

*Preliminary investigation of
human perceptions of the street
dog population in Chile,
November and December 2008*

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Introduction

In the last decade, Chileans have taken notice of the complexity of the problem associated with the urban and rural street dogs. Numerous communities and animal groups are voicing their opinions, but none have clearly elucidated the issue, nor taken responsibility for the resulting problems. The aim of this Phase I investigation in Chile was to 1) Identify the issue/problem; by asking community partners to identify their concerns; such as overpopulation, aggression/safety, diseases, aesthetics, etc., 2) identify their interest, and articulate how each group views their role and that of VWB/VSF if a “program” was to be developed and 3) to identify resources that interested stakeholders and/or partners are able and willing to commit toward a long-term dog control program.

We were invited to Chile by Drs. Nestor Tadich and Pablo Rivera from Universidad Austral de Chile (UACH), in Valdivia, and Universidad de Concepcion (UdeC) (Chillán Campus) respectively, to discuss the potential for collaboration in developing new ideas, and improving on their current efforts to control the canine population. We found that it was very important to clearly explain at the outset that we did not come with a formatted project/recipe, or readily available funds. We suggested that a program would be more successful if developed by Chileans for Chileans with appropriate sensitivities with regards to the local socio-economic, cultural, educational, religious, and ecological realities. We discussed the benefits of a “top-down” and “bottom-up”, program that takes both the high- and low-income level issues/concerns into equal consideration. We also spent time explaining that VWB/VSF-Canada has access to various specialists and consultants, laboratory resources, and experience with program development and fundraising - many of which become available to projects when partnering together. Following much discussion and sharing of thoughts and ideas, we found that they soon took ownership of the situation and began a deeper search toward finding local solutions.

Investigation of the Issues and Perceptions Pertaining to Street Dog Program Development

Identifying the General Issues

Valdivia:

Currently, Valdivia has a human population of ~135,000 and a dog population of ~22,000, of which ~9,500 (40%) are free-roaming, and ~40% of those are female dogs. Undergraduate student theses have suggested that the dog ratio has changed from 1:8.5 dogs to people, to 1:5.5 dogs to people in the last 10 years. There are 3 classifications of dogs in Valdivia: 1) street dogs with no owners, 2) free-roaming loose dogs with owners and 3) backyard pet dogs. The second group is the demographic forming the largest population and is responsible for most of the problems. It is thought that about 60% of dog bites are delivered by this group of dogs. Data show that 650-700 people are treated with dog bites annually, and approximately half of those are small children, usually bitten on or near the face. Yet some of these street dogs fill an important niche by performing the community duty of defending a territory, such as an owner's house or a store front.

The Ministries of Public Health and Environment and the Universidad Austral de Chile collectively agreed that the street dog overpopulation problem was a social issue, and that human attitudes toward dogs in general are that dogs are dispensable. However, behaviours and sentiments toward dogs vary within different socio-economic levels, with low income neighbourhood having a larger number of dogs living in poor conditions. In these neighbourhoods, puppies are commonly acquired for children to play with, but once they become mature, they are not cared for and are often lost, given away, die or are destroyed and a new puppy brought home. Dog fighting is also thought to be a growing trend in Valdivia, and many people in low income neighbourhoods attach a higher level of social status to those who own aggressive dog breeds such as rottweiler's and pit bulls. Since most people do not contain their dogs, this is contributing to the growing problem of street dog aggression toward people, other dogs, wildlife and livestock. People in general oppose male dog surgical sterilization, mass dog euthanasia and dog containment and feel that these are all inhumane.

Chillán:

Chillán is a city of about 162,000 people with a presumed ratio of 1:5 dogs to people, but there are little data to support assumptions. Like Valdivia, there are similar classifications of dogs, with free-roaming loose dogs causing the greatest concern, and Chillán residents voice similar concerns over canine diseases, animal welfare and dog to human aggression. Potential partners and stakeholders in Chillán similarly agreed that the dog problem is human-induced, and without properly addressing the community's contribution to the street dog overpopulation and lack of related education, they would not be dealing with the root of the problem.

