

## Supplementary Information

**Figure S1.** English language copy of the final questionnaire used during data collection in June-July 2019.

**Date:**

**Interview number:**

**Name of Interviewer:**

**Location: (Village name, Village group, County name, Province name)**

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**Opening Statement:** “We are local scientists from Jiangxi Agricultural University, conducting ecological/environmental research. We are conducting a study on the birds and landscape of this region and would like to ask you some questions for our studies. We have a questionnaire that takes about 15 minutes to complete. Information that you tell us will be completely confidential, we will not write down your name, and you will not be identified – we just want to try to learn more about the local environment from you.”

### **Section 1**

**1).** Are you prepared to participate in this survey and answer the following questions?

YES / NO

**2).** Are you:

Male / Female?

**3).** How old are you?

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**4).** Do you live in this village?

YES / NO

**5).** (If **NO** to **Q4**) which village do you live in?

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**6).** How many years have you lived in your home village?

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**a).** If you have not always lived in your home village, where did you live before?

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**7).** What is your occupation?

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**8).** How many people live in your household?

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**Section 2**

**9).** Has the landscape around this village changed over your lifetime?

YES / NO / DON'T KNOW

a). If YES, please briefly describe what has changed

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10). Does this village have its own fengshui forest / fengshui tree?

YES / NO / DON'T KNOW

a). If YES, where is it/they?

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***For Questions 11-20 show respondent images of habitat type if they are unsure what is meant.***

11). During your lifetime, has the amount of **rice paddy** changed in and around this village? By this I mean, all the land that is used by your village and not shared with any neighbouring villages.

YES/NO/DON'T KNOW / THERE ARE NO RICE PADDIES

a). If YES, is there **MORE** or **LESS** rice paddy now?

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b). If YES, by how much has amount of rice paddy changed?

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c). If YES, when did this happen?

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d). If YES, where did this happen?

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e). If YES, do you know why this happened?

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**12).** During your lifetime, has the amount of **vegetable gardens** changed in and around this village?

YES / NO / DON'T KNOW / THERE ARE NO VEGETABLE GARDENS

a). If **YES**, is there **MORE** or **LESS** vegetable garden now?

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b). If **YES**, by how much has amount of vegetable garden changed?

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c). If **YES**, when did this happen?

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d). If **YES**, where did this happen?

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e). If **YES**, do you know why this happened?

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**13).** During your lifetime, has the amount of **tea plantation** changed in and around this village?

YES / NO / DON'T KNOW / THERE ARE NO TEA PLANTATIONS

a). If **YES**, is there **MORE** or **LESS** tea plantation now?

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b). If **YES**, by how much has amount of tea plantation changed?

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c). If **YES**, when did this happen?

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d). If **YES**, where did this happen?

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e). If **YES**, do you know why this happened?

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**14).** During your lifetime, has the amount of **oilseed rape field** changed in and around this village?

YES / NO / DON'T KNOW / THERE IS NO OILSEED RAPE FIELD

a). If **YES**, is there **MORE** or **LESS** oilseed rape field now?

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b). If **YES**, by how much has amount of oilseed rape field changed?

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c). If **YES**, when did this happen?

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d). If **YES**, where did this happen?

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e). If **YES**, do you know why this happened?

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**15).** During your lifetime, has the amount of **fir tree forest** changed in and around this village?

YES / NO / DON'T KNOW / THERE IS NO FIR TREE FOREST

a). If **YES**, is there **MORE** or **LESS** fir tree forest now?

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b). If **YES**, by how much has amount of fir tree forest changed?

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c). If **YES**, when did this happen?

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d). If **YES**, where did this happen?

---

e). If **YES**, do you know why this happened?

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**16).** During your lifetime, has the amount of **pine tree forest** changed in and around this village?

YES / NO / DON'T KNOW / THERE IS NO PINE TREE FOREST

a). If **YES**, is there **MORE** or **LESS** pine tree forest now?

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b). If **YES**, by how much has amount of pine tree forest changed?

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c). If **YES**, when did this happen?

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d). If **YES**, where did this happen?

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e). If **YES**, do you know why this happened?

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**17).** During your lifetime, has the amount of **bamboo forest** changed in and around this village?

YES / NO / DON'T KNOW / THERE IS NO BAMBOO FOREST

a). If **YES**, is there **MORE** or **LESS** bamboo forest now?

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b). If **YES**, by how much has amount of bamboo forest changed?

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c). If **YES**, when did this happen?

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d). If **YES**, where did this happen?

---

e). If **YES**, do you know why this happened?

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**18).** During your lifetime, has the amount of **feng shui forest** changed in and around this village?

YES / NO / DON'T KNOW / THERE IS NO FENG SHUI FOREST

a). If **YES**, is there **MORE** or **LESS** feng shui forest now?

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b). If **YES**, by how much has amount of feng shui forest changed?

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c). If **YES**, when did this happen?

---

d). If **YES**, where did this happen?

---

e). If **YES**, do you know why this happened?

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**19).** During your lifetime, has the amount of **broadleaved forest** changed in and around this village?

YES / NO / DON'T KNOW / THERE IS NO BROADLEAVED FOREST

a). If **YES**, is there **MORE** or **LESS** broadleaved forest now?

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b). If **YES**, by how much has amount of broadleaved forest changed?

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c). If **YES**, when did this happen?

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d). If **YES**, where did this happen?

---

e). If **YES**, do you know why this happened?

