

# UNDERSTANDING SPATIAL AND TEMPORAL DYNAMICS OF PANGOLIN POACHING IN NAMIBIA

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# Introduction

## The bigger picture of wildlife crime.....

- Industry of illegal hunting and trade in wildlife and wildlife products is estimated to be worth **US\$50-US\$150** billion per annum
- Threatens ecotourism, ecological balance, and biodiversity
- Threatens national and local economies, the criminal justice and security system, and public health
- Enhance the spread of emerging zoonotic diseases
- The demand for high-value species products is within the East Asian markets





## Introduction

### Pangolin trafficking .....

- Pangolins are the most heavily trafficked high-value wildlife species worldwide
- Purposes vary from **medicinal**, **ornamental**, **meat consumption**, and other additional uses
- All eight global pangolin species received high-level protection by listing under CITES Appendix 1
- Protection of the pangolin species is necessary as it has major ecological roles
- Relatively little is known about the threats that the species faces
- It is not known how poaching and other anthropogenic impacts are affecting the population

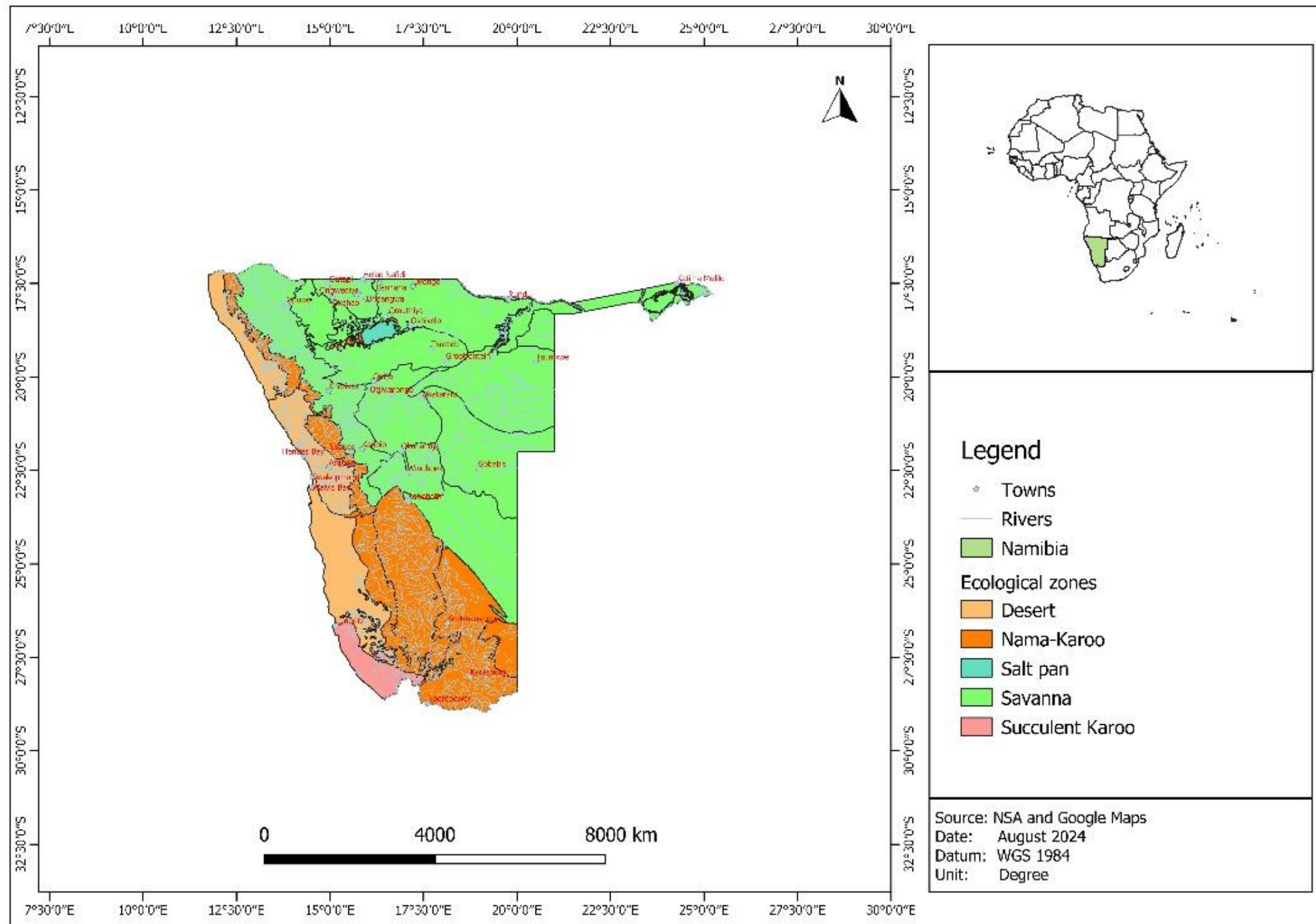


# Specific Issues for Namibia

- There has been an upsurge in the trafficking of pangolin
- The illegal trafficking of this species affects the population dynamics
- There is a greater need for research
- Trafficking occurs on a broader geographical scale
- Research provides an added advantage for investigation



