

# Lead (Pb) ammunition

its health & environmental  
impacts and the need to  
phase it out in Namibia

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and the

Namibian Lead Wildlife Poisoning  
Working Group



**EISH,  
I DIDN'T  
KNOW!**

Carcasses or parts of carcasses that are **contaminated with lead shot** and placed at vulture restaurants or otherwise left in the veld for scavenger support may poison vultures & hyaenas

**YOU can help** by using lead-free alternatives and by removing discarded lead from the environment and recycling it safely.

Learn more at [www.replacelead.com](http://www.replacelead.com)

**Pb** National Lead Task Team

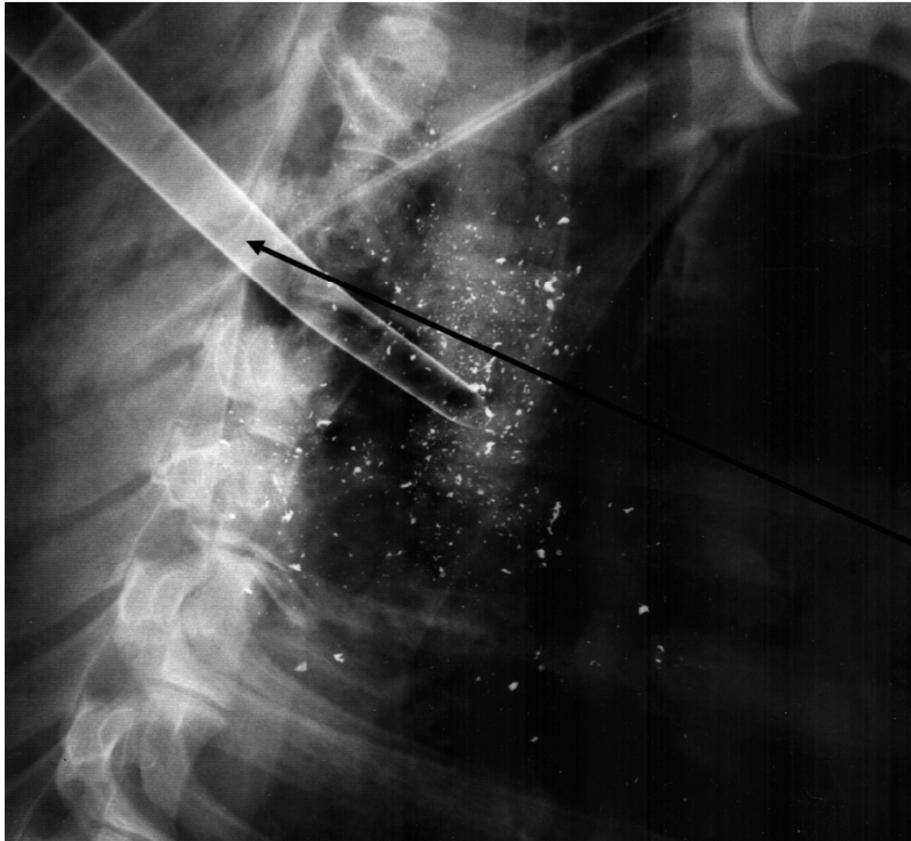
# Credentials

- Phasing out lead ammunition = Anti-hunting
- Not anti-hunting – no one on the NLWP Working Group is anti
- Strongly pro-hunting – why?
  - Hunting is good for conservation at biodiversity & landscape levels
  - Hunting is good for the economy
- But if hunting poisons people and scavengers, that is not good for hunting – will attract more bad publicity.

# Why concerned?

- Human health
  - No safe level of lead in people & wildlife – largest impact on foetus and children
  - Lead phased out of most products – e.g. paints & all fuel
  - Lead sinkers are in the process of being phased out for coastal angling
  - Main remaining source of lead – game meat from bullets
- Health of scavenging species
  - The more a species is dependent on scavenging (e.g. vultures – obligate scavengers) the higher the lead levels
  - Extensive scientific literature on subject – USA, Europe, Southern Africa
  - First evidence came from California with the Condor – 56% of deaths were due to lead poisoning, from ammunition in game
  - Lead bullets fragment – into hundreds of pieces – far more than hunters realise

