

The Rufford Foundation Final Report

Congratulations on the completion of your project that was supported by The Rufford Foundation.

We ask all grant recipients to complete a Final Report Form that helps us to gauge the success of our grant giving. The Final Report must be sent in **word format** and not PDF format or any other format. We understand that projects often do not follow the predicted course but knowledge of your experiences is valuable to us and others who may be undertaking similar work. Please be as honest as you can in answering the questions – remember that negative experiences are just as valuable as positive ones if they help others to learn from them.

Please complete the form in English and be as clear and concise as you can. Please note that the information may be edited for clarity. We will ask for further information if required. If you have any other materials produced by the project, particularly a few relevant photographs, please send these to us separately.

Please submit your final report to jane@rufford.org.

Thank you for your help.

Josh Cole, Grants Director

Grant Recipient Details				
Your name	Kristen Marie Lear			
Project title	Building local capacity for conserving the endangered Mexican long-nosed bat and its habitat through community bat-friendly agave management in northeast Mexico			
RSG reference	21072-1			
Reporting period	5/1/17 – 5/1/18			
Amount of grant	£4975			
Your email address	<u>klear@uga.edu</u> (or <u>kristen.lear@gmail.com</u>)			
Date of this report	1/10/18			



1. Please indicate the level of achievement of the project's original objectives and include any relevant comments on factors affecting this.

Objective	Not ach	Pa	ac F <u>u</u>	Comments
	Not achieved	Partially achieved	Fully achieved	
Develop a community feasibility assessment tool to assess and prioritize communities to target for bat-friendly programs				I interviewed 16 community leaders and agave harvesters from 14 communities. Through these interviews, I have determined important characteristics of communities and individuals that indicate a willingness to participate in bat-friendly agave programmes. I am working with incountry collaborators to share this information with important stakeholders and conservation organisations.
Create community engagement guidelines that provide recommendations on how to tailor the programs to the local contexts of each community				I identified 10 key social considerations that are important when working with local communities to design/implement bat-friendly agave programmes. I shared these results at two national conferences (The Wildlife Society Meeting and the North American Symposium on Bat Research), and at the Rufford Small Grants Conference in Belize. I also presented to the Bat Conservation International Board of Directors.
Obtain information on the bats' foraging requirements, and from this information develop bat- friendly management guidelines that details where to locate and how to design bat-friendly agave management practices so they benefit bats				We conducted bat/agave infrared monitoring at eight sites. While we were not able to monitor on as many nights as we had planned (due to weather constraints and the early timing of agave flowering), we successfully monitored on 22 nights at 31 focal agaves, as well as conducted agave surveys around each of the 31 focal agaves. We saw bats at the agaves on 17 of those nights, supporting the usefulness of this method for achieving project objectives. Data analysis is ongoing. However, preliminary results suggest that the bats forage in patches of higher agave density. I presented these results at The Wildlife Society Meeting, the North American Symposium on Bat Research), and the



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		Rufford Small Grants Conference in Belize, as well as to the Bat Conservation International Board of Directors.
Develop an educational program to enhance communities' understanding of bats and their conservation – On-going		I am currently working with Dr Jose Juan Flores Maldonado (Director of Especies, Sociedad y Hábitat, A.C. (my in-country partner organization)) and Dr Emma Gomez Ruiz at the Universidad Autónoma de Nuevo Leon to plan and host an educational symposium for protected area managers, university students, and local community members. We plan to host this symposium in June 2018. In addition, I plan to return to the field in April 2018 to continue this project, including working with ESHAC to develop an educational programme about bats for local communities that will incorporate results from this project.
Increase the capacity of conservation groups to implement bat-friendly agave programs – On-going		I was invited to present this project to the Bat Conservation International (BCI) Board of Directors, where I shared project results and recommendations for implementing bat-friendly agave management programmes. I was also asked by the Executive Director of BCI (Mike Daulton) to discuss my recommendations with him, since the Mexican long-nosed bat is a priority species for BCI's conservation efforts. I am working with ESHAC to disseminate information gained thus far with local stakeholders and conservation organisations. I will continue working with BCI, ESHAC, and other groups to increase their capacity for bat conservation efforts (e.g. through the symposium discussed previously).
Establish connections with local communities that will foster future collaborative work	Х	I worked in 14 communities in summer 2017, and established good working relationships with the leaders and several agave harvesters in each. We will continue building these relationships with our future work.
Encourage local participation in conservation efforts	X	Through interviews and other interactions with community leaders and agave harvesters, we gained interest in bat-



