

# Using local ecological knowledge to assess the status of the Critically Endangered Chinese giant salamander *Andrias davidianus* in Guizhou Province, China

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SUPPLEMENTARY MATERIAL 1 Interview survey administered in Mandarin Chinese to 300 respondents in total in Fanjingshan, Leigongshan and Mayanghe National Nature Reserves in Guizhou Province, China.

Interview number:

Location of interview:

Date:

Name of interviewer:

## Opening statement

I am a Master's student studying at Imperial College in the UK, studying ecology and environmental research. I am conducting a study on the animals and aquatic resources found in the reserve, and I would like to ask you some questions for my studies, because you live in/near the reserve and so know a lot more about the environment here than I do. I have a questionnaire that takes about 20 minutes to complete. All information that you tell me will be completely confidential, I will not write down your name, and you will not be identified – I just want to try to learn more about the local environment from you.

## A. Background

1. Are you prepared to participate in this survey and answer the following questions? Yes/No
2. Male/Female
3. Age:
4. Ethnicity:
5. How many years have you lived in this community?
6. Occupation:
7. Do you go further into nature reserve often? Yes/No  
If yes:  
What are the main reasons for this?  
Where in the reserve do you go? (List names of main locations, distances from community, and distances inside the reserve boundary)  
How often do you do this?

## B. Chinese giant salamander *Andrias davidianus*

8. Do you know what a Chinese giant salamander is? Yes/No

If yes:

Describe the species (emphasizing its size).

Show series of illustrations of different salamander species, and ask informant to identify Chinese giant salamander accurately

9. Are there any local names for the Chinese giant salamander?
10. Are there any stories, legends, myths, traditions or customs about the Chinese giant salamander?
11. Tell me three words that you associate with the Chinese giant salamander.
12. Have you ever seen a wild Chinese giant salamander in the reserve? Yes/No/Don't know  
If yes:  
Describe the last time you saw a Chinese giant salamander in the wild (specific location, year, time of year if known).  
How many times have you seen a Chinese giant salamander in the wild? Describe all previous sightings (year and location).  
  
If no:  
Do you know anyone else in this community who has seen a Chinese giant salamander in the wild? If yes, where/when?
13. Do people ever eat wild Chinese giant salamander in this community?  
Yes (today)  
Yes (but only in the past)  
Never  
Don't know
14. Have you ever eaten wild Chinese giant salamander? Yes/No/Don't know  
If yes:  
When was the last time you ate wild Chinese giant salamander?  
How many times per year do you eat wild Chinese giant salamander?  
Where did you eat wild Chinese giant salamander?  
Are they eaten more/only on special occasions? If yes, what kinds of occasions?
15. Are Chinese giant salamanders ever used in Traditional Chinese Medicine? Yes/No/Don't know  
If yes:  
What is their main medicinal use?  
Have you ever used medicine based on Chinese giant salamander? If yes, when?
16. Do people in this community have any other uses for wild Chinese giant salamander?  
Yes/No/Don't know  
If yes, describe these uses.
17. Has anybody (e.g. local people, reserve staff, farm staff, local authorities) ever released Chinese giant salamanders into any rivers in this region? Yes/No/Don't know  
If yes:  
How often does this happen?  
How many animals have been released?

When was the most recent release?  
Who releases the salamanders?  
Where do these salamanders come from?  
Where have they been released? (Try to provide exact location(s))  
Why are they released there?

18. Do you farm Chinese giant salamanders? Yes/No

If yes:

Where do you obtain them from?

How many do you have at the moment?

What is the maximum number of Chinese giant salamanders you have ever kept?

How long have you kept Chinese giant salamanders?

To whom do you sell these salamanders?

Have you ever released Chinese giant salamanders into the wild? Where and when?

19. Does anybody else in this community farm Chinese giant salamanders? Yes/No/Don't know

If yes:

How many people (i.e. households)?

How many Chinese giant salamanders in total are farmed in this community? (Approximately)

Where do they obtain them?

To whom are they sold?

How long have Chinese giant salamanders been farmed in this community?

Have they ever been released into the wild? Where and when?

### **C. Freshwater resource use**

20. Do you go fishing? Yes/No

If yes:

How regularly do you go fishing? (How many times per week, month, or year?)

When do you go fishing? (Day or night)

Where do you go fishing? (Give locations AND approximate distance from community AND approximate distance inside park boundary – mark all locations on map if possible)

Do you go fishing more at certain times of year? If so, which times of year?

Which fish species do you try to catch? (List names)

What fishing methods do you use? (List all methods) Which is your main fishing method?

Do you use electro-fishing? If YES, how often do you use this method?

Do you use poison? If YES, how often do you use this method?

Do you use explosives? If YES, how often do you use this method?

If no:

Did you go fishing in the past? If YES, where did you go fishing, and when did you stop going fishing?

21. Have you ever tried to catch Chinese giant salamanders from the wild? Yes/No

If yes:

How regularly do you try to catch Chinese giant salamanders? (How many times per week, month, or year?)

When do you try to catch Chinese giant salamanders? (Day or night)

Where do you try to catch Chinese giant salamanders?

Do you try to catch Chinese giant salamanders more at certain times of year? If so, which times of year?

