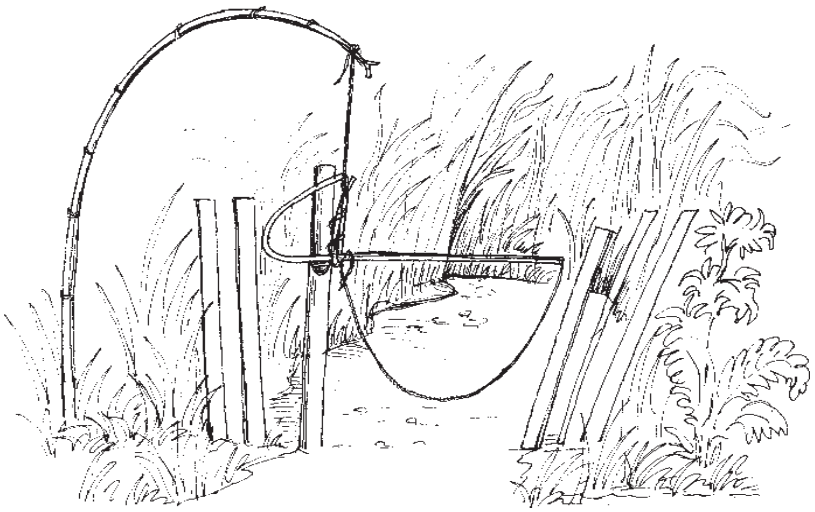
Wildlife Hunting and Use

Hunting of wildlife is an important part of rural livelihoods and nutrition in Laos. At the same time, wildlife populations are in serious decline from over-harvesting for subsistence and trade. In a threat assessment of the Nam Ha National Protected Area (NPA), over-harvest of wildlife was identified by NPA staff as one of the main problems contributing to a decline in abundance of many wildlife species (Johnson 2000). Recommendations for dealing with this conservation and development problem are discussed in the next paper of this source book, "Managing Hunting and the Wildlife Trade".

Successfully combining wildlife management and rural development requires baseline information on wildlife use, as well as on the status of wildlife populations and habitats. This study on wildlife hunting and use among the villages inside and on the border of Nam Ha NPA, in Luangnamtha, finds results that are relevant to the design of wildlife management and rural development strategies in the Lao uplands.

Survey methods



Surveys were conducted in 24 villages inside and near the boundary of the NPA by final-year students from the National University of Laos. Wildlife Conservation Society (WCS) staff trained and supervised the students in collaboration with the Nam Ha Protected Area Management Unit.

Data was collected at village and household levels, with emphasis on the latter (see Johnson et. al. 2003 for details). The 24 villages surveyed represented 59% of villages in and on the border of the NPA. Surveys were conducted in an average of 32% of households per village. The villages were from the Akha ethnic group (fourteen villages), the Khamu (three), Mien (three), Hmong (two), Kui (one) and Tai (one).

Hunting and the Law

Ministry of Agriculture and Forestry Regulation No. 0524/2001 on the Management of National Protected Areas, Aquatic Animals and Wildlife (MAF 2001): the regulations list protected animals under two separate categories, A) Restricted, and B) Controlled species.

A) Restricted animals: species that it is illegal to hunt or trade in.

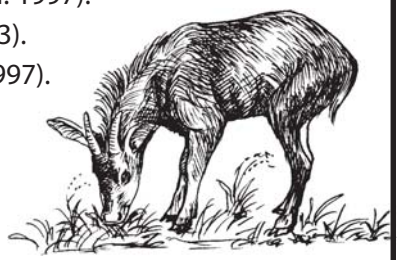
B) Controlled animals: animals that can only be hunted during the specified season (Nov 1- April 30). These animals cannot be hunted inside NPA restricted zones and corridors. The method of hunting is also controlled by the law (no semi-automatic guns or explosives, no poisons or electricity) and trade in these species is forbidden. Communities are supposed to hunt "at a sustainable rate".

