

Wherever I may roam – adapting international wildlife law to the effects of climate change on wolverines, jackals, cheetahs and other carnivores



Species on the Move 2019, Kruger NP, South Africa, 22-26 July 2019



IUS CARNIVORIS

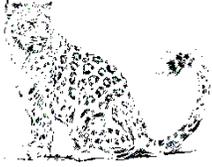
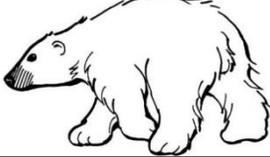
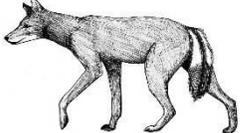


Arie Trouwborst
Andy Blackmore



Conservation, Partnerships & Ecotourism

Selected impacts & species

Range shifts, upslope & poleward	Snow leopard 	Golden jackal 	
Habitat shrinking & disruption	Polar bear 	Wolverine 	Ethiopian wolf 
Reduced availability of water & vegetation		Gobi bear 	
Reduced prey populations		Cheetah 	
Increased human-wildlife conflict	African wild dog 	Lion 	

Adaptation measures

- Protected areas (sufficient, representative, large, robust)
- Connectivity
- Counteract impacts
- Address other threats
- Assisted colonization

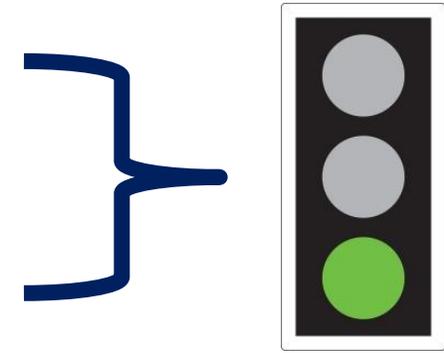


International wildlife law

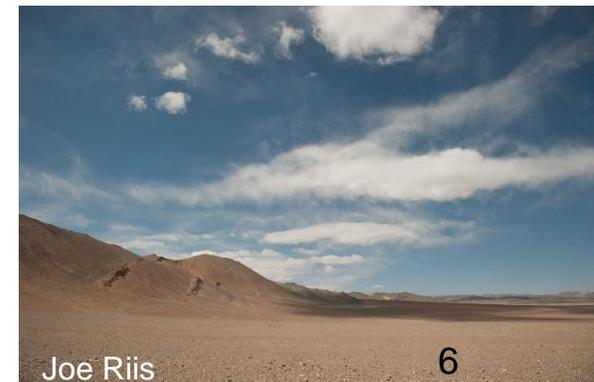
- 1979 Convention on Migratory Species (CMS)
- 1968 African Convention on Nature Conservation
- 1979 Bern Convention on European Wildlife
- 1992 EU Habitats Directive
- 1992 Biodiversity Convention (CBD)
- 1971 Ramsar Wetlands Convention
- 1972 World Heritage Convention
- 2003 (revised) African Convention on Nature Conservation
- 1999 SADC Protocol on Wildlife Conservation and Law Enforcement
- Transboundary protected area treaties
- ...etc...



Protected areas / connectivity / counteracting impacts / addressing other threats



- **CMS Art. III:** “Range States of a migratory species listed in Appendix I shall endeavour:
 - to conserve and, where feasible and appropriate, restore those habitats of the species which are of importance in removing the species from danger of extinction; ...
 - to the extent feasible and appropriate, to prevent, reduce or control factors that are endangering ... the species”
- **CMS COP Res. 12.21 (2017):**
 - “action to help migratory species adapt to climate change is urgently required in order to meet the objectives of the Convention [and] to give proper effect to Articles II and III”



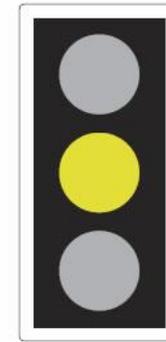
CMS COP Res. 12.21:

“Improve the resilience of migratory species and their habitats to climate change ... *inter alia* through the following actions:

- Ensure that individual sites are sufficiently large ...;
- Ensure there is physical and ecological connectivity between sites ...;
- Undertake specific management to eliminate, counteract or compensate for detrimental impacts of climate change and other potential threats that may interact with or exacerbate climate change.”



Range shifts beyond historic range



“Alien species”?

Bern Convention Rec. No. 142 (2009):

- “Worried that native species moving to neighbouring areas may be considered as alien due to the fact that climate change is the result of human action and that such species may be unnecessarily controlled;
- Recommends Contracting Parties ... to: interpret the term ‘alien species’ ... as not including native species naturally extending their range in response to climate change.”



“Natural range” / “historic coverage”



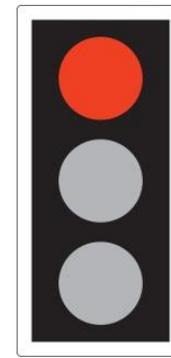
Habitats Directive, guidance document (2007):

- “When a species ... spreads on its own to a new area/territory ..., this territory has to be considered part of the natural range.”

CMS COP Res. 12.21:

- “According to Article I(1)(c)(4) of the Convention, one of the conditions to be met for the conservation status of a species to be taken as ‘favourable’ is that: ‘the distribution and abundance of the migratory species approach historic coverage and levels ...’. Whereas there is a continued need to undertake conservation action within the historic range of migratory species, such action will increasingly also need to be taken beyond the historic range of species in order to ensure a favourable conservation status, particularly with a view to climate-induced range shifts. Such action beyond the historic range of species is compatible with, and may be required in order to meet the objectives and obligations of Parties under the Convention.”

Assisted colonization



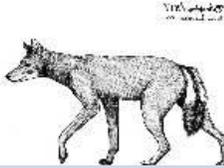
“Alien species”!

Biodiversity Convention COP Decision X/33 (2010):

- “consider *ex situ* measures, such as ... assisted migration ... that could contribute to ... securing the survival of species at risk, taking into account the precautionary approach in order to avoid unintended ecological consequences”

Bern Convention Rec. No. 158 (2012):

- “where there is inadequate information to assess that a translocation outside indigenous range bears low risks, the Precautionary Principle should be applied and such a translocation should not be carried out”



International wildlife law: climate-proof?

-  Protected areas
-  Connectivity
-  Counteracting impacts
-  Addressing other threats
-  Facilitating range shifts beyond historic range
-  Assisted colonization





Joe Riis

Thank you!



Sven Vermeulen

Selected literature

- Carter et al (2018). Climate change, disease range shifts, and the future of the Africa lion. *Conservation Biology* 32:1207
- Khalatbari et al (2018) Availability of prey and natural habitats are related with temporal dynamics in range and habitat suitability for Asiatic Cheetah. *Hystrix* 29:145
- McKelvey et al (2011) Climate change predicted to shift wolverine distributions, connectivity, and dispersal corridors. *Ecological Applications* 21:2882
- Su et al (2018) Decreasing brown bear (*Ursus arctos*) habitat due to climate change in Central Asia and the Asian Highlands. *Ecology & Evolution* 8:11887
- Trouwborst (2012) Transboundary wildlife conservation in a changing climate: adaptation of the Bonn Convention on Migratory Species and its daughter instruments to climate change. *Diversity* 4:258
- Trouwborst et al (2015) Legal implications of range expansions in a terrestrial carnivore: the case of the golden jackal (*Canis aureus*) in Europe. *Biodiversity & Conservation* 24:2593

