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Livestock Guarding Dogs in Sweden: a Preliminary Report by

Maria Levin

Sweden has no modern knowledge of working with guarding dogs to protect livestock from large predators and there are no special breeds of livestock guarding dogs from Scandinavia. Records from people living in the 19th and the beginning of the 20th centuries inform us however that some kind of dogs in those days were used as all-round dogs, some of them accompanying livestock and people during the days in the forest. On some occasions some of them actually got into fights with both wolves *Canis lupus* and bears *Ursus arctos*. In time these dogs were bred as hunting dogs and the "old grey dogs" eventually became lost. Still, the interest in guarding dogs is aroused again and both farmers and the authorities want to learn more about how they work and how to raise and keep them.

Today, most livestock in Sweden is fenced, either within electrical fences (wires), traditional sheep wire-netting fences, or with sheep wire-netting fences supplemented with two electrical wires. The 210,000 (adult) Swedish sheep are found in 7,600 flocks. Only 1,000 herds have more than 50 adult sheep. Only a small number of farms have more than 200 sheep. Some of them are situated in areas with large carnivores, mainly wolves and lynx Lynx lynx. The Wildlife Damage Centre has worked intensively with electrical fences to protect against large predator depredation since 1997 (Levin 2002). The knowledge about this is becoming more and more widespread among farmers and quite a few have invested (with grants from the regional authorities) in these types of fences. These fences are however, not completely safe and especially lynx might jump through them in exceptional cases. Large herds of sheep that still suffer from predation problems can probably benefit from having a livestock guarding dog or two in the enclosure.

A minority of farmers (i.e. less than a hundred) let their animals range freely during the summer. These farms are situated in boreal areas in the central to north central parts of Sweden. A majority of them are located in the same area as dense, or growing, populations of bears and wolves. During the last 10 years problems have been reported from a few farms with free ranging sheep or dairy cattle. The confirmed number of free ranging animals being killed or injured by large predators is not high, but there is a widespread anxiety that something will happen and some farmers are also convinced that the actual presence of predators in the neighbourhood stresses the livestock and causes indirect damage, like failed ovulation, abortions, decreasing milk production, etc. In these situations a livestock guarding dog might be of help, as long as it can work by itself. There are no shepherds in Sweden and it will probably be very difficult, if not impossible, to get people to work as shepherds. Less than 2% of the economically active population is engaged in farming. We welcome all advice and happily share other countries experience from similar situations.

The Wildlife Damage Centre encourages farmers with certain needs to get puppies of good quality guarding dogs and also recommends that the county councils subsidise the purchase of the dogs. Our intention is to follow the development of these dogs under Swedish conditions in the long term. We do this with a yearly survey for each dog, as well as annual meetings with the dogs' owners to discuss and



Figure 1. A *Maremmano-Abruzzese* protecting a flock of alpacas that was attacked by wolves before. The dog is working in electrified enclosures. (Photo: Maria Sandgren)

share experience. At the moment there are nine dogs (of our knowledge) working actively to protect livestock in Sweden. Eight of the dogs are of the same breed, Maremmano-Abruzzeze, and work within fenced areas. The dogs are born in a Swedish kennel, but have Italian working dogs as parents (the bitch is imported). The breeders have lived in Italy and spent a lot of time learning about the dogs from shepherds in the Abruzzi mountains. All the working dogs were raised with livestock at the same farms where they now live. Two of these dogs protect alpacas in a flock that was attacked by wolf two years ago (Figure 1; the dogs were obtained after the attack), the rest protect sheep in areas with both lynx, wolves and (at one farm) occasionally bears (Figure 2). The ninth dog is an Anatolian Shepherd Dog. This dog

was first raised in a town, but was taken to a farm as a two-year-old. The introduction seems to have gone well so far, and last summer the dog was protecting free ranging goats in an area with bears, lynx and occasionally wolves.

The Wildlife Damage Centre has also produced a "manual" for raising and training guarding dogs, based on the booklet "Livestock Guarding Dogs: Protecting Sheep from Predators" Agriculture Information Bulletin Number 588, published by the Unites States Department of Agriculture. The manual is just about to be printed and will eventually also be presented as a pdf-file on our web-site as well as sent to the LCIE. We are very interested in getting into contact with people or projects who work actively with guarding dogs as a protection measure against large carnivores. We have many questions, e.g. concerning free ranging animals: Is it possible to get dogs to work well with free ranging animals without shepherds? How does one train them to achieve this? Are there certain breeds that are preferable for this task?

We probably depend on importing dogs from abroad, since 8 out of 9 dogs working in Sweden are closely related, and welcome all advice on who we should get into contact with and what breeds we should go in for.

Our "program" has only run for a little more than a year, and consequently we don't have much to report. In about five years we hope-

fully have enough Swedish "data" to make some kind of evaluation which can lead to general recommendations on working with guarding dogs in Sweden.

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Figure 2. A *Maremmano-Abruzzese* protecting sheep near the farm. The sheep are kept in within a sheep wire-netting fence supplemented with two electrical wires. (Photo: Inga Ängsteg)