What methods do you use to catch Chinese giant salamanders? (List all methods)

Why do you catch Chinese giant salamanders? If you sell them, to whom, and for what price?

How many Chinese giant salamanders have you caught in the past year? Give dates and locations for each individual.

How many Chinese giant salamanders have you caught in the past 5 years? Give dates and locations for each individual if possible.

Have you always tried to catch Chinese giant salamanders? If no, when did you start trying to catch them, and why?

Do you still try to catch Chinese giant salamanders? If no, when did you stop trying to catch them, and why?

22. Approximately what proportion of people in this community try to catch Chinese giant salamanders?

All

>50%

<50%

Very few

None

23. What methods do people in this community use to try to catch Chinese giant salamanders?

24. Has the level of collection of Chinese giant salamanders by local people changed over the past 10 years? Yes/No/Don't know

If yes:

Has it increased or decreased over this time period, and by how much?

Why has it changed?

25. What are the main localities where people try to catch Chinese giant salamanders?

26. Do you collect other aquatic species (e.g. frogs, crabs, crayfish, shrimp, mussels) from the wild?

Yes/No

If yes:

How regularly do you do this activity? (How many times a week, month, or year)

When do you do this activity? (Day or night)

Where do you do this activity?

Do you do this activity more at certain times of year? If so, which times of year?

Which species/kinds of animals do you try to catch? (List names)

What methods do you use to collect these species? (List all methods)

Why do you collect these species?

If no:

Did you do this in the past?

If yes:

Where did you do this, and when did you stop?

27. Approximately what proportion of people in this community go fishing in the reserve?

All

>50%

<50%  
Very few  
None

28. What are the main areas in the reserve where people go fishing?
29. Approximately what proportion of people in this community collect frogs or other aquatic species in the reserve?  
All  
>50%  
<50%  
Very few  
None
30. What are the main areas in the reserve where people collect other aquatic species?
31. Approximately what proportion of people in this community use electro-fishing?  
All  
>50%  
<50%  
Very few  
None
32. Approximately what proportion of people in this community use poison for fishing?  
All  
>50%  
<50%  
Very few  
None
33. Approximately what proportion of people in this community use explosives for fishing?  
All  
>50%  
<50%  
Very few  
None
34. Do people from other places ever visit the region near this community to collect Chinese giant salamanders? Yes/No/Don't know  
If Yes  
How often does this happen?  
Does this tend to happen at a particular time of year? If yes, when?  
Do they try to collect adults, young or eggs?  
Where do these people come from?  
How many Chinese giant salamanders have they caught over the past 12 months?  
(Approximately)  
Why do they come here to collect Chinese giant salamanders?

#### **D. Conservation attitudes**

35. Do you think that any species in the reserve (aquatic and/or terrestrial) have declined over the past 10 years? Yes/No/Don't know

If yes, list all species you think have declined; describe the level of decline over the past 10 years (approximate); describe what you think is responsible for this decline.

36. Have any species disappeared completely from the reserve during your lifetime? Yes/No/Don't know

If yes, list all species, and the approximate date that these species disappeared from the reserve.

37. Has the Chinese giant salamander population in the reserve stayed the same or changed at all (do NOT specifically ask if declined) during your lifetime? Same/Changed/Don't know

If yes, describe the amount of change during this period (approximate); when did it start to change; describe what you think is responsible for this change.

38. What do you think the main threats are to the Chinese giant salamander population in this region? Please rank in order of importance, with 1 = high importance.

*(Read out the categories)*

Overharvesting by local people

Overharvesting by other people not from this community

Water pollution

Lack of food

Water development projects (e.g. weirs, dams)

Other (describe)

No threats

39. What are your attitudes regarding whether Chinese giant salamanders should be protected?

*(Read out the categories)*

They should be protected everywhere

They should only be protected in nature reserves

No need to protect them

Other (describe)

No opinion

40. Do you think that you or your community would get any benefit if Chinese giant salamanders were protected? Yes/No/Don't know

If yes, why?

41. Are any aquatic species in the reserve specifically protected by law? Yes/No/Don't know

If yes, list all species, and try to describe what this legislation is.

42. Are wild Chinese giant salamanders specifically protected by law? Yes/No/Don't know

If yes, try to describe this legislation.

43. Are any fishing methods banned in the reserve? Yes/No/Don't know

If yes, name these methods.

44. Are there any areas where fishing cannot be carried out? Yes/No/Don't know

If yes, name these localities/ivers.

45. Have the rivers in the reserve changed at all during the past 10 years? Yes/No/Don't know  
If yes, how have they changed in quality?  
What has caused this change (e.g. weirs or dams)?

46. Has anyone ever been prosecuted for illegal fishing in the reserve? Yes/No/Don't know  
  
If yes, how often has this happened? Which village/town were they from? What charge/fine/sentence was incurred?

47. Has anyone ever been prosecuted for catching CGS in the reserve? Yes/No/Don't know  
If yes, how often has this happened? Which village/town were they from? What charge/fine/sentence was incurred?

48. Has anyone ever been prosecuted for other illegal activities in the reserve? Yes/No/Don't know  
If yes, how often has this happened? Which village/town were they from? What charge/fine/sentence was incurred?

Further comments: