actions of this community and a tool to expand them.



USERS: 50% US, 50% MX



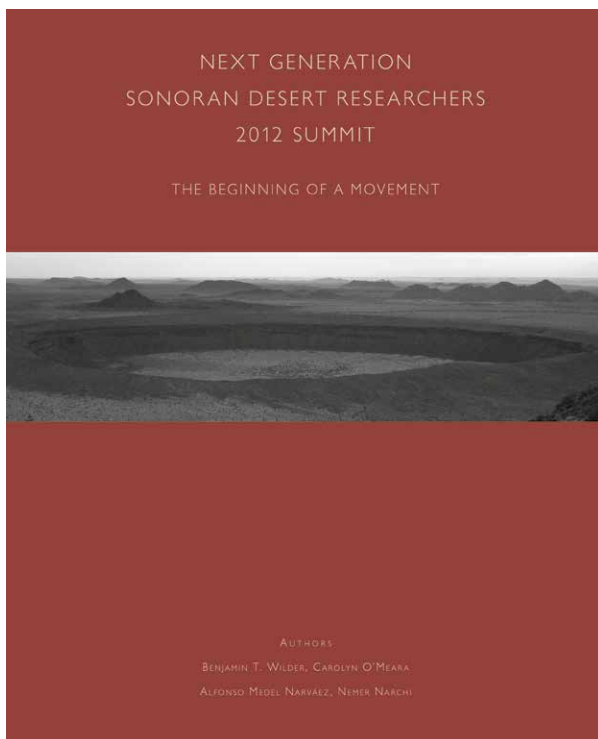
SUMMITS

One of the best ways to connect those of us committed to the understanding and conservation of the Sonoran Desert is in person. Once every several years N-Gen holds a region wide Summit. The first was held in Tucson, Arizona April 2012, the second in Guaymas, Sonora October 2015, and the next will be held in Álamos, Sonora April 2024.



2012: 90 participants
[49 MX, 41 US]
37 Institutions
[11 MX, 26 US]
16 Disciplines
22 sessions

2015: 170 participants
[82 MX, 60 US, and 28 indigenous participants]
71 Institutions
[43 MX, 28 US]
30 sessions



- Alliances between the social and ecological paradigms are no longer an option but a necessity.
- N-Gen Summits allow us to create new mechanisms to share the realities and wonders of living and working in the Sonoran Desert.
- Conversations, ideas, and discoveries that otherwise may have never happened are born.
- N-Gen fosters serendipity.



COMCAAC CONSERVATION AND ECOLOGY COURSES



Often, individuals who have the most direct impact on future land use have the least opportunities for education. This is especially true among Indigenous and rural societies. In order to increase opportunities for knowledge transmission and to support the development of the next generation of leaders in conservation and ecology, N-Gen has created intensive field-based ecology courses for the Comcaac. This three-parted course provides foundations for how to undertake a research project from the beginning to end.



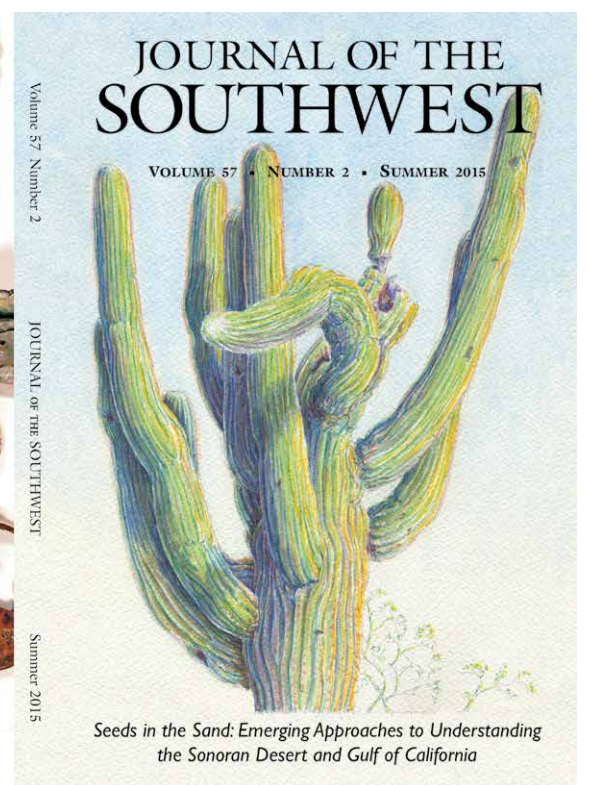
JOURNAL OF THE SOUTHWEST N-GEN SPECIAL ISSUE