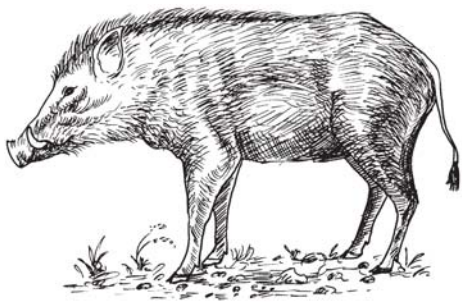
Wildlife hunting

Hunting of the majority of animals was reported to be greatest from September to February. Frogs were an exception to this pattern, with harvesting occurring largely in May and June at the beginning of the rainy season. Across the year, the results of the ranking indicated that the 15 most frequently hunted animals on a monthly basis were animals less than 2 kg in size (mostly birds, rodents such as squirrels and bamboo rats, and frogs). Guns are the most common method reported for capturing wildlife (56% of animals caught were shot), followed by snares (26%). 14% of animals were captured by 'other' methods and <1% were hunted with bows. Guns were the most commonly used weapon for capturing arboreal animals and medium to large terrestrial wildlife (>2 kg).

Nam Ha National Protected Area

- 22,300 hectares of hill evergreen and broadleaf woodlands.
- Core protected zones are important wildlife habitat (Tizard et al. 1997).
- The fourth largest protected area in the country (Hedemark 2003).
- Over 288 bird species, 37 large mammal species (Tizard et al. 1997).
- Larger species are considered globally threatened or vulnerable (Duckworth et al. 1999).

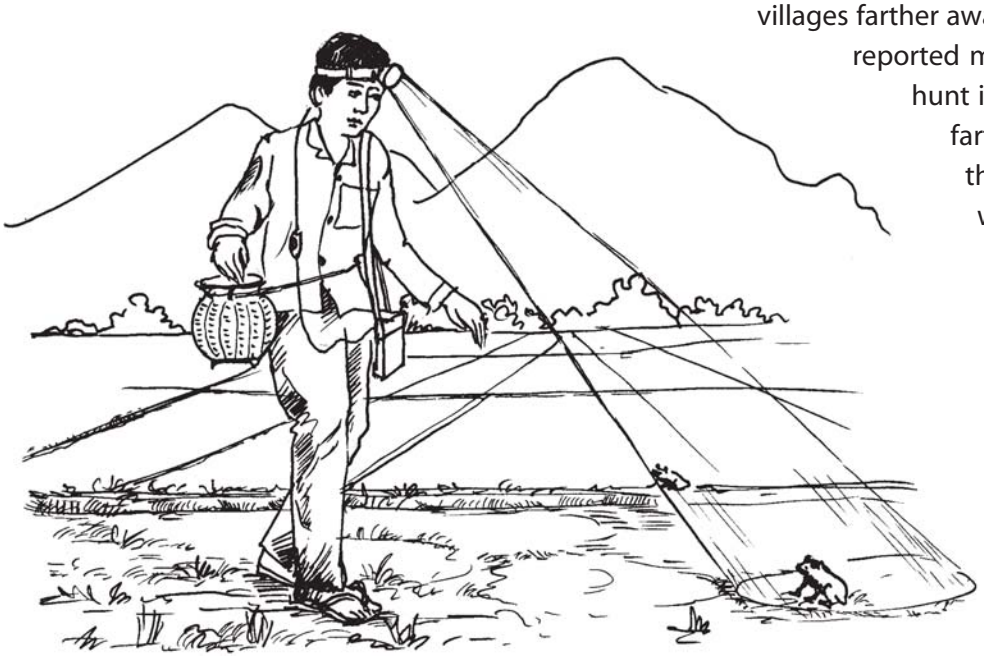




Nam Ha has a high human population density for an NPA: an estimated 67% of the NPA has been affected by human activity (Hedemark 2003). Inside and on the NPA border are 41 villages whose principle area of natural resource use is within the protected area boundary. Hill rice and livestock are the major food sources for most villages. NTFPs, including wildlife, are reported to be a food source in the event of rice and livestock shortages (Phengsopha 2000).

Most households responded that they usually hunt near their upland rice fields (guns are often kept in the fields) and less so in forested areas away from fields. This is because it is more difficult to access forested areas, not because the animals are not there. Hunters reported that they do go to forested areas for larger animals. More hunting was reported near upland fields than paddy fields, which is likely to be due to the larger areas of forest that remain close to upland fields.

