

**Title:** *Partulid Tree Snails of the Solomon Islands: Endemic Species or Products of Prehistoric Exchange Networks?*

## **Social Assessment**

**Assessment to demonstrate how the project will comply with CEPF's Safeguard Policy on Indigenous Peoples.**

### **(I) Identification of Indigenous Peoples in the project area:**

The vast majority of Solomon Islanders, including the populations of Rennell and Bellona, and Temotu Provinces (the regions where tree snails were sampled during this project) are indigenous. They include both Melanesians and Polynesians. Rennell Island is subdivided into 9 villages and Bellona into 8 villages (Figure 1 & 2). We gathered information on island subdivisions within Temotu Province as we developed our contacts in the area.

Figure 3 (adapted from Kelly *et al.*, 2010) shows the population distribution on Nendo Island, the largest island in the Santa Cruz archipelago and the seat of the provincial government. The locations of populated settlements are marked with blue dots. We also sampled on Vanikoro Island (Figure 4) where there are 3 distinct tribes/ethnic groups speaking 3 distinct languages: Teanu, Lovono and Tanema. Throughout the duration of this project, we mainly interacted with ethnic groups in Lovono as this was also our main collection site.

### **(II) Assessment of expected project impacts (both positive and negative) on them:**

Expected impacts of the project were:

#### **Positive:**

- Increased knowledge and awareness of local molluscan fauna and their environments, threats and impacts.
- Increased awareness of best conservation and agricultural practices (i.e. the reduction of deforestation and the preservation of plant species that provide favorable habitats for endemic land snails) that help protect local molluscan fauna from extinction risks.
- The involvement of local students in biological sampling trips provided training and learning opportunities that broaden their perspective on scientific methodology and conservation projects – especially on environmental issues that could possibly impact them in the future.

#### **Negative:**

- The project primarily involved obtaining individual tree snails from populations on Rennell and Bellona and Temotu provinces. The tree snails are small (<1cm in length) and they have no commercial value. They are not farmed, are not used for food, and are not pests (they eat detrital deposits, not plants). Inherently, there were no significant impacts projected from our sampling methods. Although we did anticipate there may be some potential conflicts if landowners object to researchers performing this kind of work on their land. Fortunately, we did not encounter any conflicts with landowners.

