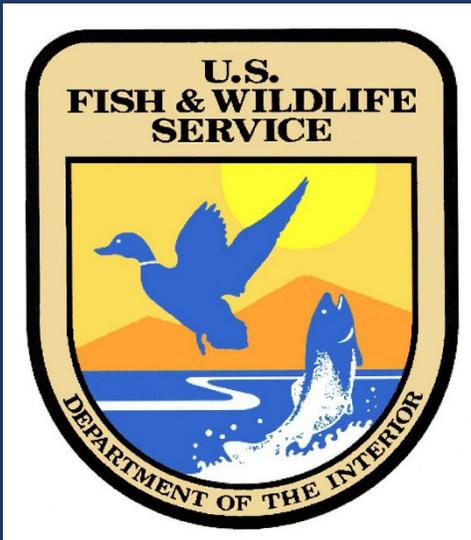


# Science in the Service Project

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Aiden Valverde  
Carlsbad Fish and Wildlife Office  
Spring Tribal Coordination Meeting  
May 07, 2024





# Biography



**Family Photo at our Animal Sanctuary**

- Currently ending my third year at CSUSM.
- Pursuing major in American Indian Studies.
- Want to go into the field of wildlife conservation.
- Family runs the Little Bitty Animal Sanctuary.
- Love to spend free time dancing and working with wildlife.

**Descendant from the lipay Nation of Santa Ysabel**





# Original Project Objectives



- Research compatibility of traditional cultural land use practices with the conservation of listed butterfly species.
- This would expedite authorization and access for cultural land use practices in butterfly habitat on non-Tribal lands
- Build and strengthen partnerships between the Carlsbad Fish and Wildlife Office and Tribes

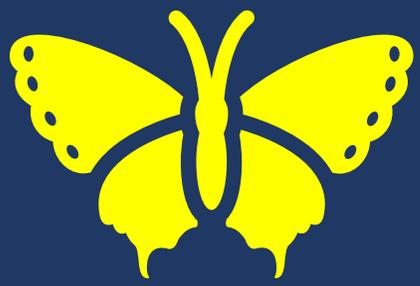




**Hermes Copper Butterfly**



**Laguna Mountains Skipper**



**Quino Checkerspot Butterfly**



# Shift in Purpose



- Began to research the three butterfly species.
- Started outreach to engage with Tribes.
- Worked on methodology to collect Indigenous knowledge.
- Learning how Indigenous knowledge can be requested, highlighting associated challenges in protecting this knowledge.





# Recognized the Need to Focus on Process



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The Carlsbad Fish and Wildlife Office realized more time was needed to develop a collaborative process to effectively incorporate Tribal perspectives.

We worked on an adaptable process, a flexible methodology for engaging Tribes and knowledge holders to exchange information and protect Indigenous Knowledge for mutually beneficial purposes.

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# Data Sovereignty



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The right of Tribal communities to govern the collection, ownership, and application of data

Uses a process that incorporates Tribal Free, Prior, and Informed Consent (FPIC)

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# What is Free, Prior, and Informed Consent (FPIC)?



FPIC is “a specific right that pertains to Indigenous peoples and is recognized in the United Nations Declaration on the Rights of Indigenous Peoples. Free, Prior, and Informed Consent allows Indigenous peoples to give or withhold consent to any project that may affect them or their territories.”

(301 DM 7)





## How is Free, Prior, and Informed Consent (FPIC) obtained?



- Co-develop a process to work with Tribes.
- Allow Tribes the space to provide feedback on the process.
- Collaborate with Tribes to revise the process as needed.

Work with Tribes to establish a mutually agreed upon FPIC process.



# The Butterfly Project Aspect



## Pilot Example Project

Analyzing published cultural practices that are already made public:

- Focusing on Laguna Mountains Skipper.
- Limiting to Deer Grass collection for basketry and possibly two other practices.



**Laguna Mountains Skipper**



# Lessons Learned



- The process of sharing of Indigenous Knowledge may be unique for each Tribe.
- The importance of having a process to collaborate with Tribes to protect Indigenous Knowledge.
- Recognition that any such process will take however much time it takes.

