

Asian snake farms: conservation curse or sustainable enterprise?

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SUPPLEMENTARY MATERIAL 1 Questionnaire administered to snake farmers in China and Viet Nam.

Name:

Date:

Village:

1. How many years have you been involved in snake farming?
2. How big is your farm? Acres/m²
3. What other livelihood activities are you involved in?
4. What other reptile species do you farm?
5. For each species of snake that you farm:
 - Describe how you manage the breeding process (e.g. cooling, feed rates, moving animals between enclosures).
 - What is the sex ratio?
 - How many breeders do you have?
 - How long do they take to mature (males, females)?
 - How many eggs do you produce per year?
 - How do you incubate your eggs (container, medium, temperature, moisture and turning)?
 - How many growers do you have?
 - How many juveniles (<1year) do you have?
 - How do you house them? Describe the enclosures.
 - Have enclosures changed over the years and, if so, how?
 - Where do you source your stock?
 - What is the mean clutch size per female?
 - How many clutches per female per year?
 - How does clutch size vary over the lifespan of a female?
 - What is the incubation/egg failure rate?
 - What is the juvenile (<1year) mortality rate?
 - What do you feed (juveniles, growers, breeders)?
 - Where does this feed come from?
 - How much do you pay for feed?

- How much do you feed as a percentage of body weight?
 - How often do you offer food (breeders, growers, juveniles)?
 - What is the food conversion ratio?
 - How many do you sell each year? (2013 and expected for 2014)
 - What size are they when they are sold?
 - How old are they when they are sold?
 - How much do you sell for? (adults/kg, hatchlings, eggs)
 - To whom do you sell each of these products? One buyer/many buyers/local/international
 - Is demand increasing/decreasing/stable? Why?
6. Do you heat or cool enclosures and, if so, how, and how often?
 7. How do you clean enclosures? How, and how often?
 8. How often do you provide fresh water?
 9. Do your animals have any health problems and, if so, do you use any medication? Can you describe it?
 10. Which species is a) easiest to breed/raise and b) hardest to breed/raise?
 11. How many people work on the farm (including family members)?
 12. What are your four biggest costs? Can you estimate a monthly average for each?
 13. How much profit did you make from snake farming in 2013?
 14. Are you aware of the regulations pertaining to the industry?
 15. Do you alter your management activities throughout the year and, if so, why and how?
 16. If there was a catastrophic event (weather, economic, social), how long could your stock survive without food and without affecting longer term production output?
 17. Do you enjoy farming and, if so, why?

Additional subjects often discussed in comments and post-interview general discussions:

- Bioeconomics and farming methods for other reptile species
- Snake bite, incidence of snake bite and treatment/outcomes
- History of snake trade and snake farming
- Trends in snake meat and medicine markets; potential for including other snake species in farm systems
- Management tools and handling techniques

- Feeding biology and management; trends over time (intra and inter-generational)
- Temperature management and effects on biology
- Drivers for selection of breeding stock
- Wild food species; how are they gathered/trapped?
- Transportation methods
- Cooking methods and characteristics of snake meat
- Health benefits of snakes/snake products
- Other livestock farming activities and how they compare with snake farming