Fostering dog-aware communities

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ABSTRACT

Obstacles to solving pest animal problems arise when we disregard the need to define problems and clearly articulate what is required in a solution. The causes of animal-human conflicts are generally assumed, not discovered. The objective of many management programs is simply to get a 'body count'. 'Planning' becomes a crude process of choosing a gadget. Anger or frustration, not logic may drive the response to an animal conflict where people have lost domestic animals, or fear for their safety. Other members of the community may propose 'soft' responses based more on romanticised notions of animal behaviour than ecology.

To reduce the impact of animal conflicts, animal managers must work within communities. In settled areas, these communities espouse a variety of opinions about pest animals and pest animal management. Successful pest animal management depends upon increased awareness of animal behaviour, improved capacity for rational analysis of problems, and encouraging communities to take more responsibility for their problems.

DOG PROBLEMS OR PEOPLE PROBLEMS?

Encounters with wild dogs

Since European settlement of Australia, there have been adverse encounters between humans and wild dogs, mostly in rural areas where pastoral enterprises are affected (Fleming, *et al* 2001). Recently, however, stories of serious encounters between wild dogs and people have been more prominent in the media. Many of the stories claim that wild dogs are more abundant than in the recent past, and that they pose unprecedented risks to livestock, wildlife, and most especially, human safety.

Although reports of attacks on livestock are still common, an increasing number of 'incidents' are reported from more densely settled areas. These reports frequently cite the perceived threat of attacks on humans, especially children. The recent concern with safety follows the widely publicised death, on 30 April, 2001, of a nine-year-old boy, and the wounding of his seven-year-old brother, by dingoes on Fraser Island.

As a consequence of continuing problems with dog predation on livestock and the *apparent* increase in human-wild dog encounters in settled areas, animal and land managers are searching for effective and imaginative ways to manage wild dog problems.

Dingoes, wild dogs & roaming domestic dogs

Wild dogs and roaming domestic dogs are predators of livestock. Sheep, cattle, goats, deer, llamas and other stock may be attacked and killed or maimed.

Livestock may lose condition as a consequence of 'worrying' by wild dogs. While the economic impacts on rural enterprises are extensive, the large number of enterprises on smaller properties in more settled areas are also affected. Losses in more settled areas are likely to be intensive, and for individual enterprises, losses can be very high (O'Keeffe and Walton 2001).

Livestock, wildlife and pets may all be affected to some extent by disease organisms spread by wild dogs. The importance of this is sometimes underestimated. For example dogs spread *Echinococcus granulosus,* the cause of hydatid disease. Hydatidosis can affect livestock, wildlife and humans. Hydatid disease has probably been under-reported, and is thought to be more common in southeast Australian population centres that previously assumed (Jenkins and Power 1996).

The emergence of neosporisis is another example. It has relatively recently been found that dogs are involved in the transmission of *Neospora caninum,* a major cause of abortion in cattle. The mechanism for transmission is still poorly understood. (Reichel 2000)

Dogs also carry a variety of other parasites and pathogens, such as roundworms, heartworm, giardia and cryptosporidium. Some of the disease organisms and parasites carried by dogs can affect human health.

It is important to consider the issues of roaming domestic and dogs concurrently. Wild and domestic dogs may interact, potentially hastening the spread of some diseases and parasites that affect pets, livestock and humans. Both wild and domestic dogs attack and kill wildlife and livestock (Jennens 1998; Meek 1999; Fleming, *et al* 2001). Attacks on livestock by domestic dogs are frequently attributed to wild dogs are often attributed to wild dogs, eliciting an inappropriate response. Abandoned, unowned or free-ranging domestic dogs can extend the population of feral dogs. Removing wild dogs without addressing the issue of animal dumping will not provide relief from the adverse impacts created by dogs. In addition,. The Queensland Wild Dog Management Strategy (DNRM 2002) recognises that large populations of feral dogs of domestic origin are hastening the disappearance of the dingo through hybridisation (Corbett 2001). The Strategy requires that pest management plans incorporate measures to conserve remaining wild dingo populations. Ultimately, if this is to be achieved, pest management plans must address the issue of community responsibility for working and companion dogs.

These problems demonstrate that responsible animal ownership must be a key component of any successful wild animal management program. Where humans are in conflict with wild dogs, responsible animal ownership can often provide an important opportunity to engage communities directly in solving their wild animal problems.

