CASE STUDY: Dog Population Management on Koh Tao, Thailand

Background

Koh Tao is a small 21 km² island in the Gulf of Thailand located 70 km east of the southern Thai coastline between Surathani and Chumporn. It has developed into a tourist site with some of the best diving in Asia and can only be accessed by boat usually from neighbouring islands such as Koh Samui or Koh Phangnan. The local population is around 1,800 but the number of visitors annually is about 240,000.

There were lots of uncared for stray dogs roaming around the island, many with terrible skin conditions such as mange. There were no veterinary services available on that island, no shelter or sanctuary, and virtually no medical care for the dogs until the set up of a UK registered charity - Noistar Thai Animal Rescue Foundation (Noistar) in 2002. It established a not for profit clinic in 2004. Initially run by volunteer vets and nurses until 2006 when the clinic employed their first local resident veterinarian, Dr Jae Intaraksa, who remains the only vet on the island. Noistar is also a member society of the World Society for the Protection of Animals (WSPA).

Part of the long term strategy of Noistar was a three year work programme to initiate, undertake and assess the effectiveness of a neutering and vaccination programme on the welfare and number of dogs on the island.

Assessing the problem

In November and December 2007, a survey was conducted to assess the number of dogs on that island and the welfare of owned dogs. It was decided that the island was small enough and the human population concentrated enough into certain areas that a complete dog census could occur and individual dogs would be monitored and identified. A direct dog count was taken around Koh Tao’s inhabited sites according to the guidelines by WSPA. A complementary questionnaire was conducted at the same time on dog owners on the island.

The dogs were broken down into three categories according to ownership status.

- **Owned** A person stakes claim over the dog. The dog stays with the owner most of the day, or the owner knows the whereabouts of the dog for most of the day/night.
- **Community** These are community dogs. They are sometimes fed by people in the community, but not fully owned by anyone. They are recognized by the community, but not necessarily cared for the whereabouts of the dog at all time.
- **Unowned** Nobody stakes claim over the dog. Unrecognized dogs are also in this category.

At the end of 2007, there were 700 dogs on that island – 36% are owned, 42% community dogs and 22% are unowned. Out of those, 72% of the females and 64% of the males were neutered, with owned dogs having the lowest neutered percentage (53%).
The questionnaire revealed that there were 249 dogs kept by 186 owners. Other interesting facts from the questionnaire:

- 28% of those dogs were adopted off the streets, whilst 29% of those were obtained from outside the island.
- Most owners (78%) have only one dog.
- 60% of those dogs are either a pure breed or mixed breed.
- Most of the owned dogs (83%) had been vaccinated for rabies.
- Most of the owned dogs (53%) were surgically sterilized, with 65% of those neutered by Noistar.

This survey was repeated in March 2009 to measure the trends and impact of the work by Noistar (see below).

**Activities of the organisation**

Noistar provides simple veterinary services to the dogs on Koh Tao, including neutering, vaccination, deworming and simple treatment for various ailments. Since the establishment of the clinic in 2004 up to July 2009, Noistar has neutered 812 dogs and provided treatment to 9,053 animals, most of which are dogs.

Although Noistar provides ongoing vaccination and neutering, a more intensive Neuter and Vaccination Program (NVP) was carried out in February 2008 over a period of four weeks. During the NVP a total of 251 dogs were neutered and 483 rabies vaccinations were given, raising the total of dogs neutered by Noistar to 1,063 dogs up to July 2009.

Since 2006 a permanent Thai vet was employed. This made considerable inroads into engaging with the local residents on Koh Tao, as they are able to relate better to a local person. This increase in trust resulted in more of them bringing their dogs or community dogs for treatment at the clinic. Also, the residents are able to help with the post operative care of community or unowned dogs after neutering.

The clinic has also become an education centre for information on pet ownership. Information on responsible pet ownership, benefits of neutering and general health information are distributed via the clinic. The resident vet, staff or volunteers are also able to consult with the local communities. Overall, the clinic has become well known on the island.
Progress and trends

The survey, both dog counts and questionnaire, was repeated in March 2009 with the main aim of measuring the impact of the NVP. Below are some of the results from both surveys.

![Bar chart showing the number of dogs on Koh Tao according to ownership status (percentage in brackets)](chart)

**Figure 1** shows the changes in the number of dogs and shifts in the ownership status of the dogs on Koh Tao.

Although the total number of dogs has increased from 700 to 903 dogs, there has been a major shift in ownership. The number of unowned or community dogs has decreased by 273 in total, whilst the number of owned dogs increased by 480 dogs. This shows that a lot of dogs are being adopted off the streets and pet ownership is on the rise. This can also be seen as there are more owners keeping more than one dog.
Figure 2 shows the changes in the number of dogs owned per household on Koh Tao.

The percentages of dogs that are neutered have also increased, although the percentage of owned dogs that are neutered is still lower than community or unowned dogs. Community and unowned dogs are grouped together in the graph below because dogs from these categories are roaming all time of the day and are more likely to breed.

Figure 3 shows the increase in percentage of neutered dogs according to ownership status.
Other interesting facts from the surveys:

- Number of rabies vaccinated dogs remains high at 89% (compared to 83% in 2007).
- 64% of the dogs are neutered, 88% of those were neutered by Noistar.
- Dog bites are not a significant problem amongst dog owners in Koh Tao, 4 people from a dog owning household were bitten by dogs in 2007 and 3 people in 2009.
- Number of dogs that has died due to diseases or disappeared in the past 12 months at the time of questionnaire has decreased – 28 dogs in 2007 and 15 dogs in 2009.
- Number of people who breed dogs for sale has increased – 5 household sold 18 puppies within the last 12 months of the March 2009 survey (none in the 2007 survey).

A paper with more details is being put together for publication to compare the results of the two surveys and assess the impact of the neuter and vaccinate program.

Conclusion

There are now fewer unowned or uncared for dogs on the island despite a large increase in the total number of dogs. It indicates a shift in ownership, as more roaming dogs are being cared for and ultimately adopted off the streets. This is positive progress because it shows that the community is taking more responsibility for their dogs, aided by the availability of a local resident vet to engage with them.

However, the large number of increase in owned dogs, more than the reduction in number of community or unowned dogs, indicates that the sources of these dogs needs further investigating. Possible sources of these dogs include dogs brought from outside the island or increase in the number of people breeding dogs on the island for sale. Should these sources be a significant contributor, these imports and breeding should be monitored as these new dogs could also undermine interventions and be a future source of stray and community dogs.

The vaccination campaign was successful, maintaining level of vaccinations at over 70% each year. The high figure of vaccinations performed at the island clinic underlines that free vaccinations can play a major part in increasing rabies inoculation of dogs. Dog bites remain very uncommon on the island.