TEXT S1: SUPPLEMENTARY METHODS AND RESULTS

(a) Population viability analysis

We obtained available life-history parameters for native wild populations of target species from refs *S1-S11*, using *Tapirus indicus* data for *Tapirus* sp., and *Bubalus bubalis* and *B. depressicornis* data for *Bubalus* sp. (table S2). Based upon data from coastal lagoon deposits, Hainan has experienced major typhoons on average every 10 years across a 350-year period [*S12*], so we incorporated a 10% chance of typhoon catastrophe per annum. We conducted Latin hypercube sensitivity analysis on four variables over 50 randomised replicates, also in 50 evenly-spaced increments between 5% and 95% inclusive: **(1)** initial population size (100–1000); **(2)** survival after typhoon catastrophe (0.05–0.95); **(3)** reproductive output due to typhoon activity (0.05–0.95); **(4)** environmental variability in breeding (0.05–0.95).

(b) Holocene mammal records

Taxonomy of extant mainland Chinese mammal species follows ref. *S13*, updated to include recently described species [*S14*] (table S4). We used the database of Chinese Holocene fossil and zooarchaeological mammalian faunal records provided by ref. *S15* as a baseline for the number of Holocene site records for mainland Chinese mammal species, with the following modifications: **(1)** two records of *Axis axis* from Henan Province and a record of *Hoolock hoolock* from Fujian Province are excluded on biogeographic grounds (likely misidentification of specimens far from the current-day ranges of either species) [*S13*]; **(2)** a Holocene record of *Muntiacus fenghoensis* is excluded, as this species is not recognised from China's current-day fauna [*S13*] and the taxonomy of *Muntiacus* is currently confused, leading to likely misidentification; **(3)**

records of *Naemorhedus*, a genus that is now reinterpreted as representing multiple allopatric Chinese species [*S13*], are assigned for analysis to *N. baileyi* (three records from Tibet) and *N. griseus* (11 other records); **(4)** all records of *Moschus* are arbitrarily assigned to *M. moschiferus* for analysis, as this genus is now reinterpreted as representing multiple Chinese species with overlapping geographic distributions [*S13*]; **(5)** records of *Tapirus indicus* are updated to include "*Tapirus* sp." records from 4 sites [*S16-S18*]; **(6)** records of *Elaphurus davidianus* are updated to include the georeferenced dataset in ref. *S19*; **(7)** the recently described extinct Chinese gibbon species *Junzi imperialis* is also included [*S20*]; **(8)** all Hainanese and Taiwanese endemic taxa are excluded, but *Rucervus eldii*, which is today only found on Hainan, is included because its historical distribution included the Chinese mainland [*S13*].

We obtained body mass data from refs *S13*, *S21-S27*. Cells highlighted in pink in table S4 indicate species with no available species-specific body mass data, for which genus-level mean body masses were calculated using data from ref. *S21*, and "NA" indicates species for which no body mass data were available even for congeners.

Because successive taxonomic assessments of the Chinese mammal fauna are not fully congruent due to taxonomic revisions (e.g., synonymisations, resurrection of old species names, transfers of existing species to different genera, recognition of new species), in order to fit species onto the dated mammalian supertree we had to match the taxonomic framework provided in ref. *S13* with species recognised in ref. *S28*, based on documented taxonomic changes [*S13*, *S29*, *S30*] (table S4).

(c) Bootstrapping of Chinese mammal body mass dataset

Our mainland Chinese mammal dataset contained a high proportion of species that were not represented in any Holocene palaeontological or zooarchaeological sites. It

was therefore important to quantify the impact of these zeroes on our model parameter estimates, so we tested parameter sensitivity to the proportion of species in the dataset with zero records. We randomly removed proportions of species with zero records, ranging from 0-100% (in increments of 10%), and at each of those proportions we randomly selected the species removed 1000 times. This treatment yielded 1000 parameter estimates for each proportion-removed treatment. From these 1000 values we calculated the mean parameter estimate and 95% confidence intervals (figure S1).