Seeds in the Sand: Emerging Approaches to Understanding the Sonoran Desert and Gulf of California

11 CHAPTERS
44 AUTHORS



THE SOUTHWEST CENTER
UNIVERSITY OF ARIZONA
TUCSON



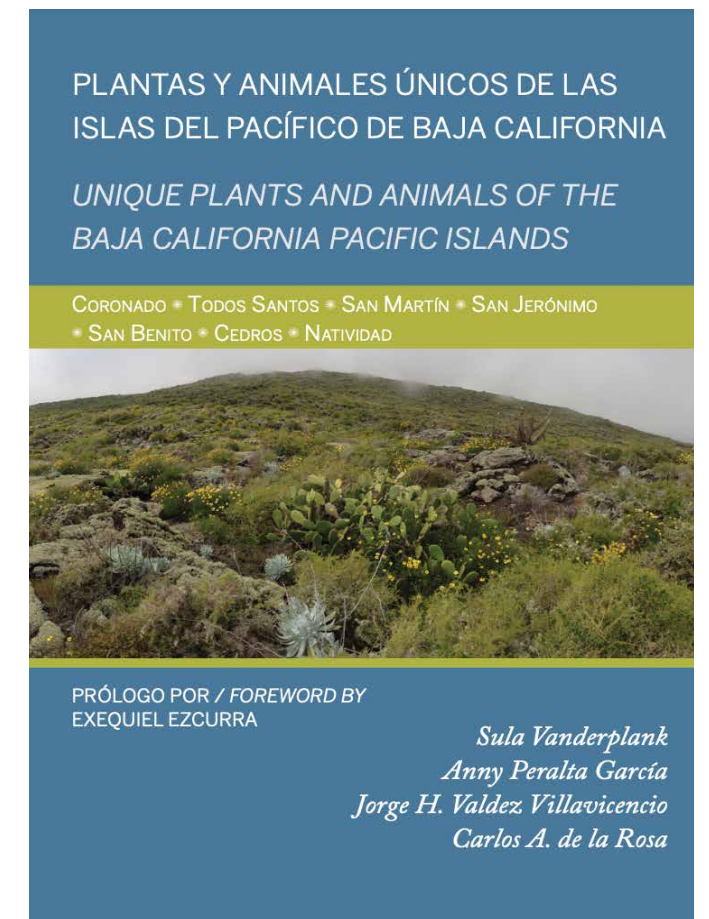
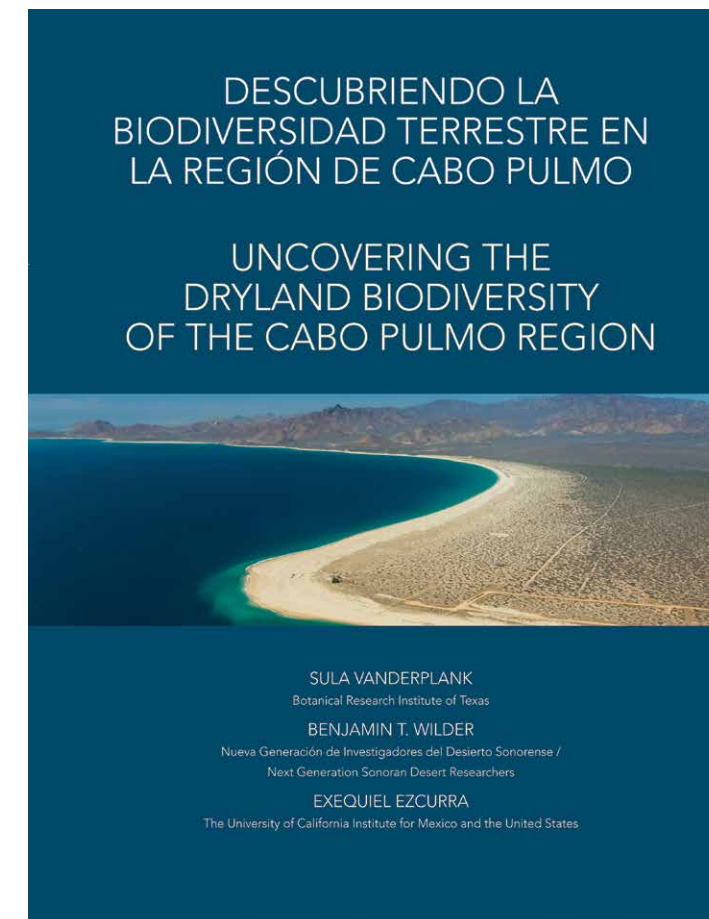
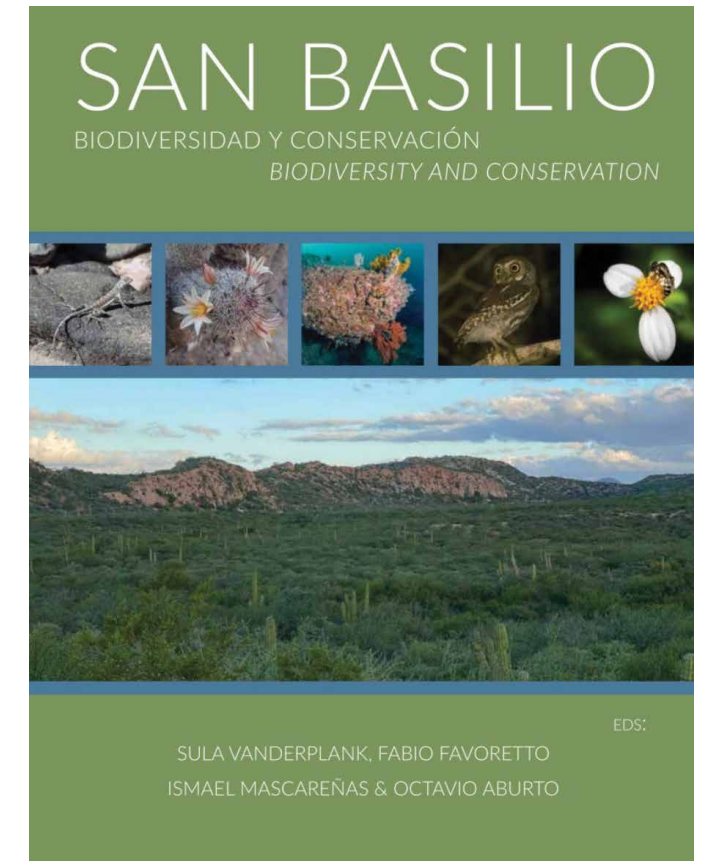
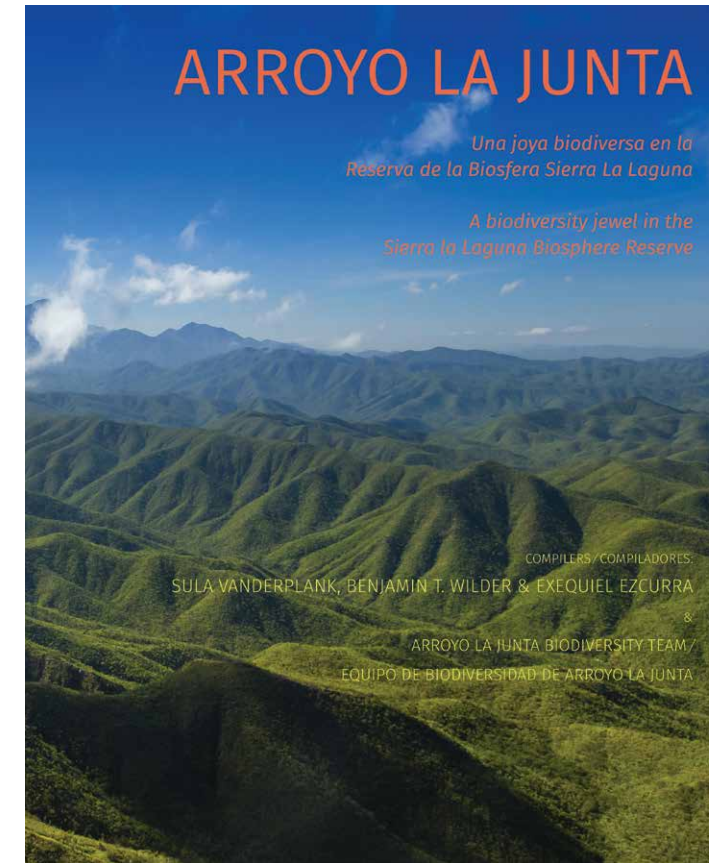


EXPEDITIONS

N-Gen Expeditions are a perfect example of how to link the N-Gen network with primary science and/or conservation objectives. Regions of particular interest are selected as locations for all taxa biodiversity inventories led by the scientific experts of the area in question, N-Gen members. Either in response to controversial and large-scale development programs that require biodiversity baselines or a proactive opportunity to better understand an underexplored region, N-Gen expeditions address an immediate need with the highest caliber science available in the U.S. or Mexico.



PUBLISHED EXPEDITION REPORTS





N-GEN IS 900+ RESEARCHERS



ACROSS 41 DISCIPLINES IN 21 REGIONS



AGAVE SUMMIT

As part of the Agave Heritage Festival in Tucson, Arizona, N-Gen convened an Agave Renaissance Summit as a first step to have words lead to action to help shape agave production in a balanced manner in the Arizona-Sonora borderlands and beyond.

Eighty-three participants from a wide range of backgrounds including brand owners, producers, growers, ecologists, bartenders, and other forms of agave practice gathered to link perspectives.

A clear message emerged that there is a need to consider and engage with agave as a whole system so that efforts reflect that Agave is diversity, culture, food, fiber, microbes, health, history, and more.

This approach reflects a re-centering to people's long-held relationship with agave and a paradigm shift away from an over romanticization of agave as a distillate that is fraying the ecological and social fabric of agave and communities.



