

Quo Vadis? Is predation management informed by institutional memory and an operational management information system (MIS)?

Predation Management South Africa (PMSA)
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Centre for Environmental Management, Agriculture Building
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Quo Vadis?

"Over decades, strategies to mitigate predation losses have been developed, but few were implemented, primarily because of financial restrictions. Moreover, initiatives came and went in a way best characterised as an 'ebb and flow' progression. Despite major advances over decades, important primary challenges remain, and predation management in South Africa is still fragmented and uncoordinated."

Predation management in South Africa – historical milestones
ALPRU - Occasional Paper, July 2025, Version 9.1

Let us review some basic information to create the necessary perspective



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... there should be no illusion about a daily reality in South Africa ...



... and a call for help by livestock farmers, wildlife ranchers and producer organisations – NWGA / RPO / SAMGA / WRSA

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What price is paid by livestock farmers and wildlife ranchers ... and, thus, the South African economy ...?

Impact of predation on sheep & goats?
> ZAR 1 390 453 062
Van Niekerk, 2010

Impact of predation on cattle?
> ZAR 383 142 807
Badenhorst, 2014



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Canis-Caracal Programme

The impact of predation on wildlife ranches?

Schepers, 2016

1. **Indirect cost** associated with the prevention and control of predation = **ZAR 26.15/ha**.



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2. **Direct cost** - baseline information for three defined groups of wildlife species (antelope) [Schepers, 2016]

Calculate the losses for specific wildlife species (antelope) on wildlife ranches; examples for three permutations (direct cost in addition to the indirect cost of **ZAR 26.15/ha**):

Large species

- only nyalas *Tragelaphus angasii* on 5 000 ha
- total cost of predation losses = **ZAR 593 765/year**

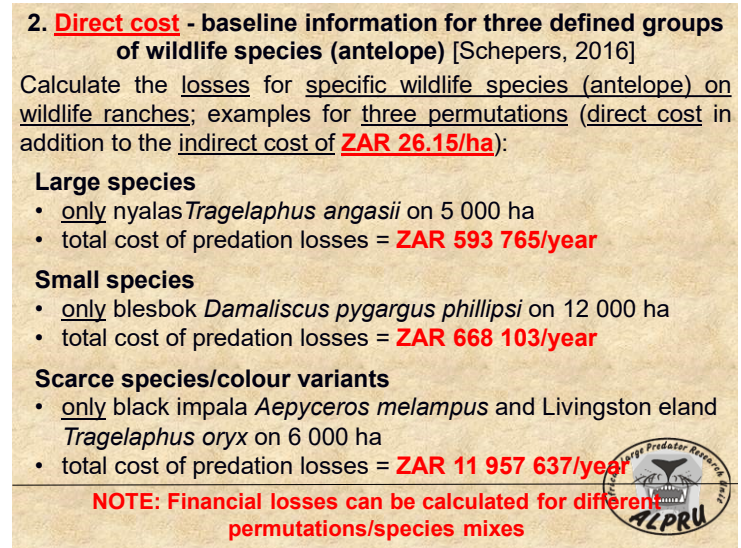
Small species

- only blesbok *Damaliscus pygargus phillipsi* on 12 000 ha
- total cost of predation losses = **ZAR 668 103/year**

Scarce species/colour variants

- only black impala *Aepyceros melampus* and Livingston eland *Tragelaphus oryx* on 6 000 ha
- total cost of predation losses = **ZAR 11 957 637/year**

NOTE: Financial losses can be calculated for different permutations/species mixes



