

Exploitation of Frogs in Academic Sector

Case study in +2 science stream in Nepal

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Organizational Background

Companions for Amphibians and Reptiles of Nepal (CARON) is not for profit organization working in research and conservation on herpetofauna of Nepal. We are in this field officially since 2008 with vision of 'Conservation of herps through scientific research and advocacy'. The organization aims to materialize the very efforts for ensured survival of herpetofauna in concerted efforts through science, policy and action. We have successfully completed different projects ranging from inventory of herpetofauna to publication of a book on turtles. We have been working in collaboration with different national and international conservation organizations.

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Background:

Talking about the conservation of frogs, we first need to find the threats on them. There are different threats that have been documented by different authors and scholars. But almost all of them have missed one of the threats that have huge impact on frog population. It is exploitation for the academic purpose.

In Nepal, India and other countries as well, during the study of vertebrate animals in biology, the course obligate dissect frog to study anatomy of it. Such practical course requires at least one frog for each student. Which is exploiting thousands of frogs every academic year. There should be some alternative for this.

This brief study aims to report number of frogs and species type that are exploited every year. This study also attempts to give alternatives for the mass collection of frogs from natural habitat.

Methodology:

This study was carried out using open structure questionnaire. The number of students in science stream in Nepal was obtained from the Higher Secondary Education Board (HSEB). Then information about the number of frogs that are provided for each student every year was recorded from different sample colleges. The colleges were purposively selected. The information was obtained by informal interviews with lab assistant and teachers. And average number of frogs that are provided for each student was estimated and total number of frogs exploited each year was estimated. This research surveyed about 50 higher secondary science schools/colleges; we successfully retrieved the information from 20 colleges. This study has collected the total number of science students in class 11.

Results:

About 27,255 students had dissected the frogs in this year 2010/011 (2067 B.S.). With obtained information from these institutes, we analyzed the data and found that these colleges are using 1.33 to 6 frogs per student per year. The number of frogs they supply per student varied as per the availability and cost of the frogs. The cost varies from Rs. 20 to 100 per frog depending on the suppliers and market demand. Many colleges in Kathmandu valley are buying frogs from the enterprises and some are using college staffs from Tarai to collect the frogs from the wetlands of Tarai.

Similarly, our sample colleges in Chitwan and Dang are collecting the frogs from nearby wetland many times free of cost and sometimes they pay some nominal charges to the lab boy and local people for the collection.

In year 2010/2011, about 52,151 to 102,405 frogs were dissected by 27,255 students, in average 2.8 frogs per student. Among them *Rana tigrina* was most frequently dissected in most of the colleges. All the college in low land collects frogs from the adjacent or nearby wetlands. In this job, usually they ask their lab boy or peons.

Discussions:

Roughly 3.2 million frogs are destroyed for dissection each year (Orlans 2011). In Nepal the figure is about 102,405. With this figure of frogs hunted per year, it can be claimed that this could a big threat to them when frogs are collected from the wild and farming is yet not legalized in Nepal. It takes about 3 to 4 years to mature a frog. And each female mature frog lays about 1000 to 4000 eggs at a time. The success rate is only 1:400. With these facts, it can be said that the day might not be too long to go to rank frogs in rare species.

Dissecting frogs to teach the anatomy might not be as compulsory as to teach the theory. Less than 1500 students who dissect frog during their class 11 study will use the technique in future. This necessitates a debate on frog dissection.

Conclusions:

The exploitation of frogs for academic purpose bears big threat on least concerned faunal group. The threat should be minimized. There are alternative ways for the frogs dissection. Such as using the models or using computer simulation software to teach anatomy of frog.

References:

Orlans, F. B. 2011. 25th March, 2011, from

http://www.animalliberationfront.com/Philosophy/Animal%20Testing/School_Lab/school.htm.

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Sample Questionnaire

Name of college

Spoke person

Number students in science stream (those usages frog)

Number of frogs provided for each student

Species of frog

Total number of frogs you collect

Source of those frogs

Cost of each frog