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**20).** During your lifetime, has the amount of **bush/scrub** changed in and around this village?

YES / NO / DON'T KNOW / THERE IS NO BUSH/SCRUB

a). If **YES**, is there **MORE** or **LESS** bush/scrub now?

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b). If **YES**, by how much has amount of bush/scrub changed?

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c). If **YES**, when did this happen?

---

d). If **YES**, where did this happen?

---

e). If **YES**, do you know why this happened?

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**21).** During your lifetime, have the number of **fruit trees** changed in this village?

YES / NO /DON'T KNOW / THERE ARE NO FRUIT TREES

a). If **YES**, are there **MORE** or **LESS** fruit trees inside the village?

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b). If **YES**, how much has this changed?

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c). If **YES**, when did this happen?

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d). If **YES**, why did this happen?

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**22).** Has the **number of people** in this village changed in your lifetime?

YES / NO / DON'T KNOW

a). If **YES**, are there **MORE** or **FEWER** people now?

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b). If **YES**, by how much has the number of people changed?

---

c). If **YES**, when did this happen?

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c). If **YES**, do you know why this happened?

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**23).** Has the **number of houses** in this village changed in your lifetime?

YES / NO / DON'T KNOW

a). If **YES**, are there **MORE** or **FEWER** houses?

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b). If **YES**, by how much has the number of people changed?

---

c). If **YES**, when did this happen?

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d). If **YES**, do you know why this happened?

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**24).** Have any **roads been constructed** in or near this village in your lifetime?

YES / NO / DON'T KNOW

a). If **YES**, when did this happen?

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b). If **YES**, where did this happen?

---

c). If **YES**, do you know why this happened?

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**25).** Have any **bridges been constructed** in or near this village in your lifetime?

YES / NO / DON'T KNOW

a). If **YES**, when did this happen?

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b). If **YES**, where did this happen?

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c). If **YES**, do you know why this happened?

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**26).** Have any **highways been constructed** near this village in your lifetime?

YES / NO / DON'T KNOW

a). If **YES**, when did this happen?

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b). If **YES**, where did this happen?

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c). If **YES**, do you know why this happened?

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**27).** Do people in this village use chemicals on their crops?

YES / NO / DON'T KNOW

a). If **YES**, what types of chemicals are used?

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b). If **YES**, which crops are they used on?

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c). If **YES**, why are they used?

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d). If **YES**, how often are they used?

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**28).** (If **YES** to **Q27**) Has the use of chemicals on crops around this village changed in your lifetime?

YES / NO / DON'T KNOW

a). If **YES**, are there **MORE** or **FEWER** chemicals?

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b). If **YES**, how much has this changed?

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c). If **YES**, when did this happen?

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d). If **YES**, why did this happen?

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**29).** Have there been any other changes to the landscape around here during your lifetime?

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### **Section 3**

**30).** Have you ever seen a Hwamei / Hua mei?

YES / NO / DON'T KNOW

**30).** Have you ever seen a Masked Laughingthrush / Heilian zaomei?

YES / NO / DON'T KNOW

**31).** Have you ever seen a Light-vented Bulbul / Baitou bei?

YES / NO / DON'T KNOW

**32).** Have you ever seen a Sparrow / Ma que?

YES / NO / DON'T KNOW

**33).** Have you ever seen a Blue-crowned Laughingthrush / Langan zaomei?

YES / NO / DON'T KNOW

**34).** (*Show interviewee a series of photographs – includes Blue-crowned Laughingthrush, Sparrow, Masked Laughingthrush, Light-vented Bulbul, Hwamei*)

**a).** Do you recognise this bird? (*Hwamei*)

YES / NO / DON'T KNOW

**i)** If **YES**, what is it called?

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**b).** Do you recognise this bird? (*Light-vented Bulbul*)

YES / NO / DON'T KNOW

**i)** If **YES**, what is it called?

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**c).** Do you recognise this bird? YES / NO / DON'T KNOW (*Sparrow*)

**i)** If **YES**, what is it called?

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**d).** Do you recognise this bird? YES / NO / DON'T KNOW (*Masked Laughingthrush*)

**i)** If **YES**, what is it called?

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e). Do you recognise this bird? YES / NO / DON'T KNOW (*Blue-crowned Laughingthrush*)

i) If YES, what is it called?

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**35).** (*Play recording of Blue-crowned Laughingthrush flock*) Do you know which bird this is?

YES / NO / DON'T KNOW

a). If YES, what is it called?

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***If respondent recognises Blue-crowned Laughingthrush by name, image or sound then ask them Questions 36-46. If not, go straight to Question 47.***

**36).** When was the last time you saw a Blue-crowned Laughingthrush?

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**37).** How often have you ever seen a Blue-crowned Laughingthrush?

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**38).** (If YES to Q37) Do you remember what time of year (**spring, summer, autumn, winter**) you last saw a Blue-crowned Laughingthrush?

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**a).** Where was the last place you saw a Blue-crowned Laughingthrush? (describe nearest village)

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**b).** What type of land did you see it on (*select one from each list*)

i). FIELD / FOREST / FENG SHUI FOREST

ii). VILLAGE / RIVER

iii). HILLSIDE / VALLEY

**c).** How many birds did you see?

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**d).** Did the group of birds look like....? (**Show 4 pictures of different-sized flocks and ask interviewee to pick one**)

SMALL / MEDIUM / LARGE / VERY LARGE / DON'T KNOW

**39).** Were the Blue-crowned Laughingthrushes nesting?

YES / NO / DON'T KNOW

**a).** If **YES**, which tree(s) did they nest in?

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**b).** If **YES**, have you seen them nest before?

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**40).** When was the first time you saw a Blue-crowned Laughingthrush?

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**41).** How many Blue-crowned Laughingthrush do you think there are around this village?

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**42).** Do you know any stories, myths, legends, traditions or customs about the Blue-crowned Laughingthrush?

YES / NO / DON'T KNOW

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**43).** Do you think that the numbers of wild Blue-crowned Laughingthrush have changed in your lifetime?

YES / NO / DON'T KNOW

a). if **YES**, are there:

MORE / LESS

b). If **LESS**, approx. **by how much** have they decreased?

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c). If **LESS**, approx. **when** did they decrease?

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d). If **LESS**, why do you think they decreased? (what caused it)

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**44).** Have Blue-crowned Laughingthrushes disappeared from any specific areas/places?

YES / NO / DON'T KNOW

a). If **YES**, where have they disappeared from?

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**45).** (If **YES** to **Q44**) In places where Blue-crowned Laughingthrushes used to be found but aren't anymore, do you know what happened to make the birds disappear?

YES / NO / DON'T KNOW

a). If **YES**, what made the birds disappear?

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b). If **YES**, when did this happen?

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**46).** What do you think are the main threats to the Blue-crowned Laughingthrush?

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#### **Section 4**

**47).** Have you ever heard of anyone catching birds from the wild?

YES / NO / DON'T KNOW

a). If **YES**, what types of birds are caught?

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b). If **YES**, why are they caught?

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c). If **YES**, how are they caught? **NETS / TRAPS / OTHER**

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d). If **YES**, when is the last time you heard of this happening?

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e). If **YES**, is this done by local people or people coming from outside the village?

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f). If **YES**, how often does this happen?

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**g).** If **YES**, what happens to the birds once they are caught?

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**48).** Have you ever heard of anyone killing wild birds?

YES / NO / DON'T KNOW

**a).** If **YES**, what types of birds are killed?

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**b).** If **YES**, why are they killed?

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**c).** If **YES**, how are they killed? **GUNS / POISON / STONES / OTHER**

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**d).** If **YES**, when is the last time you heard of this happening?

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**49).** Do people keep songbirds in cages in this county?

YES / NO / DON'T KNOW

**a).** If **YES**, approximately how many people?

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**b).** If **YES**, what types of bird are kept?

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**c).** If **YES**, where do they get the birds from?

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**d).** If **YES**, do you keep any songbirds in cages?

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**50).** How many people have you heard of catching birds from the wild?

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**51).** Have you ever heard of anyone catching a Blue-crowned Laughingthrush from the wild?

YES / NO / DON'T KNOW

**a).** If **YES**, why was it caught?

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**b).** If **YES**, how was it caught?

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**c).** If **YES**, when was the most recent time this happened?

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**d).** If **YES**, how often have you heard of this happening?

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**52).** Do you know if the Blue-crowned Laughingthrush is a protected species?

YES / NO / DON'T KNOW

**a).** If **YES**, what is its protection status??

**Figure S2.** Bird species images used in the questionnaire.



Masked Laughingthrush *Pterorhinus perspicillatus*



Eurasian Tree Sparrow *Passer montanus*



Blue-crowned Laughingthrush *Pterorhinus courtoisi*



Chinese Hwamei *Garrulax canorus*



Light-vented Bulbul *Pycnonotus sinensis*

**Figure S3.** English language copy of the key informant interview questions used during data collection in July 2019.

1. How many trappers did you see?
2. Where were they from?
3. Where did this happen?
4. How many birds were caught?
5. Were the birds sold locally or taken away?

**Table S1.** Questionnaire data processing protocol, listing examples of main response types and how these are processed/standardised.

Reporting format	Example	Method of conversion to direct calendar year
Direct calendar year	1984	Already in correct format for analysis
Time elapsed/number of years ago	“20 years ago”	Number of years before 2019
Specified multi-year range	“Five or six years ago 五六年 前” / “Wu liu nian qian”	Equal probability of being randomly assigned to any calendar year within given range
End date only (1)	“Before 2000”	Equal probability of being randomly assigned to any calendar year in the reported decadal interval (e.g. between 1991 and 1999 for this example)
End date only (2)	“Over 10 years ago”	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)
Start date only (1)	“Since 2015 2015年后” / “2015 nian hou”	Taken conservatively as earliest year after the one given by respondent (e.g. 2016 in this example)
Start date only (2)	“Recent 2 decades”	Equal probability of being randomly assigned to any calendar year in the reported decadal interval (e.g., between 10 and 20 years ago for the given example)
With reference to national, local or personal events	“Since the reform and opening-up (1978)”	Equal probability of being randomly assigned to any calendar year in the reported decadal interval, when date of reference event can be determined (with given example, within the 10 years after 1978 (1978 – 1988))
	“Since the great cultural revolution”	Refer to the date that respondent gave as the local event; otherwise, discard.
	“When the highway was built”	
Vague, general	“years ago”, “recent years”, “many years ago” ,  “when the interviewee was young”,	Treat ‘recent years’ as equal probability of being randomly assigned calendar year within last decade. ‘When the interviewee was a child’, calculate the first 18 years of their life.