Problems with people

Australia's population is largely 'urban'. That is to say that the majority of people live and work in or near the large population centres. People in more settled parts of Australia derive their incomes from a very diverse range of occupations, but the activities of wild dogs, or other 'pest' animals do not directly affect most of these. For people in settled areas, a sound understanding of animal behaviour is not a necessity, and as the population becomes more urbanised, fewer people have direct experience of wild animals.

Rural communities generally have a very different relationship with wild animals, dogs being a case in point. In rural areas a large proportion of people are directly or indirectly dependant upon primary production. This includes grazing enterprises where predation by wild dogs is an ever-present economic risk, and where lethal wild dog control is an established routine and an accepted part of land management. In rural areas relatively few properties and people will be affected by any particular dog problem. There will be a high level of agreement on the required action. In these circumstances it is easy to obtain cooperation and problems are rapidly dealt with. In more settled areas, a troublesome pack of dogs may wander over several hundred properties, potentially affecting many people. These people will be from varied backgrounds and will often disagree on the status of the dogs as pests, or the most appropriate way to manage the problem. Obtaining cooperation and achieving resolution of animal problems can be slow and difficult in such circumstances.

Many of the changes that we make to the natural environment benefit wild canids, and increase their abundance (Corbett 2001). Changes at the urban-rural interface are complex, and the paradoxical situation arises where available territory is decreased while other important resource, (food and water) are greatly increased. Inevitably this brings dogs into conflict with people in these areas. Urban residents are frequently surprised to find that far from simply abandoning these fringe areas, wild dogs adapt their behaviour to try and take advantage of newly available resources.

Many problems with wild dogs are the result of human behaviours that increase opportunities for conflict. People deliberately feed wild dogs and habituate them. When habituated dogs confront humans, they must ultimately be destroyed. Humans allow domestic dogs to roam at will, or they dump unwanted dogs. These add to the existing wild population of dogs, and there may be an increase in predation on livestock, pets and wildlife. Humans place vulnerable prey animals, such as goats, in areas frequented by wild dogs, without providing adequate protection. Predictably, the potential prey animals are taken, and humans behave as if they have been singled out for particularly harsh treatment. It could be argued that we bring many of these problems on ourselves.

Public attitudes to pest animals and pest animal management techniques often determine, for better or for worse, what strategies are used by pest animal managers. Public demands for pest management are often based on scant knowledge, and ill-founded assumptions.

There is often a reluctance to adopt a rational response to an animal conflict. Public expectations are often unreasonably high, and pest managers are frequently faced with demands for complete eradication of animals, using methods that are totally free of risk to non-target animals, humans and the environment. In most cases, no consideration is given to the ecological impacts or flow on effects with other pest animals if complete eradication were possible.

Pest managers are not necessarily better informed or less prone to acting on assumptions and preconceptions. Much pest animal management is purely reactive, and does not make a genuine attempt to solve problems. Pest animal managers often act in the absence of key information about the ecology of pests. Most serious is the tendency of pest managers, who often have backgrounds in 'hard' science, to ignore the important human dimensions of pest animal problems (Jones, *et al* 1998). Recently, many studies have shown that pest animal management programmes frequently fail because 'experts' driving the activities have little genuine understanding of public attitudes. Pest managers very often assume what the public want or expect, or worse still, dismiss public opinion as foolish or irrelevant. Whatever public opinion is, be it well founded or uninformed, this is what will determine whether a pest management program is supported or opposed, and therefore ultimately whether it succeeds.

It follows that pest managers must improve their ability to define and analyse all aspects of pest animal problems. Pest managers must also find more successful ways to raise the level of public understanding of pest animal behaviour and ecology. The most pressing task, however, is for pest managers to find effective ways to engage communities in solving problems.

FINDING SOLUTIONS

Wild dogs on Bribie Island

Bribie Island is a popular recreational destination lying off the Queensland coast just north of Brisbane. High visitation rates are facilitated by a vehicular bridge that connects the island to the mainland. Several busy urban areas are found at the southern end of the island. The largest part of the island, to the north is uninhabited national park and forestry land managed by the Queensland Parks and Wildlife Service (QPWS) and the Department of Natural Resources and Mines (DNRM). Camping, walking, fishing, cycling, and a range of other outdoor pursuits are very popular with residents and the large number of visitors to the island. These activities sometimes bring people into contact with wild dogs on the island.

