Livestock Predation and its Management in South Africa: A Scientific Assessment
History

• 2012: Project conceived (G. Kerley, A. Aucamp, A. Boshoff)
• 2012 to 2016: Core funding raised (DEA, DAFF, Cape Wools, SA Mohair Growers, Woolworths) – 85% funded;
• 2016: Team assembled (G. Kerley, D. Balfour & S. Wilson);
• 2016: Ministerial endorsement (Environment & Agric.);
• 2016: Project launched at NWGA Congress.
  • Website developed http://predsa.nmu.ac.za/
• 2018: Assessment completed
• Compiled as a book
  • 42 authors

• Technical review
  • 24 expert reviewers

• Stakeholder review
Summary for Policymakers

Kerley, G.I.H.¹, Behrens, K.G.², Carruthers, J.³, Diemont, M.⁴, du Plessis, J.J.⁵, Minnie, L.¹,⁶, Somers, M.J.⁷, Tambling, C.J.⁸, Turpie, J.K.⁹, Wilson, S.L.¹ & Balfour, D.¹

¹ Centre for African Conservation Ecology, Nelson Mandela University, South Africa
² Steve Biko Centre for Bioethics, University of the Witwatersrand, School of Clinical Medicine, Faculty of Health Sciences, Johannesburg, South Africa
³ Department of History, University of South Africa, Pretoria, South Africa
⁴ Webber Wentzel, Cape Town and Johannesburg, South Africa
⁵ Department of Mammalogy, National Museum, Bloemfontein, South Africa
⁶ School of Biology and Environmental Sciences, University of Mpumalanga, Nelspruit, South Africa
⁷ Eugène Marais Chair of Wildlife Management, Mammal Research Institute, University of Pretoria, South Africa
⁸ Department of Zoology and Entomology, University of Fort Hare, South Africa
⁹ Environmental Policy Research Unit, School of Economics, University of Cape Town, South Africa
INTRODUCTION – THE NEED FOR, AND VALUE OF A SCIENTIFIC ASSESSMENT OF LIVESTOCK PREDATION IN SOUTH AFRICA

Lead Author: Balfour, D.¹
Author: Kerley, G.I.H.¹

¹Centre for African Conservation Ecology, Nelson Mandela University, South Africa
Chapter 2

HISTORY OF PREDATOR-STOCK CONFLICT IN SOUTH AFRICA

Lead Author: Carruthers, J
Author: Nattrass, N

1Department of History, University of South Africa, Pretoria, South Africa
2Institute for Communities and Wildlife, Centre for Social Science Research, School of Economics, University of Cape Town, Cape Town, South Africa

Box 2.1 Important knowledge gaps
From a historical perspective and at a high level, the following knowledge gaps can be identified:
» Predator control in the precolonial era (Khoekhoen, Early and Late Iron Age)
» Detailed historical evidence relating to livestock predation and its management in provinces other than the Cape Colony/Cape Province/Western Cape/Eastern Cape.
» Historical information in respect of predator control in African communal areas in 19th and 20th centuries.
THE SOCIO-ECONOMIC IMPACTS OF LIVESTOCK PREDATION AND ITS PREVENTION IN SOUTH AFRICA

Lead Author: Turpie, J.K.¹
Author: Akinyemi, B.E.²

¹Environmental Policy Research Unit, School of Economics, University of Cape Town, South Africa
²Department of Agricultural Economics, University of Fort Hare, Alice, South Africa
ETHICAL CONSIDERATIONS IN THE MANAGEMENT OF LIVESTOCK PREDATION

Lead Author: Behrens, K.G.
Authors: Broadbent, N., Galgut, E., Gardner, J., Molefe, M.

1 Steve Biko Centre for Bioethics, University of the Witwatersrand, School of Clinical Medicine, Faculty of Health Sciences, Johannesburg, South Africa
2 Department of Philosophy, University of Johannesburg, Johannesburg, South Africa
3 Department of Philosophy, University of Cape Town, Cape Town, South Africa
4 Department of Philosophy, University of the Witwatersrand, Johannesburg, South Africa
Chapter 5

LEGAL CONSIDERATIONS IN THE MANAGEMENT OF PREDATION ON LIVESTOCK

Lead authors: Diemont, M.¹ and Glazewski, J.²
Author: Monaedi, D.F.³

¹Webber Wentzel, Cape Town and Johannesburg, South Africa
²Institute of Marine and Environmental Law, University of Cape Town, Cape Town, South Africa
³Legal Services Department, South African National Parks, Groenkloof Pretoria, South Africa
Chapter 6

PAST AND CURRENT MANAGEMENT OF PREDATION ON LIVESTOCK

Lead author: Du Plessis, J.J.¹
Contributing authors: Hawkins, H-J.¹³¹⁴, Tafani, M.⁷