	“When the interviewee was a child”, “childhood”	‘A few years ago’ or ‘several years ago’ – too vague, discard.
	“a few years ago”	
	‘several years ago ji nian qian’	
	Qian ji nian 前几年	
Incremental change	“year by year 逐年” / Every year”	Put down as last year (2018)
	“All the time”	Discard

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NA = 267

Do not know = 54

Where respondents reported seeing a Blue-crowned Laughingthrush within the last 18 months, some answered ‘Do not know’ or the reported last-sighting date could not be converted to a calendar year. These responses were excluded from analysis (n=87).

**Table S2.** All variables considered for inclusion in final models. Black ticks show variables *a priori* included in final full models.

Predictor Type	Variable Predictor						Data format	Description of dependent variable and hypothesised relationship	Variable type	Examples from literature/reason for inclusion
		Breeding status (Unsure villages = Non-breeding)	Breeding status (Unsure villages = Breeding)	Within EOO or outside of EOO	Recently seen BCLT (last 18 months)	Seen BCLT				
Land use	Rice paddy change						Categorical (nominal - More, Less, No change, None of land type)	Change in amount of rice paddy in or around the respondent's village, over their lifetime.	Fixed	
	Tea plantation change	✓	✓	✓	✓	✓	Categorical (nominal - More, Less, No change, None of land type)	Change in amount of tea plantation or around the respondent's village, over their lifetime.	Fixed	Significant chi-squared result Zhang et al. (2017)
	Oilseed rape change						Categorical (nominal - More, Less, No change, None of land type)	Change in amount of oilseed rape in or around the respondent's village, over their lifetime.	Fixed	Significant chi-squared result
	Vegetable garden change	✓	✓	✓	✓	✓	Categorical (nominal -More, Less, No change,	Change in amount of vegetable garden in or around the respondent's village, over their lifetime.	Fixed	Zhang et al. (2017)

							None of land type)			
	Fir tree forest change						Categorical (nominal – More, Less, No change, None of land type)	Change in amount of fir tree forest in or around the respondent’s village, over their lifetime.	Fixed	He & Xi (2002)
	Pine tree forest change						Categorical (nominal - More, Less, No change, None of land type)	Change in amount of pine tree forest in or around the respondent’s village, over their lifetime.	Fixed	He & Xi (2002)
	Fengshui forest change	✓	✓	✓	✓	✓	Categorical (nominal - More, Less, No change, None of land type)	Change in amount of fengshui forest in or around the respondent’s village, over their lifetime. BCLTs have been recorded as nesting in fengshui trees.	Fixed	Yu 2003, Hong et al. 2006, Zhang et al. (2017)
	Broadleaf forest change						Categorical (nominal - More, Less, No change, None of land type)	Change in amount of broadleaf forest in or around the respondent’s village, over their lifetime.	Fixed	Zhang et al. (2017)
	Bamboo forest change	✓	✓	✓	✓	✓	Categorical (nominal - More, Less, No change, None of land type)	Change in amount of bamboo forest in or around the respondent’s village, over their lifetime.	Fixed	Significant chi-squared result  Zhang et al. (2017), Liu et al. (2020)

	Bush/scrub change	✓	✓	✓	✓	✓	Categorical (nominal - More, Less, No change, None of land type)	Change in amount of bush/scrub in or around the respondent's village, over their lifetime.	Fixed	Significant chi-squared result  Liu et al. (2020)
	Fruit trees change						Categorical (nominal - More, Less, No change, None of land type)	Change in amount of fruit trees in or around the respondent's village, over their lifetime. BCLTs have been recorded as nesting in fruit trees.	Fixed	Richardson 2005, Zhang et al. (2017), He et al. (2017)
	Number of people change						Categorical (nominal - More, Less, No change)	Change in number of people living in respondent's village, over their lifetime.	Fixed	Human disturbance mentioned as important factor at breeding sites by Zhang et al. (2017), He at al. (2017)
	Number of houses change						Categorical (nominal - More, Less, No change)	Change in number of houses in respondent's village, over their lifetime.	Fixed	Zhang et al. (2017), He at al. (2017)
	Use of chemicals change						Categorical (nominal - More, Less, No change)	Change in use of chemicals on land in and around respondent's village, over their lifetime.	Fixed	

	Roads	✓	✓	✓	✓	✓	Categorical (binary – Yes/No)	Whether or not new roads were built in or around respondent's village, over their lifetime.	Fixed	Significant chi-squared result  Zhang et al. (2017), He et al. (2017)
	Bridges						Categorical (binary – Yes/No)	Whether or not new bridges were built in or around respondent's village, over their lifetime.	Fixed	Zhang et al. (2017), He et al. (2017)
	Highways						Categorical (binary – Yes/No)	Whether or not new highways were built in or near respondent's village, over their lifetime.	Fixed	Zhang et al. (2017), He et al. (2017)
<b>Threat</b>	Catching birds – Yes/No						Categorical (nominal)	Whether or not the respondent has ever heard of anyone catching birds from the wild. Areas or villages with higher number of respondents reporting bird catching may affect where BCLTs choose to breed, as BCLTs could be at greater risk of capture.	Fixed effect	
	Catching birds – Types				✓		Categorical (nominal)	If the respondent has heard of people catching wild birds, what types of birds are caught. Areas or villages reporting more/higher proportions of songbirds caught may have fewer, declining or no BCLT, and so	Fixed effect	

								may differ between where BCLTs are and are not found.		
	Catching birds – Reason						Categorical (nominal)	If the respondent has heard of people catching wild birds, why birds are caught. Birds caught for sale may be intended for the caged bird trade, which is thought to have led to the extirpation of BCLTs in Yunnan province. Areas or villages reporting more birds being caught for sale may have fewer, declining or no BCLT, and so may differ between where BCLTs are and are not found.	Fixed effect	
	Catching birds – Who						Categorical (nominal)	If the respondent has heard of people catching wild birds, who catches the birds (villagers or outsiders). If birds are being caught by outsiders, this may indicate this is for the commercial bird trade.	Fixed effect	