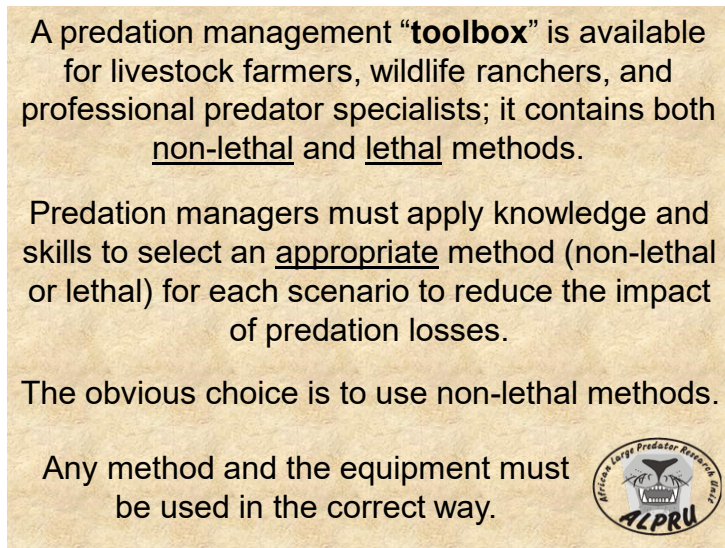
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A predation management “**toolbox**” is available for livestock farmers, wildlife ranchers, and professional predator specialists; it contains both non-lethal and lethal methods.

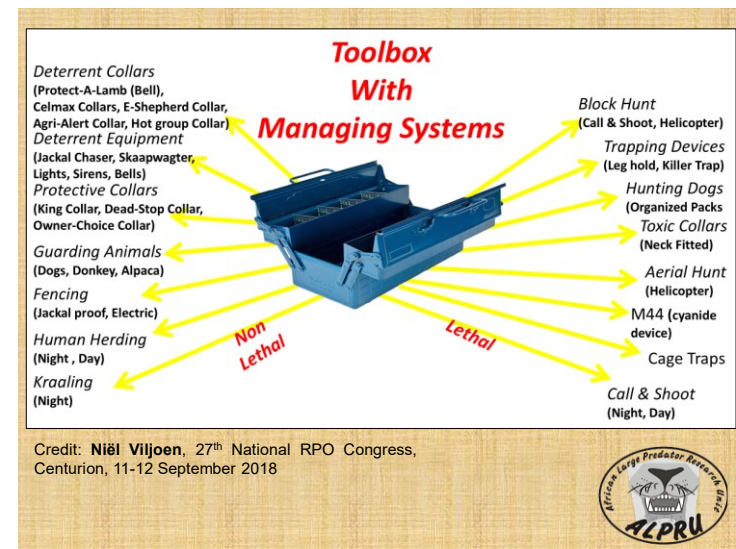
Predation managers must apply knowledge and skills to select an appropriate method (non-lethal or lethal) for each scenario to reduce the impact of predation losses.

The obvious choice is to use non-lethal methods.

Any method and the equipment must be used in the correct way.



