Progress Report

Project tittle: The cave millipede fauna of Phong Nha – Ke Bang region, north central of Vietnam

Applicant Name: Nguyen Duc Anh

Email Address: <u>ducanh410@yahoo.com</u>

Address: Institute of Ecology and Biological Resources,

No.18, Hoangquocviet Road, Caugiay District, Hanoi, VIETNAM

Telephone: +84 913353521 Fax: +84 38361196 Website: http://www.iebr.ac.vn

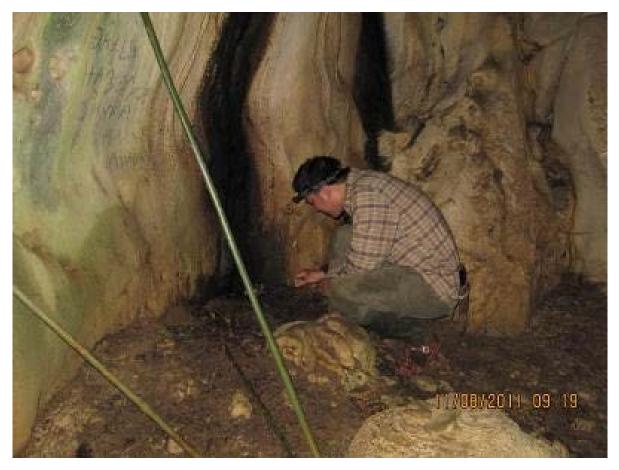


Limestone mountains in Thuong Hoa commune, Minh Hoa District, Quang Binh Province, Vietnam

Field surveys

Field survey in the Phong Nha – Ke Bang region was conducted from 5-27 August 2011. The collected sites were Thuong Hoa commune, Minh Hoa district which is a part of Phong Nha – Ke Bang region. A total of 8 caves have been intensively investigated in the study site. The forest-dwelling millipedes were also collected in order to compare with cave fauna.

The images of millipedes as well as habitat were also taken for further purposes.



Collected millipede specimens in cave



Taken photograph habitats

Preliminary results

1. Millipede diversity

Table 1: Millipede species collected from Phong Nha-Ke Bang region

| No. | Species | Habitats |
|-----|--|-------------------|
| 1 | Sinocallipus sp. | Wet caves |
| 2 | Glyphiulus sp. | Dry and wet caves |
| 3 | Eutrichodesmus sp. | Dry and wet caves |
| 4 | Sellanucheza hoffmani Nguyen, 2011 | Forest |
| 5 | Desmoxytes enghoffi Nguyen et al., 2005 | Forest |
| 6 | Orthomorpha sp | Forest |
| 7 | Tylopus sp. | Forest |
| 8 | Anoplodesmus sp. | Forest |
| 9 | Helicorthomorpha holstii (Pocock, 1865) | Forest |
| 10 | Asiomorpha coarctata (De Saussure, 1860) | Forest |
| 11 | Nepalmatoiulus sp. | Forest |
| 12 | Sphaerobelum sp. | Forest |

A total of about 12 millipede species have been found in Phong Nha – Ke Bang region. Among them, at least three species are cave-dwelling millipedes: *Sinocallipus sp* found only in wet caves; both *Glyphiulus sp* and *Eutrichodesmus sp* found in dry and wet caves.

In the contrast, a number of species found in forest habitat is 9, three times higher than that in caves. Interestingly, one new species, *Sellanucheza hoffmani*, will be published soon. Most of other species are still needed to be confirmed about the species, already known or new to science.

2. Environmental education

During the field surveys, three students and two staffs of the national park were involved to investigate and collect millipede specimens. All of them were introduced about the basic knowledge of millipede, such as:

- What are millipedes?
- Where do they live?
- What are their ecological roles for ecosystems and human beings? and
- Why should we conserve and protect this fauna?

Images of millipede were also shared to the Phong Nha-Ke Bang National Park for educational purpose.

Next plan

- Identify and classify all millipede samples from caves and forest.
- Carry out other field trips to collect more material in the Phong Nha region.
- Compare the millipede fauna among caves, and between caves and forest in detail.
- Catalogue images and millipede collections for museum.

Some images of caves and millipede species



Wet cave in Thuong Hoa commune, Phong Nha-Ke Bang NP



Dry cave in Thuong Hoa commune, Phong Nha-Ke Bang NP



 ${\it Sinocallipus\,sp}\ {\it from\,wet\,cave}$



 ${\it Sellanucheza\ hoffmani\ Nguyen\ (in\ press)\ from\ limestone\ forest}$



 ${\it Desmoxytes\ enghoffi}\ {\it Nguyen, Golovatch\ et\ Anichkin, 2005\ from\ limestone\ forest}$



 ${\it Orthomorpha\,sp.}\ from\ limestone\ forest$