SUPPLEMENTARY REFERENCES

S1. Sukumar R, Santiapillai C. 1993 Asian elephant in Sumatra: population and habitat viability analysis. *Gajah* **11**, 59-63.

S2. de Silva S, Webber CE, Weerathunga US, Pushpakumara TV, Weerakoon DK, Wittemyer G. 2013 Demographic variables for wild Asian elephants using longitudinal observations. *PLoS ONE* **8**, e82788.

S3. Leimgruber P, Senior B, Uga, Aung M, Songer MA, Mueller T, Wemmer C, Ballou JD. 2008 Modeling population viability of captive elephants in Myanmar (Burma): implications for wild populations. *Anim. Conserv*. **11**, 198-205.

S4. Castelló JR, Huffman B, Groves CP. 2016 *Bovids of the world: antelopes, gazelles, cattle, goats, sheep, and relatives*. Princeton, NJ: Princeton University Press.

S5. Food and Agriculture Organization of the United Nations. 1977 *The water buffalo*. Rome: Food and Agriculture Organization of the United Nations.

S6. Manansang J, Hedges S, Siswomartono D, Miller P, Seal US. 1996 *Anoa species (Bubalus quarlesi and Bubalus depressicornis) population and habitat viability assessment workshop report 22-26 July 1996*. Apple Valley, MN: IUCN/SSC Conservation Breeding Specialist Group.

S7. Saalfeld K. 2014 *Feral buffalo (Bubalus bubalis): distribution and abundance in Arnhem Land, Northern Territory, June 2014*. Darwin: Department of Land Resource Management, Northern Territory Government.

S8. Medici EP, Desbiez ALJ. 2012 Population viability analysis: using a modeling tool to assess the viability of tapir populations in fragmented landscapes. *Integr. Zool*. **7**, 356-372.

S9. Rayan DM, Mohamad SW, Dorward L, Aziz SA, Clements GR, Christopher WCT, Traeholt C, Magintan D. 2012 Estimating the population density of the Asian tapir (*Tapirus indicus*) in a selectively logged forest in Peninsular Malaysia. *Integr. Zool*. **7**, 373-380.

S10. Wilkinson DM, O'Regan HJ. 2003 Modelling differential extinctions to understand big cat distribution on Indonesian islands. *Glob. Ecol. Biogeogr*. **12**, 519-524.

S11. Karanth KU, Nichols JD, Kumar NS, Link WA, Hines JE. 2004 Tigers and their prey: predicting carnivore densities from prey abundance. *Proc. Natl Acad. Sci. USA* **101**, 4854-4858.

S12. Zhou L, Gao S, Yang Y, Zhao Y, Han Z, Li G, Yin Y. 2017 Typhoon events recorded in coastal lagoon deposits, southeastern Hainan Island. *Acta Oceanol. Sin.* **36**, 37-45.

S13. Smith AT, Xie Y (Eds.). 2013 *Mammals of China*. Princeton and Oxford: Princeton University Press.

S14. Fan P, He K, Chen X, Ortiz A, Zhang B, Zhao C, Li Y, Zhang H, Kimock C, Wang W, Groves C, Turvey ST, Roos C, Helgen KM, Jiang X. 2017 Description of a new species of *Hoolock* gibbon (Primates: Hylobatidae) based on integrative taxonomy. *Am. J. Primatol.* **79**, e22631.

S15. Turvey ST, Crees JJ, Li Z, Bielby J, Yuan J. 2017 Long-term archives reveal shifting extinction selectivity in China's postglacial mammal fauna. *Proc. R. Soc. B* **284**, 20171979.

S16. Teilhard de Chardin P, Young CC. 1936 On the mammalian remains from the archæological site of Anyang. *Pal. Sin. Ser. C* **12**, 5-61.

S17. Chen Q, Wang S, Zhang D. 2004 *Research on ancient animal remains from the Qingjiang Valley*. Beijing: Science Publishing House.