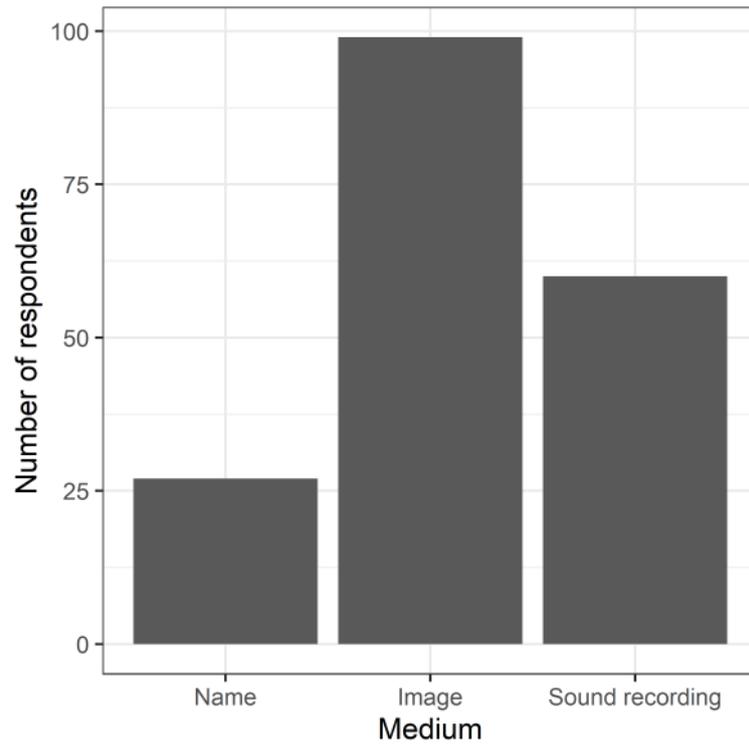
	Killing birds - Yes/No						Categorical (nominal)	Whether or not the respondent has ever heard of anyone killing wild birds. BCLTs may be affected by bird killing activity.	Fixed effect	
	Killing birds - Types						Categorical (nominal)	If the respondent has heard of people killing wild birds, what types of birds are killed.	Fixed effect	
	Keep songbirds – Yes/No						Categorical (nominal)	If the respondent reports that people keep songbirds in cages in their county.	Fixed effect	
	Keep songbirds – Where from						Categorical (nominal)	If the respondent reports that people in their county keep caged songbirds, where they get them from (catch from the wild, or buy from others). If more people buy from others, this may indicate a functioning local bird trade, and could affect where BCLTs breed (they may avoid or be negatively affected in areas where there is an active songbird trade).	Fixed effect	
	Catching BCLTs – Yes/No	✓	✓	✓	✓	✓	Categorical (nominal)	If the respondent has heard of anyone catching a BCLT from the wild. Areas where this happens may deter BCLT from breeding there, and so may differ between	Fixed effect	

								areas where they are and are not found.		
<b>Respondent Demographics</b>	Age					✓	Continuous (numeric)	The age in years of each respondent. Inclusion of age in models controls for the variation in respondent time spent living in their village.	Fixed effect	
<b>External</b>	Estimated village population size						Continuous (numeric)	The number of people living in the respondent's village. Population size could influence land use practices and patterns, which could in term affect the likelihood of BCLTs choosing a village as a breeding territory.	Fixed effect	
	Village				✓	✓	Categorical (nominal)	The village in which the interview was carried out. Villages are included as a random effect to account for non-independence in the data.	Random effect	
	Interviewer				✓	✓	Categorical (nominal)	This will be included in models to account for bias.	Random effect	

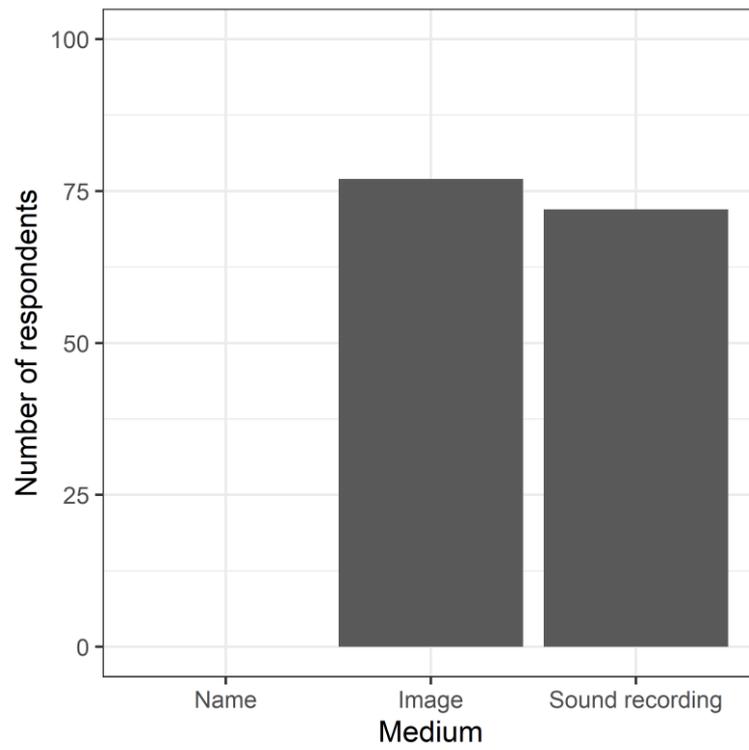
**Table S3.** Demographic characteristics of interview respondents, overall, and for breeding and control villages. Villages with uncertain breeding status (n=2) are omitted from the breeding and control data.