Within the last five years, there has been an increase in the number of undesirable encounters between wild dogs and humans on the island. These included attacks or aggressive behaviour towards humans and pets. In some of these encounters, dogs nipped humans, including children. Wild dogs began to frequent shopping centres and the main commercial areas on the island. Wild dogs were seen with increasing frequency on beaches, in parks, in suburban streets, and disturbingly, in schoolyards.

Persons involved in these incidents initially received no assistance from the local Council. Thus, it became established practice to take reports of incidents straight to the media. Incidents were widely publicised. The increased publicity occurred after the Fraser Island attack, and as a consequence the community became less tolerant of the presence of wild dogs. Fear of dogs increased, and where sightings of dogs were once novelties, they became 'incidents' requiring 'a response'. Inevitably, since Bribie Island is a popular recreational destination for families, the media began to speculate that another child could be killed by a dingo.

With no effective response to the problem, residents on the island began turning to the police for assistance. Police despatched a number of dogs, but were understandably uneasy about taking on a role for which they have no training and no real mandate. The police acted on the assumption that all dogs for which complaints were received needed to be destroyed, however some police officers believed that this response might lead to unnecessary killing. The police requested that the DNRM investigate possibilities for a more satisfactory response to the wild dog problem. The author agreed to initiate and guide this process.

A model for problem-solving

A logical, structured, problem-solving process incorporating some components of conflict resolution was adopted. All parties and groups affected by or interested in the wild dog issue on the island were contacted and asked to participate in a problem-solving workshop. This was not merely an invitation to spectate, but a challenge to participate, and to take responsibility.

Prior to the first meeting, interested parties were asked to gather records of incidents involving wild dogs. The first meeting canvassed opinions, and assessed the level of understanding of dog behaviour and ecology. Sightings and incidents involving dogs were mapped, and the maps used as a starting point for analysis of the problem. Authors who have analysed failed attempts by government agencies to engage communities in solving environmental problems have found an important common cause. Government agencies structure their activities in such a way that community members are 'assigned' the role of complainant in any planning or negotiations (Lund 1998; Jones, *et al* 1998). Although this may not always be deliberate, the likely outcomes are lack of faith in decisions, lack of commitment to solutions, and frequently, conflict. Putting members of the community in the position of being complainants proscribes an active role in solving problems, limits opportunities to improve understanding of complex issues, and perhaps most importantly, prevents the community from taking the appropriate level of responsibility for its problems. Thus, to ensure genuine 'engagement' and the development of a workable partnership between all affected parties, some simple but important measures were incorporated into the problem-solving process for Bribie Island.

Problem-solving sessions were not run as lectures, although persons with relevant expertise participated. *Analytical session* allowed participants to discover the extent and causes of the dog problem for themselves. The mapping exercise was particularly useful in this respect, as it rapidly dispelled the widespread misconception that dogs were present in their hundreds right through the entire landscape. The mapping exercise allowed participants to identify 'hot spots' of dog activity. Productive discussion on the reasons for these patterns followed. It quickly became clear that incidents and sightings of 'fearless' dogs were associated with either deliberate or unintentional feeding. Importantly the mapping exercise demonstrated to the community the value of collecting information and carrying out investigations. This was significant, since getting an impatient public to see the need for monitoring and collecting data is often difficult to achieve amidst the usual 'calls to arms'.

Dogs were being fed by fishers at specific locations. At several locations, food was routinely available to dogs because disposal facilities were not secure. Wild dogs were routinely scavenging from barbecues and rubbish bins in public parks, particularly following weekends when large numbers of visitors were on the island. A number of residents, including children, were feeding dogs, all with the best of intentions. Some of the motives surprised pest managers. It was interesting to discover that many people fed wild dogs in the hope that this would discourage them from attacking wildlife. Of course other people fed the dogs simply because they liked them or felt sorry for them. Later in the programme, it was discovered that the unexplained presence of dogs in one area, bordering the national park, was the result of feeding by construction workers on new housing sites.