Interestingly, despite this admission, the general consensus of community groups is that the municipality should take responsibility for costs related to spay and neuter, deworming and any associated programs dealing with the problem.

In general, the perceptions of the group in Chillán were very similar to the group in Valdivia regarding welfare, sterilization, aggression etc. The primary difference we noted between the two groups was the level of trust and willingness within the present groups, to work together. In Chillán, there were multiple animal welfare groups that all had prior history of conflict within and between groups, as well as many of these groups with the municipality. There was a strong feeling of distrust between all groups present at meetings. The director of the Veterinary College stated that they had been trying to collaborate with the municipality on and off for the last seven years, and had been unsuccessful to date. A representative from Public Health attended one meeting to inform the group that, in the absence of rabies, their department is only interested in annual mass killing as a strategy to control the problem, and is not interested in participating in a sustainable program. There was also inconsistency in meeting attendance. Many at the first meeting did not attend subsequent meetings, and there were many first time attendees at the second meeting. This led to a feeling that we were presenting something rather than working as a solid group to discuss the development of a program. Some of the attendees used a lot of the allotted meeting time pushing a personal agenda forward, and this caused some contention within the group and much concern with us.

Diseases and Vaccination

Rabies is the primary disease of concern but terrestrial rabies was eradicated in the 1970's from much of Latin America, and there have been no canine cases in Chile since 1989. Rabies is however present in the urban bat population. Rabies vaccination is apparently mandatory in the country but it is not enforced and few dogs are vaccinated. There are no vaccination campaigns to control parvovirus or distemper in the domestic canine population. Dogs in this area also have exposure to *Toxocara canis*, *Sarcoptes scabiei*, and in Panguipulli, a rural area east of Valdivia, *Echinococcus spp.* is reported at 10% prevalence. Undergraduate theses were written on canine sero-surveys and population estimates, but the methodologies were not discussed at this meeting. Leptospirosis is a growing concern around Chillán, but the human prevalence is unknown. There is a paucity of information on other diseases, for example *Neospora*, *Giardia*, *Toxoplasma*, *Brucella canis/abortus* and *Dirofilaria* which is essential for an understanding of risk populations and zoonotic threats.

The Law

There is a lack of agreement within communities about whether loose dogs are a problem or not. Owners do not feel it is a problem but their neighbours or dog bite victims do. According to the law, owners are responsible for their dog's aggressive behaviours, but it is the responsibility of the victim to pay for a lawyer to pursue legal action, and this is usually not financially feasible, so there are few lawsuits. People seeing loose dogs as a problem apparently feel that it is the role of the government, the city or the university to solve the problem, rather than their own community. Meeting participants felt that laws enforcing dog containment are a priority, but because the law would be unpopular with the people, politicians are reluctant to support this as it would compromise their future popularity and votes from community members. Policy must be passed at the national level- which is much more difficult to do and requires consultation in all Regions. There are currently no laws or regulations controlling the number of dogs that one household can own, but there is a law that a person could potentially spend 61 nights in jail if their dog is found roaming free. While some groups would like to see tougher

laws against irresponsible owners, or would like to see a mass culling; others are concerned about the wellbeing of the dogs or are afraid for their safety.

Rural Livestock and Zoonoses

There are multiple problems at the dog to livestock interface including aggression, livestock attacks and disease cycling in these rural areas. Meeting attendees agreed that human safety (aggression) and the spread of diseases are the major issues in rural areas. In Valdivia, there was great concern about the farm dogs' role in *Neospora* and *Echinococcus* and related hydatid disease in rural communities. In Chillán, there was greater concern about their role in leptospirosis. In both areas, there were many reports of attacks on sheep and calves. There is an interesting rural cultural tradition in which spring lambs are brought into the homes in September and hand fed to butcher at Christmas time. They are slaughtered in the kitchen and the entrails fed to dogs. Many of these rural families have to move into the city for work reasons, bringing these rural practices with them, potentially introducing new diseases into the urban population.