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through interaction with community members	friendly agave programmes. We will continue to encourage participation through our educational programme, which we will begin working on soon.
Written at least one research manuscript for peer-reviewed journal publication focusing on opportunities for incorporating bat conservation into agave management – On-going	I am currently working with an undergraduate student of Dr Emma Gomez-Ruiz at the Universidad Autónoma de Nuevo Leon to publish an observational paper on night roosting behaviour we observed during monitoring. I will have two additional draft manuscripts prepared by May 2018, which will form two chapters of my PhD dissertation.
Prepared presentations for at least two national or international research conferences to disseminate results to a scientific audience	I presented the project at two national conferences (The Wildlife Society Meeting and the North American Symposium on Bat Research), and at the Rufford Small Grants Conference in Belize. I also presented to the Bat Conservation International Board of Directors. Also, I have given three community presentations in Athens, GA about my project (at the Sandy Creek Nature Center, the University of Georgia Osher Lifelong Learning Institute, and P.E.O. women's organisation), and shared my research with five elementary and middle school classes in California, New Jersey, and Canada through the "Skype a Scientist" outreach programme.
Written at least four blog posts and one article for popular science venues (e.g. BATS Magazine) to share this work with the general public.	I wrote five blog posts for my research blog (Cross-Pollination) detailing our project work, wrote three articles for popular science outlets, and did an interview for Bat Conservation International's blog (see Question 6 below). I have an additional article to be published in Mammal News (publication of The Mammal Society UK). Our team also brought a documentary producer with us into the field, and he created a short documentary about the Mexican long-nosed bat and our collaborative work with other researchers. I provided a short interview for the video:



	"Looking for the Mexican Long-nosed Bat" (https://youtu.be/gaJ44Al3Eqo)
Incorporate project	I am currently working on the Species
findings into the	Status Assessment Team for the Mexican
Mexican long-nosed	long-nosed bat, and am incorporating
bat Species Status	project findings into the revision of the
Assessment and	SSA. We plan to have the revision done by
Recovery Plan	March 2018, at which time we will provide
- On-going	the information to the Recovery Team at
	the U.S. Fish and Wildlife Service.

2. Please explain any unforeseen difficulties that arose during the project and how these were tackled (if relevant).

The first difficulty we ran into was that many of the agaves in the field sites flowered earlier than normal this year, and so by the time we arrived in mid-May the flowers were too old to monitor (they no longer had nectar available to the bats). We were still able to find younger agaves to monitor in most sites, but it required more intensive searching and sacrificing some of the robustness of the planned experimental design.

The second difficulty was weather. We had to reschedule several of our planned field trips due to inclement weather, which prevents access to some sites that are located on rugged, rural dirt roads. We also had to cancel several nights of infrared camera monitoring due to rain, since our electronic equipment cannot be used in the rain, and bats limit their activity while it is raining.

The best way to tackle these difficulties was to remain flexible with our field work scheduling. We adjusted or rearranged field trips in order to maximise nights that we could monitor. Despite these difficulties, we did successfully record bat feeding visits to agaves in many sites.

Finally, we had some difficulties with equipment on some nights. The main problem was with the fuses on the infrared lamp batteries, which on some nights would blow several times. I bought extra fuses while in Monterrey between field trips, so for the rest of the summer we were able to replace blown fuses when they occurred. We also had problems with one of the Sony NightShot cameras on some nights, but when this happened, I was able to adjust the field setups to accommodate this and continue monitoring for the night.

