Text S1. Hainan wildlife community questionnaire

English-language version

Date: _____   Interviewer: _____

Protected area: _____   Town / village: _____

We are researchers from the Zoological Society of London. We want to know more about the environment and the forests around here, so I hope you can provide some information to help us better understand the local plants and animals, and any environmental changes that have taken place. The survey is anonymous and all the information you provide will only be used for research and analysis – we will not disclose any of your details to a third party.

1. Are you willing to participate in this survey?   Yes □ Unwilling □

I hope you can try to answer all the questions because this survey is very important.

2. Age_____   3. Gender_____   4. Ethnicity _____   5. Occupation _____

 We will now show you some photos of animals to look at. If you know or don't know what they are, either answer is fine.

6. (Wild pig photo) Do you know what this animal is? Know / do not know

Know the name _____   size / diet / appearance _____

If do not know, ask whether they have heard of this species and its features, and if they know the characteristics of this species, then continue to ask the following question _____

7. Have you seen these animals in the forest? Yes / No

If yes, the last time seen _____   and the place   _____

If seen, the total number of sightings _____   and frequency of sightings _____

If no, then how do you know about this animal? _____

8. Do you think this animal is now: none / rare / not many / many

9. (Macaque photo) Do you know what this animal is? Know / do not know

Know the name _____   size / diet / appearance _____

If do not know, ask whether they have heard of this species and its features, and if they know the characteristics of this species, then continue to ask the following question _____

10. Have you seen these animals in the forest? Yes / No

If yes, the last time seen _____   and the place   _____

If seen, the total number of sightings _____   and frequency of sightings _____

If no, then how do you know about this animal? _____

11. Do you think this animal is now: none / rare / not many / many

12. (Gibbon photo) Do you know what this animal is? Know / do not know

Know the name _____   size / diet / appearance _____

If do not know, ask whether they have heard of this species and its features, and if they know the characteristics of this species, then continue to ask the following question _____

13. Have you seen these animals in the forest? Yes / No

If yes, the last time seen _____   and the place   _____

If seen, the total number of sightings _____   and frequency of sightings _____

If no, then how do you know about this animal? _____

14. Have you heard any stories about gibbons or anything else about them (such as uses)?
_____

15. Do you know any characteristics of gibbons (ecology, reproduction, behaviour, food)?
_____

16. Do you know if other people have seen gibbons (time, place_____

Please provide the person's contact information _____

17. Do you know someone who has heard gibbons (time, place)? _____

18. Do you think this animal is now: none / rare / not many / many

19. Do you know anyone in the local area who has seen a gibbon within the past 10-15 years?

    If yes, who _____   location and any other information _____

    * Can you take me to them, or call them?

20. (Clouded leopard photo) Do you know what this animal is? Know / do not know

Know the name _____   size / diet / appearance _____

If do not know, ask whether they have heard of this species and its features, and if they know the characteristics

of this species, then continue to ask the following question _____

21. Have you seen these animals in the forest? Yes / No

If yes, the last time seen _____   and the place   _____

If seen, the total number of sightings _____   and frequency of sightings _____

If no, then how do you know about this animal? _____

22. Do you think this animal is now: none / rare / not many / many

23. (Bear photo) Do you know what this animal is? Know / do not know

Know the name _____   size / diet / appearance _____

If do not know, ask whether they have heard of this species and its features, and if they know the characteristics

of this species, then continue to ask the following question _____

24. Have you seen these animals in the forest? Yes / No

If yes, the last time seen _____   and the place   _____

If seen, the total number of sightings _____   and frequency of sightings _____

If no, then how do you know about this animal? _____

25. Have you seen tracks/traces of a bear in the forest? (scratches, faeces, footprints, etc.) Yes / No

If yes, where, trail description, why do you think it was a bear, time, place _____

26. Do you think this animal is now: none / rare / not many / many

27. (Pangolin photo) Do you know what this animal is? Know / do not know

Know the name _____   size / diet / appearance _____

If do not know, ask whether they have heard of this species and its features, and if they know the characteristics

of this species, then continue to ask the following question _____

28. Have you seen these animals in the forest? Yes / No

If yes, the last time seen _____   and the place   _____

If seen, the total number of sightings _____   and frequency of sightings _____

If no, then how do you know about this animal? _____

29. Do you think this animal is now: none / rare / not many / many

30. Has anyone poached pangolins? Yes / No

    Are they local or foreign?   Local / foreign

    Was it for local use or to sell elsewhere?   Local / foreign   Place _____

31. Has the poaching frequency changed?   Yes / No

    If yes, how / when / why the change? _____

32. (Binturong photo) Do you know what this animal is? Know / do not know

Know the name _____   size / diet / appearance _____

If do not know, ask whether they have heard of this species and its features, and if they know the characteristics of this species, then continue to ask the following question _____