40% of households reported that outsiders also come to hunt in their village area. Households in villages farther away from a main road reported more outsiders coming to hunt in the village area. Villages farther from roads are often thought to have more wildlife than easily accessible villages. It is possible that new roads to previously inaccessible forests do initially attract more outside hunters.

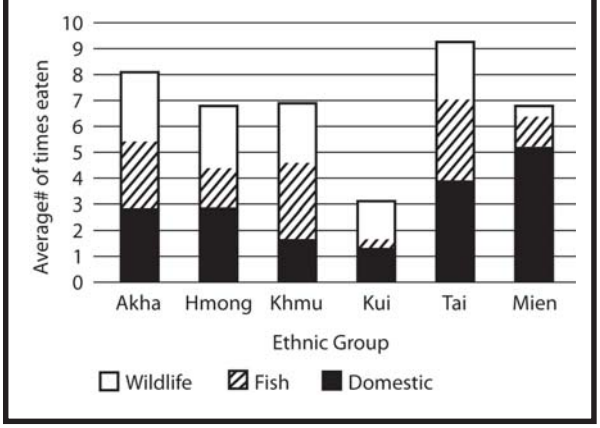


Wildlife use

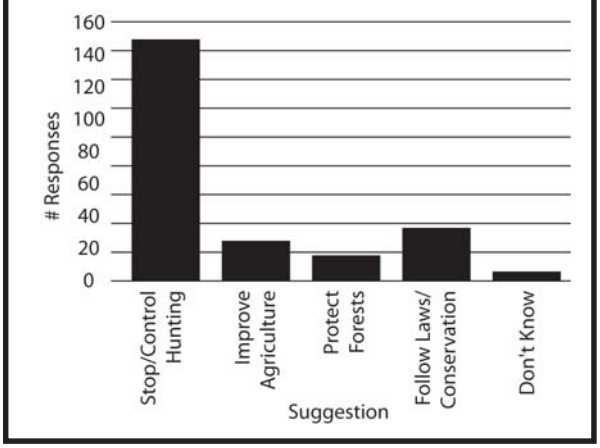
During the peak hunting periods of January-March and September-October, the survey gathered information on how villagers consume the wildlife they catch.

- Across the villages, households eat meat or fish an average of 6.7 times per week.
- Wildlife was reported eaten 1.9 times in the week prior to the survey.
- Wildlife and fish cover 66% of meat consumed.
- Relatively small amounts of meat are consumed per meal but meat is present in most meals.
- On a monthly basis, small songbirds, rodents, frogs, pheasants and partridges made up the bulk of wildlife consumed.

Average meat consumption in the week prior to the survey (n=317 households)



Suggestions from villagers of what to do about the problem of wildlife decline



Across ethnic groups, the Akha were unique in that slightly more households reported a preference for wildlife to domestic meat.

Twenty-one (38%) of the animals were reported as used for medicine. Eight of these are listed as restricted species in MAF 0524.

Animals most frequently used as medicine included Southern Serow, Slow Loris and Pangolin. Other significant findings included:

- Local sale prices were obtained for 42 animals.
- Rodents and birds made up 87% of animals most frequently sold.
- Average price for animals used as medicine was higher (62,700 Kip) than for animals not used for medicine (13,000 Kip).
- Trade in wildlife was directed for sale in the local area, with 97% of reported sales being to people from Luangnamtha Province, and 35% to people in the same village.
- 31% of households reported that outsiders come to their village to buy wildlife.
- Contacts for sale from villages in and around the NPA seem to be predominantly local.

Wildlife populations

Household assessment of decline in animal numbers was largely consistent with the threat status assigned to animals both nationally and globally. Animals listed in Duckworth et al. (1999) under various categories of risk in Laos were more commonly reported by households to be decreasing in abundance or were not reported at all. Overall,

- 65% of households identified decreases in animal abundance as a problem.
- Of these, 41% further explained that wildlife decline affects livelihoods (food and income).
- A majority suggested that stricter control of hunting is needed to resolve the problem.
- Only 32% of responses indicated a problem with wildlife increasing in abundance and causing damage to crops and livestock.
- The majority of households (69%) felt that an increase in animal abundance was not a problem, while 35% of these specifically mentioned the use of these animals for food as the reason why increases were a positive trend.