Perhaps more importantly, working through these difficulties strengthened our ability to work as a team.

3. Briefly describe the three most important outcomes of your project.

The first important outcome of this project is the increased local capacity for bat conservation work in the region. Through the project, I have identified characteristics of communities and individuals that indicate a willingness to participate in bat-



friendly agave programmes, which has allowed our project team to better prioritise communities to target for these programmes. I have also identified key social considerations that are important when working with local communities to design/implement bat-friendly agave programmes. Finally, through our bat/agave monitoring work, we successfully recorded bat feeding visits to agaves in the study areas. With additional monitoring, this information will help us determine the most effective places to implement bat-friendly agave programmes so that they are most beneficial for the bats. I am continuing to work with project collaborators to share this information with important stakeholders and conservation organisations.

The second key outcome is that this project has allowed me to continue to strengthen my connections with local stakeholders in Mexico. For example, I am growing my collaboration with my local partner NGO (ESHAC) by planning and implementing a bat conservation and educational symposium for protected area managers and other local stakeholders (planned for June 2018). In addition, through my work with the local communities, we have gained interest in bat-friendly agave programmes, which is an important step in implementation.

Another of our strengths has been in disseminating the project to a wider audience. For example, I have presented this Rufford project to the Bat Conservation International Board of Directors and have provided guidance on agave habitat restoration for bat conservation to the BCI Executive Director. We also created a project newsletter for project funders and the general public (which I shared on my Rufford project webpage: https://www.rufford.org/projects/kristen_marie_lear). Our work is receiving widespread recognition through organizations such as BCI, the Bat Conservation Trust (UK), and The Mammal Society U, as well as at the various conferences at which I have presented. This kind of visibility is vital when trying to promote and obtain support for conservation work on a larger scale.

Overall, the most important conservation outcome of this project is the long-term impact that it will have on the recovery of the endangered Mexican long-nosed bat. By providing information that enhances local capacity for bat conservation efforts and establishing connections with communities, this project has laid the groundwork for developing and implementing bat-friendly agave programmes with local communities and gaining critical buy-in from community members and other stakeholders. In addition, this project is directly informing conservation policymaking through our incorporation of project results into the Mexican long-nosed bat Species Status Assessment and Recovery Plan, which are part of the United States' federal policy on protecting endangered species.

4. Briefly describe the involvement of local communities and how they have benefitted from the project (if relevant).

Whenever we first entered a community, we always sought out the *comisariado* (leader) or another member of the leadership committee to introduce ourselves, explain our project, and seek permission to work on their lands and talk with people in the community. This is the culturally-appropriate practice when entering new communities, and by following this practice we ensured that we could begin



building trust from the beginning. All the community leaders were excited about and interested in our project, and many gave us tours of their community and offered us assistance as needed. They often arranged for us to sleep in their community center during the day (after nightly monitoring) and introduced us to people within the community who could cook for us (for which we provided payment). Sometimes during field work, we stayed with local hosts or at locally-owned cabins. We often ate meals with families in their homes and played with their kids. These types of informal interactions are so important for developing good relationships with communities. We also shopped for our food in the small tiendas (stores) within each community when possible, and bought agave products (bread, drinks, etc.) from people we interacted with. We always tried to contribute to the local economies in whatever ways we could.

When conducting bat/agave monitoring, we always take the opportunity to educate locals about the project whenever they are interested. We have shown our camera setups and bat videos to kids and community leaders, and explained the importance of the bats to local ecosystems and their economy (through the bats' pollination services of agaves).

Ultimately, the goal of this Rufford project and our team's continued work is to promote bat conservation efforts that simultaneously support bats and sustainable community livelihoods. We are continuing our work to develop bat-friendly agave programmes that will provide benefits to local communities, including through payments for participation and through potential increased economic revenue for bat-friendly agave products.