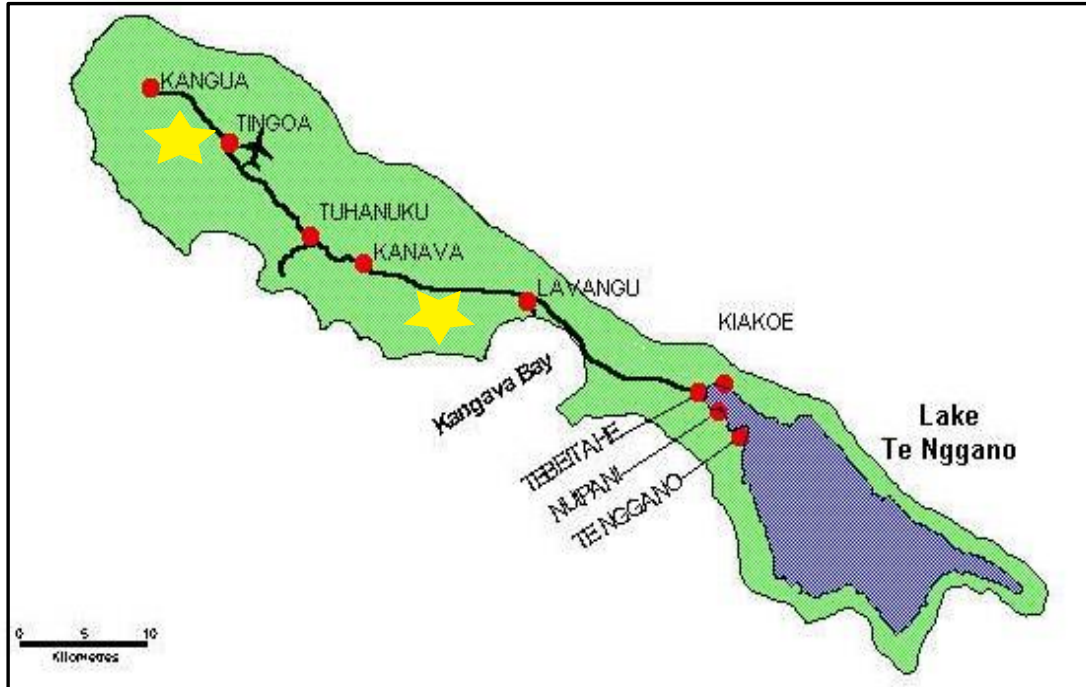


Figure 1. Rennell Island consists of 9 villages denoted by the red dots and sampling locations by yellow stars.

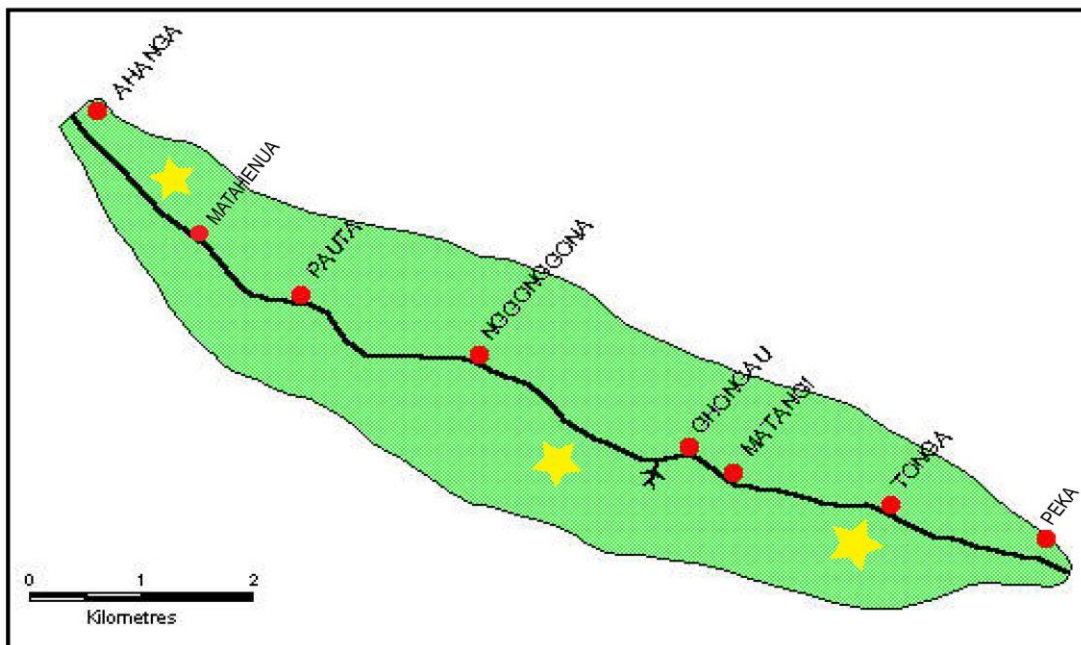


Figure 2. Bellona Island consists of 8 villages denoted by the red dots and sampling locations by yellow stars.

