



Outdoor livestock farming confronted with wolves for 30 years in France

*Exchange with **VZW Vlaamse Schapenhouderij (BE)** - Jan. 23 2023*



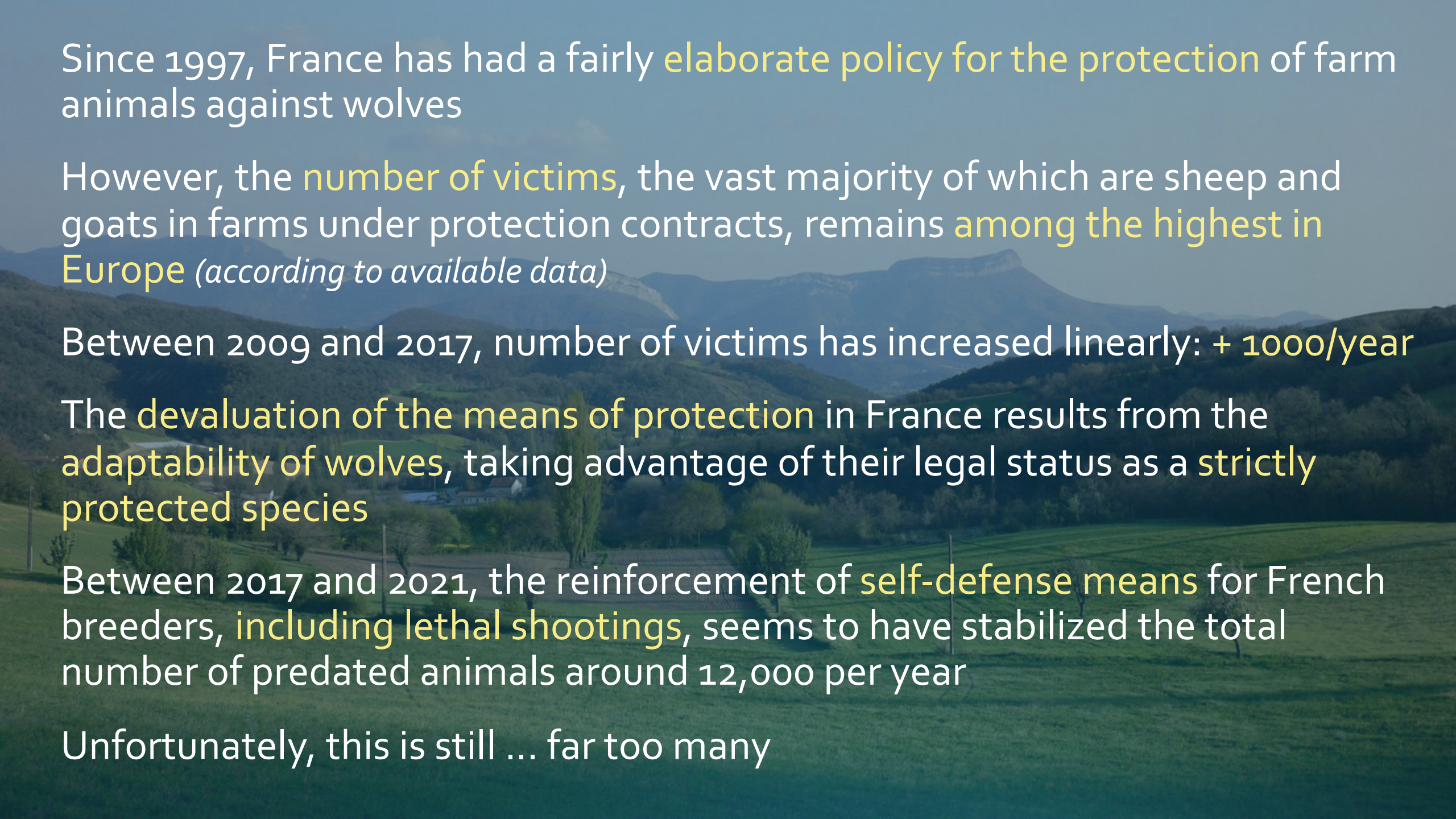
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Coordinator of the COADAPHT researchers network

Summary of the situation ... in one slide





Since 1997, France has had a fairly **elaborate policy for the protection** of farm animals against wolves

However, the **number of victims**, the vast majority of which are sheep and goats in farms under protection contracts, remains **among the highest in Europe** *(according to available data)*

Between 2009 and 2017, number of victims has increased linearly: **+ 1000/year**

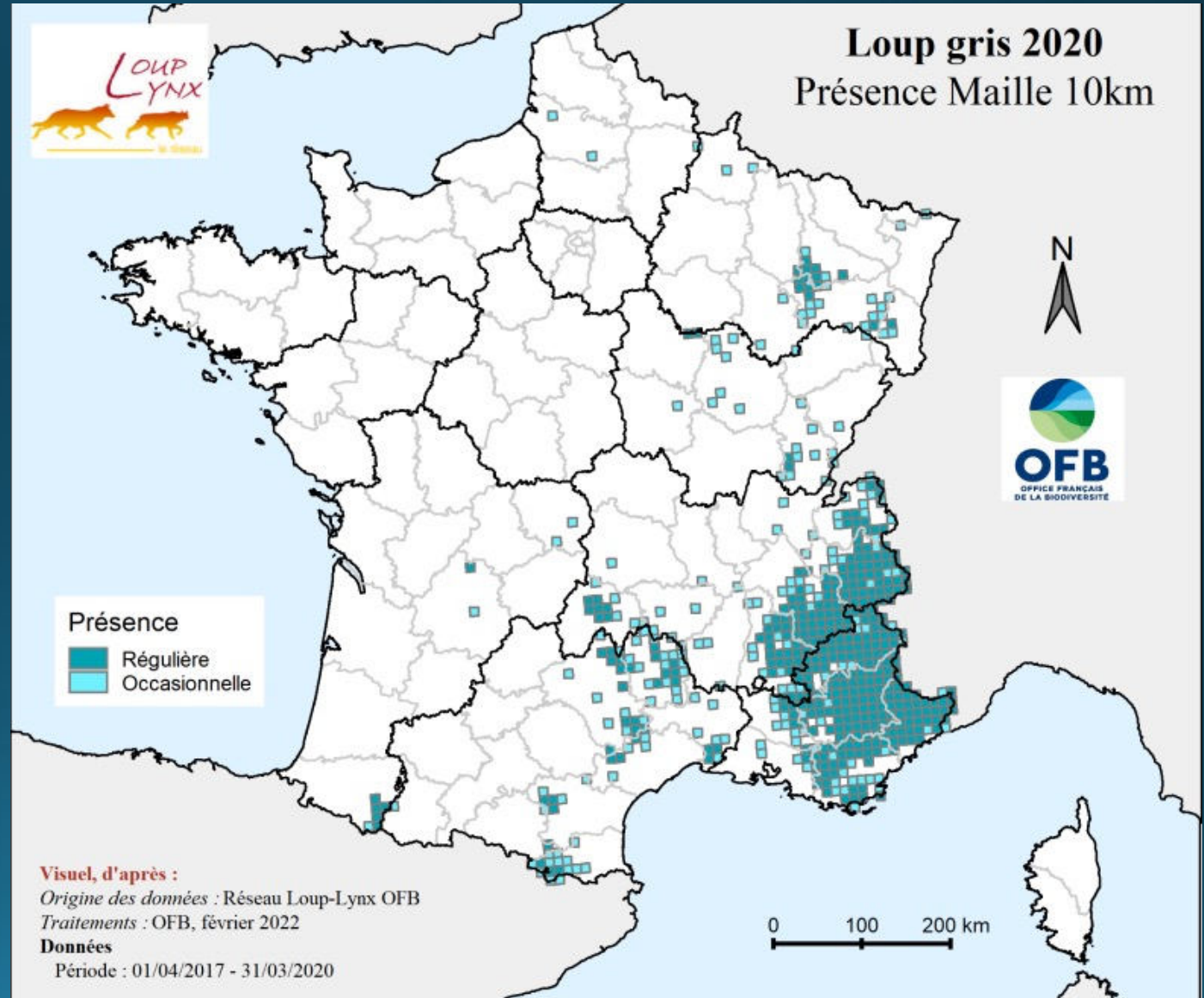
The **devaluation of the means of protection** in France results from the **adaptability of wolves**, taking advantage of their legal status as a **strictly protected species**

Between 2017 and 2021, the reinforcement of **self-defense means** for French breeders, **including lethal shootings**, seems to have stabilized the total number of predated animals around 12,000 per year

Unfortunately, this is still ... far too many

The wolves

Dispersion in France (2020)



Source: <https://www.loupfrance.fr/>

The wolves

Areas of Wolf
Permanent
Presence (ZPP)
& Est. Wolf
numbers
1993-2020/21



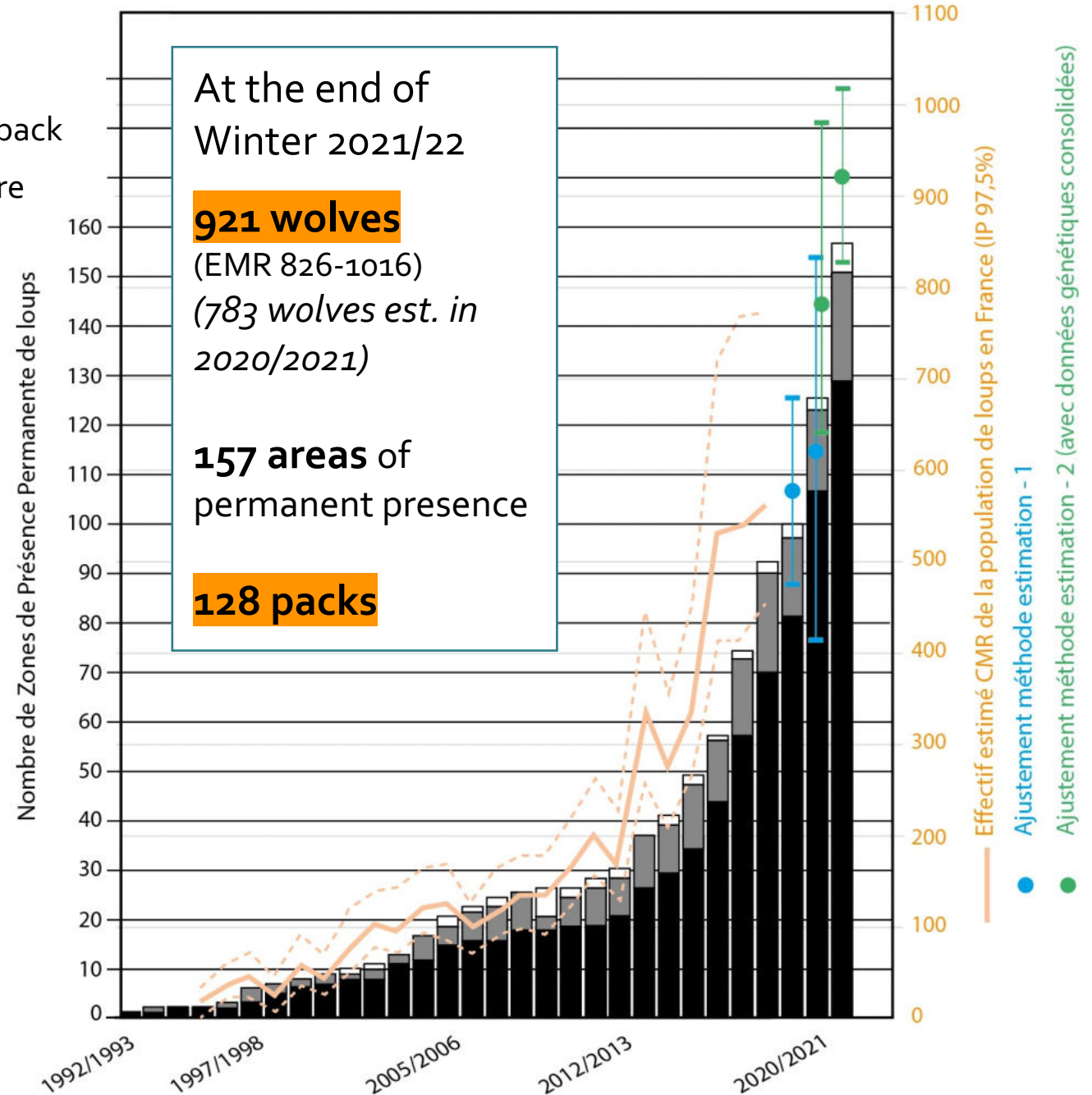
Data source : OFB 2022

ZPP France

■ Pack

■ Non-pack

□ Unsure

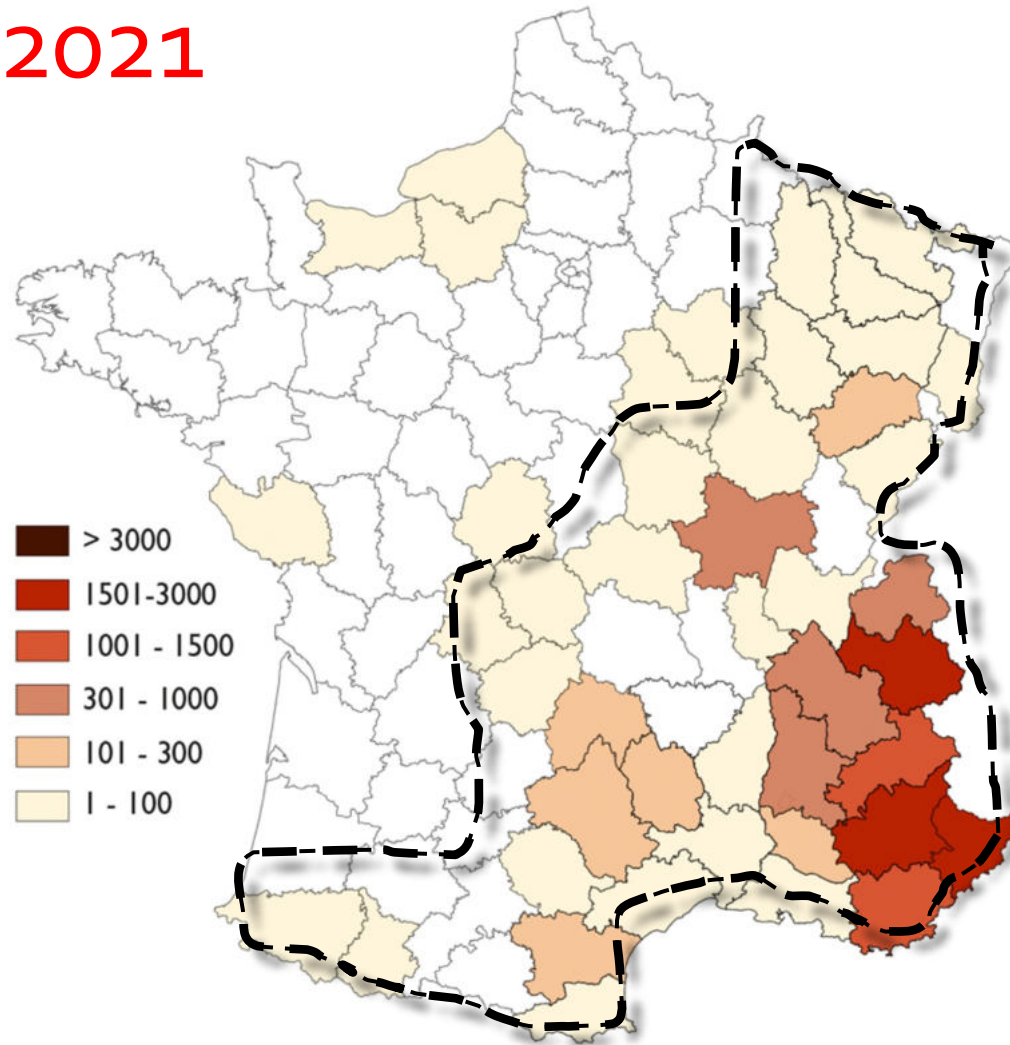


The domestic preys

Number of
predated
livestock heads



2021



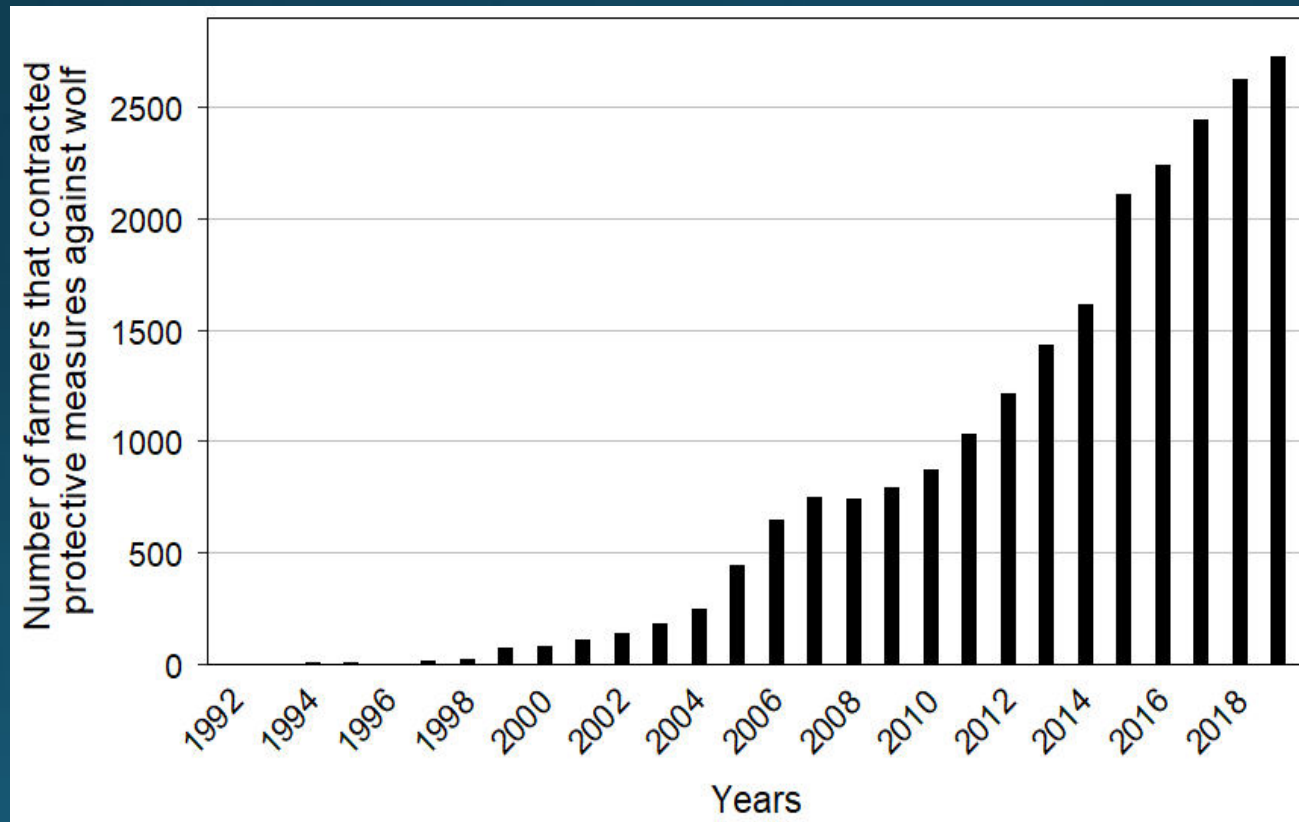
Data source :
DREAL et DRAAF
Auvergne Rhône-Alpes



Protection measures



Since **1997**, herd protection measures have gradually become **widespread** and now concern almost **all outdoor livestock farms** in the **Alps** and **Provence** regions (from where comes 90% of the livestock victims in France)