5. Are there any plans to continue this work?

This project forms the basis of my PhD dissertation. As such, I will be continuing the work over the next year and a half until my anticipated graduation in May 2019. I presented preliminary project findings at The Wildlife Society Meeting in September 2017, the North American Symposium on Bat Research in October 2017, and the Rufford Small Grants Conference (Belize) in November 2017. I also presented to the Bat Conservation International Board of Directors. I am continuing to analyse some of the data collected this summer, and am working on several manuscripts for publication in peer-reviewed journals by fall 2018.

We will also continue field work in summer 2018 to extend this project and increase our impact on bat conservation. Because of some logistical difficulties this summer (timing of agave flowering, weather, etc.), we were not able to monitor bat foraging on as many nights as we had planned. Additional nights are needed to be able to complete robust statistical analyses and more fully and thoroughly develop the bat-friendly management guidelines that we will provide to management agencies (specifically, we will determine the optimal spatial arrangement of flowering agaves on the landscape to maximise bats' energy efficiency). For the social components of our work, we successfully developed community engagement guidelines and identified several communities that are good candidates for bat-friendly agave programmes. The next step is to identify the bat-friendly agave management



practices that are most likely to be adopted within these communities and the most effective incentives to encourage adoption of these practices. In addition, before implementing bat-friendly programmes, it is important that we understand the long-term impacts of bat-friendly practices on agave populations and community livelihoods. These three components will be the focus of our continued research in 2018. Additionally, we will host a bat symposium for protected area managers and other stakeholders, develop educational programmes for local communities that incorporate the results of this project, and continue working on the Mexican longnosed bat Species Status Assessment and Recovery Plan. In addition, while not formally part of my Rufford project, during the course of my field work in 2017 I mentored a Masters student (Jaileen Rivera-Rodriguez from Texas A&M University) and provided guidance on her field project investigating the acoustics of the Mexican long-nosed bat. I will continue to mentor Ms Rivera in 2018 as she completes her field work.

To support our work in summer 2018, I will be applying for a 2nd Rufford Small Grant. While some of the data analysis is ongoing, I need to return to the field in early to mid-April so that I don't miss the peak agave flowering this year. This will help ensure that I will be able to collect enough bat monitoring data for the statistical analyses.

6. How do you plan to share the results of your work with others?

This work was presented at two national conferences (as a poster at The Wildlife Society Meeting in September 2017 and an oral presentation the North American Symposium for Bat Research in October 2017), as well as a talk at the Rufford Small Grants Conference in Belize in November 2017. I was also invited to speak about this work at Bat Conservation International's annual Board of Directors meeting, and I wrote an article about the project for Texas A&M's Applied Biodiversity Sciences Perspectives Series (http://agrilife.org/abs/files/2015/01/ABSPS7_Lear.pdf).

In addition, this work has been featured in several popular media outlets that reach a wider, general public audience. I was invited to write articles about the project for Bat Conservation International's (US) **BATS** Magazine (http://www.batcon.org/pdfs/BATSmag/BatsIssue22017.pdf) and Bat Conservation Trust's (UK) Bat News (https://docs.wixstatic.com/ugd/98e4ec_968a69f9662e45f5a6b6ea92aa9deca8.pdf). Finally, I was interviewed by Bat Conservation International for their blog, The Echo (http://www.batcon.org/resources/media-education/news-room/the-echo/1128-ittakes-a-village). I will continue to write articles for popular media outlets and general audiences as we continue our work. I have recently been asked to write an article about the project for Mammal News, a publication of The Mammal Society UK.

I also maintain a presence on social media through my Twitter account (https://twitter.com/batsforlife) and my research blog, "Cross-Pollination" (http://crosspollinationphd.blogspot.com/), where I post updates about the project and pictures from field work. Information about the project is also included on my professional website (https://kristenlear.wixsite.com/batconservation). Additionally,



our work was highlighted in a short documentary, "Looking for the Mexican Longnosed Bat" (https://youtu.be/gaJ44Al3Eqo).