33. Have you seen these animals in the forest? Yes / No

If yes, the last time seen _____   and the place   _____

If seen, the total number of sightings _____   and frequency of sightings _____

If no, then how do you know about this animal? _____

34. Do you think this animal is now: none / rare / not many / many

35. (Sambar photo) Do you know what this animal is? Know / do not know

Know the name _____   size / diet / appearance _____

If do not know, ask whether they have heard of this species and its features, and if they know the characteristics of this species, then continue to ask the following question _____

36. Have you seen these animals in the forest? Yes / No

If yes, the last time seen _____   and the place   _____

If seen, the total number of sightings _____   and frequency of sightings _____

If no, then how do you know about this animal? _____

37. Do you think this animal is now: none / rare / not many / many

38. (Giant anteater photo) Do you know what this animal is? Know / do not know

Know the name _____   size / diet / appearance _____

If do not know, ask whether they have heard of this species and its features, and if they know the characteristics of this species, then continue to ask the following question _____

39. Have you seen these animals in the forest? Yes / No

If yes, the last time seen _____   and the place   _____

If seen, the total number of sightings _____   and frequency of sightings _____

If no, then how do you know about this animal? _____

40. Do you think this animal is now: none / rare / not many / many

41. Do you think the number of any of these animals has decreased?   Yes / No

   If yes, which animals, reduced by how much? _____

42. Have any other animals around here also decreased in number? _____

43. What do you think is the rarest animal around here?   _____

44. Have any animals around here not decreased in number? _____

45. In addition to these animals, are there any animals that used to occur around here in the past but have now disappeared? Yes/ No

If yes, describe the animals, time and place seen or other source of news, and when they disappeared _____

46. Have you heard from elderly people that any other types of animals used to occur around here, but disappeared long ago? _____

47. Have you always lived in this village? Yes / No

If No, where did you live before? _____

48. How often do you go into the forest (monthly or weekly)? _____

If you no longer enter the forest, what is the reason? _____

What would you like to be allowed to do in the forest? _____

49. Where do you usually go to get wood (area and distance)? _____

50. Did you used to go into the forest more in the past (time and frequency)? _____

51. How much of your income comes from things collected in the forest? _____

(Play five kinds of animal sounds)

52. Chimpanzee (____): Have you heard it? Yes/ rarely / not many / many / none   Name? _____

How many times? _____ When? _____ Place? _____

53. Gibbon (____): Have you heard it? Yes/ rarely / not many / many / none   Name? _____

How many times? _____ When? _____ Place? _____

54. Peafowl (____): Have you heard it? Yes/ rarely / not many / many / none   Name? _____

How many times? _____ When? _____ Place? _____

55. Howler monkey (____): Have you heard it? Yes/ rarely / not many / many / none   Name? _____

How many times? _____ When? _____ Place? _____

56. Screaming piha (____): Have you heard it? Yes/ rarely / not many / many / none   Name? _____

How many times? _____ When? _____ Place? _____

Do you know anyone in the village who is familiar with the wild animals here? Can you help us find them?

海南野生动物社区调查问卷

日期:_____   调查员: _____

保护区: _____   乡/村: _____

我们是伦敦动物学会的调查员。我们想要多了解这里周围的环境与林子，所以希望你能提供一些相关信息，帮助我们更了解以前山上的动植物以及多年来的环境变迁。这个是个不记名调查，你提供的所有信息只会被用作研究分析，不会向第三方透露。

1.　　你是否愿意参与这次问卷调查？　愿意 □　　不愿意 □
　　　希望你可以尽量回答我们这份卷子的所有问题，这个对我们调查非常重要。

2.　　年龄_____　3.性别_____　4.民族_____　5.　职业_____

现在给你们看一些动物的照片，看你们认不认识，不认识也没有关系。

6.　　（wild pig photo）你知道这是什么动物吗？　知道 / 不知道
　　知道，名称_____大小/食性/外貌_____
　　不知道，问是否有听说过这物种以及它的特征，如果知道物种特征，继续问以下问题
　　_____

7.　　你在山上见过这动物吗？ 有 / 没有
　　　有，上次看见的时间_____地点_____
　　看见总次数_____如果常见，频率是_____
　　　没有，你是如何知道这动物的？ _____

8.　　你觉得这个动物现在是 没有 / 很少 / 不多 / 很多

9.　　（macaque photo）你知道这是什么动物吗？　知道 / 不知道
　　知道，名称_____大小/食性/外貌_____
　　不知道，问是否有听说过这物种以及它的特征，如果知道物种特征，继续问以下问题
　　_____

10.　　你在山上见过这动物吗？ 有 / 没有
　　　有，上次看见的时间_____地点_____
　　看见总次数_____如果常见，频率是_____
　　没有，你是如何知道这动物的？ _____