SCIENCE COMMUNICATION

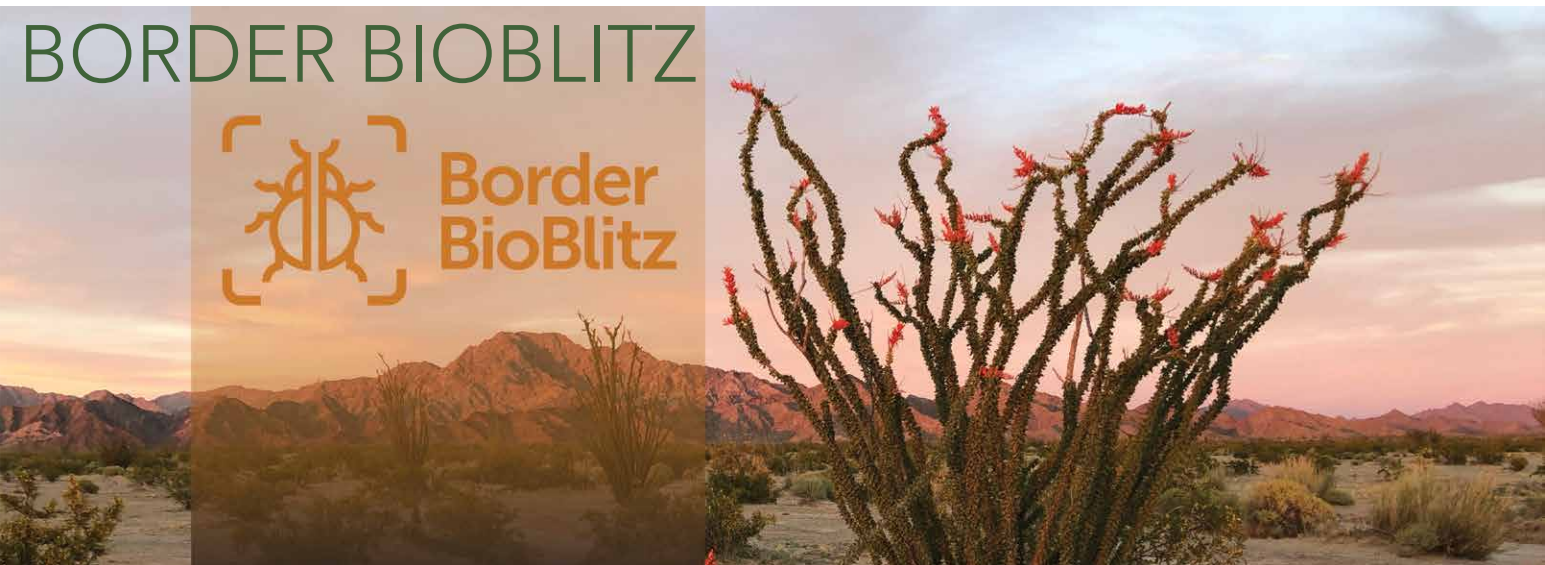


N-Gen is committed to strengthen the outreach capacity of researchers in the Sonoran Desert and the Gulf of California.

The profile of modern scientists should include the communication of our work, taking into account the following:

- ⊗ The challenges of social and environmental change require a new approach and a role for scientists in society. Scientists must leave our comfort zone and actively connect the processes and results of our research with the rest of society.
- ⊗ Science communication is the translation of science for different audiences into narratives and clear messages that balance scientific rigor and broad interest.
- ⊗ By communicating science we are sharing our passion.
- ⊗ Broad success in science communication requires open access and resource sharing (videos, infographics, photos, databases, etc.)
- ⊗ This work is not free, and requires both monetary and human capital investments.
- ⊗ The communication of science implies the inclusion of an inter- or trans-disciplinary perspective.



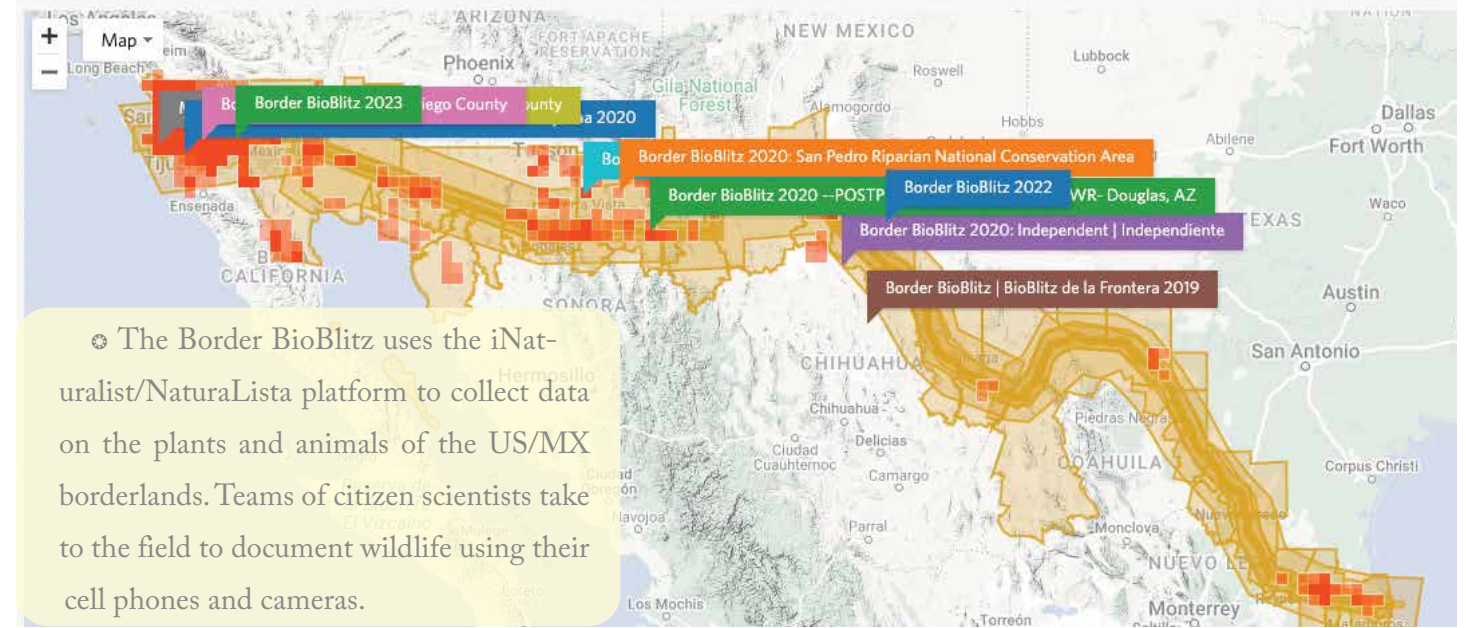


The Border BioBlitz is a community science effort to record as many species as possible along the U.S.-Mexico border. N-Gen and collaborating organizations invite researchers and community members to document the stunning biological diversity of the borderlands.