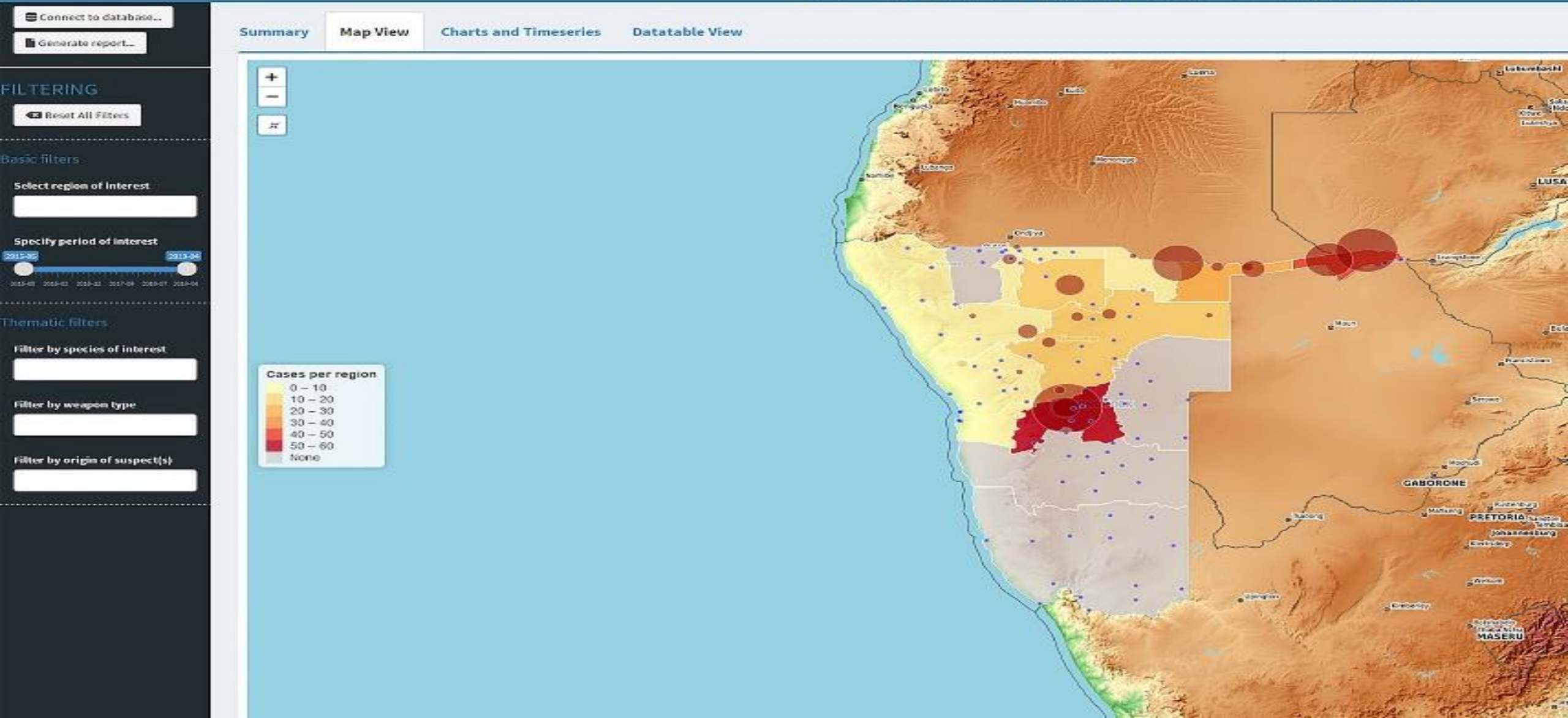
# Study Area





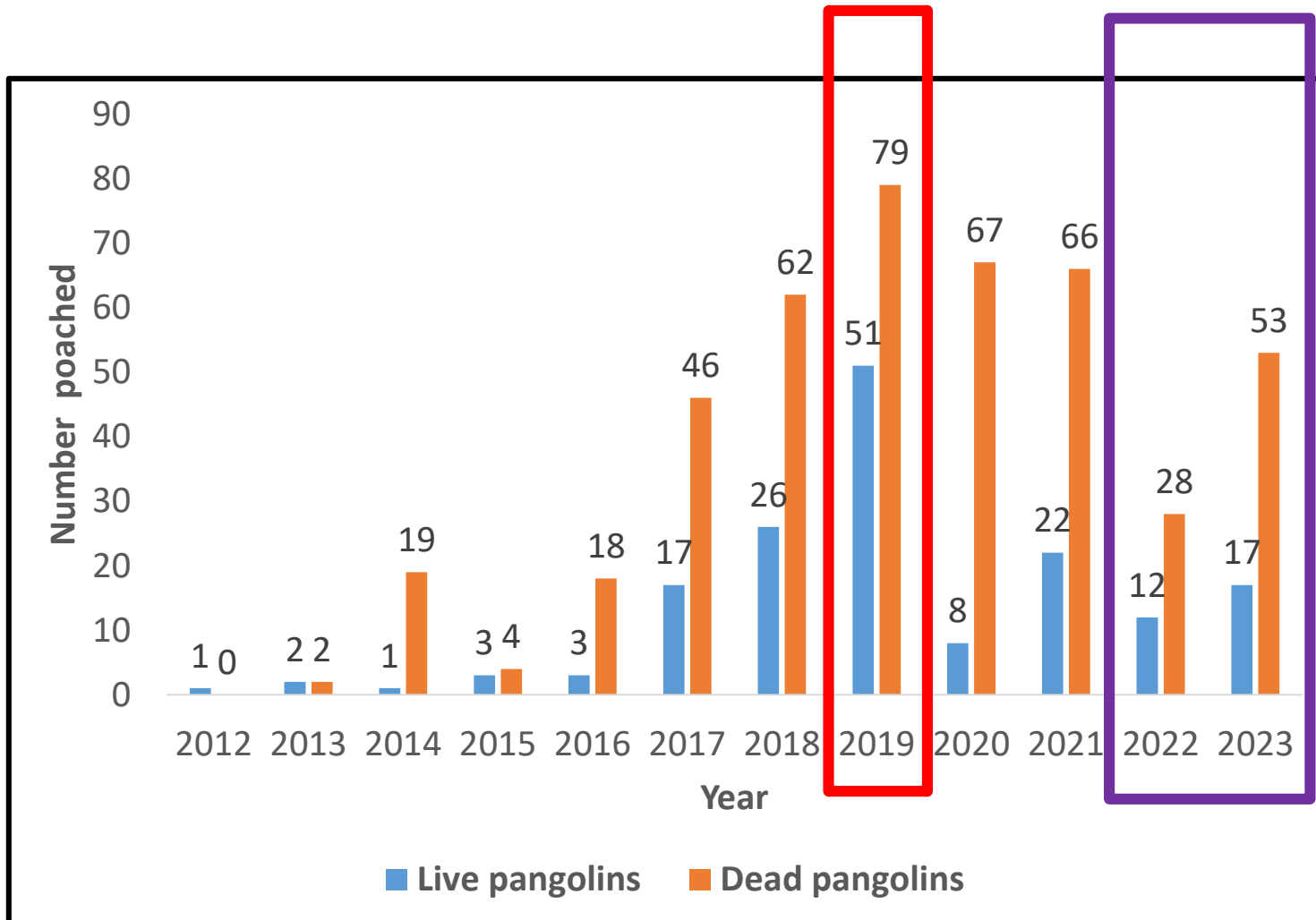
