Report on Awareness Raising Activities under the project “Conservation of the Endemic Flying Foxes of Torba and Temotu in Vanuatu and the Solomon Islands”

February 2022
Summary
Under the CEPF-funded project “Conservation of the Endemic Flying Foxes of Torba and Temotu in Vanuatu and the Solomon Islands” the VESS project team visited the province of Torba in Vanuatu and the province of Temotu in the Solomon Islands to carry out research on and encourage conservation of three species of flying fox each endemic to the island or island group where it is found. One of the project aims is to increase the knowledge of the endemic flying foxes amongst the local community. We wrote, designed and printed awareness materials and designed and delivered workshops in the villagers and schools in the project sites.

Aims of the awareness-raising activities
- To raise awareness on the biology, ecology threats and conservation of bats.
- To increase knowledge on the endemic bat species of Vanuatu and of Temotu province in the Solomon Islands.
- To enhance knowledge on the importance of bats in an ecosystem.
- To increase knowledge on conservation actions that can be taken at a community level to protect bats and their habitats.
- To provide communities with bat awareness toolkits and educate them on how to use it so they can be able to conduct their own bat awareness workshops.
- To train monitors and other community members to monitor bats in their area.
- To encourage customary landowners to register important bat areas as Community Conservation Areas (CCA).

In 2018, VESS, in collaboration with SICCP (Solomon Island Community Conservation Partnership) delivered bat awareness in Nendo and Vanikoro Islands in Temotu, Solomon Islands and Vanua Lava and Mota Islands in Torba, Vanuatu. 2019 to 2020, the VESS team visited and delivered awareness in 5 islands within the Banks group in Torba province in Vanuatu.

The awareness-raising provided information about bats including the habitat they use to forage and roost, the different bat groups and species, bat life cycle and anatomy. We also talked about activities that can threaten bat population and what measures that people can take to protect. Our aim was for people to clearly understand that bats are part of an ecosystem and should be protected, whether a threatened species or not. To reinforce the messages, we designed the workshop to have several interactive exercises.

Nineteen workshops were delivered in total with 941 people attending. At least 25% of the attendees were women. To measure the effectiveness of the workshops in each community, we used a pre and post workshop quiz. The pre-quiz score averaged 22.5% and the post-workshop quizzes had an average score of 95.5%. This shows that the topics covered in the awareness workshop were not widely known before the awareness-raising campaign and that the communities acquired knowledge during the workshops.
Bat awareness materials were designed and printed and given out to the communities. These resources could be used by the community to deliver their own workshops on bat conservation.

An exhibition on bats was held in Port Vila and 253 people attended (175 were male and 78 female). The exhibition consisted of displays of information about bats and exercises and activities that the visitors could complete.

20 community members from the Banks Islands came to a training workshop on bat monitoring techniques. They were given tools to assist with the monitoring and have now form a bat conservation group.

Since the awareness raising activities have been delivered under this project, the communities have put in place several conservation measures, such as banning of hunting of the endemic flying foxes such as the Banks Flying Fox.
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Introduction
Under the CEPF-funded project “Conservation of the Endemic Flying Foxes of Torba and Temotu in Vanuatu and the Solomon Islands” the VESS project team visited the province of Torba in Vanuatu and the province of Temotu in the Solomon Islands to carry out research on and encourage conservation of three species of flying fox each endemic to the island or island group where it is found. One of the project aims is to increase the knowledge of the endemic flying foxes amongst the local community. We wrote, designed and printed awareness materials and designed and delivered workshops in the villagers and schools in the project sites.