S18. Wu X. 2007 *Three Gorges: zooarchaeology*. Chongqing: Chongqing Press.

S19. Cao K. 2005 *Research on the mi-deer.* Shanghai: Shanghai Scientific Education Publishing House.

S20. Turvey ST, Bruun K, Ortiz A, Hansford J, Hu S, Ding Y, Zhang T, Chatterjee HJ. 2018 New genus of extinct Holocene gibbon associated with humans in Imperial China. *Science* **360**, 1346-1349.

S21. Jones KE, et al. 2009 PanTHERIA: a species-level database of life history, ecology, and geography of extant and recently extinct mammals. *Ecology* **90**, 2648.

S22. Wilson DE, Mittermeier RA (Eds.). 2011 *Handbook of the mammals of the world. 1: Carnivores*. Barcelona: Lynx Edicions.

S23. Wilson DE, Mittermeier RA (Eds.). 2012 *Handbook of the mammals of the world. 2: Hoofed mammals*. Barcelona: Lynx Edicions.

S24. Wilson DE, Mittermeier RA (Eds.). 2013 *Handbook of the mammals of the world. 3: Primates*. Barcelona: Lynx Edicions.

S25. Wilson DE, Mittermeier RA (Eds.). 2016 *Handbook of the mammals of the world. 6: Lagomorphs and rodents I*. Barcelona: Lynx Edicions.

S26. Wilson DE, Mittermeier RA (Eds.). 2017 *Handbook of the mammals of the world. 7: Rodents II*. Barcelona: Lynx Edicions.

S27. Wilson DE, Mittermeier RA (Eds.). 2018 *Handbook of the mammals of the world. 8: Insectivores, sloths and colugos*. Barcelona: Lynx Edicions.

S28. Bininda-Emonds ORP, Cardillo M, Jones KE, MacPhee RDE, Beck RMD, Grenyer R, Price SA, Vos RA, Gittleman JL, Purvis A. 2007 The delayed rise of present-day mammals. *Nature* **446**, 507-512.

S29. Wilson DE, Reeder DM. 2005 *Mammal species of the world: a taxonomic and geographic reference*. 3rd edition. Baltimore, MD: Johns Hopkins University Press.

S30. IUCN 2018. *The IUCN Red List of Threatened Species. Version 2018-2*. http://www.iucnredlist.org.

TEXT S2: HAINAN COMMUNITY QUESTIONNAIRE (ENGLISH 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?

Table S2. Parameter values used in population viability models investigating long-term survival of populations of *Elephas maximus*, *Bubalus* sp., *Tapirus* sp. and *Panthera tigris* on Hainan. Specific references for parameter values given in parentheses where relevant; model default assumptions used for other parameter values. Carrying capacity estimates based on species-specific population density estimates scaled to the geographic area of Hainan (33,920 km^2).