In order to share project progress and interesting stories from the field, I created a project newsletter, "Report from the Field" (https://docs.wixstatic.com/ugd/98e4ec 26ad5649ec234589a39c9048d83da1c1.pdf). I shared this newsletter with all my funding agencies (it is now on my Rufford webpage), and handed out copies to the Bat Conservation International Board of Directors during my presentation in October 2017. I plan to translate the newsletter into Spanish for dissemination to local communities and local project partners in Mexico.

Moving forward, there are several ways in which we will share the results of our work. First, we will present project results to protected area managers, university students, local communities, and other local stakeholders at our bat symposium, planned for June 2018 in Monterrey, Nuevo Leon. Second, as mentioned previously, we are developing an educational program about bats for local communities. This programme will incorporate our project results and photos and videos collected in the field to help increase knowledge of bats. Third, we are continuing to work to incorporate our project findings and recommendations into the Mexican long-nosed bat Species Status Assessment and Recovery Plan.

Finally, since this work forms the basis of my PhD dissertation, results will be published in several peer-reviewed journal articles and my dissertation at the University of Georgia.

7. Timescale: Over what period was The Rufford Foundation grant used? How does this compare to the anticipated or actual length of the project?

The grant funds were used from April to August 2017 to fund the field work component of the project, as anticipated.

8. Budget: Please provide a breakdown of budgeted versus actual expenditure and the reasons for any differences. All figures should be in £ sterling, indicating the local exchange rate used. Exchange rate used: 1 GBP = 26.02 pesos = 1.36 USD

Item	Budgeted Amount	Actual Amount	Difference	Comments
Field assistance	2400	2400	0	I paid for three assistants to help with bat/agave monitoring and community interviews. This was our agreed-upon rate.
Food during field work	480	345	135	We did not go into the field as many days as planned (due to weather, etc.), which saved some money on food. In



				addition, some of the food was covered by another grant. However, we went over on Equipment and Consumables given some unexpected expenses, so I used the remaining £135 to help cover these costs.
Accommodation	600	585	15	With rent money, I paid for lodging in Monterrey as well as lodging while in the field. I used the remaining £15 to help cover the overage on Equipment costs.
Travel costs in- country	440	440	0	We rented a 4x4 truck for field work in remote locations.
Data analysis software	75	75	0	I bought Atlas.ti software to assist with qualitative analysis of interviews.
Field equipment	880	920	40	I bought the items in my initial proposal (3 headlamps, 2 tents, 4 sleeping bags and pads, and 3 backpacks). However, prices were slightly higher than when I had created the original budget. I paid for the £40 difference from the remaining Food and Accommodation money.
Consumables	100	110	10	I bought items originally budgeted for (field notebooks, batteries, etc.) but I also had to make a few additional, unexpected purchases (e.g. fuses for the infrared lamps). I paid for the £10 difference from the remaining Food money.
Additional unexpected expenses	0	100		With the food costs being under budget, I was able to cover the purchase of a camp stove, cooler, and snake guards which were important for completing field work.
Total	4975	4975	0	

9. Looking ahead, what do you feel are the important next steps?

Completing analysis of the data collected this past summer and planning the bat symposium for protected area managers are the most important short-term next steps. I will then move forward with the next phase of the project, which includes field work in summer 2018 (as described above).

Looking further ahead, my ultimate goal is to begin implementing bat-friendly agave programmes in communities of Nuevo Leon and Coahuila using the data collected from this project and our continued work. I have already gained interest in supporting these programs from several organisations, including Bat Conservation International, General Motors, and Bridgestone. I am currently working with project collaborators to further develop our relationships with these key partners.



While this work forms the basis of my PhD, it is much more important to me than just getting my degree. Bat conservation is my passion, and I am committed to ensuring that this work with the endangered Mexican long-nosed bat continues even after I graduate. To this end, I am applying for fellowships and post-doctoral opportunities to be able to continue working with my collaborators on this project after graduation in May 2019.