¹Department of Mammalogy, National Museum, Bloemfontein, South Africa
²Centre for Environmental Management, University of the Free State, Bloemfontein, South Africa
³Endangered Wildlife Trust, Johannesburg, South Africa
⁴Animal Production Institute, Agricultural Research Council, Pietermaritzburg, South Africa
⁵The Cape Leopard Trust, Tokai, Cape Town, South Africa
⁶Tswane University of Technology, Pretoria, South Africa
⁷Institute for Communities and Wildlife in Africa, Department of Biological Sciences, University of Cape Town, South Africa
⁸School of Biology and Environmental Sciences, University of Mpumalanga, Nelspruit, South Africa
⁹Independent Researcher, Boro, Maun, Botswana
¹⁰Human Wildlife Solutions, Cape Town, South Africa
¹¹Independent Consultant, Loxton, South Africa
¹²National Wool Growers Association, Port Elizabeth, South Africa
¹³Conservation South Africa, Claremont, Cape Town, South Africa
¹⁴Department of Biological Sciences, University of Cape Town, South Africa
Chapter 7

BIOLOGY AND ECOLOGY OF THE BLACK-BACKED JACKAL AND THE CARACAL

Lead Author: Minnie, L.1,2
Authors: Avenant, N.L.3, Drouilly, M.4 & Samuels, I.5

1 Centre for African Conservation Ecology, Nelson Mandela University, Port Elizabeth, South Africa
2 School of Biology and Environmental Sciences, University of Mpumalanga, Nelspruit, South Africa
3 Department of Mammalogy, National Museum, and Centre for Environmental Management, University of the Free State, Bloemfontein, South Africa
4 Institute for Communities and Wildlife in Africa, Department of Biological Sciences, University of Cape Town, South Africa
5 Agricultural Research Council-Animal Production Institute, Bellville, South Africa
Chapter 8

THE ROLE OF MESOPREDATORS IN ECOSYSTEMS: POTENTIAL EFFECTS OF MANAGING THEIR POPULATIONS ON ECOSYSTEM PROCESSES AND BIODIVERSITY

Lead Author: Tambling, C.J.1*,
Authors: Avenant, N.L.2, Drouilly, M.3 & Melville, H.I.A.S.4

1Department of Zoology and Entomology, University of Fort Hare, South Africa
2National Museum and Centre for Environmental Management, University of the Free State, South Africa
3Institute for Communities and Wildlife in Africa, Department of Biological Sciences, University of Cape Town, South Africa
4Department of Environmental Sciences (Nature Conservation), University of South Africa, South Africa
Chapter 9

BIOLOGY, ECOLOGY AND INTERACTION OF OTHER PREDATORS WITH LIVESTOCK

Lead Author: Somers, M.J.¹, ²
Authors: Davies-Mostert, H.¹, ³, Mzileni, N.⁴, Swanepoel, L.H.⁵, Do Linh San, E.⁶, Botha, A.J.³, Tjelolo, J.⁷, Dumalisilo, L.⁸, Marnowick, K.⁹, Tafani, M.⁹ & Hunnicutt, M.A.¹⁰,¹¹
Contributing Authors: Tambling, C.J.⁶, Minnie, L.¹⁰, Hawkins, H-J.¹²

¹Eugène Marais Chair of Wildlife Management, Mammal Research Institute, University of Pretoria, South Africa
²Centre for Invasion Biology, University of Pretoria, South Africa
³Endangered Wildlife Trust, Johannesburg, South Africa
⁴Tshwane University of Technology, Pretoria, South Africa
⁵Department of Zoology, University of Venda, Thohoyandou, South Africa
⁶Department of Zoology and Entomology, University of Fort Hare, South Africa
⁷Animal Production, Agricultural Research Council, South Africa
⁸Gauteng Department of Agriculture and Rural Development, Johannesburg, South Africa
⁹iCWild, Department of Biological Sciences, University of Cape Town, Cape Town, South Africa
¹⁰University of Mpumalanga, Nelspruit, South Africa
¹¹Wild Tomorrow Fund, New York
¹²Conservation South Africa and Department of Biological Sciences, University of Cape Town, Cape Town, South Africa
Way forward

- Waiting for Ministers' signatures
- Print
- Launch
Outcomes?

• Comprehensive assessment, global first, but no silver bullet
• Economic impacts may be relatively small in terms of GDP, but high at the individual farmer scale, with impacts on the rural economy, employment and food security
• Commercial and communal livestock farmers face similar predation challenges
• No simple solution to managing livestock predation
• Legislation and regulations need overhaul
• Adaptive management approach needed to better use existing information
• Collaborative relationship between livestock managers, researchers and policymakers