Sterilization

Both Chillán and Valdivia groups agreed that female dog sterilization, zoonoses and education should be their focus for continuing program development. Female dogs are targeted because it is publicly tolerated. We briefly discussed chemical sterilization in males and the poor success rate of programs focusing heavily on sterilization as the primary means for population control. Community views on chemically or surgically sterilized males were not elaborated.

Wildlife

Although the general consensus was that contact between feral dogs and wildlife is not an issue, because street dogs are an urban problem that does not spill over into the wild, we observed signs much to the contrary. In Valdivia, we visited pudu (*Pudu puda*) and cougars (*Puma concolor*) kept in rehabilitation centers recovering from dog attacks. We were told that foxes used to be numerous in rural and wilderness areas, but in the most recent decade have

declined to rare sightings, and blame dogs for that. In Chillán, there were also problems with dog attacks on the pudu. We spent time discussing wildlife issues with wildlife veterinarians at the university in both locations and concluded that although this is an area that is poorly understood and understudied, it is an area that may potentially be deeply affected by roaming dogs with regards to aggression and disease transmission in susceptible species.

Education

Although education was an area of program development that was acknowledged in both areas to be of great importance, that were few resources allocated to actually teaching children, adults or students about animal health, responsible ownership, human safety, zoonoses or canine diseases. Most education took the form of handing out brochures, with no guarantee of 1) whether the information was read or 2) whether the recipient was literate. Meeting attendees pointed out that there is very little known in Chile about breed temperaments and about the importance of matching a dog's breed disposition to the owners for compatibility. There is a growing trend of ownership of breeds of dogs with aggressive tendencies such as pitbulls, rottweilers and German shepherds. There is suspicion that these dogs are being used more in organized fighting competitions as well as street crimes to frighten the victim. There is very little education for children about protecting themselves in the event of an attack, reading canine behaviour or hygiene and disease prevention.

Potential Partners

Following is a list of governments and prominent stakeholders with whom we met:

Valdivia

- 1.- Ministry of Public Health
- 2.- Ministry of the Environment
- 3.- University Austral de Chile - Veterinary Medicine – Department of Small Animals
- 4.- University Austral de Chile – Institute of Preventive Veterinary Medicine and Epidemiology
- 5.- University Austral de Chile – Wildlife Rescue Centre
- 6.- Local animal welfare group – Friends of the Animals

Chillán

- 1.- University of Concepcion – School of Veterinary Medicine – Department of Clinical Science
- 2.- Regional Veterinary Association
- 3.- University of Concepcion – Wildlife Rehabilitation Centre
- 4.- University of Concepcion – School of Veterinary Medicine – Department of Agricultural Science
- 5.- University of Concepcion – School of Veterinary Medicine – Student Association
- 6.- International animal welfare group – Activists for the Animals
- 7.- Local animal welfare group – Animal Protection Society
- 8.- Local animal welfare group – CAPA – Coalition of Associations for Protection of the Animals
- 10.-Local animal welfare group – PRODAAS – Protector of Rights of Animals, Environment and Health
- 11.- Local animal welfare group – Group of Pro-Solution to Abandoned Dogs
- 12.- Ministry of Public Health
- 13.- National Fauna/Flora group – CONAF
- 14.- Representatives of the newly elected city mayor

Additional cities/towns expressing interest:

Osorno

The mayor of the city Osorno, Mr. Carlos Schwalm Urzúa, spontaneously contacted us via e-mail requesting information about the possibility of coordinating a joint collaboration between the Municipality of Osorno, small farmers and VWB/VSF in the area of public health and farmer training. The city of Osorno is located about one hour southeast of Valdivia. The two points he presented for discussion were the following:

- 1.-Public health: The concern presented is that street dogs are a disease/waste focus and low income people lack resources/education to deal with it.

2.- Training of small farmers: They are asking for training to improve living standards in rural communities.

Yumbel

Dr. Sabine Matthei, the Municipal Veterinarian in Yumbel visited us in Chillán to discuss the progress of their ongoing street canine population control program. The town of Yumbel is located about one hour east of Chillán. During our visit we learned the following points with regards to their ongoing dog control program:

- 1.- Although currently the town of Yumbel has a female and male dog surgical sterilization program, they do not have any means for measuring their success.
- 2.- They do not have an education program
- 3.- They are very interested in collaborating on and expanding their program to identify key gaps in information, to develop some appropriate measures for success, and to bring the program to children in schools.