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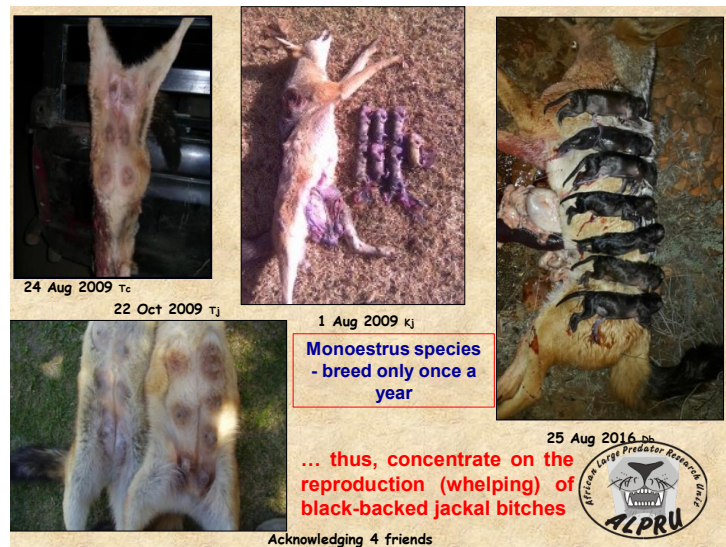
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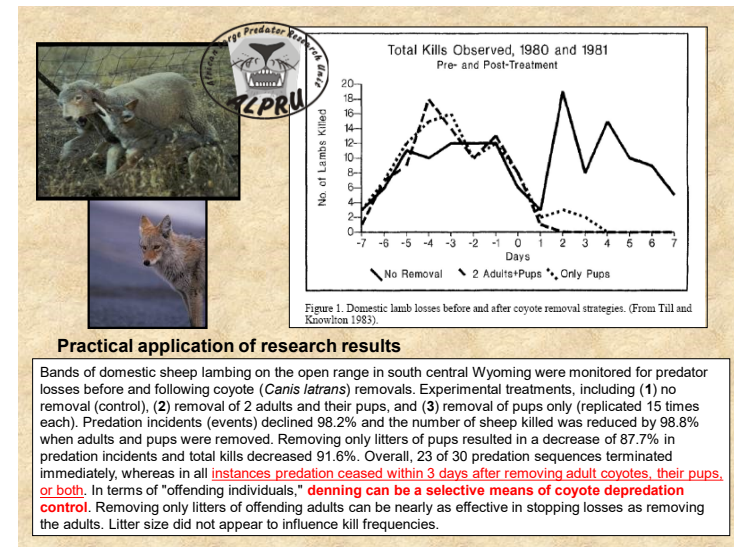
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At least **66 species** (mammals, avians, and reptiles) are listed in historical records relating to predation management in South Africa, either as prey, target predator, or collateral damage

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Is it only South Africans that have to manage the impact of predation?

No



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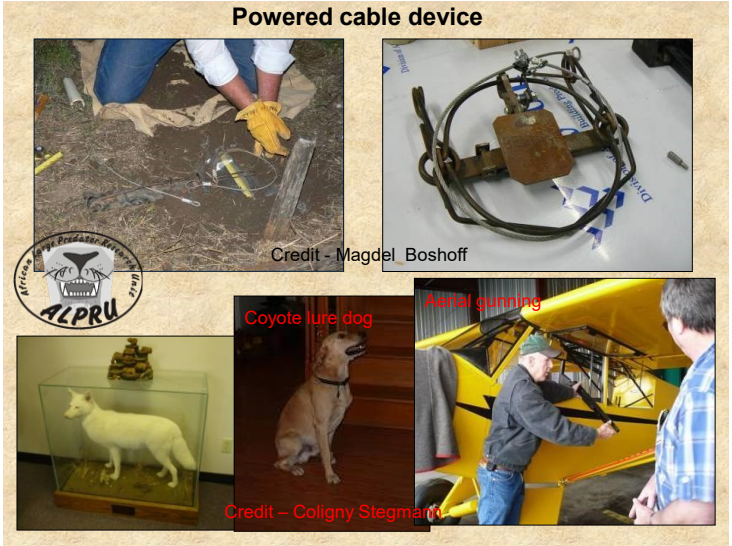
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Solutions to mitigate **human-wildlife conflict** should be informed by **institutional memory** and an operational **management information system (MIS)**

Coordinated predation management needs a central, common unit to continuously collect, analyse, interpret, and disseminate relevant information.

In a coordinated system of predation management, an operational **MIS** must rapidly provide appropriate answers to the following:

- **Where** are predation **losses** occurring?
- **Identify** the current **hotspots** to redirect and focus limited resources.
- **Identify** which **predator species** are involved?
- **List** recognised and **proven role players** (e.g. specialist predator hunters).
- Did predation **decline** in an area following predation management?
- Are there **links** between reported cases of predation and predation management?
- Assess the results **achieved** with different predation management methods (toolbox) and package the information as **best practices** for wider application.



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Proposed main activities of a predation management unit (2 of 2):

Research & Development (R&D) – identify and prioritise relevant research topics, informed by **institutional memory** and a **management information system (MIS)** - results are packaged and implemented as **best practices**.