Meuret *et al.* 2020

Data source :
DRAAF Auvergne- Rhône-Alpes

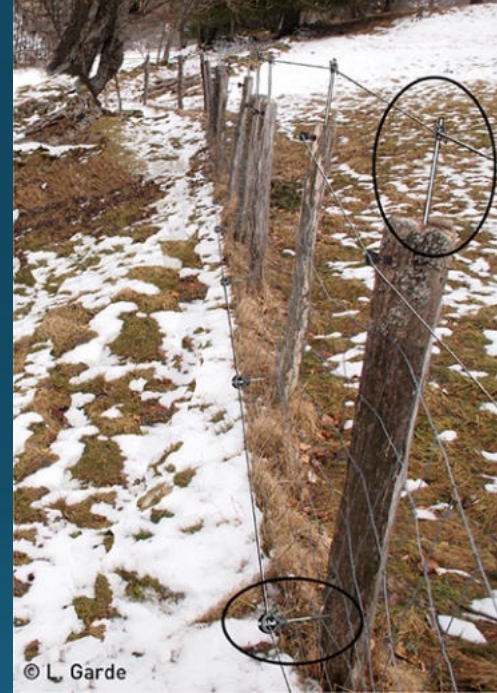
Protection measures



Reinforced human
presence
(*"Shepherd's
assistant"*)



Livestock Guard
Dogs



Secured
fences



Systematic
regrouping at
night

Protection measures



Reinforced human presence
(*"Shepherd's assistant"*)



Livestock Guard Dogs



Secured fences



Systematic regrouping at night



Secured fences



It is useless to "overdo" the height of the fences of the pasture areas, as motivated wolves are capable of jumping up to more than 1.6 meters, and also of digging under the fence.



Wolves' attack on ewes and lambs in a photovoltaic field.
The wolves dug under the 2 meter high fence.

Bonnet *et al.* 2019



Photos: CERPAM



Secured fences



No fence, especially when not combined with guard dogs, can be conceived as an **impassable obstacle for wolves**.

Or maybe these ones?

Goat pastures in Italy (2017)



Secured fences



Fences should be electric or **reinforced with two electrified wires or tapes**: one at the top and one at muzzle exploration height, as a warning.

Fences should be **placed on well visible (by wolves), cleared strips about 2 meters wide**.

Fences must always be **associated with protection dogs**.



Livestock Guard Dogs



In France, Livestock Guard Dogs (LGDs) have been **absent for more than a century** from the Alps and the Massif Central.

They were introduced into the farms as **a matter of urgency** in the late 1990s.

The **total number** of LGDs currently working with herds in France is estimated to be **around 8,000**

> 8 to 10 times more livestock guard dogs than wolves.

Livestock Guard Dogs



The effectiveness of guard dogs begins with **a minimum of two dogs** per herd or group of animals to be protected.

Espuno 2004, Moret 2007, Candy et al 2019, Potet et al 2021

Variable efficiency according to :

- size and spatial distribution of the grazing herd
- nature of the grazingland (rugged terrain, woods, etc.)
- number of wolves approaching or attacking, alone or in several groups
- prior reciprocal knowledge between wolves and these dogs.

Smith et al 2010

Livestock Guard Dogs



In Italy and Spain, breeders faced with wolves in packs recommend working with a stable and non-divisible group of dogs (Garde 2016 ; Candy *et al.* 2019, 2021)



In the French Alps, the financial aid ceiling for breeders was recently doubled from (about) 5 to **10 dogs per farm.**