11.　　你觉得这个动物现在是 没有 / 很少 / 不多 / 很多

12.　　（gibbon photo）你知道这是什么动物吗？　知道 / 不知道
　　知道，名称_____大小/食性/外貌_____
　　不知道，问是否有听说过这物种以及它的特征，如果知道物种特征，继续问以下问题
13.　　你在山上见过这动物吗？ 有 / 没有
　　　有，上次看见的时间_____地点_____
　　看见总次数_____如果常见，频率是_____
　　没有，你是如何知道这动物的？ _____

14. 你听说过有关长臂猿的故事或事情（如用途）吗？_____

15. 你知道长臂猿的特征吗（生态、繁殖、行为、食物）？_____

16. 你知道其他人在山上见过这动物吗（时间、地点）？_____
可否提供这个人的联系方式？_____

17. 你知道有人打过长臂猿吗（时间、地点）？_____

18. 你觉得这个动物现在是 没有 / 很少 / 不多 / 很多

19. 你可知道附近有人在近 10-15 年内有见过长臂猿吗？
    有，谁_____什么时候_____地点_____其它信息_____
    *问是否能带我去找他或打给他？

20. ____（clouded leopard photo）你知道这是什么动物吗？ 知道 / 不知道
    知道，名称_____大小/食性/外貌_____
    不知道，问是否有听说过这物种以及它的特征，如果知道物种特征，继续问以下问题
21. ____你在山上见过这动物吗？ 有 / 没有
    有，上次看见的时间_____地点_____
    看见总次数_____如果常见，频率是_____
    没有，你是如何知道这动物的？_____
22. ____你觉得这个动物现在是 没有 / 很少 / 不多 / 很多

23. ____（bear photo）你知道这是什么动物吗？ 知道 / 不知道
    知道，名称_____大小/食性/外貌_____
    不知道，问是否有听说过这物种以及它的特征，如果知道物种特征，继续问以下问题
24. ____你在山上见过这动物吗？ 有 / 没有
    有，上次看见的时间_____地点_____
    看见总次数_____如果常见，频率是_____
    没有，你是如何知道这动物的？_____
25. ____你有没有在山上发现过熊留下的踪迹（抓痕、粪便、脚印等） 有 / 没有
    有，踪迹的描述、为什么认为是熊的、时间、地点_____
26. ____你觉得这个动物现在是 没有 / 很少 / 不多 / 很多

27. ____（pangolin photo）你知道这是什么动物吗？ 知道 / 不知道
    知道，名称_____大小/食性/外貌_____
    问是否有听说过这物种以及它的特征，如果知道物种特征，继续问以下问题
    _____
28. ____你在山上见过这动物吗？ 有 / 没有
    有，上次看见的时间_____地点_____
    看见总次数_____如果常见，频率是_____
    没有，你是如何知道这动物的？_____
29. ____你觉得这个动物现在是 没有 / 很少 / 不多 / 很多
30. ____这里有人抓穿山甲么? 有 / 没有
    有，当地还是外来人？当地 / 外来
    当地使用还是卖到外地？当地 / 外地，地方_____
31. 捕猎频率有改变吗？ 有 / 没有 有，怎么/什么时候/为什么改变？_____

32. ____（binturong photo）你知道这是什么动物吗？ 知道 / 不知道
    知道，名称_____大小/食性/外貌_____
    不知道，问是否有听说过这物种以及它的特征，如果知道物种特征，继续问以下问题
33. ____你在山上见过这动物吗？ 有 / 没有
    有，上次看见的时间_____地点_____
    看见总次数_____如果常见，频率是_____
    没有，你是如何知道这动物的？_____
34. ____你觉得这个动物现在是 没有 / 很少 / 不多 / 很多

35. （sambar photo）你知道这是什么动物吗？ 知道 / 不知道
    知道，名称_____大小/食性/外貌_____

不知道，问是否有听说过这物种以及它的特征，如果知道物种特征，继续问以下问题

36. 　你在山上见过这动物吗？ 有 / 没有
　　有，上次看见的时间_____地点_____
　　看见总次数_____如果常见，频率是_____
　　没有，你是如何知道这动物的？_____
37. 你觉得这个动物现在是 没有 / 很少 / 不多 / 很多

38. 　（giant anteater photo）你知道这是什么动物吗？ 知道 / 不知道
　　知道，名称_____大小/食性/外貌_____
　　不知道，问是否有听说过这物种以及它的特征，如果知道物种特征，继续问以下问题
39. 　你在山上见过这动物吗？ 有 / 没有
　　有，上次看见的时间_____地点_____
　　看见总次数_____如果常见，频率是_____
　　没有，你是如何知道这动物的？_____
40. 　你觉得这个动物现在是 没有 / 很少 / 不多 / 很多

