Fertility control in Europe: applications for an overcrowded continent

Massei, G.[1], Cowan, D.[1], Miller, L.A.[2]
[1]Food and Environment Research Agency, Sand Hutton,York, YO41 1LZ, United Kingdom,
giovanna.massei@fera.gsi.gov.uk
[2]National Wildlife Research Center, Fort Collins, 4101 *LaPorte* Avenue, Fort Collins,
CO 80521-2154 USA United States

Current trends in human and wildlife population growth and landscape development indicate that human-wildlife conflicts are likely to increase worldwide in the near future. This is particularly important for Europe where the density of the human population is relatively high. For instance, although Europe and the US have a similar land mass, twice as many people live in Europe compared to the US. Lethal control to mitigate human-wildlife conflicts can be ineffective in the long term, unfeasible, or may be unacceptable for its impact on the environment and on animal welfare. Among the non-lethal methods to manage overabundant wildlife, fertility control offers a humane, publicly acceptable method to reduce the size of a population. In parallel, public interest in alternatives to surgical sterilization for companion animals and livestock has fostered investment into the development of fertility control agents. Recent advances in research and development have lead to the registration of novel fertility control agents for wildlife. Species-specific systems to deliver baits containing oral contraceptives to target species are now available. In addition, the development of new software and mathematical models has allowed researchers to make predictions of the effects of fertility control on population size. We present experimental data on the effectiveness of fertility control agents on model wildlife species and we illustrate examples of species-specific bait delivery systems. We discuss applications of fertility control to feral dogs and cats and zoo animals; we provide examples of how fertility control could be used for disease management.