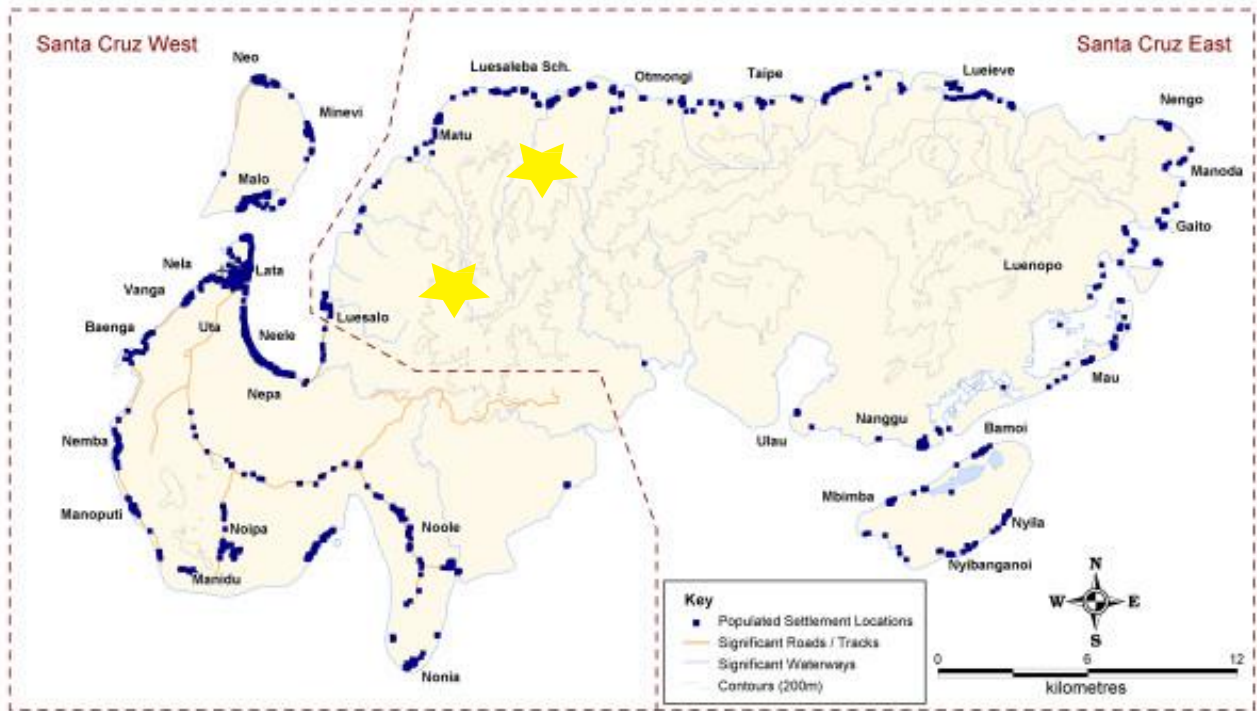


Figure 3. Santa Cruz (Nendo Island), Temotu Province, Solomon Islands population distribution map (adapted from Kelly *et al.*, 2010). The sampling locations are denoted with yellow stars.