Scenario name	***Elephas maximus***	***Bubalus* sp.**	***Tapirus* sp.**	***Panthera tigris***
Number of iterations	1000	1000	1000	1000
Number of years	8000	8000	8000	8000
Number of catastrophe types	1 (typhoon/10 yrs; S11)	1 (typhoon/10 yrs; S11)	1 (typhoon/10 yrs; S11)	1 (typhoon/10 yrs; S11)
Lethal equivalents	3.14	3.14	3.14	3.14
% due to recessive alleles	50	50	50	50
EV concordance of reproduction and survival	yes	yes	yes	yes
Reproductive system	polygynous [S1]	polygynous [S4]	short-term monogamous [S8]	polygynous [S10]
Female age at first reproduction	13.4 [S2]	3 [S4]	4 [S8]	3 [S10]
Male age at first reproduction	13.4 [S2]	5 [S4]	4 [S8]	4 [S10]
Maximum age of reproduction	60 [S2]	25 [S4]	20 [S8]	15 [S10]
Max number of broods / year	0.17 [S1,S2]	1 [S4]	1 [S8]	1 [S10]
Max progeny per brood	1 [S2]	1 [S4]	1 [S8]	6 [S10]
% sex ratio at birth (M)	50 [S2]	50 [S5]	50 [S8]	50 [S10]
% adult females breeding	18 [S1]	60 [S4,S5]	60 [S8]	50 [S10]
Distribution: 1 brood	1 [S1]	100 [S4]	100 [S8]	100 [S10]
Probability: 1 offspring (%)	99 [S1]	100 [S4]	0 [S8]	10 [S10]
P: 2 offspring (%)	1 [S1]	0 [S4]	0 [S8]	38 [S10]
P: 3 offspring (%)	0 [S1]	0 [S4]	0 [S8]	38 [S10]
P: 4 offspring (%)	0 [S1]	0 [S4]	0 [S8]	10 [S10]
P: 5 offspring (%)	0 [S1]	0 [S4]	0 [S8]	3 [S10]
P: 6 offspring (%)	0 [S1]	0 [S4]	0 [S8]	1 [S10]
Female mortality: 0-1	8-15 [S1]	25 [S6]	10 [S8]	50 [S10]
F mortality: 1-2	4 [S1]	5 [S6]	15 [S8]	0 [S10]
F mortality: 2-3	4 [S1]	4 [S6]	15 [S8]	0 [S10]
F mortality: 3-4	4 [S1]	4 [S6]	15 [S8]	0 [S10]
F mortality: adult	1.5-2.5 [S1]	4 [S6]	8 [S8]	0 [S10]

EV in female mortality (%)	20 [S1]	25 [S6]	20 [S8]	12 [S10]
Male mortality rate (%): 0-1	15 [S1]	30 [S6]	10 [S8]	50 [S10]
M mortality: 1-2	5 [S1]	5 [S6]	15 [S8]	0 [S10]
M mortality: 2-3	5 [S1]	5 [S6]	15 [S8]	0 [S10]
M mortality: 3-4	5 [S1]	5 [S6]	15 [S8]	50 [S10]
M mortality: 4-5	5 [S1]	3 [S6]	8 [S8]	10 [S10]
M mortality: 5-6	3 [S1]	3 [S6]	8 [S8]	10 [S10]
M mortality: 6+	3 [S1]	3 [S6]	8 [S8]	10 [S10]
EV in male mortality (%)	20 [S1]	25 [S6]	20 [S8]	12 [S10]
% males successfully siring offspring	80 [S3]	35 [S6]	90 [S8]	50 [S10]
Initial population size [*for sensitivity testing*]	100–1000	100–1000	100–1000	100–1000
Carrying capacity	57,664 [S2]	54,272 [S7]	3,219 [S9]	5,698.6 [S11]
EV in carrying capacity	1	1	1	1

Table S5. Chi-square table for examining bias in the number of Holocene fossil/zooarchaeological sites in different mainland Chinese ecoregions. Ecoregions are sorted from largest to lowest observed–expected value. All ecoregions with an area below 15,000 km^2 (size of smallest ecoregion containing at least one site) were excluded from analysis to reduce the number of low expected values.