10. Did you use The Rufford Foundation logo in any materials produced in relation to this project? Did the RSGF receive any publicity during the course of your work?

The Rufford Foundation logo as well as a link to the Rufford website appears on my professional website (https://kristenlear.wixsite.com/batconservation/funding-sources), and the logo appears on the project newsletter I created and shared with other project funders (https://docs.wixstatic.com/ugd/98e4ec_26ad5649ec234589a39c9048d83da1c1.pdf). The logo also appeared on my two presentations (poster and PowerPoint) at the national conferences I presented at this year, as well as on outreach presentations that I have given in Athens, GA. The logo will appear on all future presentations related to this project, and the Rufford Foundation will be acknowledged in all peer-reviewed journal articles and my PhD dissertation.

The Rufford Foundation has received some publicity throughout the course of the project. I thanked the Foundation in a post on my research blog (http://crosspollinationphd.blogspot.com/2017/06/back-in-field.html), and I include the Rufford Foundation (@ruffordgrants) tag in all Twitter posts related to the project. I have also shared my application with graduate students in my department and have encouraged colleagues, as well as several students who have reached out to me via my website, to apply for a Rufford grant. Finally, I created a funding page on my professional website (https://kristenlear.wixsite.com/batconservation/funding-sources) that provides information about funding sources for graduate students and conservationists. I have already received emails through my website from several people interested in applying for Rufford grants and seeking advice on the application process.

11. Please provide a full list of all the members of your team and briefly what was their role in the project.

Ana Gabriela Castañeda Aguilera was one of my field assistants and also my translator for community interviews.

Cuauhtemoc Ibarra Sanchez helped with planning field work and conducting bat/agave monitoring. Given his experience working with local communities in the region, his assistance was critical to the success of the project.

Jaileen Rivera-Rodriguez was a Master's student (Texas A&M University) who I mentored during the collection of her field data. She also helped with data collection for my project.



Rosalinda Morales was a field assistant for part of the summer.

Bernardo Marino was a field assistant for part of the summer.

Dr Jose Juan Flores Maldonado is the Executive Direction of Especies, Sociedad y Habitat, A.C., my local partner organization. Dr. Maldonado served as a mentor and collaborator during field work coordination.

Dr Emma Gomez-Ruiz served as a project mentor, providing guidance on field work planning.

Drs Jeffrey Hepinstall-Cymerman, Elizabeth King, Clint Moore, Laura German, and Meredith Welch-Devine are my PhD committee members. They have assisted with the field design and development of statistical analyses for the bat/agave monitoring, as well as the creation of the community interviews. All are currently assisting me with the preparation of journal manuscripts for publication.

12. Any other comments?

Note: I have uploaded photos and videos from our field work, several articles I wrote about our work, one of my conference posters, and the project newsletter to a GoogleDrive folder:

https://drive.google.com/open?id=11Wd4akWo_T_7OKMYwaG1EA-YwCr7GY97.

In that folder is also a Word document with descriptions and photo credits of all the photos and videos (I will send this in an email too).

Our project team is deeply grateful for the support of the Rufford Foundation. Without funding from a Rufford Small Grant, this project would not have been possible, as the grant provided the majority of funding for our summer 2017 field work. Through the project, we have made significant progress on collecting information to conserve the endangered Mexican long-nosed bat in northeast Mexico. In addition to completing/making progress on our project objectives, we also discovered two new potential roosts of the Mexican long-nosed bat through our conversations with local community members, which we will assess for occupancy in 2018. We also recorded night-roosting behaviour on night vision video, which to our knowledge has never been done. I am currently working with an undergraduate student of Dr Emma Gomez-Ruiz to publish a short journal article about this finding.

