

population.

To understand the conflict between farmers and cheetahs, I conducted a personal survey with Namibian farmers and found that many farmers had found solutions to livestock predation through the use of livestock management techniques. One of these management techniques included the use of donkeys to protect calving herds. Many Namibian farmers have successfully used donkeys as guarding animals in their calving herds to ward off cheetah and other predators. Donkeys are generally docile, but seem to have an inherent dislike for intruders such as cheetah, black-backed jackal, caracal and domestic dogs. One of the farmers interviewed stated that he has been using donkeys systematically since 1986 and has reduced his losses to almost nil. Where prior to his use of donkeys he had lost over 32 calves in one year to predators. Other farmers provided similar information and stated that donkeys were often used a century ago when the Namibian farms were first being developed. But, this simple practice had nearly vanished as predators were eliminated as a typical management practice.

Placing guarding donkeys with cattle follows the same idea as placing a Livestock Guarding Dog with sheep. For best results, an individual female donkey is placed with each calving herd. Donkeys are placed individually in herds so they do not bond to other donkeys, but to the cows in the herd. For the most effective guarding behaviour, the donkey and cows' breeding should be synchronized so that the donkey gives birth to its foal a month before the cows begin to calve. The female donkey not only protects her foal but all the calves in the herd from predators.

Namibian farmers indicated that using donkeys provides a high success rate in livestock protection provided at a low cost and easy management. However, reports of success using donkeys to reduce predation did vary. Improper husbandry or rearing practices and unrealistic expectations probably account for many failures. Some key guidelines in using a donkey for predation control include: (1) using only a mare or gelding (donkey stallions can be aggressive to livestock); (2) allowing the donkey to bond with the herd it is to protect (allow 4-6 weeks); (3) using only one donkey for each herd, except for a jenny with a foal; (4) testing a new donkey's response to predators by challenging it with a dog in a pen or small pasture (do not use donkeys that react passively during this test); and (5) using donkeys in small open pastures with a moderate-size herd. Additionally, donkeys were useful for stopping fights in a bull herd!

Mules also have been used for protection and are thought to be more aggressive than donkeys. One farmer reported seeing a leopard trampled to death by a mule. Although mules are aggressive guard animals, they have been known to "steal" calves for their own, since they cannot reproduce.

Zebras, horse stallions and homed oxen have been also been used successfully to deter predators in Namibia. The early settlers in Namibia commonly kept homed oxen with their calving herds. Some farmers thought that cattle, especially females, should never be dehorned; and that mature cattle are more successful against predators than heifers (cows calving for the first time).

The ideal situation on farmlands is to maintain a healthy balance of wildlife thus deterring predators from livestock predation, and the integration of various livestock management techniques. The use of an easy management programme like guarding donkeys has proven successful in Namibia.

Wolf return in Switzerland: a project to solve conflicts

by

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The wolf populations of the French and Italian Alps are expanding. Since the mid-90s, several pioneers have regularly reached the Swiss border and attempted to colonize the country. In 1994, one individual settled in the Val Ferret-Val d'Entremont area (canton Valais). Its tracks were lost after a game warden had shot it early 1996. Two and half years later, a young male was found dead in Reckingen (canton Valais). The necropsy showed that the animal had been illegally shot. In February 1999, another male was run over by a snowplough on the Simplon pass road close to the Swiss-Italian border. Finally, two individuals were shot by game wardens last August in the Val d'Hérens and Tourtemagne valley (canton Valais) respectively. The fates of these wolves reflect perfectly well the extent of the difficulties encountered by wolves and humans to cohabit in an agriculture-dominated region like Switzerland. Actually, these violent deaths result from a locally hostile public opinion towards the wolf following frequent attacks and killings on sheep flocks. Around 250'000 sheep – 75'000 in the canton Valais only – graze in the Swiss Alps, most of them unat-

tended, and their numbers keep on increasing from year to year. Undoubtedly, for an opportunist predator like the wolf this is a galore which translates in dozens of sheep killed every time a wolf pops up in the country.

In February 1999, the Federal Office for Environment, Forests and Landscape launched a project - the *Swiss Wolf Project (SWP)* - in order to solve the conflicts generated by the wolf and make possible the cohabitation with man. The project is conducted by KORA (Coordinated research projects for the conservation and management of carnivores in Switzerland) and has three main objectives : prevention, information and monitoring. While the wildlife management service of the canton is in charge of the monitoring at the local level, which mainly consists of looking for wolf signs when an observation has been announced and assessing its reliability, KORA coordinates the monitoring at the national level, gathering and analyzing the data. All members of the project are involved to a greater or lesser extent in public relations and dispense the relevant information to local people on the spot, through the media or during public talks. A quarterly bulletin with the project's latest news is also edited by the KORA and sent free of charge to everyone interested in getting it. Damage prevention is currently an objective of first importance for the project but is definitely not an easy task. One major difficulty encountered by the *SWP* is to convince the farmers to protect their sheep, since for most of them to agree to prevent means accepting the wolf. Nevertheless, several farmers consented to apply preventive measures against wolf depredations. All measures are entirely paid by the *SWP*. So far, 25 guard dogs - mainly Great Pyrenees - have been introduced in different sheep flocks, some of them already before the start of the *SWP* (Landry 1999). In addition, 8 shepherds and aid shepherds have been engaged in the project this year in order to advice the farmers or to protect sheep flocks located in hot spots. At last, donkeys (18) and electric fences have been used to protect smaller sheep flocks. An evaluation of these measures will be presented in a forthcoming paper.

References :

Landry, J.-M. 1999. The use of guard dogs in the Swiss Alps : a first analysis. KORA report No 2, 26 pp.

You can find this report on the net on:

www.kora.unibe.ch/main.htm?ge/publics/reports.htm
(pdf-files in English, French and German)

Who did it?

Age and sex specific depredation rates of Eurasian lynx on domestic sheep

by

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The question of if "problem individuals" exist - in terms of individuals that kill relatively more livestock than others - constantly recurs within the field of livestock depredation research. The proposed existence of these individuals lies behind the rationale of many mitigation measures, such as selective control or translocation. Norway suffers very heavy losses of lambs each summer - in 1999 c. 9000 lambs were killed by Eurasian lynx - and effective mitigation measures are needed. Lynx hunting is used to limit the growth in numbers, and if certain "problem individuals" could be targeted it would be possible to achieve a greater reduction in conflict. However, there is very little empirical evidence, either for, or against the existence of problem individuals. In order to address the issue we have intensively followed radio-collared lynx in two study areas in south-eastern and central Norway during summer. Individuals were intensively followed around the clock, and the areas where the lynx passed close to a sheep flock or appeared to have killed a prey were subsequently searched, often with the use of dogs. A total of 34 individual lynx (of all sex and age classes) were followed between 1994 and 1999. All study lynx had access to free-ranging and unguarded sheep within their normal home ranges. In 634 nights of intensive tracking, 63 sheep and 3 goats were found, in addition to natural prey such as roe deer. For each age / sex class of lynx we calculated a kill rate (number livestock killed per 100 nights when the lynx passed through a sheep flock). The kill rates were 38, 53, 8 and 26 for adult males, yearling males, adult females and yearling females, respectively. This massive sex difference was mainly due to the fact that 12 of 13 cases of multiple killing were due to males, in episodes where between 2 and 8 sheep were killed in a single attack. Livestock formed an insignificant part of lynx diet during summer. There was no evidence for the existence of specific individuals that were worse than others, but rather strong evidence for a problem sex - males. The implications are that it is not likely to be a real-