# Research Data

## Namibian Wildlife Crime Database Analysis Tool



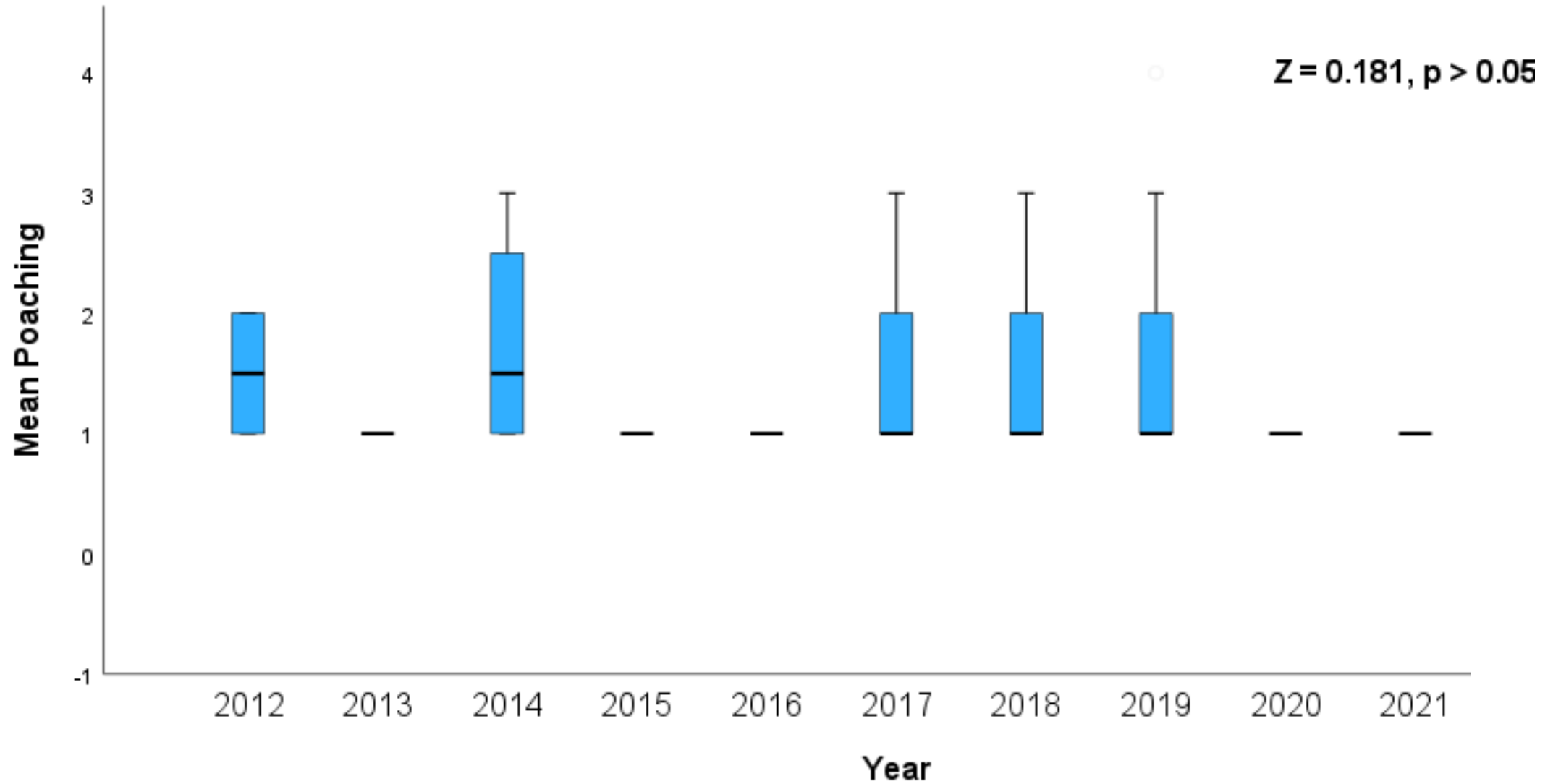