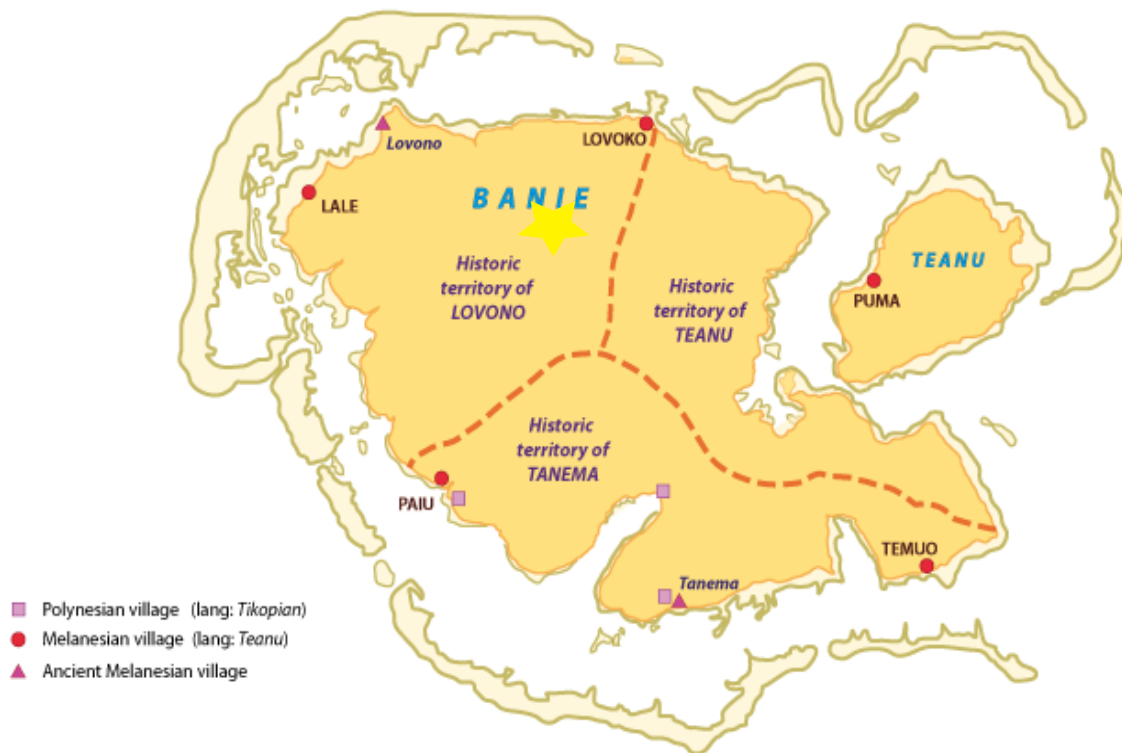


Figure 4. Vanikoro Island, Temotu Province, Solomon Islands population and ethnic distributions (credit <http://alex.francois.free.fr/AF-maps-Vanikoro.htm>). The sampling locations are denoted with yellow stars.

**(III) Description of how free, prior and informed consultations have been carried out with affected communities during design of the project (i.e. prior to submission of the LoI):**

Due to limited resources, we had to initially triage our sampling scheme: sampling of tree snails to date has been restricted to islands within the main SIs archipelago that are within relatively easy reach of Honiara. This was by far the most challenging element of completing this study because, although the principal investigator (Diarmaid Ó Foighil) and Ph.D. student (Cindy Bick) have been to the Solomon Islands sampling tree snails on multiple occasions, they had not yet set foot in either Rennell and Bellona or Temotu Provinces prior to the submission of the LOI. The primary reason for this was the relative remoteness and cost of accessing both provinces, especially Temotu – connected to Honiara by a single flight every 2 weeks.

Upon completion of our sampling in June of 2014 in the Western and Central Provinces of Solomon Islands, our goal was to establish contacts with local communities on Rennell in order to proceed with our sampling in the following year. We contacted community representatives on Rennell via the Solomon Islands Ministry of Environment, Conservation and Meteorology. We were not successful but we were able to request assistance from local agencies such as the Community World Heritage Conservation Support whose main mission is the protection of UNESCO designated sites in the Solomon Islands considered to be of important cultural and natural value to humanity. Our contact person, Mr. Greg Mart Taieha (+6777464310) headed the Solomon Islands division and is a native of Rennell and Bellona Province. We met with him at the Ministry office in Honiara and he agreed to be our guide, specifically to travel and introduce us to landowners around the island because his organization already has conservation projects implemented on the islands of Rennell and Bellona. We kept in intermittent contact with him throughout the year until our return to the Solomon Islands in June of 2015. Many of the landowners and people in the communities on Rennell and Bellona had been made aware of the purpose of our visit there because Greg had already contacted them prior to our arrival. Our visitations with landowners consisted of approximately 15-30 minutes of chatting with them and explaining the purpose of our work and answering any questions they may have. They then usually either accompanied us on our field collections or they just granted permission to explore as much as was needed to complete our project. This was the approach on both Rennell and Bellona. On Bellona, we stayed with close relatives of Mr. Taieha who facilitated the introductions with local landowners. So, we had a lot of day-to-day contact and conversations with members of the local community.