The grant has supported not only the project and its impact on conserving an endangered bat species, but has also greatly enhanced my professional development. This project forms the basis of my PhD dissertation, and the grant has helped me accomplish field work that will lead to publication of my dissertation and multiple journal articles. The networking opportunities provided by being part of the Rufford family have also been invaluable. During the Rufford Small Grants Conference in Belize (November 2017, I met many other researchers working in



Mexico. One of the other attendees, Dr Dánae Cabrera Toledo, and I are discussing the possibility of collaborative work in the future that joins our two projects. This kind of networking opportunity is greatly beneficial for the academic development of Rufford grant recipients. In addition, my Rufford grant project has also lead to several important professional opportunities, including being the invited speaker at the Bat Conservation International Board of Directors annual meeting. The Rufford grant has provided invaluable credibility to my work and has bolstered my ability to make lasting impact on the conservation of an endangered bat species.

Finally, I have learned a tremendous amount about agave harvesting and use by rural communities in Nuevo Leon and Coahuila. Many people, and some entire communities, rely on agaves as important food and income sources. Additionally, through my interviews and interactions with community members, I learned just how little knowledge there is about bats in the region, and how this lack of knowledge can lead to negative attitudes towards bats. This has motivated me even more to continue working on this project to change local attitudes and encourage participation in bat conservation efforts, particularly those that provide benefit to the communities. It is my hope that this project and our continued work in the region will allow us to develop bat-friendly agave management programs that benefit both bats and the communities that rely on agaves.

We are seeking additional funds to support our continued work in 2018, and we will submit an application for a 2nd Rufford Small Grant. Any continued support will be greatly appreciated and will help us continue to have positive impacts on bats and communities in northeast Mexico.



Left: Recording bat feeding on agave flowers at night. Photo by Kristen Lear. Right: Recording bat feeding on agave flowers at night. Photo by Sergio Aviles.





Left: A Mexican long-nosed bat covered in agave pollen. Photo by Kristen Lear. Right: A Mexican long-nosed bat. Photo by Kristen Lear.



Left: An infrared camera set up next to an agave to watch for bats. Photo by Kristen Lear. Right: Setting up an infrared camera to monitor bat feeding at an agave. Photo by Ana Castaneda Aguilera.



Left: Demonstrating how to set up an infrared camera for bat monitoring. Photo by Bernardo Marino. Right: Taking measurements of an agave during a survey. Photo by Jaileen Rivera-Rodriguez.





Left: An agave harvester cutting an agave to get the sugar. Photo by Kristen Lear. Right: An agave harvester showing one of his products, quiote. Photo by Kristen Lear.



Left: Agave sap being boiled to make syrup. Photo by Kristen Lear. Right: Mules eating the leftover leaves of agaves after being processed for destilado, an alcoholic beverage. Photo by Kristen Lear.



Left: Interviewing an ejido leader in Nuevo León about their agave management practices. Photo by José Juan Flores Maldonado. Right: Working with other Mexican researchers on a collaborative conservation project for the Mexican long-nosed bat. Photo by Kristen Lear.





Left: Flowering agaves on a community's land. Photo by Kristen Lear. Right: A flowering agave at sunset. Photo by Kristen Lear.



Left: A flowering agave in the Sierra Madre Oriental Mountains of Nuevo Leon, Mexico. Photo by Kristen Lear. Right: Agaves at sunset. Photo by Kristen Lear.



Left: Flowering agaves in the Sierra Madre Oriental Mountains of Nuevo Leon, Mexico. Photo by Kristen Lear. Right: The field team completing an agave survey. Photo by Kristen Lear.





Left: Agaves in the Sierra Madre Oriental Mountains of Nuevo Leon, Mexico. Photo by Kristen Lear. Right: A flowering agave in the Sierra Madre Oriental Mountains of Nuevo Leon, Mexico. Photo by Kristen Lear.



Left: An agave harvester on his parcel of land in Coahuila, Mexico. Photo by Kristen Lear. Right: Agaves on an ejido's land to be harvested for destilado (an alcoholic beverage). Photo by Kristen Lear.