***How many were poached?***

# Pangolin poaching in Namibia over time – Temporal trends

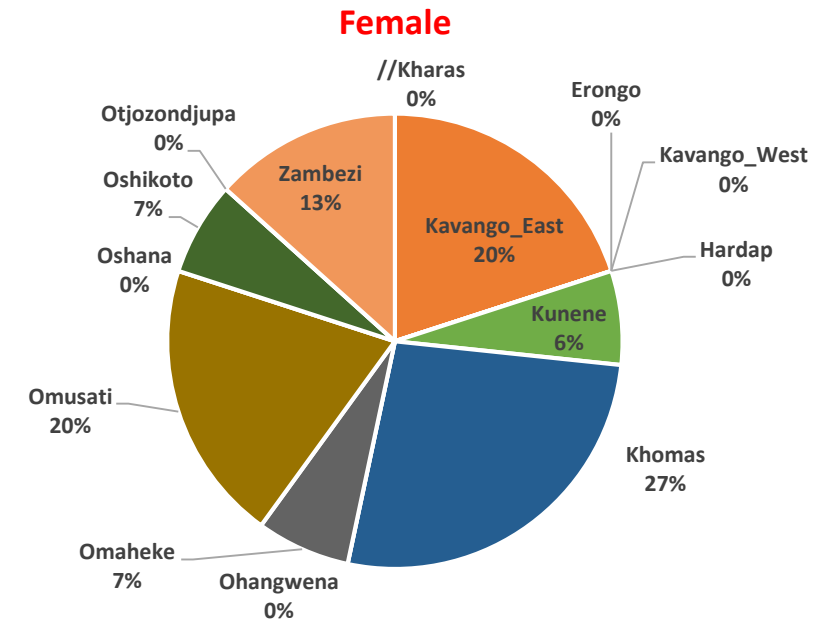
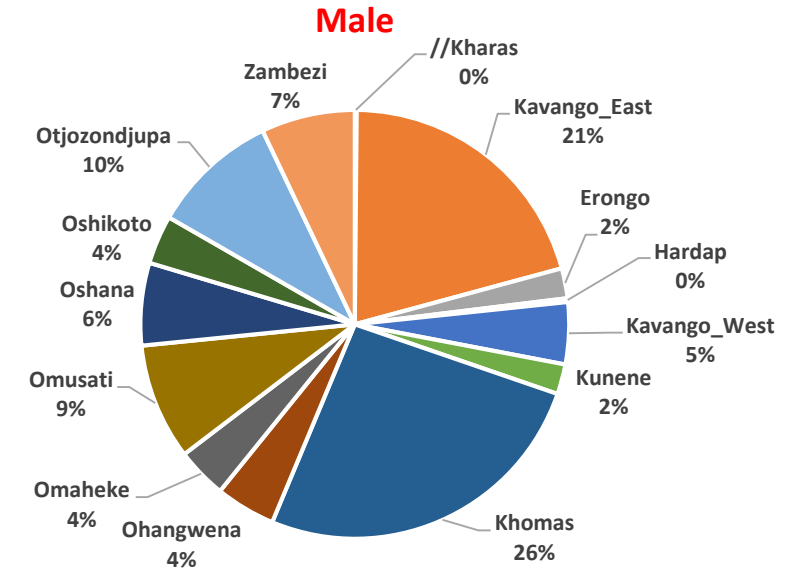
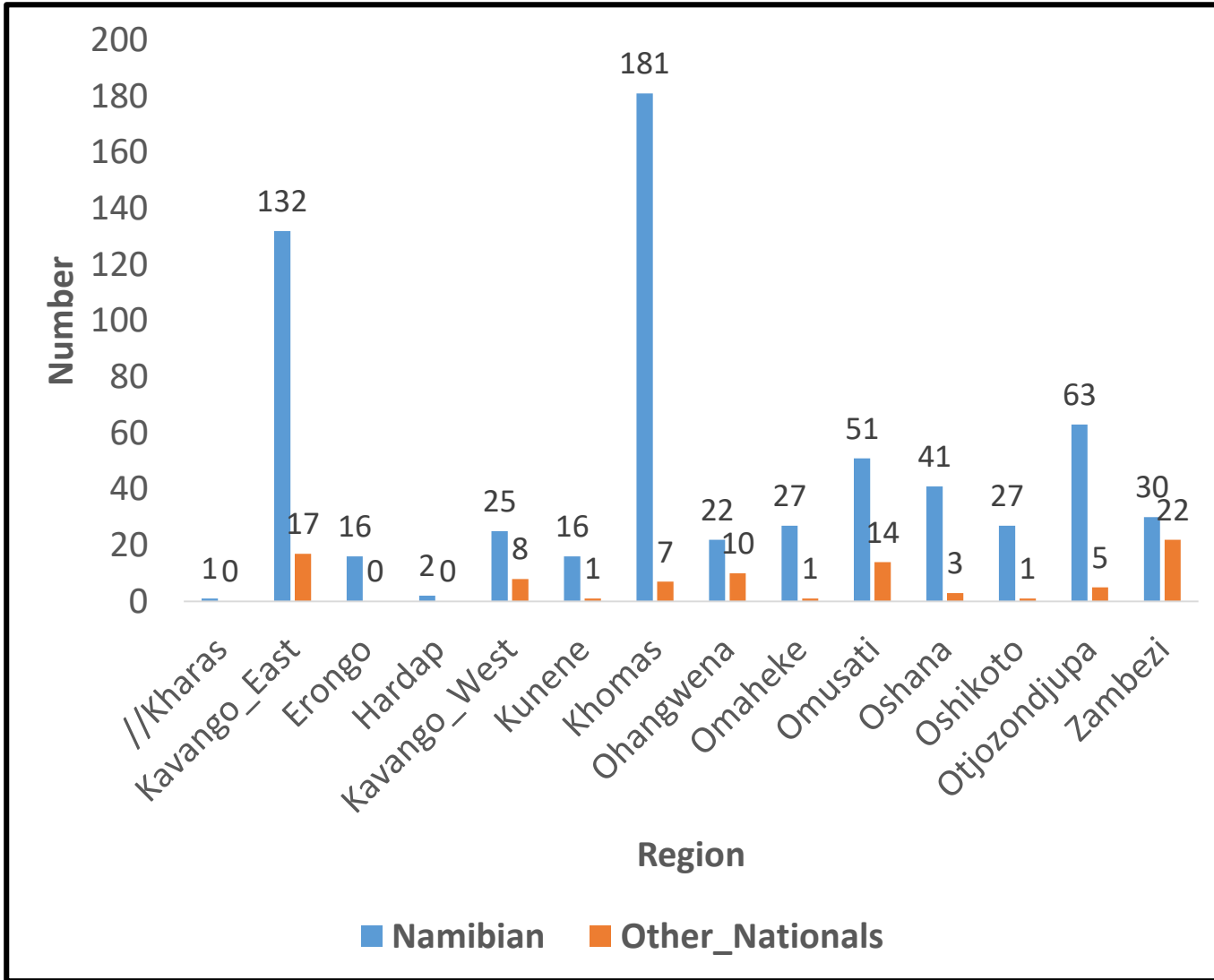




