

*Changing exploitation threatens Chinese giant salamanders*

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Chinese giant salamanders (*Andrias* spp.), the world's largest amphibians, reach almost two metres in length. Giant salamander populations are now critically depleted or extirpated across China, including within landscapes that still have good-quality habitat. We conducted a series of large-scale social science interview surveys across the range of giant salamanders in China to understand levels of salamander exploitation by different user groups. People from rural households living close to potential giant salamander habitat (2,932 interviews) were generally familiar with these amphibians, and had many traditions associating giant salamanders with dead babies and bad luck. Few rural people had ever used giant salamanders for traditional medicine, but a substantial number had eaten them in the past (with about a quarter of older respondents having eaten them). These findings provide indirect evidence that Chinese giant salamander populations were probably already declining from the 1980s or earlier, due to local consumption or exploitation for trade. A vast-scale giant salamander farming industry has developed in China since the 2000s to supply the domestic luxury food market, and interviews with stakeholders directly involved with giant salamander exploitation and policy management (66 salamander farms, 115 county government officials) reveal wide-scale and largely unregulated illegal hunting to stock farms across the country. Twenty-five of the farms that we surveyed reported possessing wild-caught giant salamanders, most of which were obtained locally, and almost half of the farms reported a preference for wild stock. However, officials in only seven of 115 counties had issued permits to allow collection of giant salamanders from the wild. We estimate there may have been approximately 42,000 wild-caught breeding adult giant salamanders and 164,000 wild-caught subadults in salamander farms across China during the time of our survey – a

level of extraction that is probably unsustainable for wild populations. Finally, 835 interviews with potential end-consumers in three Chinese cities revealed widespread consumption of giant salamanders, associated with a demand for high-prestige rare meat. These findings highlight an important gap in the effectiveness of China's conservation protection for some of its highest-priority threatened species.



*Chinese giant salamanders being reared at high density in a salamander farm. Photograph courtesy of Minyao Wu.*

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