

Conservation of Cave Swiftlets and Sustainable Harvesting of their Nests in Karst Landscapes of Bohol Island, Philippines

An Initial Report

I. Introduction

Early preparation in the implementation of the research was a series of meetings in September 2005 with the local communities where the previous swiftlet monitoring activities were conducted. It was relevant to go back into those sites having heard that local leaders had implemented ordinances restricting the harvesting and the entry to the caves. Barangay Cambigsi of Bilar was the first to initiate this kind of ordinance. Other sites were also visited to determine if a similar management intervention was initiated. Unfortunately, as observed, not all local leaders put pressure on these issues. Most of the previous areas failed to address the issue because they were afraid of the culprits who they presumed were armed. This has been brought to the attention of the RSPL Protected Areas and Management Board (PAMB). There has already been an investigation where these individuals come from but up to now the enforcement is the principal issue.

II. Activities

Assessment of Research Coverage. The first item the research team looked at was to consider if areas of previous interest would be included in the caves designated for research. Since the research study will also be linked with the social issues associated with the protection of these species. A number of caves were added for the research. New caves introduced for the research are located at the vicinity of Magsaysay Park. Three caves were previously mapped during the cave inventory activity in 2002. Two have applied the Cave Impact Assessment Rating System (CIARS) to be able to quantify effects of disturbance during monitoring and in harvesting. It is necessary that all the research caves should have the CIARS application, even those that shall be gated. There are 6 caves chosen for the research study in which 3 will be gated and the rest will be naturally open. These are all located within the vicinity of Magsaysay Park in Barangay Riverside, Bilar. Two caves in Barangay Cambigsi will be included in the monitoring.

Gating is at its planning stage due to the presence of bats roosting in certain sections of the caves. The gate must allow the entrance and exit of both bats and birds. A bat inventory review is an on-going activity at the moment to be able to get an idea of the design of the gates that shall be installed. The locations of these caves are just within the Magsaysay Park where guards are always on a watch

Marker Installations. Sectional markers are already placed inside two caves. The purpose is to easily identify locations of nests by sections of the caves. More detailed markers are installed below the identified nests locations at the floor area.

Monitoring Training. Some of the research caves present difficulties for the monitoring terms of drop-offs and vertical sections where ropes and ladders are required. A Single Rope Technique (SRT) refresher training was held at the Biodiversity Research Center in Bilar. This

activity allowed the researchers to practice previous learned techniques in negotiating narrow passageways.

These practice sessions were also beneficial to the SWCF environmental internship program participants. These are second and third year forestry department students from the Central Visayas State College of Agriculture, Forestry and Technology (CVSCAFT). These students will be exposed to the research study in order to expose them to research techniques that may be applied to their senior year thesis.

III. Preliminary Data

The mapping activities and the application of the CIARS in 5 caves are on-going. The slowness of the implementation is due to the continuous wet weather conditions in Bilar. At present this area is experiencing a mild La Niña. this Preliminary data gathering are yet in a form of an inventory list to include other species present in these caves as they are also given consideration. Actual monitoring of the life cycle of the swiftlets has been started January 5 in one of the two caves in Cambigsi where markers were installed. However, the monitoring period was changed because the gates had been forcibly opened. The other cave in Barangay Cambigsi is still unmapped due to the gate construction. *See attached table*

IV. Recent Activities

Completing the unmapped caves and the application of the CIARS is the priority at the moment to be able to acquire preliminary data of the cave system. Gating will be done as soon as the preliminary data are gathered.

A new gate was re-installed at the Hajangon Cave in Barangay Cambigsi. Continuation of the monitoring is scheduled within the week (third week of March) and this will include the other cave in the area where a gate was previously under construction.

V. Observations

Observations derived from the cave in Cambigsi, Bilar allowed the team to learn that gating may not be the only answer to restrict illegal harvesting. More efforts by the local people make in terms of formulating ordinances to support the protection of these cave species is needed. However, recent development in their protection scheme entered into a more radical approach by re-designing narrower gate only enough for a child to pass thru and may be very difficult for the research team. The reason for this is that thieves continually invade the cave. One of the problems is that the cave location is too far from where the houses are. Every break-in was always unnoticed.

Gate designs for caves also require designs that conceals the padlocks because no matter how strong they are there's always a way to open it by force.

Monitoring Form (Monitoring stopped due to break-ins. Will resume when there is more protection of the cave)

LOCATION: Far into the forest of Cambigsi		No. of Stations: 16	Cave length:	
CAVE NAME: Hajangon		Condition: Gated	POSITION: N 9 deg 56' 42.3" E 124 deg 09' 52.9"	
TYPE & CONDITION OF VEGETATION OUTSIDE: Secondary forest		Elevation: 152 masl		
Date	Jan 5, 2005	Jan. 20, 2005	Feb.5, 2005	Feb. 20, 2005
Time	11:00 am	11:00 am		
Weather	Rainy	Rainy		
Species of swiflet	Collocalia troglodytes	Collocalia troglodytes		
No. of complete nests	3	0		
No. of egg/nest	2/1	0		
No. of piles of swiftlet droppings	41	48		
No. of traces of nest (old/new)	9	13		
No. of partly built nests	10	0		
Bat species present	Rhynolophus arcuatus	Rhynolophus arcuatus		
No. of bats	5	3		
Other species present	Whip scorpions	Whip scorpions		
Remarks	Presence of 1 fully built nest of Collocalia esculenta (glossy swiftlet)	Broken padlock, forced entry had occurred		
Monitoring team members	Toting, irisch, urman, jun-g, Bobong, CVSCAFT interns	Toting, Irisch, Urman, Untwa, Bobong		



Photo taken during the first monitoring period in Hajangon cave in Barangay Cambigsi. The gate had been forcibly opened. Recent design of the gate has become narrower making it much more difficult than this one shown above.



A partly built nest of a *Collocalia troglodytes* and a completely built nest.



A nesting glossy swiftlet (*Collocalia esculenta*) and a pygmy swiftlet (*Collocalia troglodytes*). The glossy swiftlets nest are of low quality due to the mud deposits embedded in the nest but are also used for medicine by the local people.



Hajangon cave in Barangay Cambigsi has a fairly large passage but very tight entrance. This cave has the most population of nesting pygmy swiftlet (*Collocalia troglodytes*) but is always illegally harvested. Erected sticks are floor markers of nests right above it.



Plastic blue tapes serve as station markers so as not to deface rock walls and speleothems. Common local practices use rocks, sticks or any sharp object to carve markers so as not to get lost in the cave system.



This scallops ceiling located at the mid section of the cave system is inhabited with a minor population of bats. Having a very tight entrance, it is rather bizarre to find these two species to co existing in one cave.



Research team members assisting CVSCAFT students in spotting nests at the ceiling. Pygmy swiflets nest are sometimes difficult to look for especially that the color of the nest blends with the color of the ceiling.