In convening the session, care was taken to encourage analytical thinking, as an alternative to finding blame. This was especially important in considering the contentious issue of feeding wild dogs. The participants were able to discuss feeding without 'perpetrators' feeling as if they were being persecuted. The dangers of feeding wild dogs were discussed, and the local situation compared with dingo problems that have developed on Fraser Island. There was strong agreement that food sources, particularly from deliberate feeding were the greatest factor contributing to wild dog problems on Bribie Island, and that this issue must be addressed. The group was then faced with the task of deciding how to:

1. Control food sources to prevent dogs from becoming habituated in the future.

2. Deal with already habituated 'problem' dogs.

It became obvious that point 2 was a contentious issue that would not be resolved immediately. Rather than have progress hinge on solving this, it was agreed to commence work on tasks for which there was a high level of agreement. There was unanimous agreement that measures which reduced hazard to children (other than removing dogs) were required. It was agreed that a dog safety programme should be run through the schools, and that all children should be put through this programme. But who was to take responsibility for this? Since Caboolture Shire Council already ran a civics programme in schools, they were asked to participate. RSPCA have run school programmes on pets, and their officers have a good understanding of dog behaviour.

Thus, RSPCA were asked to lead the programme. DNRM have a wealth of experience in the field of wild dog ecology and behaviour, and they agreed to provide expertise where necessary. The schools dog safety programme began immediately, while the group worked through some of the other more difficult issues. Within a short time, all children on the island had been put through the programme. This had several important consequences in addition to reducing the risk of injury to children. It raised the general level of awareness of the problem and its causes within the community, and built confidence in the problem-solving process. This gave the confidence to work cooperatively to find solutions to the most contentious issues.

Thus, problem-solving sessions laid down agreed principles that were to govern removal of problem dogs in order to protect human safety.

1. It was agreed that removal of all wild dogs "on sight" was unnecessary and would constitute gratuitous killing.
2. There should be no gratuitous killing of dogs.
3. Dogs requiring removal should be trapped humanely using cage or approved restraining devices.
4. Dogs should not be despatched with firearms or poison.

Bribie Island- Dog aware community

A task force representing each of the groups participating in the problem-solving exercise was established to refine these principles and turn them into a working programme. The group was also charged with initiating and overseeing an education programme, conducting a food source audit, collating observations of dogs and incidents and providing a qualified person investigate incidents and carry out trapping. Members of the task force became coordinators for those tasks where their organisation held the most relevant skills. Participating organisations included the Caboolture Shire Council, Bribie Island Environmental Protection Association, QPWS, the RSPCA, the Queensland Police Service and Pine Rivers Shire Council (the adjoining local government area).

The task force established a set of clear triggers for removal of wild dogs, based on animal behaviour and situation. These triggers removed ambiguity from decision-making and gave animal control specialists a clear set of directions to follow. These circumstances would trigger the need for a wild dog to be removed:

- attacking a human,
- exhibiting aggressive behaviour towards a human, (closely confronting, nipping, biting, growling)
- attacking pets or livestock that are legally secured,
- habitually frequenting areas where large numbers of people regularly congregate, (for example shopping centres)
- habitually frequenting areas where children congregate. (for example schools and playgrounds)

It was also agreed that other responses should be made to incidents of a less serious nature. Preventative measures that would help avoid future problems with dogs were considered to be just as important as removal of habituated animals.

The Caboolture Shire Council (CSC) agreed to receive reports of incidents and observations through their call centre the return of observation forms distributed at the problem-solving meetings. CSC also agreed, in principle, to provide an officer to assess reports and initiate the appropriate response. At that time, CSC had no staff qualified to undertake this work, and there were no appropriate training courses. A mentoring arrangement between CSC and neighbouring Pine Rivers Shire allowed the new CSC animal control officer to obtain several weeks of first-hand experience with a highly qualified and skilled wild dog expert. This proved to be an excellent arrangement. The new officer put a great deal of effort into public education and preventative measures. In addition, he worked with the RSPCA to develop standard operating procedures for the use of humane capture devices and for the humane killing of captured animals.

While these initiatives were being implemented, residents also took their share of responsibility for the problem. Residents reported incidents and the presence of wild dogs in settled areas. One of the ideas that residents proposed at the problem-solving sessions to reduce deliberate feeding was a great success. Residents observed that local butchers were aware of the unwanted feeding. Persons carrying out the activity were obtaining their supplies from local butcher shops. Residents believed that a heavy handed approach from local government or state agencies would result in an increase, rather than a decrease in wild dog feeding. However, it was felt that local people might listen to their butchers. The local community worked with the task force to develop posters explaining why feeding creates problems. Local people placed these in the butcher shops, and with a more detailed leaflet. In addition, where there were reports of wild dogs being fed, local people distributed the same brochures to residences in the area. By the time CSC made a staff member available, most of the deliberate feeding had stopped. The level of understanding of the issues had increased, and discussion of the feeding problem amongst locals was informed. It was relatively easy then for the council officer to approach individuals who were deliberately feeding dogs and explain the consequences. In most instances, the individuals concerned desisted with no animosity.