Facing a **pack of wolves**: oppose a **pack of dogs** of the same size



Photo : mastinesibericos.es



1997-2021: 24 years of protective measures in France

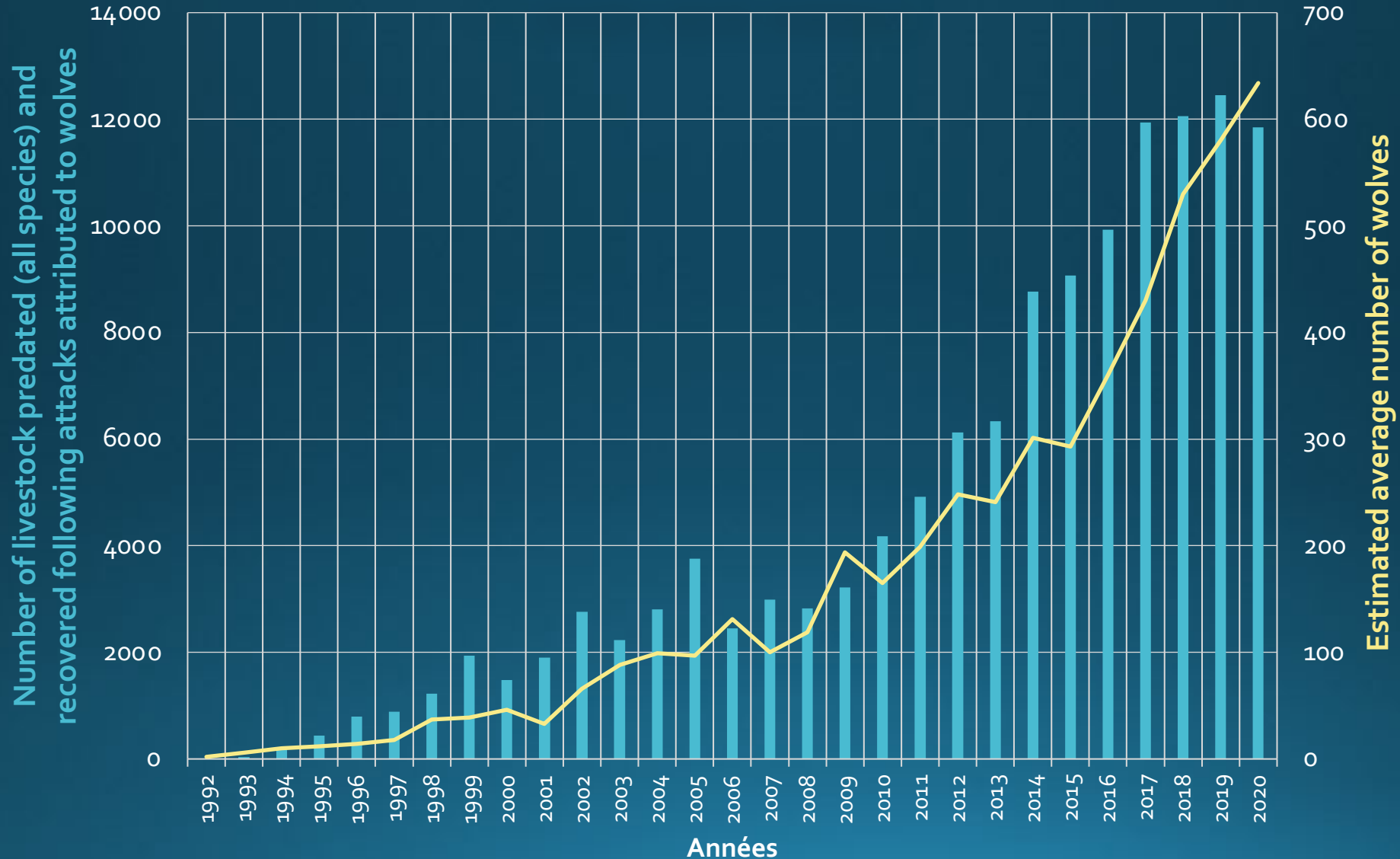


For what results?