Viña del Mar

We met Dr. Marco Macchiavello, Municipal Veterinarian, in Viña del Mar to discuss his ideas and perceptions of their street dog “problem”. Viña del Mar is located north west of the capital city of Santiago. Dr. Macchiavello presented the following points:

- 1.- He expressed his interest in being the VWB/VSF representative in Chile.
- 2.- He would like to reduce the number of dogs in the streets because he sees it as an animal welfare issue.
- 3.- He expressed that he recently requested ~ \$300,000 CDN to begin a mobile sterilization service to low income neighborhoods in this Region. He also mentioned that he took the liberty of stating that he had the support of VWB/VSF morally – he did not consult with us on this issue prior to submitting the proposal. Apparently he has the support of a university (University of the Americas) and the local municipality to carry out his plan. We have been in contact with

him essentially stating that VWB/VSF is not able to support individual causes for developing clinics, rather we support a holistic approach to broader-based programs. We will continue to maintain contact and collaborate when possible.

Summary of Meetings

Table 1. Summary of groups/organizations we met during our visits to the cities of Valdivia and Chillán, Chile, in November and December 2008.

Date	STAKEHOLDER(S)	LOCATION	CITY
November 10 th , 2008	- Ministry of Public Health - Ministry of Environment - Veterinary College-UACH	Animal Hospital – UACH	Valdivia
November 13 th , 2008	- Veterinary College-Department of Small Animals-UACH	Animal Hospital – UACH	Valdivia
November 14 th , 2008	- Ministry of Public Health - Ministry of Environment - Veterinary students-UACH - Veterinary College-UACH - “Neighbourhood group” - Private veterinarian - “Friends of the Animals”	Animal Hospital – UACH	Valdivia
November 15 th , 2008	- “Friends of the Animals”	Central City Square	Valdivia
November 15 th , 2008	- Ministry of Public Health - Ministry of Environment	Local neighbourhood	Valdivia
November 17 th , 2008	- “Friends of the Animals”	Community Centre	Valdivia
November 18 th , 2008	- Ministry of Public Health - Veterinary College-UACH - Veterinary students-UACH	Animal Hospital – UACH	Valdivia
November 20 th , 2008	- Institute of Preventive Veterinary Medicine	Institute of Preventive Veterinary Medicine	Valdivia

November 20 th , 2008	- Wildlife Rehabilitation Centre	Rehabilitation facility – UACH	Valdivia
November 20 th , 2008	- Ministry of Public Health - Ministry of Environment - Veterinary College-UACH	Animal Hospital – UACH	Valdivia
November 22 nd , 2008	- Activists for the Animals	University of Concepcion	Chillán
November 24 th , 2008	- Association of Veterinarians - Veterinary College	Rukalaf Hotel	Chillán
November 24 th , 2008	- Animal Protection Society	Kennel Centre	Chillán
November 25 th , 2008	- Director of Veterinary College	University of Concepcion	Chillán
November 26 th , 2008	- Activists for the Animals - Coalition of Association Protecting Animals (CAPA) - Veterinary student - UdeC	Rukalaf Hotel	Chillán
November 27 th , 2008	- Veterinary College - Association of Veterinarians - Activists for the Animals - CAPA - Municipality representatives - CONAF – - Wildlife Rescue Centre - Veterinary Student Association - Ministry of Public Health - PRODAAS - Group of Pro-Solutions of Abandoned Dogs	University of Concepcion	Chillán
November 28 th , 2008	- Wildlife Rescue Centre	University of	Chillán

		Concepcion	
December 1 st , 2008	-2 nd meeting	University of Concepcion	Chillán
December 2 nd , 2008	- Veterinary Students - Municipality of Yumbel - Association of Veterinarians - Veterinary College	University of Concepcion	Chillán
December 4 th , 2008	- Association of Veterinarians - Veterinary College	Rukalaf Hotel	Chillán

Stakeholder Positions, Current Programs, Interest and Available Resources

Valdivia

UNIVERSITY AUSTRAL DE CHILE – INSTITUTE OF CLINICAL VETERINARY SCIENCES

Contact:

Dr. Javier Ojeda Oyarzún, DVM., MSc. – Professor of Small Animal Science.

