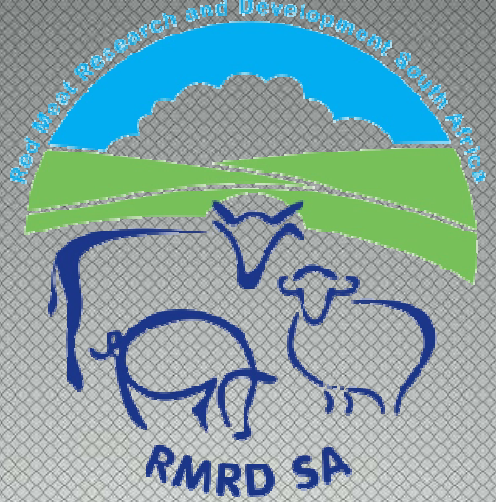

Predation Management within the Large and Small Stock And Wildlife Industries in South Africa

By Gerhard Schutte - 3 April 2013
PMF

Scientific Assessment

- Objective Statement
  - Create a comprehensive understanding of the nature and scope of the issue of livestock and wildlife predation through a formal scientific assessment.
  - This will provide baseline data and relevant information on the extent and impact of predation in South Africa. This institutional memory will serve to inform a system of coordinated predation management, incorporating the roles and functions of setting policy, coordination, training, extension, research, and monitoring. These activities will inform the development of Best Management Practices (BMP).
- Outcome
  - A national database highlighting the current state of knowledge regarding the main predators of livestock and game in South-Africa, their impact and management that is available for use by all role players and stakeholders to inform strategic and tactical planning for predation risk management and revision of stock predation policy.
  - A national system of coordinated predator management that can play a marked role in reducing the impact of predation.
  - Determine hotspots for predation activity to be targeted as a high priority.
  - Identified lack of knowledge where research needs to be focussed – this will inform the further components of this Focus Area and their priority.

Costs of Predation

- Objective statement
  - Predation on livestock carries costs to livestock producers, game ranchers and rural communities, and influence food and fibre production, wildlife and tourism. In addition, managing predation and predators carries costs. Understanding these costs and how they vary will inform policy and management responses.
- Outcome
  - An understanding of the financial impact of predation on the livestock industry, game ranching, rural communities and individual producers.
  - An understanding of the impact of predation on food security, unemployment and tourism.

Land-use, Behaviour and Feeding Ecology

- Objective Statement
  - Animals tend to select the habitats that provide the most appropriate resources (i.e. water, food, shelter, etc.). Habitat selection will therefore be greatly affected by the land-use and the management techniques employed. This will also affect the density of predators and the inter- and intra-specific interactions of these predators (e.g. killing carnivores may result in a disruption in territorial structure which causes the immigration of individuals, or it may result in the earlier onset of reproduction). Knowing which habitats predators prefer may provide the basis of identifying areas of 'high risk' for livestock/game predation, which may assist in effectively employing management techniques.
- Outcome
  - Information on the population structure (age ratio, sex ratio, reproduction, body size and dispersal) in relation to land-use.
  - Knowledge of the habitats and food preferences of predators – Including information on the most important resources affecting habitat selection in different land-use systems.
  - Information on the level of predation on livestock and the contribution of native prey to the diet and relating this to the relevant land-use type and habitat
  - .An understanding of the activity patterns of these predators in relation to their habitat and management efforts, with possible implications for management.

Predation Management Methods and Equipment

- Objective Statement
  - There is no single method or piece of equipment to stop or mitigate the impact of predation. Farmers have been employing various techniques aimed at reducing predation on livestock and game. This ranges from employing herdsmen and using predator-proof fences, to the use of hunting and poisoning.
  - In order to effectively address this predation problem, these various techniques need to be critically assessed and tested in order to establish a suite of cost-effective techniques which can be applied to reduce predation and increase livestock productivity.
  - Non-lethal and lethal methods and equipment must be conceived, designed, developed and evaluated for efficacy and incorporation in BMP.
- Outcome
  - A document of the various predator and livestock/game management techniques (historical and current) – Indicating the positive and negative impacts of each technique.
  - Establishment and expansion of various experimental farms across South-Africa aimed at testing various predator and livestock management techniques.
  - Implications of lethal control techniques on population structure.
  - Develop new methods and equipment.
  - Implementation of appropriate and sustainable on-farm predator-livestock control-management systems or methods and equipment.

Biodiversity and Knock-on Effects

- Objective Statement
  - The impacts of carnivores on prey and the associated knock-on effects on biodiversity have been widely documented in the Americas and Europe. However, little information is available in a South-African context and even less in an agricultural setting. Therefore, the impacts of predators and the associated predator and livestock management techniques on biodiversity as a whole needs to be investigated. This will assist in the development of holistic management regimes benefitting both livestock farming and biodiversity preservation.
- Outcome
  - Assessment of the biodiversity in various land-use systems in relation to predators and management techniques.
  - The role and impacts of predators in agri-environments in relation to biodiversity.
  - Identification of appropriate taxa for biodiversity monitoring.

Best Management Practices (BMP)

- Objective Statement
  - Lessons learnt from predation management activities should be incorporated in BMP for implementation over a wider scale.
- Outcome
  - Ensure that appropriate methods and equipment are available for predator control activities.
  - Serve as basis to inform a strategic approach for more effective and coordinated predation management.

Appropriate Content and Methodology for Training

- Objective Statement
  - Knowledge, skills and experience on predation control activities are currently locked-up in a few individuals only and must be transferred as a high priority to a larger group of operators (predator specialist hunters), farmers and wildlife ranchers.
- Outcome
  - Specific content of training manuals and training courses aimed at transferring skills to operators in the field of predation control.
  - Specific content of training manuals and training courses aimed at transferring skills to farmers and wildlife ranchers regarding predation control.

Appropriate Content and Methodology for Extension

- Objective Statement
  - Paradigm shifts are urgently needed on a wide front, from farmers and producers to policy makers and the general public. Extension is needed to manage human-wildlife conflict and is best conducted when effective methodologies are applied by extension specialists.
- Outcome
  - Informed official decision making based on recent information regarding predation.
  - Inform livestock and wildlife ranching industries in order to manage human-wildlife conflict.
  - Inform society about the need for predation management.

Thank You