The task force also undertook an audit of food sources. It discovered a number of locations where dogs were gaining regular access to commercial rubbish bins. Businesses in the area were visited and given advice on how to secure these bins to prevent entry by dogs. Local residents reported that wild dogs were regularly visiting a number of popular fishing spots, and that they were becoming alarmingly bold. CSC installed signs warning of the dangers of feeding dogs, and installed receptacles for disposal of unwanted bait and offal.

In areas where it was found that construction workers were feeding dogs, discussions with the construction firms were held. The issues were explained to the construction workers, and there were no difficulties in obtaining compliance. In most cases, people were simply unaware of the problems caused by leaving food lying around.

The program continues, and from time to time problems arise. However, where once the first response would have been to turn to the media and complain, people now have an effective process that they use to solve these problems. There are still many wild dogs on the island, but eradication was never anyone's intention. What has changed is that there are fewer incidents because the community's preventative measures are working. If there is a conflict with a wild dog, there is an agreed, transparent procedure for dealing with it. No attempt was made to 'keep the procedures quiet'- quite the reverse, in fact.

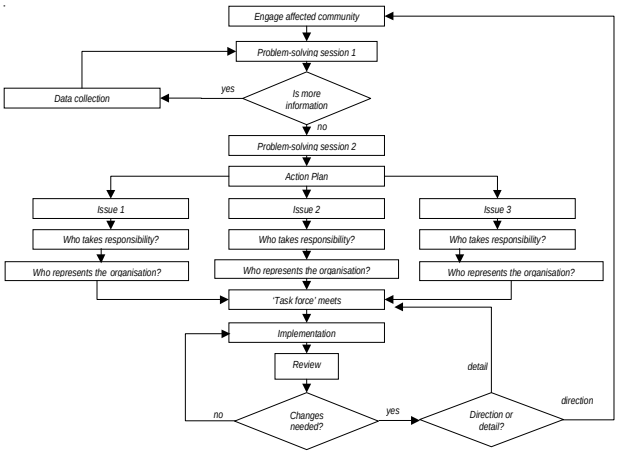
Two principles underpin the success. The first is that there must be a logical analysis and articulation of 'the problem'. The second is that those affected by the problem must accept responsibility for the solution. The community has made this programme succeed by taking on more responsibility, not by giving it up to external bodies.

A MODEL APPROACH

The wild dog issue on Bribie Island has been important to the author in developing a general approach to human-wildlife conflicts in settled areas. Although each instance where a wildlife conflict develops is in some sense unique, a sound process can help the affected groups work their way towards a solution that is workable and accepted by all parties. The flow chart show in Figure 1 shows how the process works. The assumption is made that problem solving sessions are initially open to any groups or persons who have both an interest in the problem, and the intention to make a commitment to solving the problem.

Essentially, there is an information gathering phase followed by problem definition and analysis. This is critical, and is, incredibly, often overlooked in solving many resource management problems. Often, there is a strong tendency to make gross assumptions about the problem, and to treat the problem-solving process as an exercise in finding ways to apply a predetermined solution. Enter the process with no preconceptions, and no unchangeable outcomes.

Figure 1. A problem-solving model for engaging stakeholders in cooperative pest animal management.



Once the problem is clearly articulated, key components can be teased out, and the causes examined. This, of course is a necessary precursor to developing an action plan. The action plan may treat various facets of the problem as concurrent activities. This is particularly useful if some aspect of the problem proves contentious, or in some way more difficult to solve. Splitting the problem will help avoid becoming mired and creating frustration. By continuing to work on facets of the problem where there is a high level of agreement, trust and cooperation are built, making it progressively easier to work collectively at solving more difficult issues. For example, on Bribie Island, the community began by arranging the child safety programme (high level of agreement), before it tackled the very difficult question of deciding which wild dogs had to be killed.

A participating group(s) must accept responsibility for the tasks in each component of the action plan. Without this, the plan is just a list of jobs. To oversee the work, convene a task force that consists of representatives from each participating group. The group should liaise with the community to keep it informed, and ensure that problems arising are addressed. Representatives from the participating groups maintain the communication between their constituencies and the task force.

Monitor the effectiveness of the action plan. Review the plan, and adjust it in the light of new information or changing circumstances. Ensure that the community remain both informed and involved.

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