41. 　你觉得以上这些动物的数量在这些年有没有减少？ 有 / 没有
　　有，什么动物，减少多少？_____
42. 除了以上的动物，这里还有什么动物越来越少了？_____
43. 你觉得这里现在最稀有的动物是那种？_____
44. 你觉得那种动物数量没有减少过？_____
45. 除了以上的动物，这里以前还有什么动物是现在没有的？ 有 / 没有
　　有，描述动物，见到的时间和地点，或者其它消息来源，什么时候消失的？_____
　　有没有从老人听说附近有其它动物，但是在很久以前就已经消失了？_____

47. 　你是否一直住在这村子？ 是 / 否，你住在这里多久_____以前住哪_____
48. 　你一般多久会进山一次（每月或每周）？_____
　　如果现在已经不再上山，原因是什么？_____
　　你希望能允许上山么？_____
49. 　通常会去哪片林子（片区与距离）？_____
50. 　你进山的频率以前会更高吗（时间与频率）？_____
51. 　你经济收入的多大部分来自林子采来的东西?_____

52. 第一段（____）：有听过吗? 有，很少 / 不多 / 很多/ 没有 名称_____
　　几次_____时间_____地点_____
53. 第二段（____）：有听过吗? 有，很少 / 不多 / 很多/ 没有 名称_____
　　几次_____时间_____地点_____
54. 第三段（____）：有听过吗? 有，很少 / 不多 / 很多 / 没有 名称

_____
　　几次_____时间_____地点_____
55. 第四段（____）：有听过吗? 有，很少 / 不多 / 很多/ 没有 名称_____
　　几次_____时间_____地点_____
56. 第五段（____）：有听过吗? 有，很少 / 不多 / 很多/ 没有 名称_____
　　几次_____时间_____地点_____

你可知道村子里有哪个人熟悉野生动物？ 能否协助我们找到他吗？

Text S2. Conversion of encounter reports to direct sighting dates

Encounter dates (reports of gibbon and macaque sightings, and when gibbon calls were heard) were reported by respondents using a variety of different methods for describing the timing of past events. Alternative formats containing sufficient details of encounter timings were converted to direct calendar years for analysis as follows:

Reporting format	Example	Method of conversion to direct calendar year
Direct calendar year	"I last saw a gibbon in 1982"	Already in correct format for analysis
Time elapsed/number of years ago	"I last saw a gibbon 15 years ago"	Number of years before 2015
Specified multi-year range	"I last saw a gibbon in the 1970s"; "I last saw a gibbon when I was in my 40s"	Equal probability of being randomly assigned to any calendar year within given range
End-date only (1)	"I last saw a gibbon sometime before 1975"	Equal probability of being randomly assigned to any calendar year between the year before given date and the start of the decade (e.g., 1970-1974 for the given example)
End-date only (2)	"I last saw a gibbon 10 or more years ago", reported using the Chinese time constructions "10 多年前" /10 duo nian qian, or "10 几年前"/10 ji nian qian [with implication that event likely occurred in 10-year period predating given end-date]	Equal probability of being randomly assigned to any calendar year in the reported decadal interval (e.g., between 10 and 19 years ago for the given example)
Specific minimum age	"I last saw a gibbon when I was 18 or older" [based on the Chinese time construction "18 岁多"/ "duo sui", i.e. a given age or older]	Taken conservatively as minimum age reported by respondent (e.g., when respondent was 18 for given example)
General minimum age	"I last saw a gibbon when I was 20 or more" [alternative usage of "岁多"/ "duo sui"; refers to when respondent was in their 20s]	Equal probability of being randomly assigned to any calendar year within reported decadal range (e.g., any date between when respondent was 20 to 29 for given example)
With reference to national, local or personal events	"I last saw a gibbon the year before the reserve was gazetted"; "I last saw a gibbon in the year that Chairman Mao died"	Exact date assigned when date of reference event can be determined

Some further encounters were reported using categories that were too vague to use (e.g. "some years ago", "when I was young"); such reports had to be excluded from specific analysis of encounter histories.

Encounter dates reported as time elapsed/number of years ago may be prone to digit preference or 'age heaping' (preferential rounding to end-digits, typically multiples of ten). This phenomenon has been shown to have little influence on parameter estimates or power of parametric tests and can only be corrected by an arbitrary choice of smoothing parameter [Eilers and Borgdorff, 2004; Camarda *et al*., 2008], and is also expected to have the same relative effect on sighting histories for all species and landscapes, so we did not control or correct for it in this study.

References:

Camarda CG, Eilers PHC, Gampe J. 2008. Modelling general patterns of digit preference. Statistical Modelling 8:385–401.

Eilers PHC, Borgdorff MW. 2004. Modeling and correction of digit preference in tuberculin surveys. International Journal of Tuberculosis and Lung Disease 8:232–239.