The flying foxes focus species
The flying foxes focus species for the project are all listed as endangered on the IUCN Red List of threatened species. They were:

- The Banks flying fox (*Pteropus fundus*), endemic to Banks Islands, Torba province, Vanuatu.
- The Vanikoro flying fox (*Pteropus tuberculatus*), endemic to Vanikoro Island, Temotu province, Solomon Islands.
- The Temotu Flying Fox (*Pteropus nitendiensis*), endemic to Nendo Islands in Temotu province, Solomon Islands

Aims of the awareness-raising activities

- To raise awareness on the biology, ecology threats and conservation of bats.
- To increase knowledge on the endemic bat species of Vanuatu and of Temotu province in the Solomon Islands.
- To enhance knowledge on the importance of bats in an ecosystem.
- To increase knowledge on conservation actions that can be taken at a community level to protect bats and their habitats.
- To provide communities with bat awareness toolkits and educate them on how to use it so they can be able to conduct their own bat awareness workshops.
- To train monitors and other community members to monitor bats in their area.
- To encourage customary landowners to register important bat areas as Community Conservation Areas (CCA).

Awareness campaign locations
In 2018, VESS in collaboration with SICCP (Solomon Island Community Conservation Partnership) and Tyrone Lavery (technical adviser to the project) conducted a bat expedition to Temotu and Torba provinces. During the expedition, the team delivered bat awareness in Nendo and Vanikoro Islands in Temotu, and Vanua Lava and Mota Islands in Torba. After this initial expedition, VESS extended the project to gather more information on the bats of the Banks islands in Torba province, Vanuatu. We also included a wider awareness campaign in the project extension to include all islands of the Banks group and in 2019 to 2020, the VESS team visited and delivered awareness workshops across different communities in Mota Lava, Gaua, Ureparapara, Mota and Vanua Lava islands. See the map in figure 1 for the locations of the awareness
workshops. VESS has also conducted bat environmental education in Shefa province in Vanuatu. The provincial governments, community chiefs and environmental leaders were informed prior to our visits and not only gave their consent to the awareness campaign but were supportive and enthusiastic.

Figure 1: map of location of awareness workshops in Temotu on the Solomon Islands and Torba in Vanuatu
Figure 2: Location of awareness workshops in Temotu, Solomon Islands

Figure 3: Location of awareness workshops in the Banks Islands, Vanuatu
Community Awareness Workshop Delivery

The awareness-raising workshops provided information about bats including the habitat they use to forage and roost, the different bat groups and species, bat life cycle and anatomy. We also talked about activities that can threaten bat population and measures that people can take to protect bats in their area. Our aim was for people to clearly understand that bats are part of an ecosystem and should be protected, whether a threatened species or not. To reinforce the messages, we designed the workshop to have several interactive exercises which we did with the communities at intervals in the workshop. This also help keep people’s attention. A couple of examples of activities are; a game to show the difference between bats and birds, an exercise on identifying bat ecosystem services, a game called “Who am I?” to show the difference between groups of bats, and an exercise on the endemic bat species. In another exercise, participants were asked to list down what they think the threats to bats are in their islands and then match them with conservation measures that can be taken to mitigate those threats. The participants found the activities fun and it appeared that participating in them helped to enhance their knowledge on bats. During the workshops, VESS also discussed the importance and benefits of Community Conservation Areas. Communities and customary landowners were encouraged to create and register CCAs and incorporate bat conservation actions into the management plan for CCAs, if they do not already exist.

During the initial expedition in 2018, we conducted awareness workshops in all the survey sites, 2 in each island we visited and six in total. Between 380 and 400 people attended the workshops in total. 98 people at the workshops signed the attendance sheets, 39 male and 59 female. In the larger awareness groups (of which there were three) a head count was taken and 284 people were counted. In one of the groups, it was estimated that half were female so we can calculate that at least 101 of the attendees were female which is over 25%. But we believe the true gender split was closer to half and half male and female.

After the initial expedition, our project was extended so we could revisit the Banks islands to gather more information on the flying foxes of the island group. At the same time as conducting a questionnaire, where we tried to cover as wide an area of the islands as possible, we conducted awareness workshops. Thirteen workshops were delivered, with at least 2 on each island in the Banks. 330 people attended the workshops, 163 males and 167 females. We surpassed our target of at least 30% women. In addition, we also conducted two workshops in schools on Gaua island where 219 children and 10 teachers attended. Appendix A lists the workshops conducted and the number of people who attended each.
Figure 4: photos taken during bat awareness raising workshops
To measure the effectiveness of the workshops in each community, we used a pre- and post-workshop quiz. The quiz was created to measure the increase in knowledge, resulting from our awareness-raising efforts. To save time the quiz was done orally rather than asking people to write down their answers. In some locations the staff either didn’t have enough time to complete the quiz or forgot to ask the questions at the beginning of the workshop. However, where the quiz was done the pre-quiz results averaged 22.5% correct answers and the quizzes asked at the end of the workshop had an average score of 95.5%. This shows, firstly, that the topics covered in the awareness workshop were not widely known before the awareness-raising campaign and that the communities acquired knowledge during the workshops.

**Awareness materials**

Several awareness materials were developed and distributed during the period of this project implementation. The materials were produced in English and Bislama and the community members could choose which they preferred. Materials distributed in the Solomon Islands the materials were also printed in Solomon Pidgin. Educational materials prepared and distributed to workshop attendees included:

**Bats of Vanuatu Booklet**

For the initial expedition a booklet was created as a collection of fact sheets on all 12 bat species found in Vanuatu. Each fact sheet gives the common and scientific names of the bat, a description of the bat, where it can be found in Vanuatu, the conservation status, threats, ecosystem services supplied by the bats and possible conservation actions. The booklet was distributed to awareness attendees during the first expedition in 2018 and to exhibition attendees in 2019.

For the 2020 field trips the information and exercises in the Bat Awareness Workbook was incorporated into the Bats of Vanuatu Booklet so that all the information was in one place and accessible to everyone who was given a book.

The booklet was written in English and Bislama languages and printed in A4 sizes. In total, 380 Bats of Vanuatu booklet (310 in Bislama, 70 in English) were distributed.

**Bat Awareness Workbook**

This workbook was designed specifically for the awareness workshops. It functions as a toolkit for community members to conduct their own bat awareness in their own areas or communities. There are English, Bislama and Solomon Island Pidgin versions, and it covers the biology and ecology of bats, threats to their survival and possible conservation actions. There are also activities for practice and for reinforcing the key messages. The workbook was printed A3 sizes. A total of 7 awareness workbooks (3 in English, 2 in Bislama, 2 in Solomon Island Pidgin) were given to attendees. The materials provided were useful in reinforcing the information presented and will allow communities to use the resources to spread the message of the
importance of bat to the ecosystem further by running their own awareness workshops.

Figure 5: Distributing awareness materials

Temotu and Vanikoro flying fox factsheets
Two different factsheets were designed to increase awareness on Temotu and Vanikoro Flying Foxes. The factsheets encompass the biology and ecology of the two threatened and endemic species, including conservation measures that could be taken to protect them. The factsheets were printed in Solomon Pidgin language and were printed in A4 sizes. 40 factsheets on Vanikoro and Temotu flying foxes were given out in Nendo and Vanikoro Islands.

Bat Ecosystem Services Poster
The poster was designed to promote bat conservation in Vanuatu. It informs people on the importance of bats in an ecosystem. Four of the important ecosystem services bats provide are featured with images supporting the explanations. The posters were written in Bislama and English languages and printed in A3 sizes. A total of 85 bat ecosystem posters were distributed (75 in Bislama, 5 in English) in Torba province, during the second field trips.

Threatened species Posters
The threatened species poster shows some of Vanuatu’s iconic species which are at risk of extinction, including bats. The poster was designed and printed under a previous CEPF project. English and Bislama versions were printed in A3 size. Some posters were left over from the project and were distributed under this project. The total number of posters distributed was not recorded.
What do bats do for us?

They are Pollinators
When a fruit bat flies to a plant to drink nectar from the flowers, pollen sticks to the hairs or fur on their body and when the bat flies to another plant for more food, it transfers the pollen from his body to the new plant. This is how the plant reproduces. There are some plants that only open their flowers at night so bats can drink and at the same time perform the pollination.

They are Seed Dispersers
Seeds can either be carried in the mouth and dropped or can pass through the digestive tract of a fruit bat. Fruit bats can disperse seeds far away from the parent plant. When they eat or carry the fruits of plants, they transport the seeds and deposit them into new areas. In this way, they help the forest to regenerate especially in areas that have been damaged by cyclones or logging.

They are Pest Controllers
Insect-eating bats consume huge numbers of insects in one night. They are very important for controlling some of the insects that are a problem to humans and in gardens. For example: mosquitos that can carry malaria and dengue fever.

They make Organic Fertilizer
Bat poo, which is called guano, contains lots of nutrients and can be used as an organic fertilizer for plants.

Figure 6: Bat ecosystem services poster- English version
Bat project leaflets
This leaflet informs readers about this bat conservation project, the project activities and expected outcomes. It also contains the grievance mechanism and contact details for the organisations involved in this project. The leaflets were distributed during all project activities including all awareness workshops. 115 bat project leaflets were distributed.

Bat eco-bags
VESS designed and printed eco bags with a bat conservation message, “Yumi nidim fores. Ol forest nidim bat. Lukaot gud long ol bat”. Translated to English it says, “We need forest. Forest need bats. Protect the bats”. 20 bat eco bags were given to chiefs and environmental monitors in the Banks Islands.

Bat exhibition and public talk on bats
VESS hosted a bat exhibition at Alliance Française in Port Vila from the 8th to 13th April 2019. A range of people from different background attended the exhibition including, students, youth groups, artists, civil servants and many more. The exhibition was attended by 253 people. 175 were male and 78 female. The exhibition consisted of posters and materials to read, as well as interactive exhibits.

Exhibition Displays
The displays which mainly consisted of posters included:

- Information about the project and VESS
- General information of bats.
- Bat species of Vanuatu
- Factsheets on fruit bats, insectivorous bats and fishing bats.
- Threats and conservation actions.
- Biodiversity, ecosystem and ecosystem services.
- Threatened species and taxonomy
- Results of bat expedition in April and May 2018.
- Custom stories.
- Handmade fruit bats models.

Exhibition activities and exercises
To reinforce the information displayed, we created activities on each key topic. The activities were designed to engage a range of ages, some simple and some more complex. The visitors could choose which activities they wanted to do.
1) Difference between bats and birds game

This activity is created with the aim of helping people to understand that bats are different from birds even though both have wings and fly. This was one of the most popular activities with 9 adults and 24 children completing this activity.

2) Reporting sightings and caves in Vanuatu

Recording wildlife sightings provides important information about the distribution of a particular species. With the information provided, scientists can identify important area and habitats, as well as determine changes in their status and distribution, and the threats they are facing. Such knowledge helps provide better-informed conservation measures. We exhibited pictures of fruit bats in Vanuatu and maps of the islands of Vanuatu. Visitors were asked to where they had seen any of the fruit bats, using a dot sticker and mark any caves where they know bats live inside. People were also asked to fill in a form was provided to provide more details of the sightings and caves. Most adult visitors seemed to be interested in doing this activity. The Pacific flying fox has the highest record (8) following with the Vanuatu flying-fox (7). 2 visitors have recorded sightings of the Fijian Blossom Bat. A total of 3 banks flying-fox sightings have been recorded. Four cave sightings were recorded, however the bat species living in the caves could not be identified. Interestingly, one person reported seeing a little bent winged bat on Linbul on the island of Ambrym. In total, 23 people noted down sightings of fruit bats and 5 caves were mapped. Of these, 22 are adults and 1 was a child.

3) Ecosystem services exercise

This activity involved people matching up pictures of insectivorous bats and fruit bats with the ecosystem services they provide and putting each ecosystem service into one of the following categories: provisioning services, regulating service, cultural service and supporting service. In total, 14 visitors completed the activity: 10 students and 4 adults. This activity reinforces the message that bats play an important role in an ecosystem, and that different kinds of bats provide different services.