Liaison – continuously **inform** all role players & stakeholders (specialist predator hunters, livestock farmers, wildlife ranchers & the broader public) and provide them with **reasonable opportunities to interact and make input** in a meaningful way.

Public relations – ensure a **well-informed public** will be able to assist in developing a meaningful and **effective predation management system** in South Africa.

Funding – because an **official system of coordinated predation management** is still lacking, the necessary funds must be sourced/generated to implement strategies.



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Proposed main activities of a predation management unit (1 of 2):

Coordination – initiatives/activities of role players & stakeholders (specialist predator hunters, livestock farmers & wildlife ranchers) to improve cooperation and for more effective predation management – **undo persisting fragmented approaches**.

Monitoring – activities of role players & stakeholders (specialist predator hunters, livestock farmers & wildlife ranchers) regarding predation management and **establish best practices** from lessons learnt for wider application.

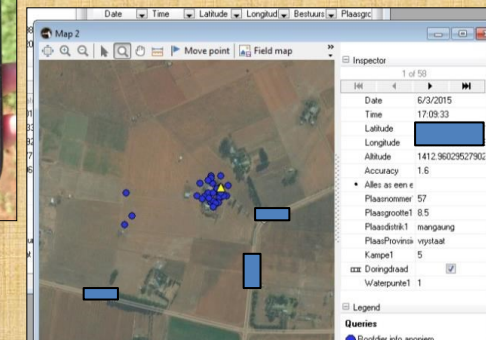
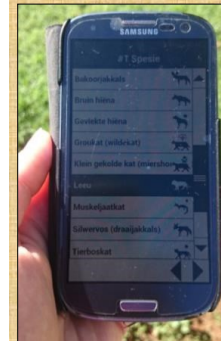
Training – ensure that individuals engaged in predation management (specialist predator hunters, livestock farmers, wildlife ranchers, and the employees) are well-trained in the detail of **best practices** and the **appropriate use of methods and equipment available in management toolbox**.

Extension – ensure the **relevant information on predation management** is packaged and made available to role players & stakeholders, namely farmers, farm workers, specialist predator hunters, the general public and government officials.

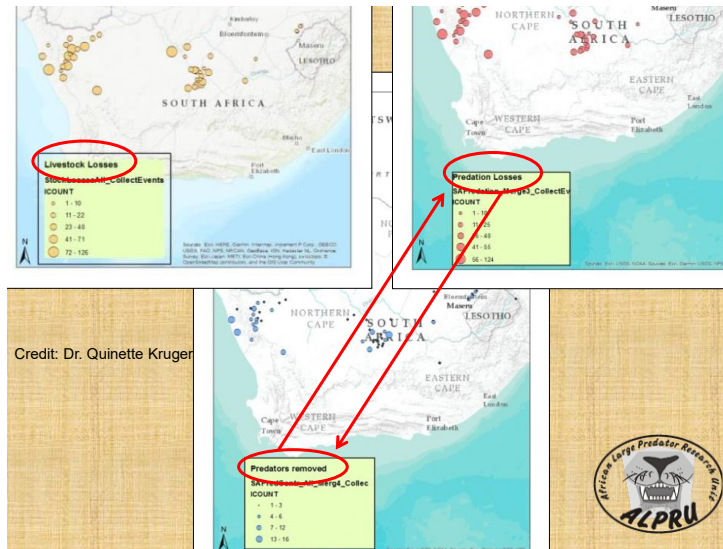


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Mobile technology to capture and secure information on predation losses (App: livestock farmers & wildlife ranchers) and predator control (App: specialist predator hunters, livestock farmers & wildlife ranchers) [Dr. Quinette Kruger]



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Quo Vadis?

Liaise actively to undo the fragmented approaches of predation management activities.

Promote and foster a coordinated system of predation management activities over larger geographical areas.

Preserve institutional memory and develop an operational MIS to inform predation management and establish best practices for wider implementation.

Identify **gaps in information** (institutional memory and an MIS) and **prioritise** it as focused **research & development** topics.



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