Ecoregions	Area (km^2)	Observed	Expected	O–E
Yellow River Plain mixed forest	433639	69	11.77	57.23
Dabashan evergreen forest	168169.9	22	4.56	17.44
Yangtze Plain evergreen forest	437292.2	25	11.87	13.13
Central China loess plateau mixed forest	359866.6	17	9.77	7.23
Qionglai-Minshan conifer forest	80134.1	7	2.17	4.83
Guizhou Plateau broadleaf and mixed forest	269131.8	12	7.30	4.70
Ordos Plateau steppe	215604.4	10	5.85	4.15
Northeast China Plain deciduous forest	231838.1	10	6.29	3.71
Northern Indochina subtropical forest	146584	7	3.98	3.02
Qinling Mountains deciduous forest	123278.6	6	3.35	2.65
Sichuan Basin evergreen broadleaf forest	98008.3	5	2.66	2.34
South China-Vietnam subtropical evergreen forest	183657.6	6	4.98	1.02
Nujiang Langcang Gorge alpine conifer and mixed forest	78152.5	3	2.12	0.88
Suiphun-Khanka meadows and forest meadows	18231.5	1	0.49	0.51
Nenjiang River grassland	23259.8	1	0.63	0.37
Altai alpine meadow and tundra	15882.7	0	0.43	-0.43
Qilianshan conifer forest	16653	0	0.45	-0.45
Altai montane forest and forest steppe	17002.4	0	0.46	-0.46
Yarlung Tsangpo arid steppe	59377.1	1	1.61	-0.61
Helanshan montane conifer forest	24704	0	0.67	-0.67
Karakoram-West Tibetan Plateau alpine steppe	28156.4	0	0.76	-0.76
Pamir alpine desert and tundra	33503	0	0.91	-0.91
Western Himalayan alpine shrub and meadows	35098.9	0	0.95	-0.95
Northeastern Himalayan subalpine conifer forest	40821.1	0	1.11	-1.11
Changbaishan mixed forest	46096	0	1.25	-1.25
Emin Valley steppe	45992.5	0	1.25	-1.25
Amur meadow steppe	52953.8	0	1.44	-1.44
Tarim Basin deciduous forest and steppe	54533	0	1.48	-1.48
Rock and Ice	56454.9	0	1.53	-1.53
Qilianshan subalpine meadows	73284.2	0	1.99	-1.99
Eastern Himalayan alpine shrub and meadows	87592.5	0	2.38	-2.38
Hengduanshan subalpine conifer forest	99290.8	0	2.69	-2.69
Eastern Gobi desert steppe	104088.7	0	2.83	-2.83
Jiannan subtropical evergreen forest	661435.4	15	17.95	-2.95
Tibetan Plateau alpine shrublands and meadows	272009.3	4	7.38	-3.38
Manchurian mixed forest	357098.2	6	9.69	-3.69
Mongolian-Manchurian grassland	578191	12	15.69	-3.69
Da Hinggan-Dzhagdy Mountains conifer forest	151671.1	0	4.12	-4.12

Tianshan montane steppe and meadows	193475.7	1	5.25	-4.25
Yunnan Plateau subtropical evergreen forest	239854.4	2	6.51	-4.51
Qaidam Basin semi-desert	192127.4	0	5.21	-5.21
Junggar Basin semi-desert	239294.1	0	6.49	-6.49
Southeast Tibet shrublands and meadows	460547.8	5	12.50	-7.50
North Tibetan Plateau-Kunlun Mountains alpine desert	374480.1	0	10.16	-10.16
Alashan Plateau semi-desert	456651.7	2	12.39	-10.39
Central Tibetan Plateau alpine steppe	628120.6	2	17.05	-15.05
Taklimakan desert	742655.9	2	20.16	-18.16