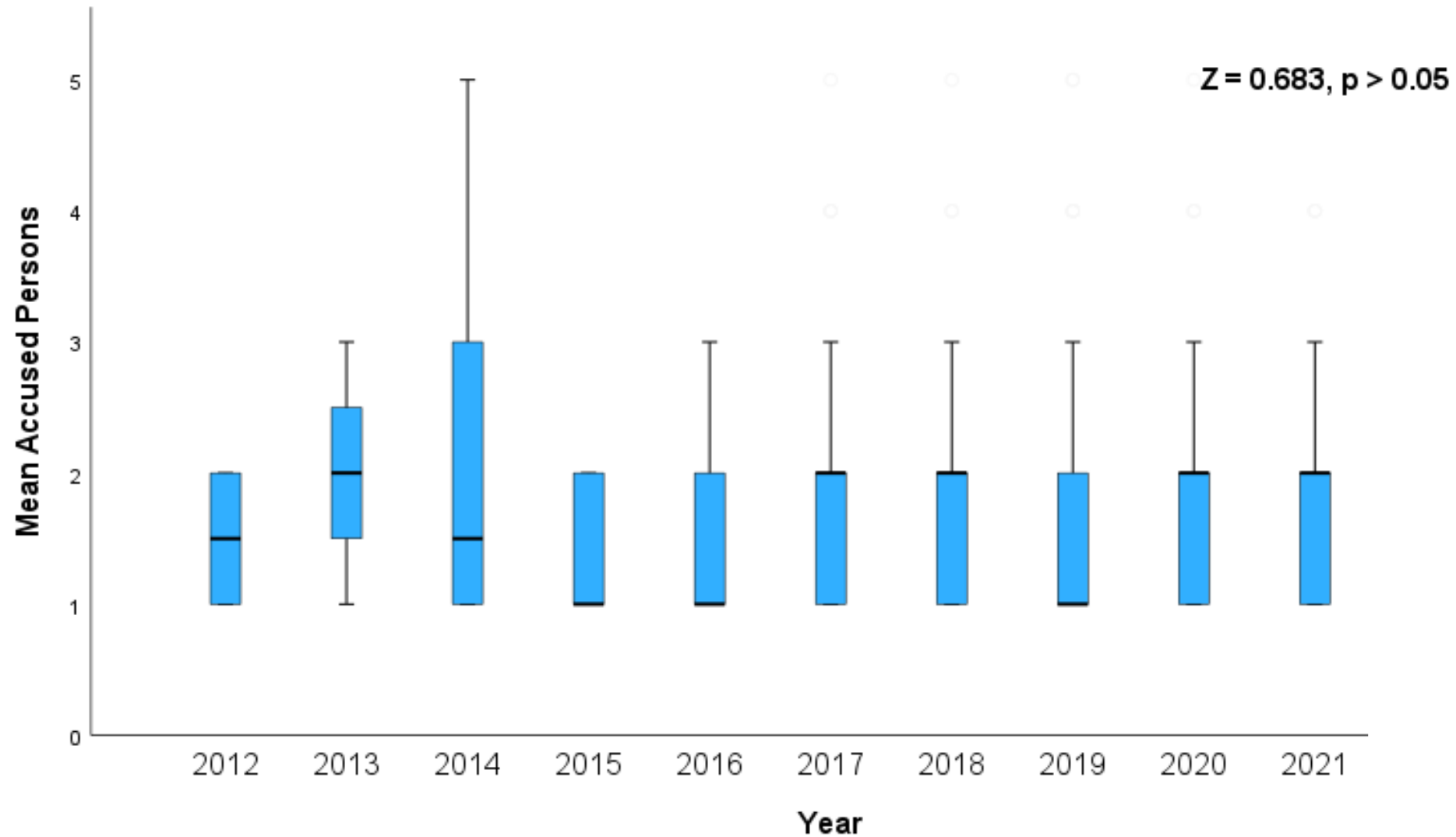
# Mean Pangolin Poaching



# Arrests related to pangolin poaching between 2012 and 2021



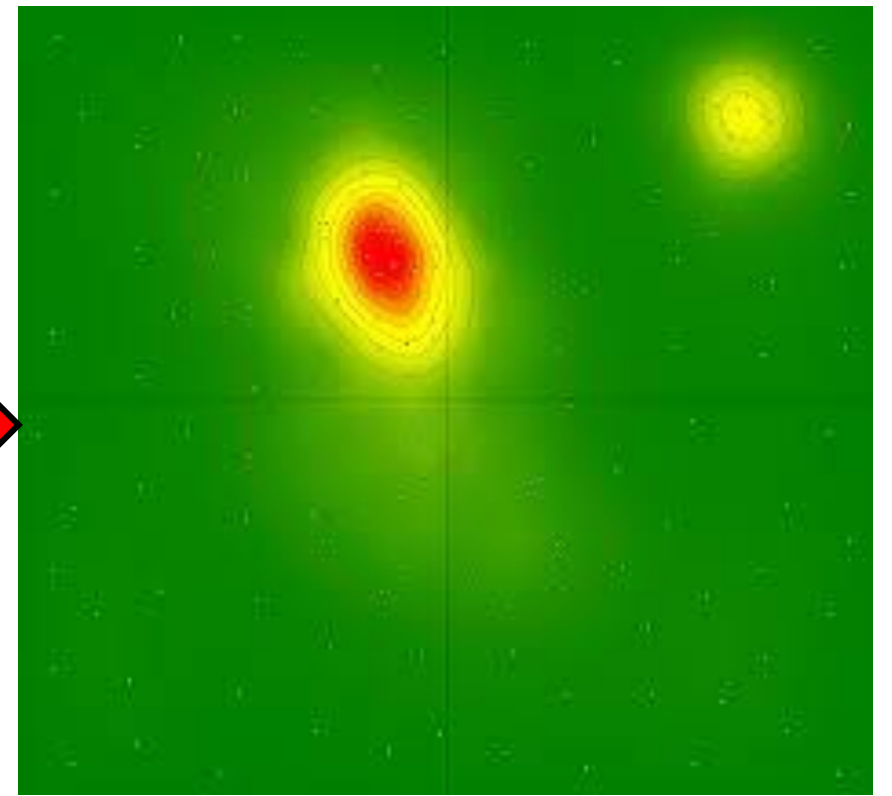
# Mean Arrests related to Pangolin Poaching