4) Threats, conservation actions and who can help exercise

For this activity visitors were first instructed to identify the threats to a species of bat, then choose which conservation action would mitigate this threat and finally who could take this action. This was to demonstrate that in order to conserve bats the threat needs to be identified and action taken to mitigate the treat. It also showed that many of the actions can be taken by anybody. A total of 33 children and 9 adults participated in this activity. This was one of the most common activity completed by visitors. They learnt that anyone and everyone can take the
responsibility to protect these bats instead of depending on government or community leaders.

5) Who am I? game

Clues were given to identify different bat species. The visitors needed to check the factsheets on the bat species to find out which one was being described. The activity demonstrated the different features of bats that can be used to identify them and shows the difference between species. A total of 13 students and 2 adults completed the activity.

6) Quiz

Basic questions on bats were printed so visitors could go around the exhibition and find the answers. 8 students did this activity. Most understood the questions and answered correctly. For any answers that were incorrect, the VESS staff at the exhibition, explained the questions again so the student could have another go at getting them right. This activity reinforced knowledge about the basic facts on bats and the different species in Vanuatu.

7) Artists’ corner

Visitors were invited to use their talent and skills to draw pictures of bats or bats in their ecosystem. Crayons and paper were provided and coloured paper squares could be used to create bat origami. A total of 37 students contributed with their wonderful artwork.

8) Bats in Vanuatu Culture

Across the islands of Vanuatu, flying-foxes are important in Vanuatu culture. For this activity, visitors were invited to write or share any custom stories, myths, facts, songs or belief related to bats. Some interesting facts and custom stories were written down by 4 visitors. They agreed that VESS could share the stories with others or use them for educational purposes.

Christina delivered a bat talk on the 08 of April, on the opening night of the exhibition. The talk was about bats in general and their important role in the ecosystem. Christina also presented the results of the expedition to the Banks Islands and Temotu province in 2018. A total of 30 people attended. Of these, 13 are male, 14 female and 3 children.
Figure 7: photos of visitors to the exhibition completing the various activities
The national newspaper the Daily Post published an article about the exhibition. Also, through radio interview with Radio Vanuatu, people visited the exhibition and had the opportunity to learn more about bats. The link to the daily post article about the exhibition is as follows:


Bat conservation training

On the 21st of December 2021, VESS ran a bat conservation training in Mota Lava Island. We brought the community members we had worked with over the timeframe of the project form the Banks Islands to the workshop. Representatives, who were mostly chiefs from Mota, Mota Lava, Ra, Vanua Lava and Gaua Islands attended the training. The aim was to increase the knowledge, and skills of local conservationists by teaching bat monitoring and survey techniques, and to establish a bat monitoring group. Theory sessions in the morning focused on bats’ general information, ecosystem services, threats, and conservation actions. Presentation on research results conducted in 2018 and 2021 was also delivered. We added interactive activities
into the workshop programme to reinforce the messages. We spoke about the reasons why we want to monitor bats and the basic of what monitors need to record to get useful information that can be tracked over time. We supplied each island community with basic tools to carry out bat monitoring in their islands: binoculars, clicker counters, notebooks, pencils, and sharpeners. In the afternoon we ran a practical session to practice techniques including how to conduct bat surveys using the tools provided. All the participants were willing to survey and monitor bats on their respective islands and data will be used to inform decision-making. In total, 20 (6 Female, 14 Male) people attended the training. In the evaluation at the end of the training, all participants felt the training was valuable and they had learnt about bats and how to monitor them. All also affirmed their commitment to conserving the flying foxes of the Banks Islands.

![Figure 9: community member practicing using binoculars and group photos of the workshop participants](image)

**Other Awareness activities throughout the project**

Apart from the planned awareness workshops in communities, other opportunities for awareness-raising activities during the project arose and VESS took those opportunities to reach other audiences.