<b>Variable</b>	<b>Number of respondents (overall)</b>	<b>Number of respondents (breeding)</b>	<b>Number of respondents (control)</b>
<b>Sex</b>			
Male	272 (52.4%)	125 (50.6%)	136 (54.4%)
Female	247 (47.6%)	122 (49.3%)	114 (45.6%)
<b>Age (in years) + mean</b>	18-93 (55.8) years	18-84 (54.2)	18-93 (57.8)
<b>Occupation</b>			
Farmer	296 (57.0%)	131 (53.0%)	156 (62.4%)
Housewife	33 (6.3%)	22 (8.9%)	10 (4.0%)
Unemployed	34 (6.5%)	14 (5.6%)	19 (7.6%)
Retired	20 (3.8%)	9 (3.6%)	10 (4.0%)
Professional	22 (4.2%)	13 (5.2%)	8 (3.2%)
Shop worker	20 (3.8%)	9 (3.6%)	7 (2.8%)
Businessperson	17 (3.3%)	11 (4.4%)	4 (1.6%)
Official	14 (2.7%)	8 (3.2%)	6 (2.4%)
Manual worker	13 (2.5%)	5 (2.0%)	7 (2.8%)
Clerical worker	9 (1.7%)	3 (1.2%)	6 (2.4%)
Student	9 (1.7%)	4 (1.6%)	4 (1.6%)
Miscellaneous worker	32 (6.1%)	18 (7.2%)	13 (5.2%)

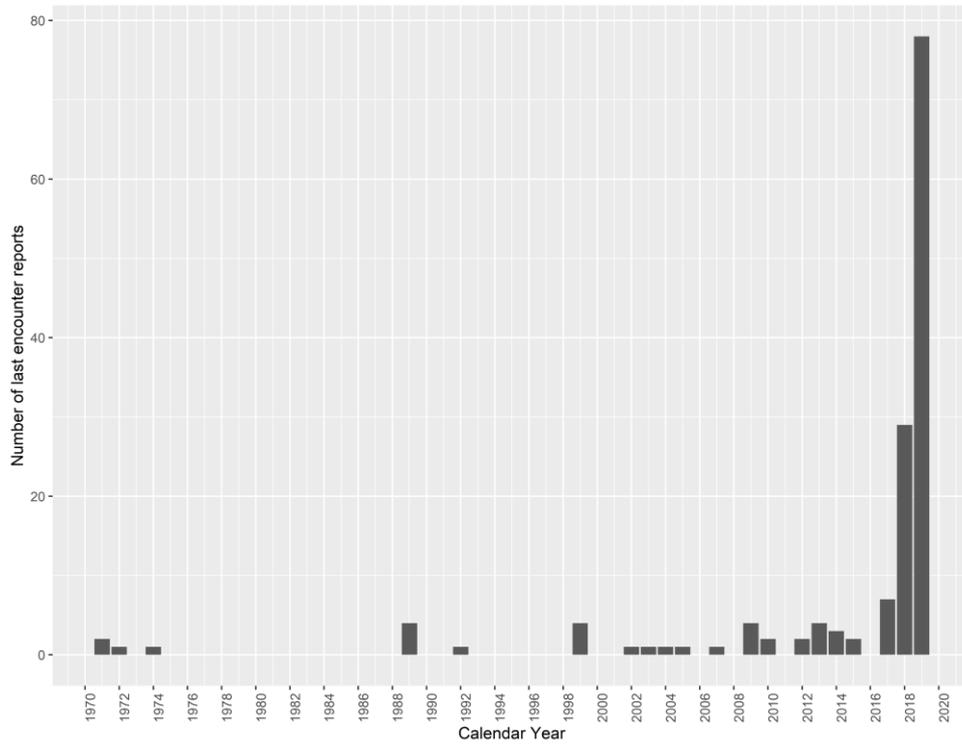
(a)



(b)



**Figure S4.** Number of respondents who recognised the Blue-crowned Laughingthrush by either its name, an image or a sound recording of the birds calling at a). breeding and b). control villages.



**Figure S5.** Proportion of respondents reporting the year they last saw a Blue-crowned Laughingthrush.

**Table S4.** Changes in land types around respondent home villages: overall percentage of respondents reporting (a) an increase (positive value) or decrease (negative value), and (b) no change/absence of land types.