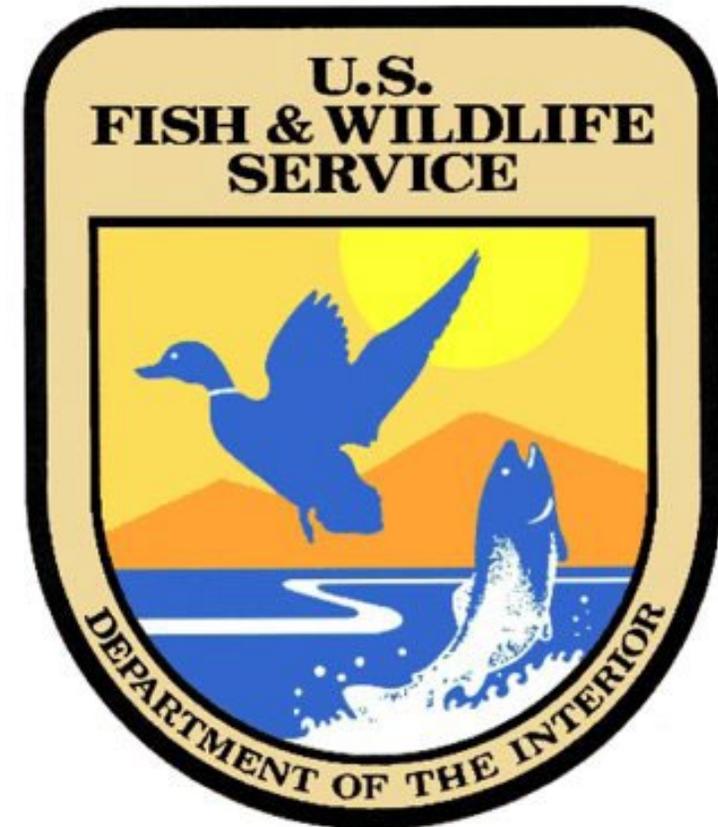




# Future Engagement of USFWS



- USFWS is working on guidance for DOI 301 DM 7, this effort will assist and inform regional processes for consideration of IK
- Regional leadership is committed to supporting Tribes and their interests.
- The Carlsbad office commits to:
  - Continued proactive engagement with the Lipay Nation of Santa Ysabel beyond the completion of this internship.
  - Continued engagement with all Tribes on this process.





# Summary of Project Experience



- Butterfly species biology
- Scientific writing
- Working in a U.S. Fish and Wildlife Office
- Process to protect sensitive information
- Worked with the Lipay Nation of Santa Ysabel Council
- La Jolla Band of Luiseño Indians cultural burnings conversations
- Tribal Nation News (Andrew Pittman) [TNN YouTube story](#)



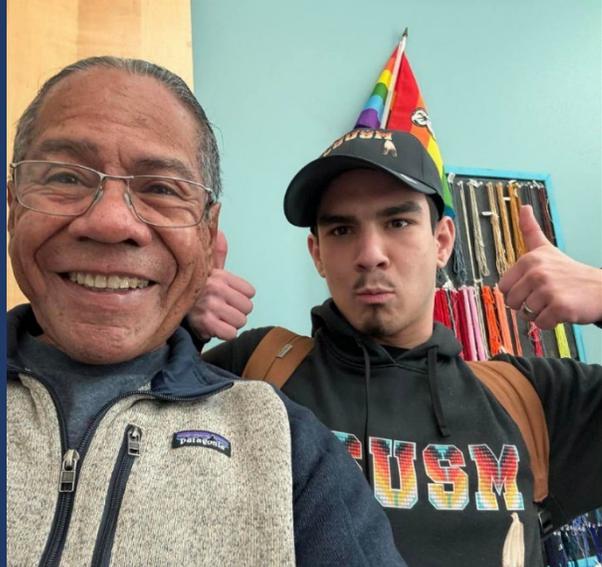
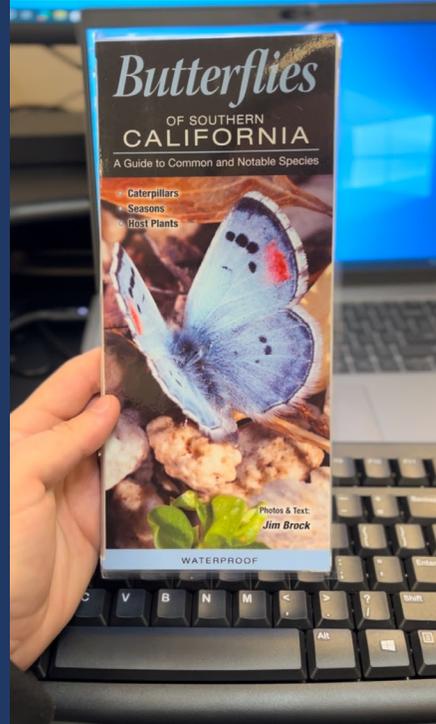


# Summary of Fellowship Experience



- Pond turtle habitat restoration with
  - Iipay Nation of Santa Ysabel
  - USFWS Partners for Fish and Wildlife Program
  - U.S. Geological Survey (USGS)
  - Natural Resources Conservation Service
- Removed invasive species from pond turtle habitat (USGS)
- Toured Hermes copper and Quino checkerspot butterfly habitats on the San Diego National Wildlife Refuge
- Visited Laguna Mountains Skipper habitat
  - Tour with experts and land managers
  - Survey with my supervisor
- Spent a day with Fish and Wildlife Special Agent Tara Walker (law enforcement)
- Attended the Iipay Nation of Santa Ysabel Earth Day Fair