**Presentation given to the Vanua-Tai Resource Monitors**

In June 2018 and August 2019, Martika Tahi, the VESS scientist employed by this project took part in the Wan Smol Bag Vanua Tai resource monitor's annual general meeting in Tagabe and Tanoliu, Efate Island. The meeting is held annually and bring together community conservation group representatives. Over 50 monitors from...
throughout the archipelago attended the meetings. Martika presented about bat conservation and distributed more than 50 bat booklets to the monitors.

**World Earth Day**

VESS teamed up with Vanuatu Climate Action Network, Department of Environment Protection and Conservation, Forestry Department and Wan Smol Bag to raise awareness on animal and flora of Vanuatu. The world earth day event was held at Wan Smol Bag Centre on the 24th of April 2019. The theme of the event is, “Protect our Species”. VESS presented talks on bats of Vanuatu and dugongs. Other presentations were also focused on the threatened and endemic species of Vanuatu. The event ended with students receiving young sandal woods and Moringa tree provided by the Department of Forestry. We believed students have learn a lot from the talks presented and will help protect our endemic and threatened species into the future. Five different primary schools in Port Vila attended the event. A total of 80 people participated; 65 students, 4 adult male and 11 adult female teachers.

**Bat presentation at the Pacific Climate Change Collaboration Influencing and Learning (PACCCIL) Regional Reflection Workshop**

VESS was invited to participate in the Pacific Climate Change Collaboration Influencing and Learning Regional Reflection workshop which was held from the 9th to 12th of March 2020. It was held at Warwick Resort in Vanuatu and organised by the Vanuatu Climate Change Action Network (VCAN). Martika, on behalf of VESS, delivered a presentation based on dugong and bat conservation projects, the highlights and success stories of the projects, the lessons learned, and briefly talked about the collaboration between VESS and VCAN. During the talk, the presenter raised awareness on the importance of bats to the ecosystem and how they contribute to reducing the impacts of climate change. A one-day exhibition was held on the final day of the workshop. VESS displayed information on bats and dugongs, as well as showcased the life-size bat models, dugong puppet, and Vanuatu megapod model. The workshop has brought together VCAN network members from around the Pacific and gave the opportunity for members to share experiences and learnings as well as build networks.

**World Environment Week**

The 2020 World Environment day theme was ‘biodiversity’. The National University of Vanuatu has hosted the event for 4 days (2nd to 5th June 2020) and invited civil society organisations, youth groups, government departments and students to participate. The program was held to raise awareness about Vanuatu’s biodiversity and environmental protection. VESS displayed posters on bats, dugongs, seagrasses, threatened species in Vanuatu, and plastics impacts on the environment. The exhibition was held at VNU school compound and Martika spent four days there providing guidance and information to the visitors. Visitors to the exhibition included students, community members, government staffs and bus drivers. Martika helped the visitors to understand the information and answered the questions that were asked.
Christina Shaw delivered a talk on biodiversity on the 5th of June. Attendees included the National University of Vanuatu staffs, Erakor bridge community members and students.

**10th Pacific Island Conference on Nature Conservation and Protected Areas**
The conference was organized by SPREP and held virtually in November 2020. VESS was invited to contribute to a session under the topic, “Threatened and Migratory Terrestrial Species” which was led by Mark O’Brien from BirdLife International. Martiak delivered the presentation which focused on Banks flying fox (*Pteropus fundatus*) and discussed the research results collected to date, the achievements of the projects and the next steps.

**Bat presentation in Mota**
From the 20th to the 23rd of July, VESS joined the Vanuatu Coastal Adaptation Project (VCAP) staff to conduct community profiling assessments on Mota. Because of our work on the Banks Flying Fox in Mota, this island was identified as a possible site for this new phase of the VCAP programme which has more focus on biodiversity conservation. VCAP is a project funded by UN to aid communities across Vanuatu to tackle the impacts of climate change. During the trip, Martika gave a short presentation on VESS’s bat conservation project to the communities.