N-Gen, now more than ever, remains committed to a vision of the Sonoran Desert that knows no boundaries. Forces are at play that threaten our fundamental values and aim to physically reshape the borderlands. N-Gen, with many collaborators, is working to make linkages across an increasingly divided landscape.



Map of Observations



Since 2018 the Border BioBlitz has documented:

73,711 observations of **5,260** species with the help of **3,414** identifiers by **581** observers

6 & 6 ARTISTS | SCIENTISTS

Communicating the beauty and science of the desert



A remarkable community of artists is based in the Sonoran Desert. N-Gen strives to connect researchers and artists to create the opportunities to showcase our region. Our greatest effort to date has been the realization of the 6&6 transdisciplinary project.



6&6 is a collaboration to explore the patterns and processes of the Sonoran Desert and Gulf of California to impart a deeper appreciation of this region.

Observation is the catalyst for creativity. Art and science set forth from the same point of departure to inform and enrich our understanding of the world.



N-GEN GRANTS

N-Gen Research Grants, supported by the Jiji and Marisla Foundations, allow original student and collaborative research, with preference always given to proposals that take a synthetic and transdisciplinary approach (perspectives that seek to transcend the boundaries of individual disciplines) to various topics in the larger Sonoran Desert region and associated marine and coastal areas.



9 Collaborative Grants
14 Student and Early Career Projects



TRANSDISCIPLINARY CONSERVATION

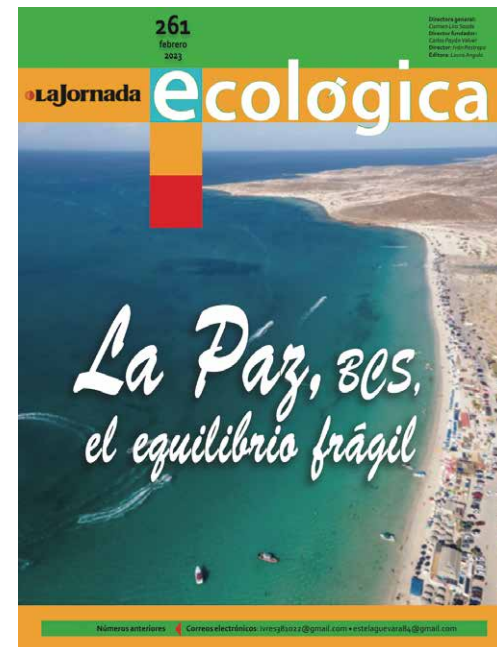
One of N-Gen's core missions is to develop and undertake transdisciplinary research in which fundamental linkages between worldviews are achieved.

Two recent efforts in Baja California Sur illustrate this approach:



Foro ConCiencia La Paz

Fifty scientists based in La Paz united to go beyond their research and address solutions to the problems that exist in their backyard in the Bay of La Paz. Five teams across habitat and biodiversity, air and water quality, food security, circular economy, and social well being developed state of the art summaries of the status of these topics. As a first step, this information was widely shared to the community of La Paz in accessible ways and to regional decision makers to ensure that science reaches beyond the walls of academia.



Educational Expedition

Using the wonders of the Gulf of California, N-Gen brought together experts in science, education, and land management with Baja California high school students to pilot a tiered mentoring structure where students and experts in turn teach one another from the unique lenses each brings. At the same time the groups effort was able to assess the status and threats of the social ecological health of Parque Nacional Bahía de Loreto.

The efforts establish a robust model for applied experiential-based learning and a baseline for scientists and decision makers in the Loreto region.





N • G • E • N

INVESTIGADORES DEL DESIERTO SONORENSE
SONORAN DESERT RESEARCHERS



FORWARD