

A photograph of a doe and her fawn running through a grassy field. The doe is in the foreground, running towards the left, with its head turned slightly back. The fawn is running behind it, also towards the left. Both animals have reddish-brown fur with white spots. The background is a blurred green field.

# Carnivores and Ungulates in the Alps

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***Illegal hunting is the main problem  
for the recovery and survival of  
Large Carnivores.***



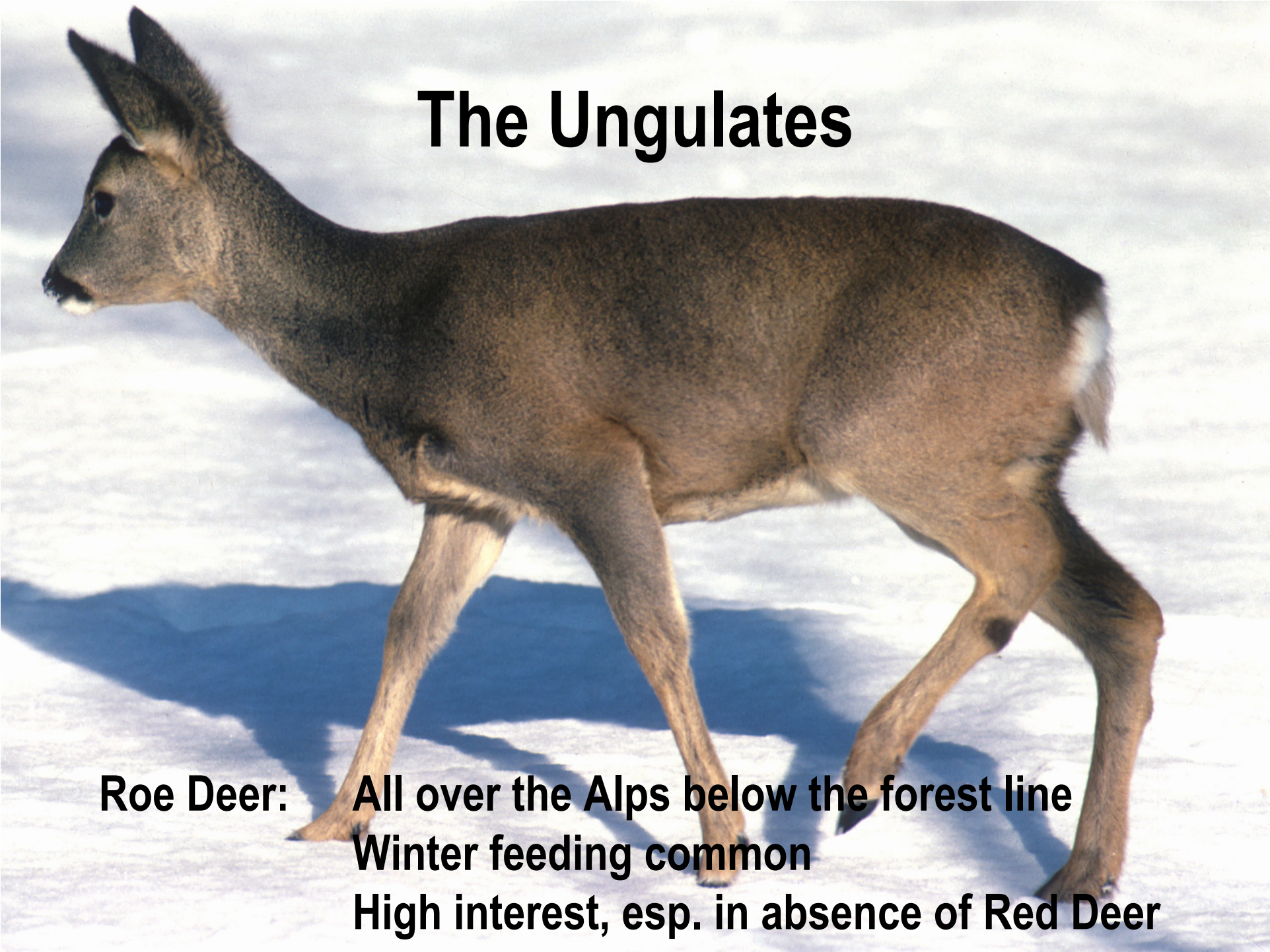
# The Ungulates

**Wild Boar:** Increasing numbers, increasing range  
Great fluctuations due to winter severity  
Low level of management; low interest





# The Ungulates



**Roe Deer:** All over the Alps below the forest line  
Winter feeding common  
High interest, esp. in absence of Red Deer



