BOTSTIBER INSTITUTE
FOR WILDLIFE FERTILITY CONTROL

Fertility Control to Mitigate Human-Wildlife Conflicts

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Current and Future Research Towards New Methods of Fertility Control for Wildlife

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The effective management of wildlife and pest species is becoming increasingly necessary throughout the world, and requires a variety of methods and approaches. The use of fertility control as a tool to aid in wildlife management strategies is considered to have numerous benefits and has attracted substantial attention. The greatest benefits from the use of wildlife fertility control will be realized when it is used in conjunction with other tools in integrated management strategies. In the United States, several fertility control products have been registered for use in wildlife, including two different contraceptive vaccines. Both vaccines have been shown to be effective in a number of species, and have also been used successfully for the management of isolated populations of deer, horses and goats. However, their use has also highlighted the need for products that cause long-term infertility or permanent sterility, and the need for more effective methods of delivery. The USDA APHIS WS National Wildlife Research Center, with key collaborators, is involved in a number of research areas aimed at developing new tools for fertility control for different species. One area of research is aimed at developing a vaccine for use in horses that targets ovarian growth factors. Studies to date suggest this new vaccine could offer long-term infertility from a single injection. Another area is aimed at the development of an oral/mucosal vaccine. Proof of concept research has been conducted and highlights the potential for this much needed method of delivery. RNA interference is a promising technology that is being investigated that has the potential to develop products that can cause permanent sterility and also be species-specific. The challenges associated with the use of fertility control are not only technical in nature, but also involve regulatory, social, political and cultural aspects.