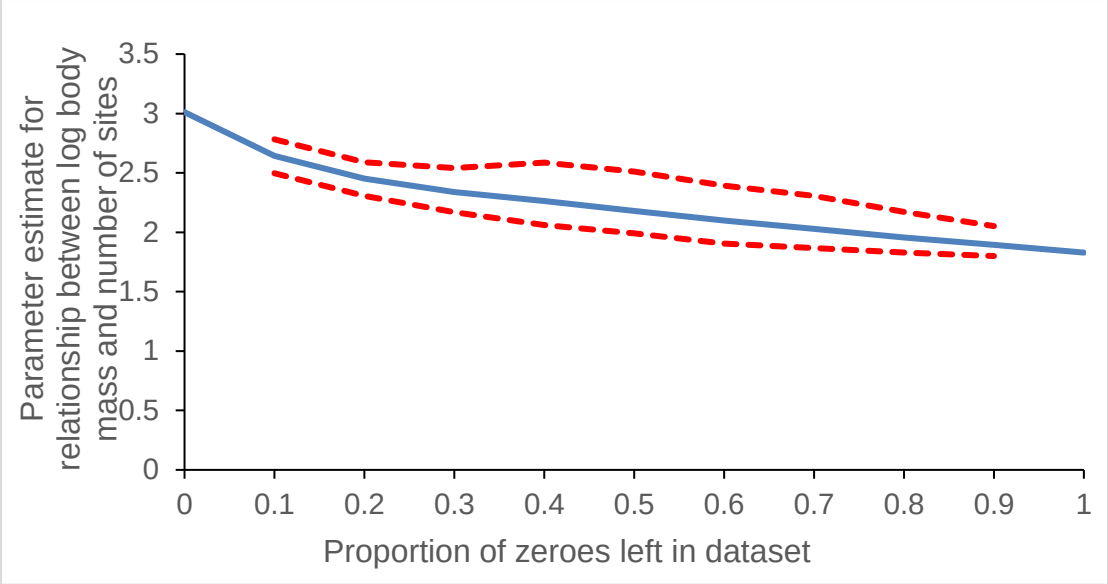

Figure S1. Parameter estimates of relationship between log-transformed body mass and number of sites, for datasets with a specified proportion of species with "site number=0" removed. To obtain these estimates, the zero-site species removed from the dataset were randomised 1000 times for each proportion on the x-axis (ranging from 0-1.0, in increments of 0.1).

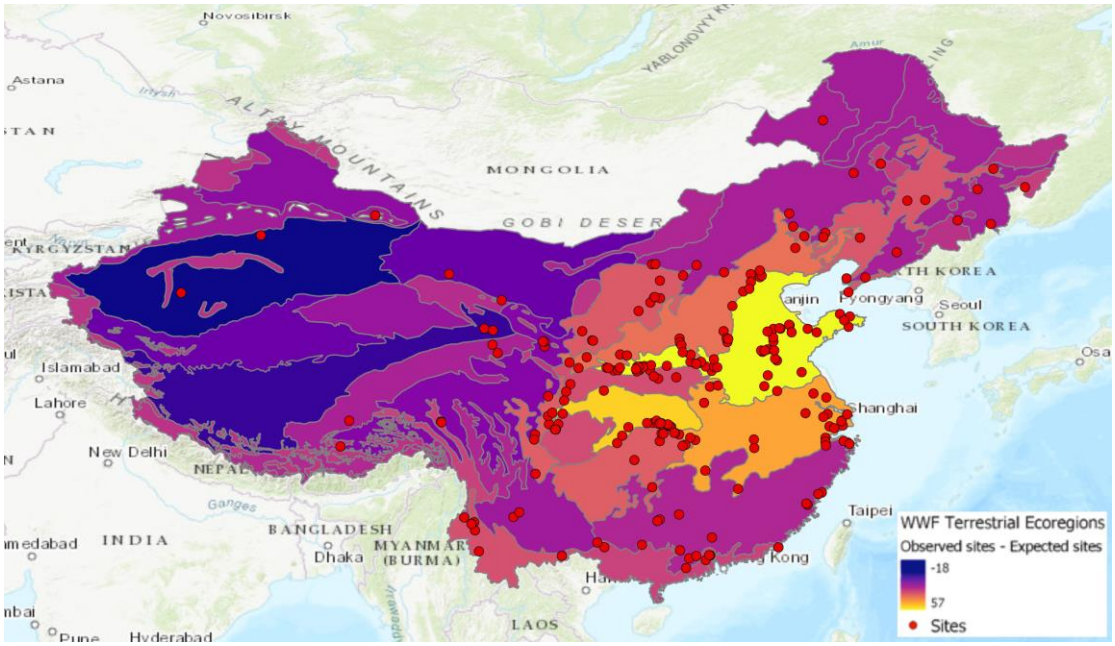

Figure S2. Mainland Chinese ecoregions coloured to demonstrate differences between observed and expected numbers of fossil/zooarchaeological sites (based on an expected uniform distribution). Locations of sites overlaid in red.