Final report

Organisation name: Project Palaka

ASAP species: *Platymantis insulatus*

Project title: *Project Palaka Phase II: Platymantis insulatus Conservation and Research*

Period of project implementation: Sept 2020- Sept 2021

1. Brief Executive Summary (max. 300 words)

The implementation of our project objectives was delayed by the COVID-19 pandemic and the lengthy process to obtain necessary permits. We were only able to begin field work in July 2021, and then, with a reduced team size (three people). We only had the opportunity to survey Gigantes Sur. However, this initial field work session was invaluable for effectively planning future field work. We chose long-term monitoring sites, gathered baseline population data, and met with local community leaders and teachers to discuss the formulation of our educational outreach. We visited Gigantes Norte to meet with barangay officials, and planned a more intensive November 2021 field work session that will allow us to survey both Gigantes Norte and Gigantes Sur.

Although our field work was delayed, we were able to return from the field with 21 individuals of *Platymantis insulatus* to start our captive breeding program. The frogs were kept in quarantine for 30 days and are now in their permanent enclosures. All 21 frogs are eating regularly and maintaining weight. Three females are currently gravid, and males are calling regularly.

Even though Project Palaka has been delayed, we are now up and running, with funds to continue field work until November 2022.

1. Objectives. Please list your project’s objectives and report progress against each.

Our objectives for this grant period were as follows: (1) conduct a baseline population count of *P. insulatus*, (2) conduct a habitat assessment of Gigantes, (3) conduct a threat assessment for *P. insulatus*, (4) collect adult frogs of *P. insulatus* to be housed in a captive breeding facility.

As of September 2021, we have made the following progress for each objective:

**(1) Conduct a baseline population count of *P. insulatus***

 We conducted abundance surveys at 10 locations on Gigantes Sur. At Pawikan cave, we tested a methodology for long-term population monitoring.

**(2) Conduct a habitat assessment of Gigantes**

We were able to complete a habitat assessment for Gigantes Sur only. We estimate that only 50% of the island of Gigantes Sur contains appropriate karst habitat for *Platymantis insulatus*. A significant portion of the karst contains monocultures of Ipil-Ipil (*Leucaena leucocephala)* an invasive tree species that replaces native forest after clearing. We plan to measure the extent of Ipil-Ipil invasion during future field work sessions.

**(3) Conduct a threat assessment for *Platymantis insulatus*.**

We were able to complete a threat assessment for Gigantes Sur only. Identified threats include- vandalism of the limestone caves (graffiti, quarrying, and treasure hunting), monocultures of the invasive Ipil-Ipil tree (*Leucaena leucocephala*), clear-cutting and burning of forests, and the lack of disposal options for solid waste.

**(4) Collect breeding pairs of adult frogs of *Platymantis insulatus*, to be housed in a captive breeding facility on UPLB campus**.

At the end of our field work session, we collected 21 live specimens (10 females, 11 males) of *Platymantis insulatus* from two different sites- Pawikan Cave and AJ’s Cave. We transported them to the captive breeding facility to undergo quarantine before being placed in their permanent housing. As of the writing of this report, all 21 frogs are healthy and are being maintained successfully in captivity. Three females have developed eggs, although we made it a point to not collect any females that were visibly gravid. So far, no mating has occurred.

1. Outcomes and impacts.
	1. Please describe how your project contributed to the conservation outcome(s) you included in your application.

Increased understanding of population dynamics of, and threats to, *Platymantis insulatus*

 We were able to survey nine sites on Gigantes Sur, which allowed us to obtain baseline abundance, natural history, habitat, and threat data for *Platymantis insulatus*. We plan to re-survey Gigantes Sur in November 2021, as well as survey Gigantes Norte for the first time

Establishment of assurance colonies of *Platymantis insulatus*

Our goal was to have a minimum of 30 pairs (30 male, 30 female) of *Platymantis insulatus* in captivity by the end of this grant cycle. We had also intended to have raised the first batch of F1 offspring through metamorphosis. Unfortunately, our planned field work sessions of November 2020 and March/April 2021 were delayed due to permitting and the ongoing COVID-19 pandemic. As a result, we only began field work in July 2021, and were only able to collect 21 individuals. Additionally, we used to this first collect as a “test” to ensure that we could safely transport frogs from Gigantes back to the captive breeding facility; we felt that, in the event of a transportation problem, it would have been less devastating to the project to have 21 frogs die during transport than 60 frogs. This trial run was a success, and we will collect additional frogs in November 2021. Our intention is to collect a minimum of nine additional frogs from an additional site on Gigantes Sur, and 30 frogs from three sites on Gigantes Norte.