# Lead bullet fragmentation



## Deer #30

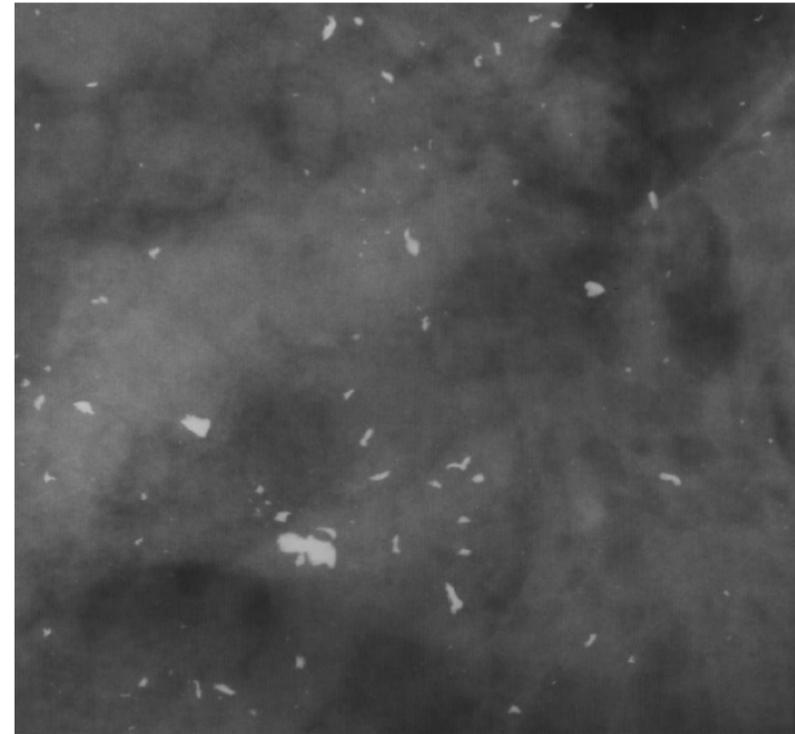
thorax, whole body

Rifle: 7-mm Rem  
Magnum

Bullet: lead-core,  
lead-tip, 175-grain

547 fragments  
counted

Note: 9-mm carbon  
fiber tube inserted  
through bullet path



## Deer #18

Gut pile (portion)

Rifle: 7-mm Rem  
Magnum

Bullet: lead-core, lead  
tip, 150-grain

198 fragments  
counted

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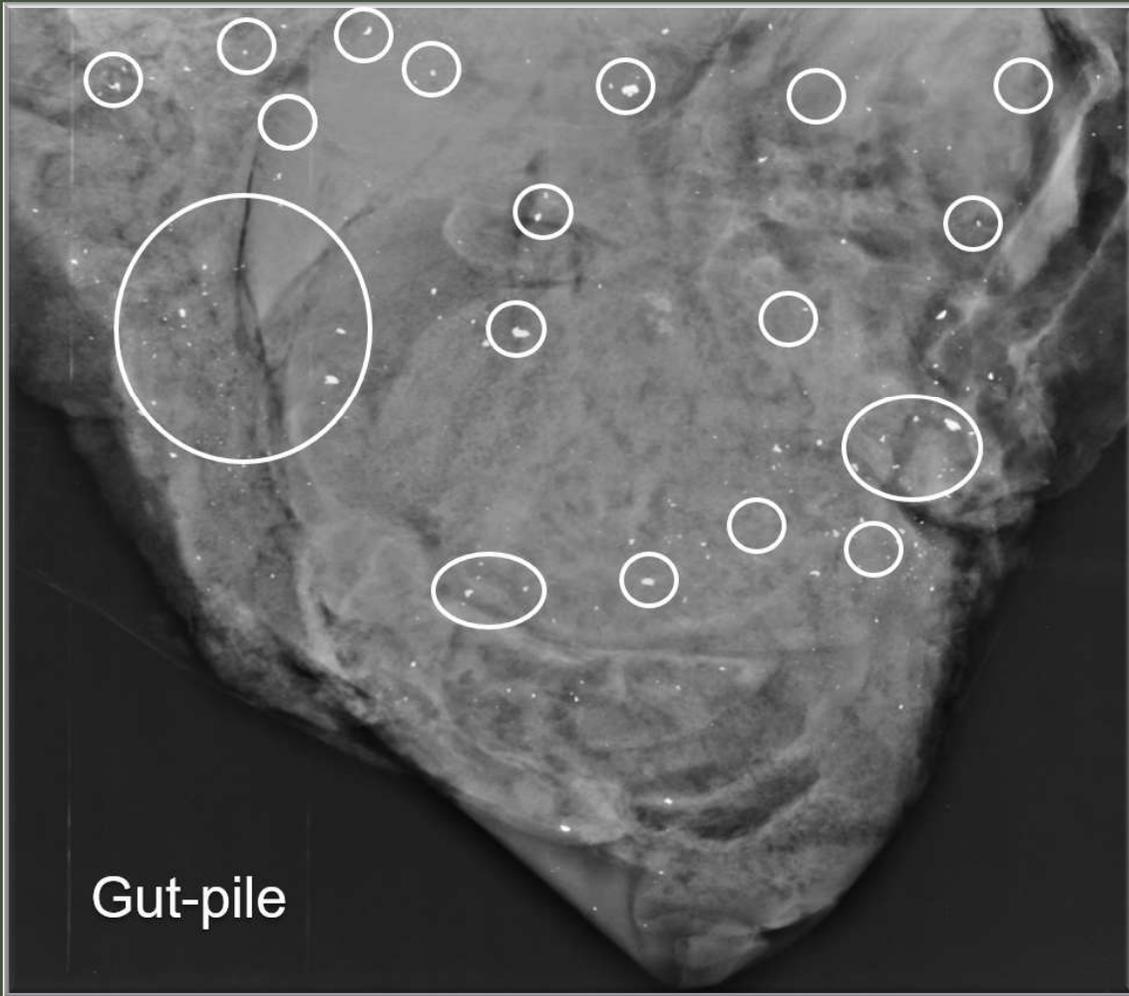
Register: #07 / #01  
Springbok Female 22kg (avg)  
150m  
Left flank (through)  
.243 Win  
95gr Berger Classic Hunter  
Speed @ crown 3,084 fps  
Speed @ impact 2,799 fps  
Energy transfer 1,652 ft/lbs