**Pacific Island Bat Forum**
The Australasian Bat Society, with collaboration from various local and regional partners who are member of the PacBat network, hosted The Pacific Islands Bat Forum. The forum was a virtual event from 10th to the 13th of August 2021. Christina Shaw was on the organizing committee and VESS hosted the Vanuatu hub. Conservationists across the Pacific region delivered presentations based on their work. Christina gave a presentation on VESS’s bat conservation projects.

**Flying fox life-size models**
The fruit bat models, handmade by Anne O’Brien features the four fruit bat species in Vanuatu including Pacific flying-fox, Vanuatu flying fox, Banks flying-fox, and the Fijian Blossom bat. The models were made from recycled materials and each species was crafted to the actual size and are anatomically correct. This meant that everyone could see the difference in shape and size of the different species of flying fox in Vanuatu. These models were used in awareness activities including the bat exhibitions and awareness workshop and during trainings in the Banks and Efate Islands.

**Climate Change Week**
From 12th to 16th October 2020, the Vanuatu Department of Climate Change (DoCC) invited VESS to participate in the Climate Change Awareness Campaign in Port Vila. The theme of the awareness program was, “a sustainable climate-resilient Vanuatu”. The awareness covered various topics, from forest protection to coastal protection and climate change, and many more. VESS staff talked about the seagrass ecosystem, their importance and how they can mitigate climate change impacts. In addition, primary and secondary schools in North Efate have participated on a one-day event
organised by DoCC. VESS staff gave a speech on dugongs and their seagrass ecosystem and bats of Vanuatu. Materials on bats, seagrass and dugongs including bat and dugong models were also exhibited. Materials distributed includes 6 seagrass posters, 11 dugong and their seagrass habitat booklets.

**Awareness outcomes**

After our awareness campaign we continue to work with the communities to conserve the Banks Flying Fox. We have heard from the community members that conservation measures have already been started in the islands where we work.

**Gaua Island**

VESS was informed that the Vatsur Council of Chiefs on Gaua Island met and agreed to ban people from hunting the endemic fruit bats. The Vanuatu flying fox is known to inhabit the island and is seen commonly. It is possible the Banks Flying Fox may also inhabit the island, but it has not been confirmed. Both species look very similar and are hard to tell apart. The decision was made in December 2021. Prior to the decision, a member of the Lake Letas conservation committee (who has been working closely with VESS) delivered a bat awareness workshop during the council’s annual general meeting and raised the importance of bat conservation. He used the bat awareness materials provided by VESS during our awareness campaign. In addition, a customary landowner in North Gaua has reinforced the prohibition of hunting all bats at their roosting sites. The ban was put in place many years ago, but at that time the community knew very little about the importance of bats. VESS has been informed by the landowner that the bat awareness workshop delivered in their community and the educational toolkit provided has given strengthen the bat conservation measures that were already put in place.

**Mota Island**

Mota island is the only place where the Banks Flying Fox has been consistently caught in scientific surveys. There have not been many, and in other surveys they have been caught in the other Banks Islands as well, but they have been caught on Mota every time. Mota is only 10 square kilometres in size. After VESS’s initial awareness workshops on Mota Island, chiefs from 3 different villages have gone around the island and raised awareness on bats. They informed community members about the importance of the endemic bats and have placed a ban on hunting them, throughout the island. In addition, they have protected the roosting sites of Pacific flying foxes along the coast and cliffs of the island. The protection of bats has brought good results as the chiefs reported in January 2022 that more bats were seen foraging and feeding, some even close to the ground.

**Musina Village, Vanua Lava Island**

In Musina village in Vanua Lava Island, the chief reported that he has banned hunting of flying foxes at their roosting sites since 2018. People are only permitted to hunt bats including P. tonganus in places that are not their resting site.
A bat monitoring network has been formed in 2021. Representatives from Gaua, Mota Lava and Vanua Lava Islands volunteered to collect information and monitor bats on their island. 17 monitors (14 male, 3 female) were provided with notebooks, clicker counters, binoculars for use during surveys. They were trained on how to use the equipment but most importantly techniques for conducting bat surveys. Teachers are using the bat awareness materials to educate students about bats. Some of them mentioned that they have never had bat educational resources previously and this will be an important toolkit to use, especially during their science classes. VESS has developed a close relationship with the provincial governments and communities across Banks and Efate Islands. Not only did they provide knowledge to communities but learned a lot from them. Many communities appreciated the bat awareness campaign and hope to participate in more bat activities in the future. VESS’s scientists gained invaluable experience in project implementation, surveys and awareness-raisining.