# The Ungulates

## Red Deer:

High and increasing numbers

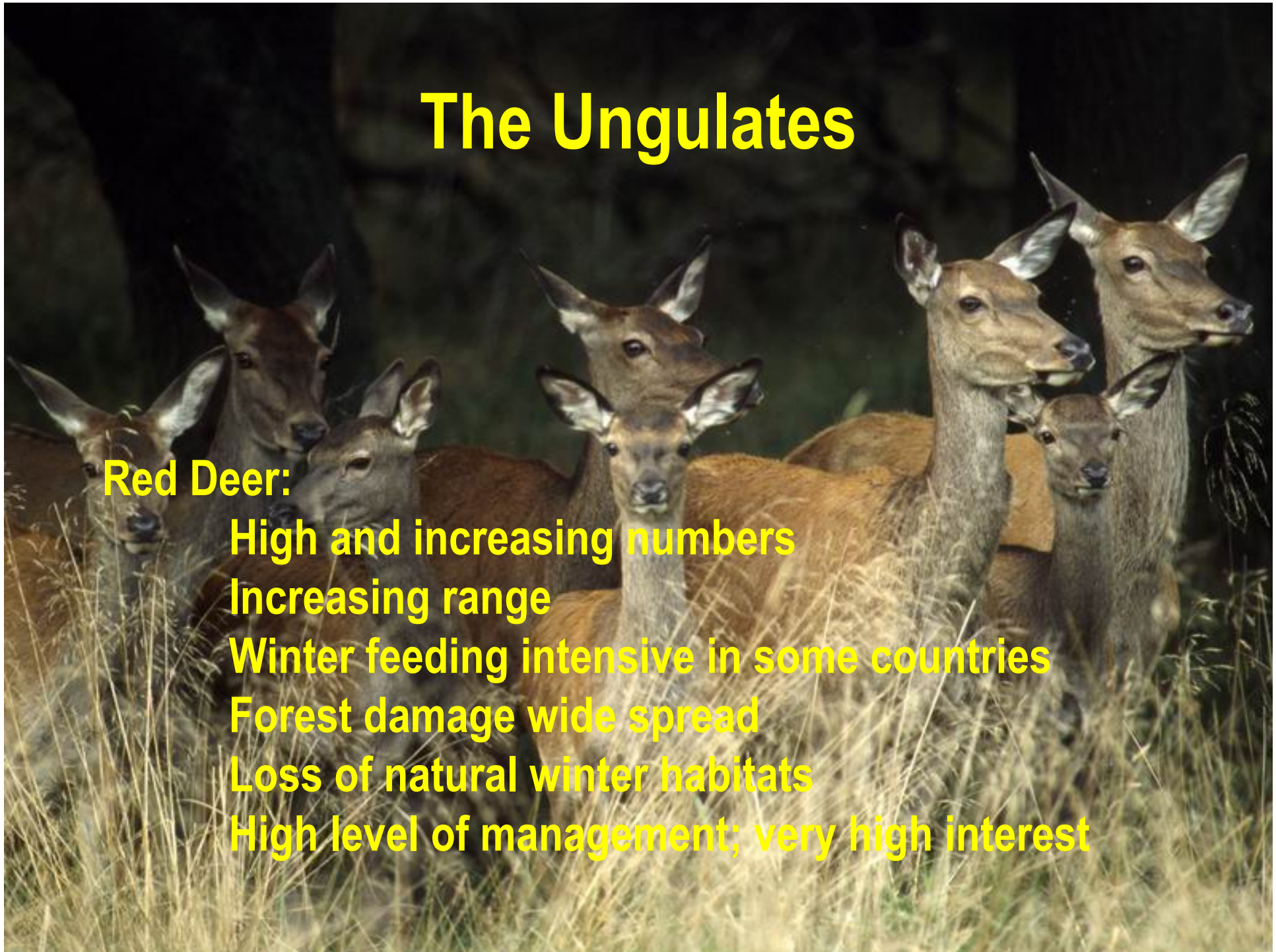
Increasing range

Winter feeding intensive in some countries

Forest damage wide spread

Loss of natural winter habitats

High level of management; very high interest



# **The Ungulates**

**Mouflon:**      A few introduced populations  
Species not native to the Alps  
Highly vulnerable through predation  
High interest