*Lead-core Bullet*

200x PPTX Zoom  
TOTAL  
Fragments:

**449**

# This is the Danger





Carcass

Register: #06 / #02  
Springbok Female 22kg (avg)  
160m  
Left flank exit stomach (through)  
.25-06 Rem  
**90gr Hornady GMX**  
Speed @ crown 2,961 fps  
Speed @ impact 2,527 fps  
Energy transfer 1,276 ft/lbs

*Copper-based Bullet*

200x PPTX Zoom  
TOTAL  
Fragments:  
**5**

# How does the lead get into game?

## Only from hunting

- Wounded animals that die in the veld
- Eviscerated internal organs dumped in veld
- Area of carcass damaged by bullet cut out and left in veld
- Predators shot & left in veld

Bullet entry and exit holes are places where vultures and other scavengers often start feeding – high lead concentration areas

# What alternatives to lead?

- Non-lead alternatives for many (not all) calibres, but moving in right direction
- Effectiveness of alternatives well studied – very effective (good body of science)
- Non-lead alternatives currently more expensive

If professional hunters, who claim to be environmentally aware, have an option to reduce environmental impacts, who would not take that option ?

# What are the next steps?

1. Provide lead-free ammo for hunters to test
2. Share information on the issue with hunters and farmers
3. Explore an environmental levy on lead ammo to subsidise non-lead ammo, and to support info sharing and focused research
4. Research levels of lead in scavengers (vultures & mammalian predators) and people across Namibia
5. Test for lead in game meat on supermarket shelves
6. Look at game meat certification hunted with non-lead ammo
7. Support MEFT to change to lead-free ammo

# Members of the Namibia Lead Poisoning Working Group



Ministry of  
Environment,  
Forestry &  
Tourism



Additional Members: (a) Central Veterinary Laboratory, MAWLR  
(b) Ministry of Health & Social Services

# Information

- Article summarising the situation of lead & ammunition in Namibia:

<https://conservationnamibia.com/blog/b2021-unleaded-please.php>

- Scientific papers – toxicity of lead, impact on scavengers, effectiveness of non-lead ammunition and related:

<http://the-eis.com/elibrary/search-results?e=lead+ammunition&l=&a=&t=All&yf=&yt=&isbn=&pt=>

- Video of Chris Parish, hunter and scientist at Peregrine Fund, USA: <https://youtu.be/I8TZ-CGXxE4>

THANK YOU