**(a)**

Land type	Percentage (%)			Number of respondents		
	Breeding	Control	Overall	Breeding	Control	Overall
Houses	84.6	76.1	80.0	211	209	420
Bamboo	38.0	46.6	42.5	111	139	250
Bush/scrub	16.5	33.8	25.6	87	115	202
Broadleaf forest	21.4	23.5	22.5	66	79	145
Fir forest	13.7	27.5	21.0	78	106	184
Fruit trees	9.7	-0.73	4.2	44	30	74
Oilseed	10.9	-9.55	0.2	77	50	127
Pine forest	-17.8	-16.1	-16.9	73	72	145
<i>Fengshui</i> forest	-20.6	-15.8	-18.1	55	50	105
Tea plantation	-35.6	-27.2	-31.2	105	100	205
Vegetable garden	-34.4	-40.4	-37.5	106	123	229
Rice paddy	-39.6	-58.8	-49.7	129	176	305

**(b)**

Land type	No change (%)			Absence of land type (%)		
	Breeding	Control	Total	Breeding	Control	Total
Houses	6.1	10.4	16.5	NA	NA	NA
Bamboo	14.4	16.9	31.4	3.4	4.4	7.8
Bush/scrub	10.9	16.1	27.1	4.0	3.6	7.7
Broadleaf forest	16.9	18.8	35.8	6.3	7.7	14.0
Fir forest	14.6	16.3	31.0	4.6	4.4	9.0

Fruit trees	12.1	12.9	25.0	20.6	26.3	47.0
Oilseed	12.7	18.8	31.5	6.5	7.5	14.0
Pine forest	11.3	13.4	24.8	13.4	16.1	29.6
<i>Fengshui</i> forest	26.0	25.0	51.0	5.7	13.6	19.4
Tea plantation	6.5	4.6	11.1	16.1	22.7	38.9
Vegetable garden	19.0	23.3	42.3	0.9	0.7	1.7
Rice paddy	11.1	12.3	23.5	0.7	0.9	1.7

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**Table S5.** Outputs for breeding model variations, and the EOO models.

Response	Breeding/control (unsure villages = control)		Breeding/control (unsure villages = breeding)		EOO/buffer	
	Estimate	90% CI range (lower/upper)	Estimate	90% CI range (lower/upper)	Estimate	90% CI range (lower/upper)
<b>Covariate</b>						
<b>Bamboo forest change</b>						
More	-0.33	-1.13 – 0.42	-0.36	-1.12 – 0.35	<b>-1.04</b>	<b>-2.06 - -0.19</b>
No change	-0.21	-1.02 – 0.54	-0.27	-1.04 – 0.49	0.25	-0.57 – 1.12
Less	0.44	-0.26 – 1.25	0.22	-0.47 – 0.97	0.08	-0.67 – 0.89
No bamboo forest	-0.45	-1.38 – 0.37	-0.15	-0.92 – 0.60	-0.47	-1.36 – 0.39
<b>Catching BCLT</b>						
Do not know	-0.29	-1.16 – 0.49	-0.41	-1.25 – 0.39	<b>-0.75</b>	<b>-1.61 – 0.00</b>
No	-0.38	-0.33 – 1.19	-0.42	-0.35 – 1.29	0.20	-0.60 – 1.07
Yes	<b>-0.89</b>	<b>-2.01 – 0.00</b>	<b>-1.09</b>	<b>-2.32 - -0.12</b>	-0.63	-1.59 – 0.22
<b>Fengshui forest change</b>						
No change	0.09	-1.08 – 0.45	0.28	-0.53 – 1.14	-0.25	-1.03 – 0.53
Less	-0.21	-0.73 – 0.93	-0.46	-1.29 – 0.30	-0.50	-1.28 – 0.24
No fengshui forest	<b>-1.26</b>	<b>-2.52 - -0.19</b>	<b>-1.28</b>	<b>-2.45 - -0.29</b>	-0.66	-1.57 – 0.18
<b>Bush/scrub change</b>						
More	0.22	-0.79 – 1.20	-0.06	-0.93 – 0.77	-0.43	-1.38 – 0.43
No change	<b>-2.02</b>	<b>-3.79 - -0.61</b>	<b>-1.12</b>	<b>-2.27 - -0.16</b>	<b>-1.60</b>	<b>-2.82 - -0.55</b>
Less	<b>2.78</b>	<b>1.16 – 4.93</b>	<b>1.54</b>	<b>0.48 – 2.84</b>	1.28	0.19 – 2.56
No bush/scrub	0.56	-0.40 – 1.63	0.10	-0.73 – 0.97	0.42	-0.65 – 1.68
<b>Tea plantation change</b>						
More	-0.36	-1.27 – 0.43	-0.48	-1.40 – 0.34	<b>-1.06</b>	<b>-2.14 - -0.17</b>
No change	0.68	-0.13 – 1.55	<b>0.84</b>	<b>0.05 – 1.79</b>	0.01	-0.87 – 0.88
Less	0.15	-0.72 – 1.03	-0.10	-0.97 – 0.77	-0.36	-1.25 – 0.53
No tea plantation	-0.12	-0.97 – 0.75	-0.16	-1.05 – 0.68	-0.76	-1.73 – 0.13
<b>Roads</b>						
Yes	0.23	-0.48 – 0.98	0.09	-0.67 – 0.68	-0.14	-0.88 – 0.59
No	-0.65	-1.49 – 0.09	-0.51	-1.31 – 0.18	<b>-0.76</b>	<b>-1.61 – 0.00</b>