Upon completion of our sampling work on Rennell and Bellona province in 2015, our approach was to make a visit immediately to the Santa Cruz archipelago to establish contacts with the communities in the areas where we plan to collect partulids in the summer of 2016. Mr. Taieha also put us in contact with local individuals and provincial government officials that he knew in the area. Our visit to Temotu in 2015 was not quite as successful as we were not able to either find reliable guides or anyone with knowledge of the local snail fauna. We did however, establish connections with teachers and principals from the primary schools on Nendo Island who made the connections for us with the school principal on Vanikoro Island. Also, during the Pacific Island Species Forum in Suva that year we were able to get information from Helen Pippard about another organization (OceansWatch) that was doing marine conservation work on one of our targeted collection site, Vanikoro Island.

When we returned to Michigan, our goal was to collaborate with Chris Bone and OceansWatch in order to access the local communities on Vanikoro Island. We also had

intermittent email communications with Reagan Orelly, the school principal at Emua on Vanikoro Island. In the end, we were not able to travel with OceansWatch to Vanikoro at the same time due to our varying schedules. However, Chris Bone linked us with Titus Godfrey who is a certified ranger while on Nendo Island where the provincial government is located. In 2016, we made arrangements with Titus Godfrey to collect at a known partulid site on Nendo (last sampled in 1978) when we returned from our sampling on Vanikoro Island.

Principal Orelly was already expecting our visit to Vanikoro Island due to our previous conversations. He facilitated a meeting between our group and the local chiefs in Emua Village upon our arrival. We discussed the purpose of our visit and we gave a presentation of what we hope to achieve while on Vanikoro Island. They were very curious and asked us to involve the local children on our sampling trips. After this initial meeting, we had free rein of the village for as long as we were there for our field-work. We were also asked to give a presentation on our work to the local primary and secondary schools in Emua Village. We did not anticipate this but we certainly welcomed the opportunity. After the completion of our work on Vanikoro, we returned to sample at our last partulid target site on Nendo Island where Titus Godfrey was our field guide and also a landowner on Nendo Island. He took us collecting on his land where we collected partulid individuals from several populations. This was by far the easiest contact we have had to make on Temotu Province.

#### **(IV) Outlining measures to avoid adverse impacts and provide culturally appropriate benefits:**

During the course of our project, we asked our main contacts (i.e. Greg Taieha, Regan Orelly, Titus Godfrey) for advice on approaching landowners for permission to access their land in order to sample tree snails and we have followed those instructions closely. It was always our approach to have our local contacts make the introductions with local landowners mainly due to their familiarity with the communities and the areas. We also consulted with our local contacts regarding our research plans, which were then communicated clearly to the landowners. From this initial contact, our group encourages the participation of local landowners and their families in our collection efforts. In the process we established a good working relationship with them and other members of the community who are curious and interested.

In some places like Vanikoro, we provided culturally appropriate benefits in the form of customary fees when we enter customary lands. Due to our close association and open communication with landowners, chiefs, and local families we have been able to avoid any potential adverse impacts associated with our study. We have also reported our research visits to Lysa Wini ([lysa.wini@gmail.com](mailto:lysa.wini@gmail.com)), the Solomon Islands Project Liaison Officer in Honiara.

#### **(V) Explanation of how these measures were monitored**

We logged comprehensive field notes documenting each day's activity in detail, including photographs, the names and addresses of the local people we have interacted with, the nature of that interaction, exact geographic locations together with scaled photographs of the snails that we have obtained. Prior to leaving Honiara at the end of each field trip, copies of these field notes were electronically forwarded to the primary local contacts who has e-mail access, e.g., in Rennell that is Mr. Greg Taieha, to the Ministry of Environment, Conservation and Meteorology in Honiara, and the individual provincial governments that we visited for our work. At the moment, we are completing the analysis of our findings,

which will then be published in a peer-reviewed scientific journal. Any materials that we produced through this grant will be communicated and disseminated to the Ministry of Environment, Conservation and Meteorology in Honiara, the provincial governments where we conducted our field work and the IUCN CEPF EMI team.