University professors were keenly interested in participating in a dog control and research program. They are active in the community through research and public services delivered, but are not currently collaborating with other groups or governments. Once weekly, the university clinic offers an afternoon of free consultations to the public. Students attend to clients concerns under the supervision of a clinician. This service is supposed to service the poor; however most poor people do not have vehicles, nor time during the day to attend free clinics for their dogs. They would be unlikely to pay for a taxi to take a dog to a free clinic in town. A more appropriate method of delivery would be to combine forces with a mobile clinic to deliver this resource to the communities in need. This would also be an opportunity for students to see the problem *in situ*, learn first hand about client needs and bring education to the people. Dr. Ojeda

continues to communicate with us and is very excited about collaborating with VWB/VSF more closely.

UNIVERSITY AUSTRAL DE CHILE – INSTITUTE OF PREVENTIVE VETERINARY MEDICINE

Contact:

Dra. Rosenfeld DVM, PhD - Professor of epidemiology.

Dr Rosenfeld is working on projects with cats, dogs, livestock and indigenous communities in rural areas around Valdivia. There are numerous zoonotic and production diseases of concern such as hydatid disease at high prevalence, distemper, leptospirosis, *Brucella canis* or *abortus*, *Neospora canis*, *Toxoplasma*, and parvovirus. Communities are so frustrated with the dog packs attacking their animals and being a reservoir for human and production animal diseases that they are taking matters into their own hands by killing all female pups. In one student research project, *Neospora canis* was reported at 30% prevalence in rural dogs. She has a group of students interested in the social component of the dog problem, and they visit farms with the veterinary students and a mobile clinic. She plans to incorporate childhood education into some of her rural work and has ideas about teaching them through anatomy/necropsy labs. She explained that the cat problem is even worse, but that people take even less care of their cats so it is difficult to obtain any history on them, or catch them. There is no research being done on feline diseases in the area that she is aware of. She is also participating in a tuberculosis eradication program in cattle, sheep and people with the OIE. She expressed interest in working together on rural programs. The university has good capacity for student resources as well as interested professors. The veterinary hospital is a new and very well-equipped facility. In summary, this is a very positive collaboration with great potential for future partnerships in multiple areas of a sustainable program.

Both Drs. Ojeda and Rosenfeld showed great interest and support with the funding application to the Morris foundation.

UNIVERSITY AUSTRAL DE CHILE – WILDLIFE REHABILITATION CENTRE

Contact:

Dr. Alejandro Aleuy - Wildlife Veterinarian

Although many Chileans claim that there is no wildlife to worry about, Dr. Aleuy's rehabilitation centre is a testament to the contrary. Foxes, pudus, cougars and other small wild cats have been brought into the centre as a result of direct or indirect dog attacks. The avian flyways at their wildlife centre have also been victim to dog attacks. Dr. Aleuy claims that domestic dogs are responsible for most livestock attacks but farmers are blaming wildlife and as a solution, they are hunting the puma and other wild cats; however there is no formal data to support his claims. He is very interested in conducting research on wildlife to see if there are domestic dog disease antibodies present, but has very little in terms of resources. He has no international contacts. We saw this is a very positive collaboration with great potential for future partnerships in areas of wildlife and domestic dog interface research contributing to a sustainable program.