# Compatibility of Traditional Land Use Practices with Endangered Butterfly Habitat Occupancy



Aiden Valverde  
Science in the Service Fellowship Project



### Nature of Project

To develop a partnership process for working with Tribal communities and governing bodies to collect indigenous land use practices knowledge and analyze compatibility with endangered species habitat occupancy. This project is intended to be an example to be used by the U.S. Fish and Wildlife Service at the regional and possibly national level.

### Intended Benefit to Tribes

Help expedite land use authorization for Tribes to engage in traditional land use practices on public land where these species are found.

### Data Sovereignty and Protecting Sensitive Indigenous Knowledge

It is our priority to protect data and support Indigenous data sovereignty for Tribal communities and nations. Once recorded knowledge is in the possession of the federal government it becomes a record subject to Freedom of Information Act requests from the public. We obtain Free, Prior, and Informed Consent (FPIC) from knowledge holders and their Tribes: "a specific right that indigenous peoples to give or withhold consent to any project that may affect them or their territories."



### Future Engagement of USFWS

The service wants to use this report as a foundation for expanded future analyses and partnership projects. USFWS Regional Leadership commits to work with the Carlsbad office to communicate new policies, processes, and project developments. The Carlsbad office commits to continued proactive engagement with the Iipay Nation of Santa Ysabel beyond the completion of this internship project.

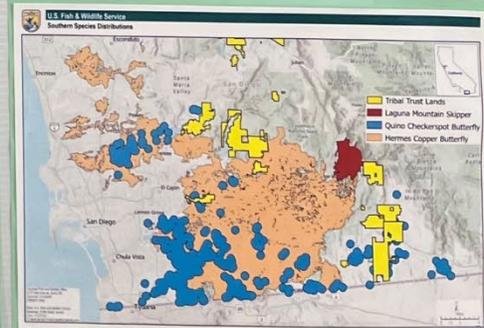
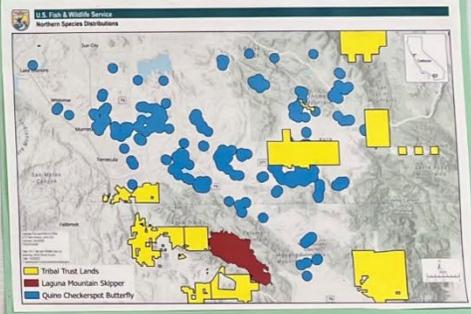
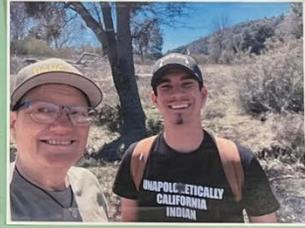


### Project Partnership Accomplishments and Fellowship Experience

- Meetings with tribal knowledge holders including Dr. Stanley Rodriguez.
- Working with the Iipay Nation of Santa Ysabel Council to create an indigenous knowledge sensitivity review process.
- Worked with Andrew Pittman (producer) to make and broadcast Tribal Nation News story about my project and reach out to the tribal community.
- Worked with USFWS Partners for Fish and Wildlife Program, U.S. Geological Survey (USGS), USDA Natural Resources Conservation Service, and Iipay Nation of Santa Ysabel on endangered pond turtle habitat restoration.
- Worked with USGS to remove invasive species at multiple pond turtle sites near Sycuan Peak.



- Toured Hermes copper and Quino Checkerspot butterfly habitat on the San Diego National Wildlife Refuge.
- Toured Laguna Mountains Skipper habitat with experts and land managers on Palomar Mountain.
- Accompanied my supervisor on a Laguna Mountain Skipper survey and took (amazing) photographs of species. (See picture)
- Spent most of a day with a Fish and Wildlife Special Agent (law enforcement). I learned about the many amazing law enforcement employment opportunities and what is needed to apply to be a Federal Agent.





# Personal Take Aways



- The complex policies used to honor Federal responsibilities to Tribes and protect Indigenous Knowledge.
- How to work with Tribal community members.
- Biology of butterfly species and habitat.
- Learning more of my own Tribal practices and culture.



# Thank you!



I will never forget the amazing opportunities that the Service has provided me. I would love to also give a special thanks to the amazing supervisors who helped me on this knowledgeable journey. It truly enjoyed working with such a welcoming group and being allowed to bring in my cultural knowledge learned from my tribal community members.