***How does the spatial distribution of pangolin poaching look like?***

**Spatial Analysis**

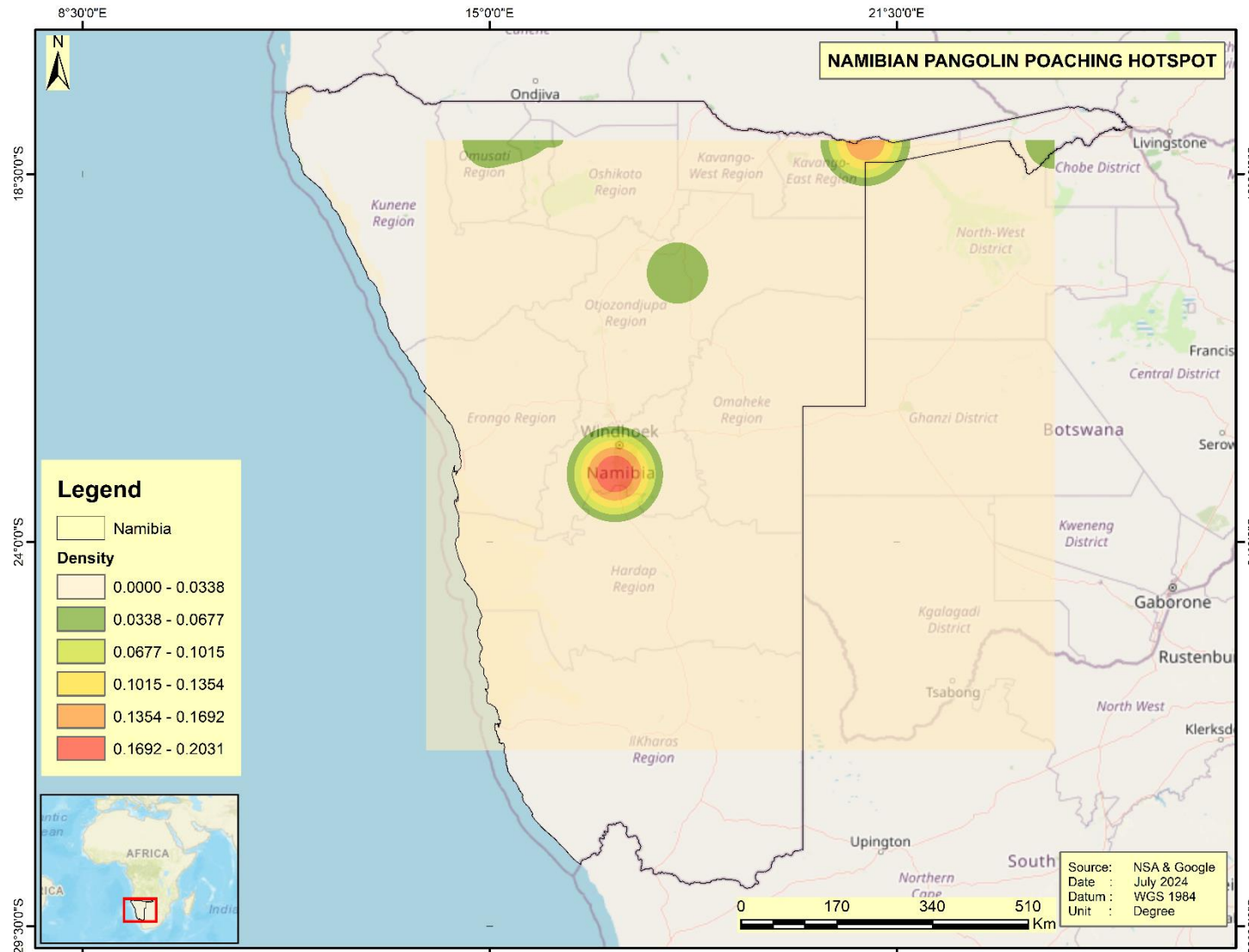


**KERNEL  
DENSITY  
ESTIMATION**



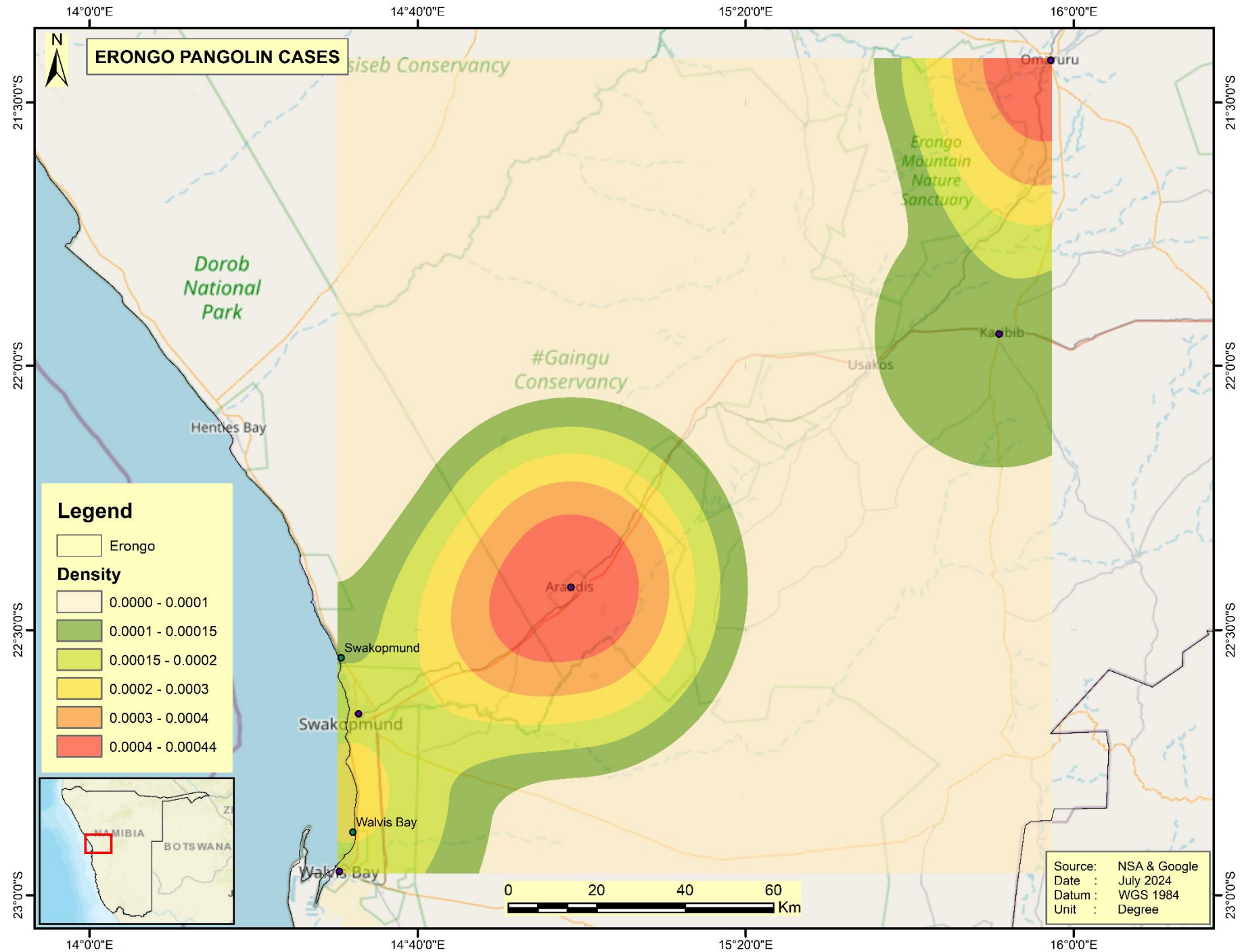
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# The spatial distribution of pangolin poaching cases 2012 - 2021



