A roadmap for using fertility control inhibitors for dog population management

Why different dogs need different contraceptives?

Confined vs. roaming dogs
- Accessibility
- Life span and health
- Reproduction planned
- Reason to sterilize

Type of contraceptive
- Single vs. multiple doses, timing of administration during cycle
- Permanent vs. temporary sterilization
- Individual behaviour, population control

Fertility control for different dogs

Confined vs. roaming dogs
- Side effects of fertility inhibitors
- Effectiveness & duration of infertility
- Cost

Type of contraceptive
- Acceptance: individual or population
- 100% effective or predictable duration and effectiveness at population level
- Met by owners or by others

From the laboratory to the field

- Linking animals with products: why different dogs need different contraceptives?
- Fertility control for managing dog populations: lessons learned from wildlife management:
- A proposed framework to use fertility control in dog population management

Giovanna Massei

ACC&D 5th symposium June 2013
Meet ICon™, the ideal contraceptive ...

- Injectable, 1-2 doses
- No unacceptable side effects
- Effective in the long-term
- No interactions with other drugs
- Inexpensive to produce
- Registered for companion animals

Lessons learned from wildlife management

- Immunocontraception on populations of horses and feral goats: reduced pop size, no negative side effects, enhanced survival
- Tubal ligation but hormonally competent females extended breeding seasons and attracted > males than controls
- Possums: sterilised males < home range Leptospirosis transmission < by 63-88% due to < contact rates
- Ring-tailed lemurs: contraception alters olfactory cues that signal fertility, individual chemical ‘signature’ and relatedness, and may disrupt social interactions, kin recognition and mate choice

Lessons learned from wildlife management: fertility control from individuals to populations

- Proportion of population that must be targeted to achieve the goal?
- How feasible to reach goal in time?
- How long will it take?
- Long-term effects on welfare and survival?
- Do fertility inhibitors affect behaviour?
- What are the costs?
- Can costs be sustained?
SMART goals: Decrease population size?
Disease control/elimination?
Decrease impact by dogs?

Effectiveness
Humaneness
Costs
Public support and response
Feasibility
Sustainability

Adding the human component

- Integrating education and fertility control
- Increased "immigration"?
- Costs of contraceptives/sterilants met by "owners"?
- Alternatives to fertility control?

Lessons learned from wildlife management: fertility control from individuals to populations

A framework to use fertility control in DPM

Different dogs (owners, context) require different fertility control inhibitors
Collaboration between ecologists, veterinarians and stakeholders will ensure the transfer of tools and methods from wildlife management to dog population management
A framework of criteria could inform decisions on the use of fertility control in dog population management

Thank you ACC&D !!!