# The Ungulates

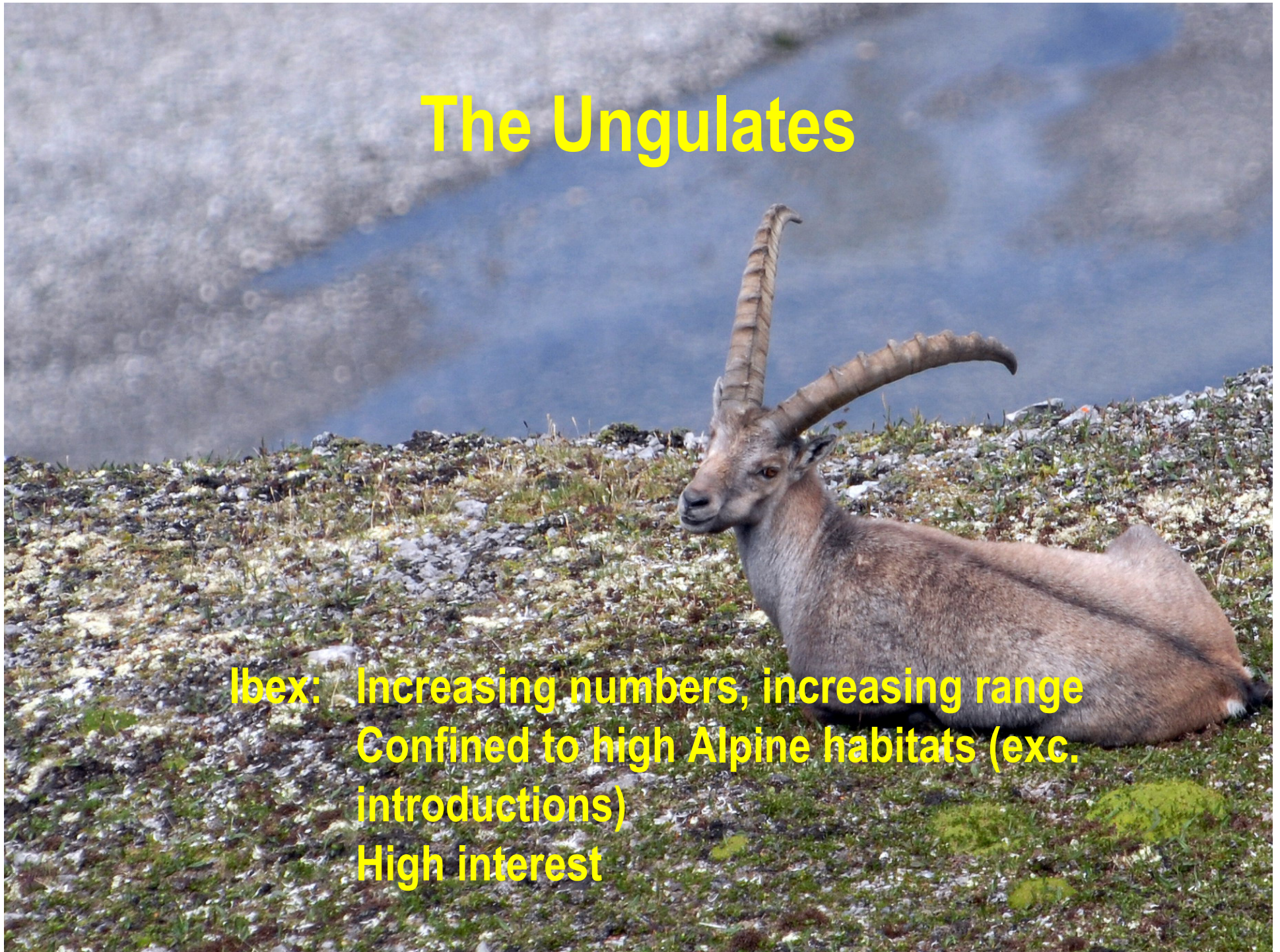
A taxidermied chamois head is the central focus, mounted on a wooden staff. The chamois has a light brown and white coat, dark eyes, and small, dark, curved horns. It is holding a small tuft of green grass in its mouth. To the right of the head is a green felt hat with a dark band. The background is a blurred green forest.

**Chamois:**    Stable (decreasing) numbers  
                  Considerably high populations in some  
                  Alpine forests  
                  Problem species in degraded Alpine forests  
                  High interest



# The Ungulates

**ibex:** Increasing numbers, increasing range  
Confined to high Alpine habitats (exc.  
introductions)  
High interest





# ***Hunting for trophies***





# ***Forest damage by ungulates***





# Hunters' Concern

<b>Wild Boar:</b>	<b>Carnivores avoid Wild Boar; irrelevant</b>
<b>Roe Deer:</b>	<b>Great, esp. in absence of Red Deer</b>
<b>Red Deer:</b>	<b>Very great, esp. at feeding stations and winter enclosures</b>
<b>Mouflon:</b>	<b>Highly vulnerable Concern great, but only few situations</b>
<b>Chamois:</b>	<b>Highly vulnerable in forest habitats</b>
<b>Ibex:</b>	<b>Hardly vulnerable; irrelevant</b>



# The Carnivores

**Bear: Irrelevant as a competitor**

**Damage to feeding stations and winter enclosures**





# The Carnivores

**Lynx: Fatal for Mouflon colonies  
Efficient predator of Roe Deer  
Low impact on Red Deer and Chamois**





# The Carnivores

**Wolf:** Efficient predator of all ungulate species  
below tree line

Insignificant above tree line (Chamois, Ibex)





# Hunters' concern: Lynx

## *Lynx:*

Density app. 1 resident lynx per 100 km<sup>2</sup>.