Number of livestock predated & estimated number of wolves ... over the years



Data source:
DREAL
Auvergne
Rhône- Alpes

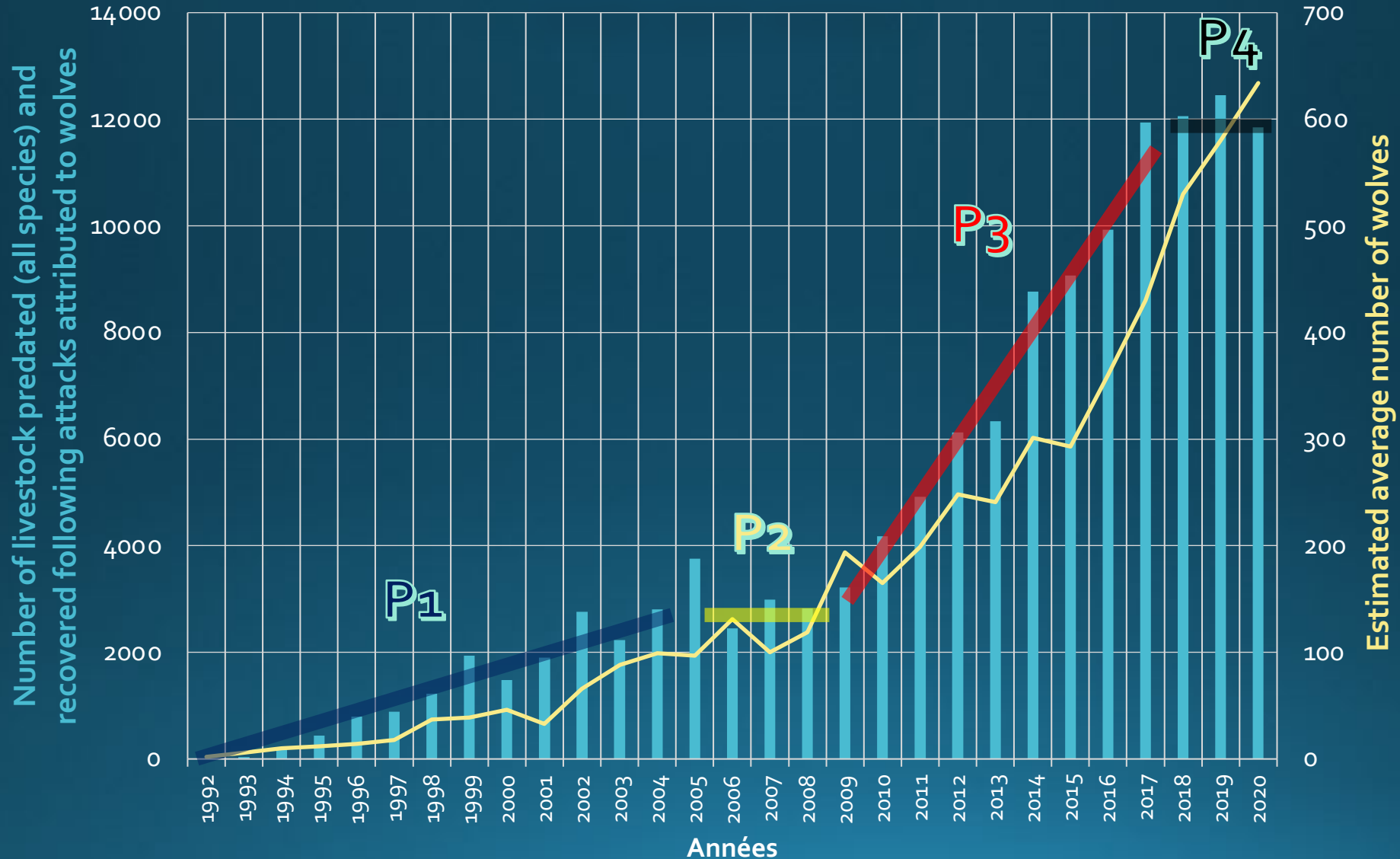


Data source:
ONCFS/OFB

Number of livestock predated & estimated number of wolves ... over the years



Data source:
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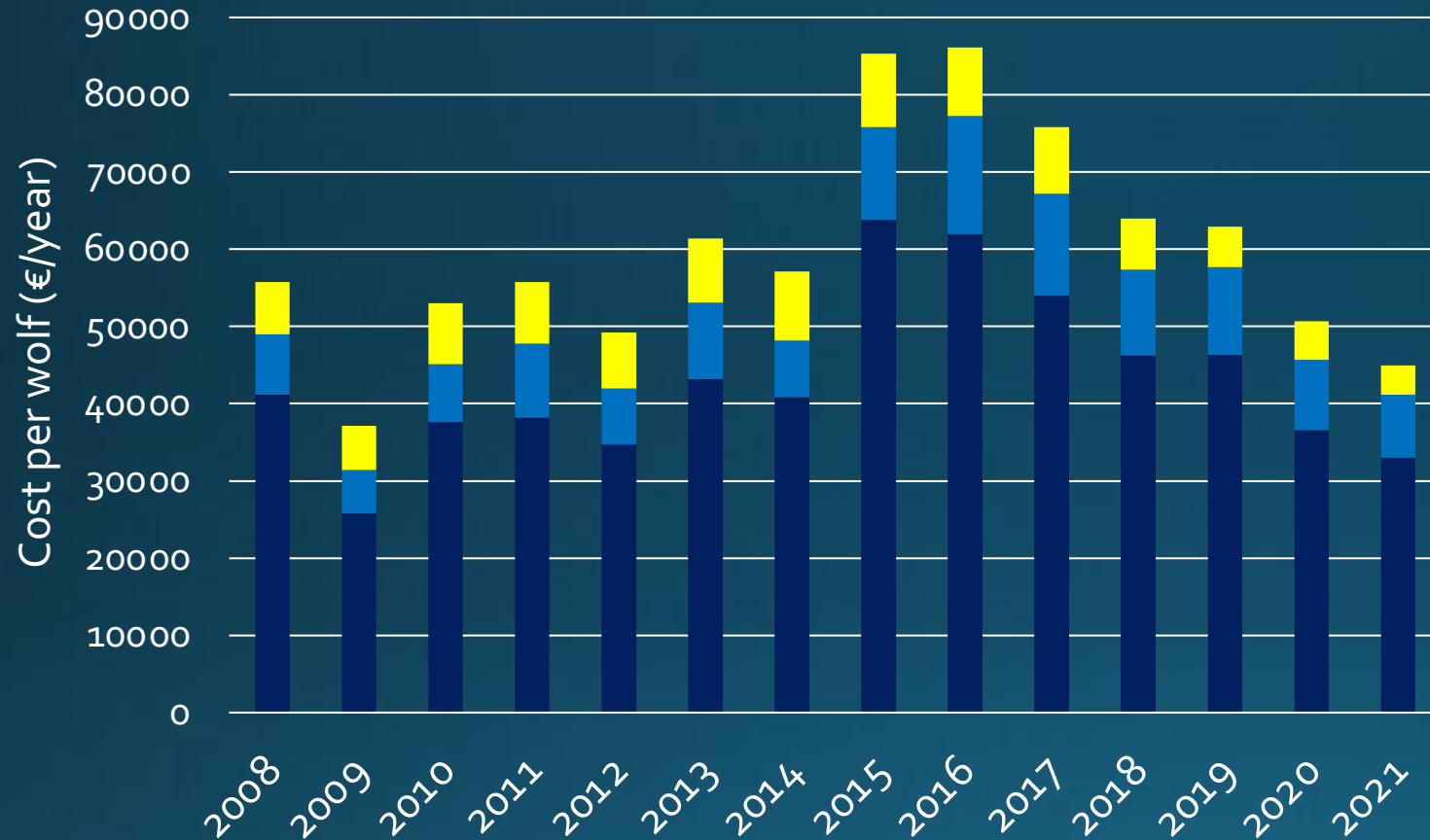


Data source:
ONCFS/OFB

For which costs ?...



Variation in annual costs per wolf



- Compensation of losses to breeders
- Protection (part left to the breeders)
- Protection (money from French State and EU)



Data source :
DRAAF & DREAL Auvergne Rhône- Alpes
OFB

Behind these numbers and graphs...



Photo : Var Matin



Photo © La Provence



Despair and revolt among
the affected breeders ...
despite their efforts to
protect their animals as it
is recommended.

PUBLIC

Sébastien VEDRINES
Sheep breeder
Photo from the
documentary movie
"L'heure des loups"
by Marc KHANNE

How can we restore in wolves that have come to France a behavior that leads them **to keep their distance** and **to be wary of humans**, their infrastructures and various associated animal species?