Captive care protocols

As we have only just started the ex-situ portion of our project, we have not yet produced any species-specific captive care protocols for *Platymantis insulatus*. However, all 21 of our frogs survived the quarantine period, and are now housed in their permanent tanks. We check the frogs daily, and record information concerning behavior, how much they are eating, etc. This data will be used in the future to develop our captive-care protocols.

Employment opportunities for local community members

Two members of the local community of Gigantes Sur were employed as field guides for 17 days during our field work session. I have also been paying a graduate student who works at Project Palaka a small monthly stipend to help him cover educational costs. The renovations of the building used to house the frogs provided income to three local carpenters, from January 2021 to August 2021.

We will be expanding the number of employment opportunities for local community members. In November 2021, I plan to hire six local field guides, as well as at least one professional caver. In October 2021, an undergraduate student will join the project. She will focus only on the ex-situ portion of our conservation efforts and will be paid the same stipend as the aforementioned graduate student.

Publications

In our grant proposal, we stated that a minimum of four peer-reviewed publications will result from this project- a threat and habitat assessment, a paper on the population dynamics of *Platymantis insulatus*, a publication reporting the results of the ex-situ component, and a long-term conservation plan. The data gathered during this grant cycle will be used in the production of these publications; due to delays in the start of the project, we now expect to start publishing materials during the summer of 2022, after two additional field work sessions (November 2021 and March 2022), which will allow for more robust data.

Long-term organizational and project plan

While we have not yet finished our long-term project plan, as of the submission of this grant report, Project Palaka is in operation, with enough funding to complete all field activities through 2022. On September 20th, 2021, I received word that my request for incorporation as a nonprofit in the State of Maryland, USA, was approved. This is the first requirement for eventual USA 501c3 certification by the IRS.

As the pandemic has delayed the completion of all Project Goals, we now plan to finalize a 10-year project plan no later than the end of 2022.

* 1. How were your project’s results or successes measured? Please refer back to section B7 in application.

Regarding our field work activities, due to delays in the start of our project, we have not yet collected enough data to allow for analysis.

Animal health

Our captive *Platymantis insulatus* colony is healthy, and to date, we have not lost any frogs. As per our grant application, we inspect the animals daily to assess health. The frogs have only been in captivity since August 15th, and were in quarantine until September 17th. As such, we have not collected any long-term data on *P. insulatus* behavior in captivity.

Successful rearing of juveniles

To date, we have not bred our *Platymantis insulatus*, and as such, have not had any juveniles to raise.

1. Please describe any barriers or challenges you had when implementing this project, and if you were able to overcome these, what you did.

*All projects experience barriers and challenges during implementation. Sharing these, and how you managed them, can be extremely helpful for others facing similar situations and can allow future conservation interventions for the species in question to be more effective and efficient. Therefore, please be open and transparent and provide as much detail as you can.*

The implementation of our project was severely delayed by two factors:

1. The length of the permitting process in the Philippines. It took from September 2020 until June 2021 to obtain the necessary permits. We still have additional long-term permitting requirements to fulfill.
2. The ongoing COVID-19 pandemic, which has resulted in travel restrictions within the country.

As expected, once we were able to begin field work in Gigantes, we encountered many “unknown unknowns”:

* The LGU of Carles has implemented a one-week sequestration in a hotel upon arrival on Panay Island. This is to allow time for COVID symptoms to show before traveling to Gigantes, which has little health care infrastructure aside from a small clinic. This policy is expected to be in place for the foreseeable future.
* Additionally, after departing Roxas City, we arrived at Estancia Port to travel via ferry to Gigantes. We were informed that the ferries had been shut down by the Philippine Coast Guard due to rough seas. Between the sequestration and the 48-hour closure of the ferries, it took us 10 days to travel from UPLB to Gigantes.
* The terrain and lack of infrastructure increased travel time between sites. Gigantes Sur contains no two-lane roads. The “roads” visible on satellite images are either unpaved dirt roads, or narrow concrete pathways between 2-4 feet in width. All transport on the island is done with either motorcycle or boat. There is no formal area or method to rent either. For motorcycles, we simply stood by the road until the requisite number of drivers appeared. For boats, our field guides visited various community members to ask if they would be willing to taxi us.
* Regarding the terrain, the karst areas are sharp and steep. This field work session coincided with the rainy season, making the trails hazardous. Areas dominated by Ipil-Ipil were particularly slippery, even with proper hiking boots. Hiking to and from the sites took significantly longer than planned.
* Political disagreements between local officials sometimes delayed coordinating field activities.
* Traveling back from Gigantes to Luzon with frogs can take nearly a week, as there are travel permits and a veterinary certification to process on Panay Island.