Challenges
We found working in the Solomon Islands challenging as we did not know the country and our partners there did not take the same ownership of the tasks they were contracted to do. This is why we have narrowed our study sites to Torba province in the project extension. Logistic arrangements with people on the ground can be quite difficult. The islands in the Banks are isolated and access to the phone network is limited. Occasionally, our awareness workshop schedules got cancelled because communities were not informed (although we had sent messages). We found text message via Facebook or mobile phone is faster and more reliable than trying to call people in the remote communities. National and community celebrations or other events sometimes clashed with our planned workshop schedule, and we had to alter our plans and arrange the awareness workshops at other times convenient to the community and our team. Tropical cyclones and bad weather have also impeded our travelling plans. On one occasion, the team had to spend extra days in a location due to a tropical depression that caused delays to flight. Travelling to the islands takes time and is expensive. In Torba and Temotu provinces road access is limited, and the road conditions are bad. Sometimes it is difficult to find a transport to get you to your destination. Often, the team travelled by boat instead of road, but this is also subject to weather and sea conditions.

Conclusion
Our bat awareness activities have increased knowledge on the bat endemic species of Vanuatu and Solomon Islands. The campaign has created environmental pride and some communities are already taking action to protect the endemic flying foxes found
on their islands. Further, perceptions and attitudes of community members toward bats have changed. People view bats positively as they now know that bats are valuable to the ecosystem. In three islands of the Banks, chiefs have included bat conservation actions into their management plans. More importantly, actions to protect endemic bats in Gaua, Vanua Lava, and Mota Islands have already commenced. A group of bat monitors has been established. The monitors will collect bat data, which will inform decision-making toward the protection of bats and their habitats. Teachers have incorporated bat information into their school lessons and awareness toolkits will be used to do school research and activities. This project has also given opportunities for several early-career Ni-Vanuatu scientists to gain experience in the implementation of conservation projects, surveys and awareness raising. VESS has built a strong working relationship with other government departments, NGOs and local government in Torba province in Vanuatu. VESS would like to secure more funding to extend the bat activities in Torba province.

**Funding**

The “Conservation of the Endemic Flying Foxes of Torba and Temotu in Vanuatu and Solomon Islands”, project was funded by the Critical Ecosystem Partnership Fund (CEPF). The Critical Ecosystem Partnership Fund is a joint initiative of l'Agence Française de Développement, Conservation International, the European Union, the Global Environment Facility, the Government of Japan and the World Bank. A fundamental goal is to ensure civil society is engaged in biodiversity conservation. The project is implemented between 2018 and 2021.

This report was compiled by Martika Tahi and Christina Shaw.
Appendix A: attendance records and quiz scores at awareness workshops

<table>
<thead>
<tr>
<th>Date</th>
<th>Village</th>
<th>Island</th>
<th>Province</th>
<th>Male Child</th>
<th>Adult Male</th>
<th>Female Child</th>
<th>Adult Female</th>
<th>Headcount</th>
<th>Total attendees</th>
<th>pre quiz score</th>
<th>post quiz score</th>
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<td>01/04/2018</td>
<td>Venga</td>
<td>Nendo</td>
<td>Temotu</td>
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<td>6</td>
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<td>Nendo</td>
<td>Temotu</td>
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<td>Vanikoro</td>
<td>Temotu</td>
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<td>Torba</td>
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<td></td>
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<td>Torba</td>
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<td>95%</td>
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<td>Mota Lava</td>
<td>Torba</td>
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<td>Ureparapara</td>
<td>Torba</td>
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<td>11</td>
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<td>Ureparapara</td>
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