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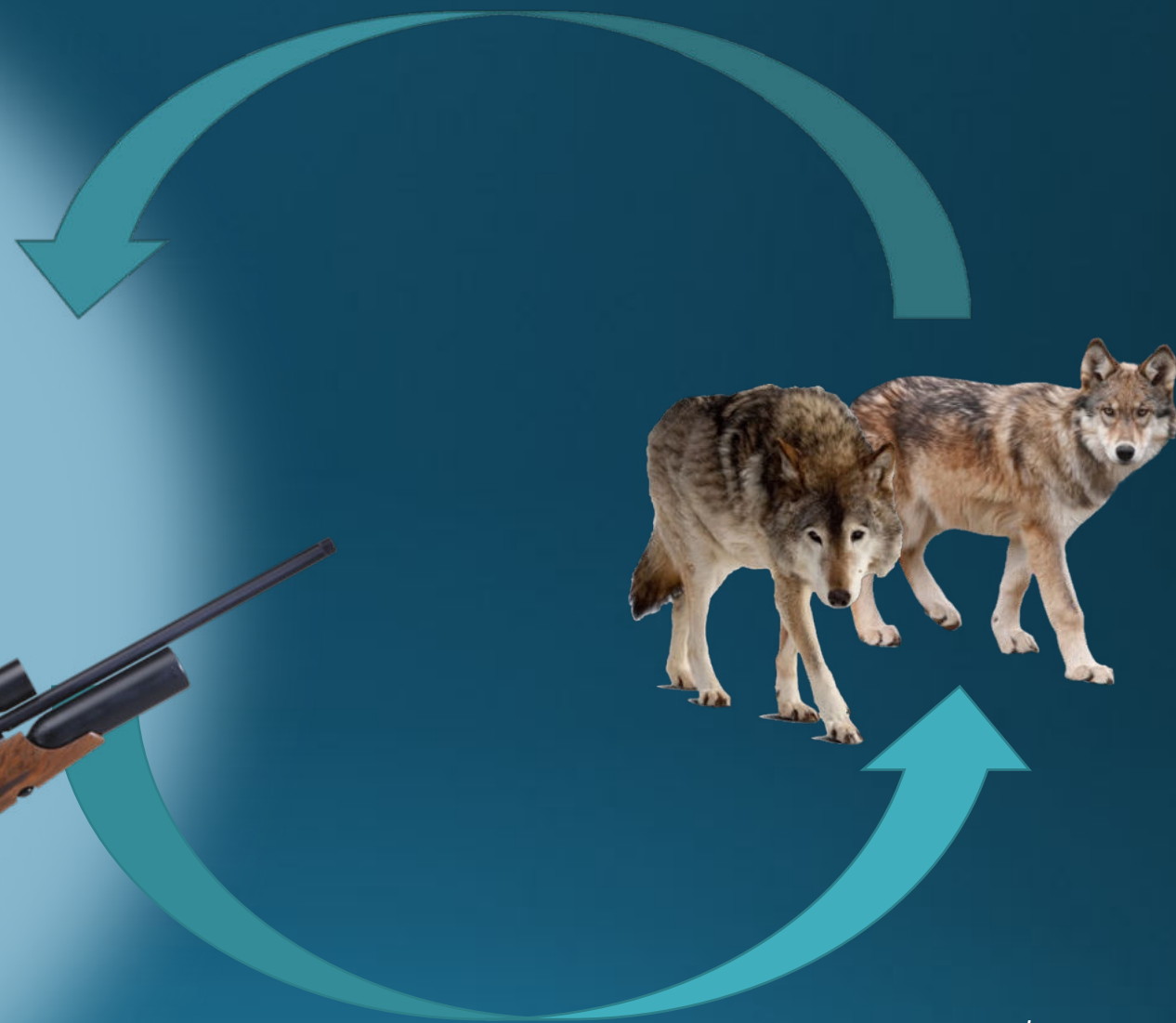


Path to a solution: our suggestions

Meuret *et al* 2020

Réseau de chercheurs
COADAPHT

- ✓ Breeders and their local helpers should **be allowed to defend their livestock** with defensive shots **without having to wait** until several successful attacks have already taken place: *avoid behavioral 'positive reinforcement.'*
- ✓ **Defensive shooting** would also improve the **effectiveness of non-lethal means of protection** (fences, dogs, lights, sounds...), as **warning signals** to be respected by wolves.
- ✓ Rather than passive coexistence, we need to consider a **dynamic and evolving process of coadaptation** between humans and wolves, building on the adaptive capacities of all.



Bangs *et al* 2006
Meuret *et al* 2020



Contents

SOCIETY AND REGIONAL STRATEGIES



6 min

Wolves and livestock farming in France: an assessment of 27 years of coexistence

The first wolves came to France in the early 1990s. Specialists from the French Biodiversity Office (OFB) have now identified about 580 wolves, present over a third of the country, especially in the south-east, and particularly in regions where outdoor livestock farming is highly developed. With 10,000 to 12,000 livestock animals killed each year by wolves, the coexistence of breeding activities and wolves raises challenging questions. The following is an assessment of 27 years of wolves in France and their impact on livestock farming and its grazing areas.

Published on 09 April 2020 (date.last_update 25 January 2021)



<https://www.inrae.fr/en/news/>