Now that we know how difficult travel can be, we will take this into account for future field work sessions.

1. Were any components of your project not achieved or not completed? Did anything else change in the project (including timeframe, funding and partnerships)? If so, how has this affected the overall impact of the project?

We were not able to complete any of our intended field work activities on Gigantes Norte, and we were only able to take a team of three individuals to Gigantes Sur, which reduced the amount of work we were able to complete. We were only able to conduct a full abundance survey (multiple counts) at Pawikan Cave. Additionally, we were only able to collect 21 individuals of *Platymantis insulatus* to bring back to UPLB for our captive breeding program. Essentially, we were able to accomplish *some* of every objective, but not to the full extent that we had planned. While this delays/sets back our plans, it has not derailed the project. We consider the July/August 2021 field work session to have been essential, as it will allow us to better plan future field work expeditions (See #7, below).

1. If you worked alongside others, how did collaboration help you to achieve what you set out to do?

Our project is a collaborative effort with the UPLB MNH, which has provided the facilities necessary to house our frogs, students to work at the project, and assistance with navigating the permitting process. This assistance, along with the facilities and students, are essential to Project Palaka’s success. We also consider local government officials and barangay captains to be collaborators, as their assistance was necessary to obtain permission to conduct field work in the Gigantes Islands.

1. What are your next steps or future plans for the ASAP species this project targeted?

*For example, include details if the project will be continuing, long-term needs (funding, resources etc.), and whether the right threats were addressed or additional ones have been identified.*

Thanks to the support of ASAP, Synchronicity Earth, and our other funders, Project Palaka will continue, and I reiterate my commitment to the project. Our next planned field work session is in November 2021.

Taking the factors listed in #4 into consideration, for the November 2021 field work session, I plan to increase our team size and take a total of 10 people- nine students/in-country partners, as well as myself. Our original grant application allows for a team of six. A larger team will allow us to accomplish the following:

* Surveying of *Platymantis insulatus* population, habitat assessment, and threat assessment at a total of eight sites, for three days per site, on Gigantes Sur.
* Surveying of *Platymantis insulatus* population, habitat assessment, and threat assessment at a total of six sites, for three days per site, on Gigantes Norte.
* Collection of an additional 10-20 *Platymantis insulatus* on Gigantes Sur.
* Collection of 30-40 *Platymantis insulatus* on Gigantes Norte.
* Safe transportation of all collected *Platymantis insulatus* for incorporation into our captive-breeding program.
* A minimum of two community outreach meetings, wherein we will update barangay officials, local community members, and teachers about the status of our project.

Currently, we have sufficient funding for all planned field work activities through November 2022. However, we are also currently planning an expansion of the captive breeding facility, as we anticipate the need for additional room to rear offspring and grow our captive colony. Additional funds will need to be raised for this expansion.

1. Based on the results of your project, what are your recommendations for conserving your project’s focal ASAP species? These may be general or specific, reflecting the insight you gained since submitting your proposal to ASAP: anything which might help others working to conserve the species, or yourself in future, be more effective.

Our July/August 2021 field work session was our first visit to Gigantes, and we were only able to work on Gigantes Sur. As such, we can provide only preliminary recommendations. As we conduct additional field work, we will update our recommendations.

The captive-breeding portion of the project is an important component to preserving *Platymantis insulatus*. There is still much to learn about this species; in the field, we observed plenty of adults, but less than a dozen juveniles, and even fewer neonates. We observed gravid females and recently hatched eggs, but no intact egg clutches. Clearly, there are aspects of this species’ natural history that we don’t know, and captive breeding efforts may reveal those answers, in addition to being a tool for boosting wild populations.

Based on our observations, forest conservation and restoration should be a paramount conservation action for this species. This will be difficult, as the local community prefers monocultures of Ipil-Ipil over native forest for charcoal production. A successful reforestation project will involve ensuring that the charcoal needs of the community are met, even if that means not fully eradicating Ipil-Ipil, or finding native tree species that produce similar quality charcoal, and allowing for the managed harvesting of these tree species.

Any conservation efforts will need to fully incorporate community input and may even require a financial/economic/developmental incentive to compensate for any economic externalities that result from our conservation efforts. During our meeting with Gigantes Sur community leaders at the end of our field work session, we found the local officials and teachers to be highly supportive of our project. They were also supportive of general conservation measures for the preservation of the island’s biodiversity. However, they emphasized the reality of life on the island, and how any solutions we propose can’t interfere with the livelihoods of the local people.