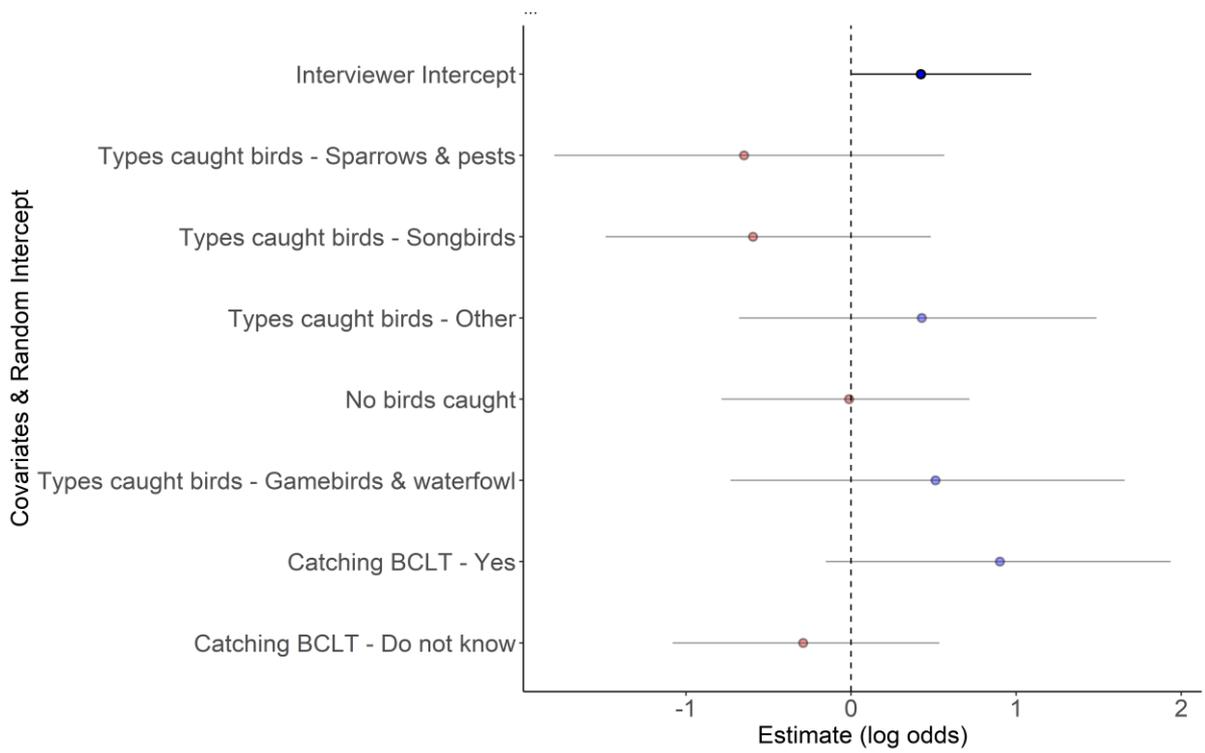
<b>Vegetable garden change</b>						
Less	-0.18	-0.99 – 0.55	-0.45	-1.30 – 0.29	-0.14	-0.88 – 0.61
More	<b>0.88</b>	<b>0.05 – 1.96</b>	1.07	-1.30 – 0.29	0.13	-0.67 – 1.02
No change	-0.65	-1.57 – 0.15	-0.67	-1.59 – 0.17	-0.69	-1.51 – 0.06
No vegetable garden	0.47	-0.30 – 1.27	0.73	-0.05 – 1.64	0.12	-0.68 – 0.96

**Table S6.** Leave-One-Out Cross Validation differences between Expected Log Pointwise Predictive Density (ELPD) scores and Standard Error scores of the ‘Seen BCLT’ and ‘Recently seen BCLT’ GLMMs. Moment matching was performed on the LOO cross validation for values with a pareto k value of > 0.7, which indicates outlier observations which have a disproportionate effect on the model and make estimating out-of-sample accuracy difficult. ‘\_gp’ denotes a Gaussian process model. Optimal models highlighted in bold.

Model name	Seen BCLT		Recently seen BCLT	
	ELPD diff.	SE diff.	ELPD diff.	SE diff.
brms_fit_1	-2.6	2.5	-2.6	1.7
brms_fit_1_gp	NA	NA	-3.0	2.2
brms_fit_2	-0.9	4.0	-0.6	0.9
<b>brms_fit_2_gp</b>	-1.1	3.8	<b>0.0</b>	<b>0.0</b>
brms_fit_3	-0.1	1.4	-0.8	1.7
<b>brms_fit_3_gp</b>	<b>0.0</b>	<b>0.0</b>	-0.4	1.5
brms_fit_4	-2.3	5.1	-0.9	2.3
brms_fit_4_gp	-3.5	4.9	-0.8	2.3
brms_fit_5	-3.0	3.3	-0.2	2.6
brms_fit_5_gp	-3.2	3.1	-0.1	2.6

**Table S7.** Pseudo R<sup>2</sup> information obtained for the 'Seen BCLT' and 'Recently seen BCLT' GLMMs.

<b>Model</b>	<b>Seen BCLT</b>	<b>Recent BCLT</b>
<b>Estimate</b>	0.325	0.165
<b>Estimated error</b>	0.027	0.058
<b>Q2.5</b>	0.269	0.064
<b>Q97.5</b>	0.374	0.290



**Figure S6.** Interval plot showing the 90% credible intervals (CI), represented by the black lines, for the posterior distribution of each factor level, in relation to **whether respondents had recently seen a Blue-crowned Laughingthrush**. Coloured circles within each line represent the estimate. Predictor levels are considered significant if the CI does not encompass zero on the x axis. **Plot displays the second most optimal candidate model (within -0.1 ELPD)**. Variables in the model are: types of birds caught, awareness of people catching BCLT.