## **(VI) Details of a grievance mechanism**

We firmly and comprehensively maintained a respectful engagement with the local community representatives, *e.g.*, Mr. Greg Taieha and the Bokelema family in Rennell & Bellona Province, and with community landowners, prior to initiating a local search for tree snails. This allowed us to minimize the likelihood of a grievance arising against the project team. Nevertheless, there is always the possibility that, despite our best intentions, such an event will arise regarding either involving the project team or a third-party contact. In fact we did encounter a situation in which a local government official in Temotu Province, who requested that the researchers pay an exorbitant monetary fee to enter Vanikoro Island. We were able to confirm that this was a scam with the local provincial governments as well as the landowners on Vanikoro Island. Forging close connections and having open communication with the local community prevented us from falling victim to these kinds of criminal activities. We also made sure that all community parties that the project team interacted with were provided, prior to engaging in fieldwork, with the contact information (phone [+677 7473384](tel:+6777473384)) of Lysa Wini, the Solomon Islands Project Liaison Officer, so they could raise any grievances directly with her.

Our mechanism was that any grievances raised with the project leads or third-party contact would be promptly (same day if possible) communicated by Cindy Bick and/or Diarmaid Ó Foighil to Lysa Wini by phone ([+677 7473384](tel:+6777473384)) and by e-mail ([lysa.wini@gmail.com](mailto:lysa.wini@gmail.com)). This were also communicated to the CEPF Regional Implementation Team at IUCN [via phone ([+679-331-9084](tel:+6793319084)), and emailed to [cepfeastmelanesia@iucn.org](mailto:cepfeastmelanesia@iucn.org) or sent via post (c/- CEPF Regional Implementation Team, PMB 5 Ma'afu St, Suva, Fiji) within a few days, together with a plan for remedial action (if any was required).

## **(VII) Work plan**

There was a two-year timeframe for the proposed research: 1/1/2015–12/31/2017. Two sampling trips were mounted during this period. The non-field portion of the project involved museum research (obtaining type specimens etc.) lab work (genotyping specimens and performing detailed morphometric analyses), data analyses, writing manuscripts and (finally) writing IUCN Red List accounts. The projected schedule was as follows:

- **Winter 2015.** Planning sampling field trip to Rennell & Bellona. This involved extensive consultation especially with Mr. Greg Taieha on Rennell Province, and the Bokelema family.
- **Spring/Summer 2015.** Executed sampling field trip to Rennell & Bellona Province. While in the SIs, we planned intensive communication with our Temotu Province contacts to develop a concrete plan for the following field trip in 2016. We then visited Temotu Province, specifically the island of Nendo, to solidify our plans and to survey our study areas prior to returning to the University of Michigan.

- **Summer/Fall 2016.** We returned to the SIs to execute our sampling field trip on Temotu Province. We targeted two islands: Nendo and Vanikoro.
- **Winter 2016.** We worked on genotyping all of the samples that we collected in the field, obtained relevant type materials from museums, and followed this by performing the morphometric analyses.
- **Summer/Fall 2017.** We are completing all of our analyses and writing revisionary taxonomic monograph. We plan to also submit our findings for publication in a peer-reviewed scientific journal and to complete an IUCN Red List account.

### **References:**

Kelly, G. C., Hii, J., Batarii, W., Donald, W., Hale, E., Nausien, J., ... & Clements, A. (2010). Modern geographical reconnaissance of target populations in malaria elimination zones. *Malaria journal*, 9(1), 289.