Prey 1 roe deer/5 days = ca. 70 deer p.a..

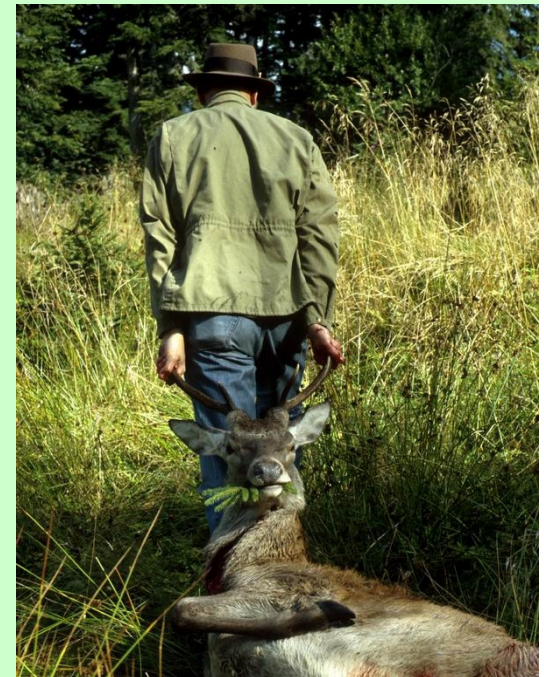
Plus prey of nonresidents and juv.

Outtake app. 1 Roe Deer eq. p. a., km<sup>2</sup>

## *Hunters:*

2 – 4 deer p. a., km<sup>2</sup> common.

Harvest rates commonly  
below increment.





# Hunters' concern: Wolf

## ***Wolf*** - Assumptions:

One pack (4 ad + 4 juv. wolves) per 250 km<sup>2</sup>.

Killrate 5,4 kg living prey per 1 wolf per 1 day.

Prey biomass 50 % Red Deer, 50 % Roe Deer/Chamois.

Outtake:	125 Red Deer	36,7 kg (d. w.)
	340 Roe Deer/Chamois	12,8 kg (d. w.)

(App. 0,5 Red Deer + 1,5 Roe Deer p. a., km<sup>2</sup>)

## ***Hunters:***

1 – 3 Red Deer, 1 – 3+ Roe Deer/Chamois common.



# Winter enclosures

Winter enclosures are fenced feeding stations for Red Deer.

Goal: To prevent Deer from bark skinning and browsing in late winter.

Size 30 – 50 ha, 60 – 150+ deer.

Closed (nov) dec – mid may (jun). 5 – 6+ months.

***„Deer fenced in? People fenced out!“***



# Further concerns of hunters

**Carnivores disturb game**

**C. make hunting inefficient and time consuming**

**C. make winter feeding unfeasible and therefore cause forest damage by game**

**C. disturb management (harvest) plans**

**C. cause a deterioration of leasing prices for hunting grounds**

***Data are lacking. No scientific evaluation at hand.***



# **Carnivores' Concerns**

## **Presence of hunters in the area**

**Leasing System (AT, G, CH some kantons):**

**Open season June – January (240 days)**

**Game keeper year round**

**High activity during attractive periods (rut, ...)**

**Intensive game keeping (winter feeding)**

***High interest in trophies. Great financial input. Great management efforts. L. C. are considered disturbing game management. Social control lacking.***



# Carnivores' Concerns

## *Presence of hunters in the area*

**Patent System:** (F, CH some kantons)

**Short seasons with many hunters**

**Game warden year round**

**No traditional game keeping (winter feeding)**

***Interest in quick hunting success. Low financial input.***

***No personal involvement in game management. High social control. Illegal actions difficult to achieve.***

# Carnivores' Concerns

## *Presence of hunters in the area*

**Community System:** (South Tyrol, Slo)

**Short seasons with many hunters**

**Game warden year round**

**Traditional game keeping (winter feeding)**

***Interest in quick hunting success. Low financial input.***

***Moderate personal involvement in game management.***

***High social control. Illegal actions difficult to achieve.***





**Thank you for your attention!**