MUNICIPALITY OF VALDIVIA – MINISTRY OF PUBLIC HEALTH and MINISTRY OF ENVIRONMENT

Contacts:

Dr. Roberto Wiegand, DVM., - Ministry of Public Health Veterinarian

and Mr. Francisco Javier Acuña A., - Ministry of Environment

These two partners are from the municipality and have combined their programs into one delivery. They sterilize 350 female dogs annually for free, and 150 at a low subsidized cost. Overall, combining private and municipal sterilization the city's goal is to average 1,000 dogs annually. Both Dr. Wiegand and Mr. Acuña believed that more people in Valdivia are obtaining dogs, more people have more than one dog and that the number of stray dogs has increased since the last survey. They both expressed that their supervisors are questioning the "success" of their ongoing endeavours. Programs active in the city include education (i.e., in-school and community programs, microchipping, responsible ownerships and vaccination clinics, posters, and brochures), "in the works" mandatory pet registration

programs, surgical sterilization of females, and euthanasia of street dogs brought to the municipality or veterinary hospitals (primarily old, aggressive or sick animals). We witnessed “education” in the form of pamphlets given to owners of dogs receiving vaccines through municipal programs, but identified major flaws with their approach. Although the information in the pamphlets was of good quality, there was no discussion with owners about what the dogs were vaccinated for or the usefulness or utility of the identification program. As owners were leaving, they were aware that their dogs had been vaccinated but did not know for what, they did not know what a microchip was and how it worked; some did not know that it was possible to castrate males. Additionally, there was no education on booster shots or whether other vaccines should be administered; not to mention other health conditions or zoonoses in general. To us it seemed like the ministry agencies were concerned more about quantity of dogs processed per day, rather than quality of individual care. We found that these sterilization/vaccination/microchipping programs could be an excellent opportunity for students to assist in program delivery and education. Without the active education component, the program does not appear to be succeeding in increasing the level of awareness of diseases or responsible dog ownership in the communities. However the program directors were open to constructive feedback, are open to collaboration. In summary, they recognized the need to improve their education approach and find ways to measure its outreach. Our visit turned out to be a very positive collaboration with great potential for future partnerships in specific areas of a sustainable program that relate to their government mandate for dog control.

AMIGOS DE LOS ANIMALES - VALDIVIA

Contact:

Sra. Rosa - Program director

Every Saturday morning volunteers from the Amigos de los Animales (“Friends of the Animals”) gather in the city square to give away puppies and kittens that have been rescued from the streets or found in bags or boxes, left abandoned in parks or forests. Most are female pups, as males are more desirable as guard dogs. There is no selection criteria for adoptive owners- anyone interested can take a pup. There is little to no education delivered to new owners, and most adoptions appeared to be spontaneous, and driven by the children’s request to take one home. Only a few of the pups have vaccines and are dewormed. The volume of people, puppies

and kittens as well as the lack of education and acceptance of responsibility on the part of this group is overwhelming. Puppies not adopted on Saturday mornings are usually let loose in the streets and gathered up again the following Saturday. However, we saw this as a potential resource for delivery of responsible ownership and dog health education. This collaboration would have to be approached in a very different many to the other groups. Education is lacking within the group. There is very poor understanding of animal health and this approach would need drastic change to align itself with a program aimed at teaching owners about responsible ownership. They have no internal resources except for the dedication of the volunteers themselves. Nevertheless, we saw this as a potentially positive collaboration with some future for partnerships in areas of basic public health education and responsible ownership campaigns. Although they apparently have ~700 members, they do not charge a membership fee and do not have an operating budget. They were in the process of receiving legal advice to become a registered NGO.

Chillán

UNIVERSIDAD DE CONCEPCION – CLINICAL VETERINARY SCIENCES

Contact:

Dr. Pablo Rivera Ramirez – Professor in Clinical Medicine

Dr. Pablo Rivera Ramirez is a veterinarian at the Universidad de Concepción, Chillán Campus, and Vice President of the Regional Veterinary Association. Dr. Ramirez' specialty is leptospirosis. He says that it cycles through horses, dogs and people in rice fields, but the human prevalence is unknown because the doctors here are not testing for it. All past dog programs were focused on rabies, and now that it is eradicated, all money was pulled, and the dog problem is mostly ignored by the municipality. Distemper, parasites and parvovirus are endemic in this Region, but there is less *Echinococcus* here- more prevalent in the south. There are few actual studies on dogs, and he doesn't think there is a baseline population estimate available. He believes that the main problem is aesthetics, and that the poor people don't think there's a problem. He thinks that attacks on people are not too common, and occur in the house, not by street dogs, but there are no numbers to support this. Bats are protected in Chile,

and if someone finds a bat, they are required to bring it to the municipality to have it tested for rabies. If it is rabies-positive, a 10 block radius dog vaccination campaign follows. He does not know how many bats are positive annually. He does not think that mange or animal welfare is an issue in this Region. The University of Concepcion clinic does not offer any free service to the public.

