## BEHAVIOUR ASSESSMENT OF MALE FREE-ROAMING DOGS FOLLOWING SURGICAL AND NON-SURGICAL STERILIZATION IN PUERTO NATALES, CHILE

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Large populations of free-roaming dogs (FRDs) present a serious and overwhelming human-animal conflict affecting animal welfare, public health, wildlife conservation and local communities relying on livestock. Although sterilization is one of the most commonly utilized methods of population management world-wide, in developing regions such as Latin America, sterilization campaigns are biased towards females because people either find that the sterilization of male dogs is culturally unacceptable or they are completely unaware that male sterilization is an option.

Traditionally, surgical castration involving the removal of both testes has been the international standard for male sterilization due to its proven efficiency and positive results. However, surgical castration has its limitations when attempting to control large populations of FRDs, such as equipment transportation to remote areas, and limited availability of expertise, resources, finances and time. As a result, the possibility of providing non-surgical sterilization options is attractive in some cases.

Although safety data are abundant for both techniques, there are no published studies describing the changes in reproductive and roaming behaviours in FRDs following sterilization. To explore this question we investigated the potential behavioural changes observed in 118 male FRDs in Patagonia, Chile following chemical (Esterilsol<sup>TM</sup>) and surgical sterilization. Here we present our methodology and findings involving the collection of relevant information pre- and post-sterilization using video-recordings to document day-time behaviours.

One of the outcomes of this project is to contribute new information about the effects of sterilization on male behaviours to the growing body of knowledge about FRDs. Competent authorities, population control managers, veterinarians and owners must be able to make more informed decisions about the use of male sterilization as an integral part of management. Our results will provide needed information so that we can offer more culturally, socially, economically and biologically appropriate options for the diverse situations in which we work.