Hunting summary

Hunting in northern Laos is largely opportunistic, occurring in forested areas near upland fields, and usually during periods of upland field preparation and harvest. In addition to village use, wildlife is also traded from villages

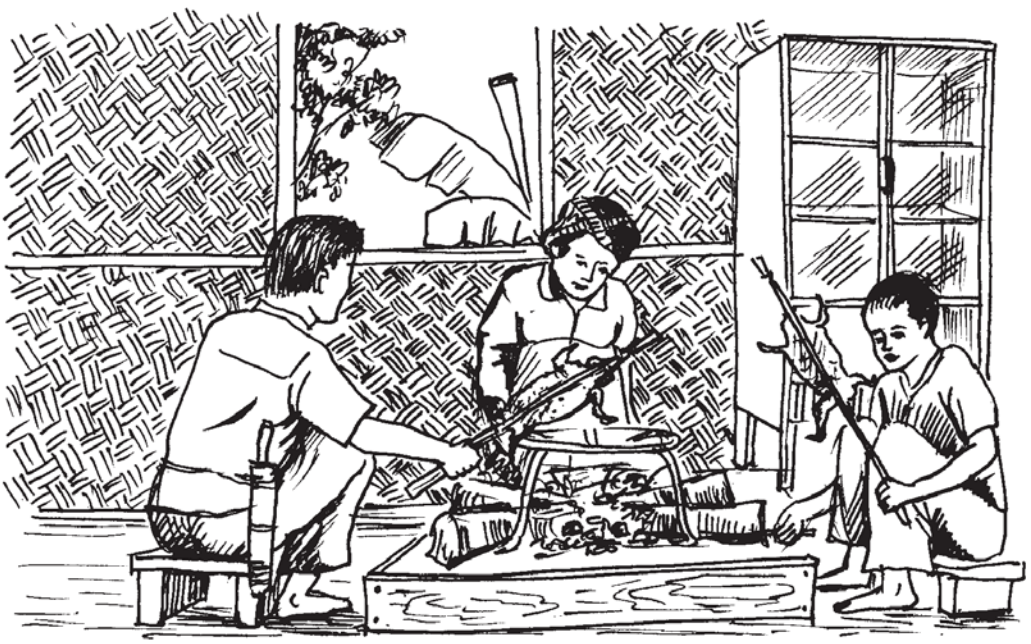
Wildlife most frequently used as medicine

Animal	n	% Households	Status MAF 0524
Southern Serow	10	90%	R
Slow Loris	10	30%	C
Pangolin	15	20%	R
East Asian Porcupine	65	17%	C
Pig Tailed Macaque	27	11%	C
Large Flying Squirrel	50	8%	R
Large Indian Civet	14	7%	
Sambar Deer	14	7%	R
Wild Pig	57	7%	C
Crested Serpant Eagle	19	5%	R
Leopard Cat	22	5%	
Silver Pheasant	114	4%	R
Red lunglefowl	118	3%	C
Big Headed Turtle	38	3%	
Red Muntjac	90	2%	C
Masked Palm Civet	62	2%	R
Grey Peacock Pheasant	106	1%	R

n=Number of respondents; Species with n<10 are not listed; C=Controlled species, R=Restricted

and hunted by outsiders. Wildlife trade and overhunting is contributing to the decline of common species important for village food and of less common species that are already rare and in decline. Of immediate concern to both rural livelihoods and biodiversity conservation is the fact that the animals most frequently used by villages now are small-bodied (<2 kg in size), while the majority of large-bodied mammals and birds, and all reptiles, were reported as rare.

The majority of households felt that decline in wildlife abundance is a problem and that more effective management of hunting is needed. This trend towards consumption of small-bodied animals and decline in larger animals was reported over ten years ago in similar habitats and cultures in northern Thailand (Tungittiplakorn and Dearden 2002). Today, several of the larger mammals and birds that were then in decline (eg. large and medium cats, Sambar Deer, Southern Serow, most primates, and hornbills) have now vanished from these northern Thai sites and people eat squirrels and other animals that were previously undesired for consumption. The lesson learned is that managing hunting and stopping the trade of wildlife in northern Laos today is critical in order to avoid extinguishing animal populations that are important food for rural villagers and a unique part of the nation's biodiversity.



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