We found that there was a shortage of data to support much of what we were told, and some was in contrast to what was seen in the city. There appears to be no collaboration between human and veterinary doctors here in Chile in general. A human epidemiologist may be able to shed some light in the following areas for this Region:

- Leptospirosis human prevalence
- Number of adults and children requiring treatment following dog attacks
- Human prevalence of *Echinococcus*
- Human prevalence of *T. canis*

The director of the veterinary college met with us to explain their current situation. They think there are at least 7,000 street dogs in Chillán, but they're not sure. They are hoping to work more closely with the municipality to coordinate their efforts but in seven years of trying, they are still unsuccessful. They are currently working on another proposal to address animal welfare and responsible pet ownership through managing the dog population and education. They also have grave concerns about zoonoses, and strychnine poisoning of dogs and the secondary poisonings that occasionally occur in children. They are looking for any kind of support to advance their proposal to the municipal and regional levels. They operate a clinic out of the college, and it is sustained through client fees for service, so they are unwilling to run free clinics for the community. They would like to see more involvement of their students in a program, in which the students could conduct their final year theses obtaining some baseline information on the dog problem. The university has a collective mandate to educate students and to participate in community service and they feel that this problem is part of their obligation and social responsibility to Chillán. They elaborated on a few additional areas where they currently have concerns:

- Dogs and cats are killing an endemic bird on Robinson Crusoe Island

- Hydatid disease is at high prevalence in rural areas
- Dogs gather in packs and attack livestock, people and wildlife
- There is a growing underground sport of dog fighting
- Purebred aggressive dogs have become a status symbol for poor families
- Leptospirosis is a growing problem in rural areas where they are growing rice (cycling between horses, dogs and people)

In summary, there is potential for a very positive collaboration and extensive resources available at this facility, but the lack of community collaboration is likely to be a detriment toward attaining positive results.

ACTIVISTAS POR LOS ANIMALES (APLA)

Contact:

Victor Valdivia - Graphic designer and animal activist

This animal welfare group has 800 loose and informal members all communicating by Facebook. There is no official sign-up process or membership fee. They had their first meeting in November 2008 at which they organized a protest in front of the municipality to push for action on development of laws to protect animals. About 30 people, including us, attended their meeting to discuss/listen their group objectives:

1. Responsible ownership
2. Legislation to prevent maltreatment of animals, and to give animals legal status as sentient beings
3. Banning circus animals
4. Develop ways to work within the authorities (recruit professional support, involve themselves in education/environmental education) and organize peaceful demonstrations
5. Develop community agendas (regular meetings, systems of communication, coordinated activities, organize education for the community)

Their goal is to focus on the following: responsible ownership, animal identification and sterilization. They are trying to organize a dog census at the moment, and are hoping for a municipally funded sterilization campaign, but they have no funds yet. Their primary focus to attain their goals is to build a physical location to operate out of and they believe that the municipality should contribute the land and funds to get one built and to the point of operation. They feel that the major problem in the community as a result of the dog overpopulation is aggression toward people, maltreatment toward dogs and the buying and selling of aggressive breeds that are ending up in the streets. The other problem they identified unrelated to dogs is extensive trafficking of animals, wildlife and illegal animal parts between Chile, Peru, Bolivia and Ecuador.

In summary, there is some potential for collaboration here, but the lack of unity within the group could make this very difficult, particularly with regards to Sra. Conzuelo's (from sister animal group CAPA) singular agenda to have a kennel built as part of the program.

ASSOCIATION OF ANIMAL PROTECTION

Contact:

Sra. Fresia Cerda de Olalla - Program director

Sra. Fresia is the owner of a kennel run by Sociedad Protectora de Animales, on the outskirts of Chillán housing about 60 rescued dogs. The municipality puts some money toward maintenance of the kennel, and there is a family there that runs and maintains the kennel. There does not appear to be much attempt to adopt the recovered animal out to new homes. The dogs appeared to be in relatively good body condition, and there were no outward signs of disease, but there were few creature comforts and no personal attention for the dogs. They have a veterinarian from Concepción, who comes to look after the dogs and sterilize the adults when needed. They recently built a small facility for the surgeries on the property. This veterinarian has no interest in collaborating with the university or any other groups. Unfortunately the family running the kennel lives in appalling conditions, they have no access to potable water, and they all constantly suffer from ringworm and mange themselves- likely transmitted from

the dogs. There are a lot of similar animal welfare groups in Chillán, but very few resources available to any of them, and no interest in working together. There is a lot of conflict between this and other animal groups in Chillán.

In summary, there is poor potential for a positive collaboration here because the veterinarian is not interested in working with other veterinarians, and the owner is not interested in working with other animal protection groups.

Concluding Thoughts

In Valdivia, group members asked what VWB/VSF could do for them. They felt that they had covered so many of the requirements for successful program development and yet the dog problem continued to grow. We discussed top-down and bottom-up management of programs, and we (VWB/VSF) identified the bottom-up portion of the current program as being deficient. The group agreed that no part of the 10-year program was actually community driven, and there are no incentives (other than price reduction) for participating in the program. There is also no education available on breed behaviour disposition and appropriate ownership / dog breed matching. We (VWB/VSF) also identified goal setting and success measurement as being deficient in their program. The group also agreed that this would be a healthy addition to the program. Some possible areas for collecting baseline and follow-up data could include:

- Community surveys/questionnaires
- Dog serosurveys
- Dog population estimates
- Pre and post waste management activity dog populations

The group was very interested in collaborating with VWB/VSF to develop additional components on to their existing program. Final discussions were broad and big picture ideas included incorporation of waste management and recycling into a community program, and that dogs are really just the vehicle to examine the bigger problem at multiple interfaces. They explained that a foreign presence would bolster the profile of the program politically and socially, and people would be more likely to value the program.

In Chillán, meetings and program discussion was much less organized. One of the groups in particular was very agenda-driven, and as mentioned there was very little continuity from one meeting to the next. There was much debating about future directions, and requests for the “magic recipe” for success from VWB/VSF, and overall, little progress was made.

Future Actions

Following the overwhelmingly positive response to our Phase I investigatory trip to Chile; we are moving into Phase II with plans to begin with the following: beginning in April 2009 in Valdivia:

- Literature Search: Compilation of all published and grey literature related to dog control programs, urban fauna diseases and canine interface issues.
- Program Development: Four-day workshop with stakeholders and partners to develop the initial steps for the community-driven dog control program in Valdivia. This workshop will be hosted by VWB/VSF, and will use the IDRC Outcome Mapping model, which will include identifying partner roles, initial steps, local data gaps and short term goals.
- Baseline Data: Based on community and academia identified data gaps, models for data acquisition will be developed, and steps to begin data gathering will be taken. There is substantial interest at the Veterinary College to provide student assistantship with this process. Examples include: canine population and gender estimates, community dog owner perceptions of welfare and ownership, and canine disease surveys (distemper, parvovirus).
- Risk Analysis: Based on data availability, a risk analysis examining all interfaces of the street dog in Valdivia will be written, following WHO guidelines for qualitative and/or quantitative risk assessment.
- Chemical or Surgical Sterilization: Results of the canine population and gender estimates will guide the determination of goals for sterilization. In conjunction with current

programs within the Departments of Public Health and Environment, we intend to assist with sterilizations of both female and male owned dogs.

- Vaccination Campaign: The Departments of Public Health and Environment are currently administering a rabies vaccination program in Valdivia. We intend to expand this program to include protection against diseases that distemper and parvovirus to increase the health
- Education outreach program: Educate particularly children about responsible pet ownership, dog behavior, pet breeds, the importance of proper garbage disposal, animal and zoonotic diseases and how it all relates to the holistic health of the environment