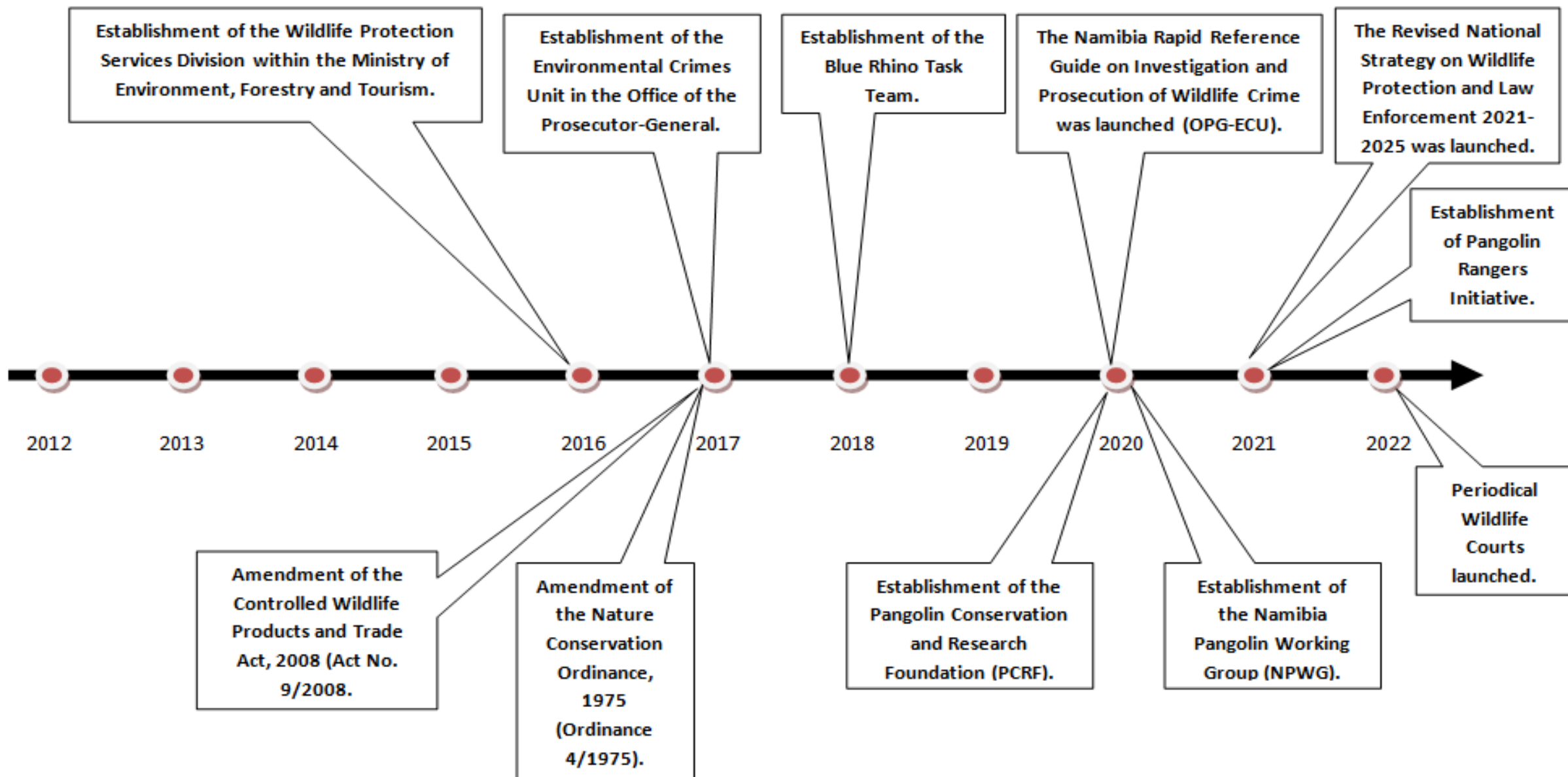


# Erongo Region 2012 -2021

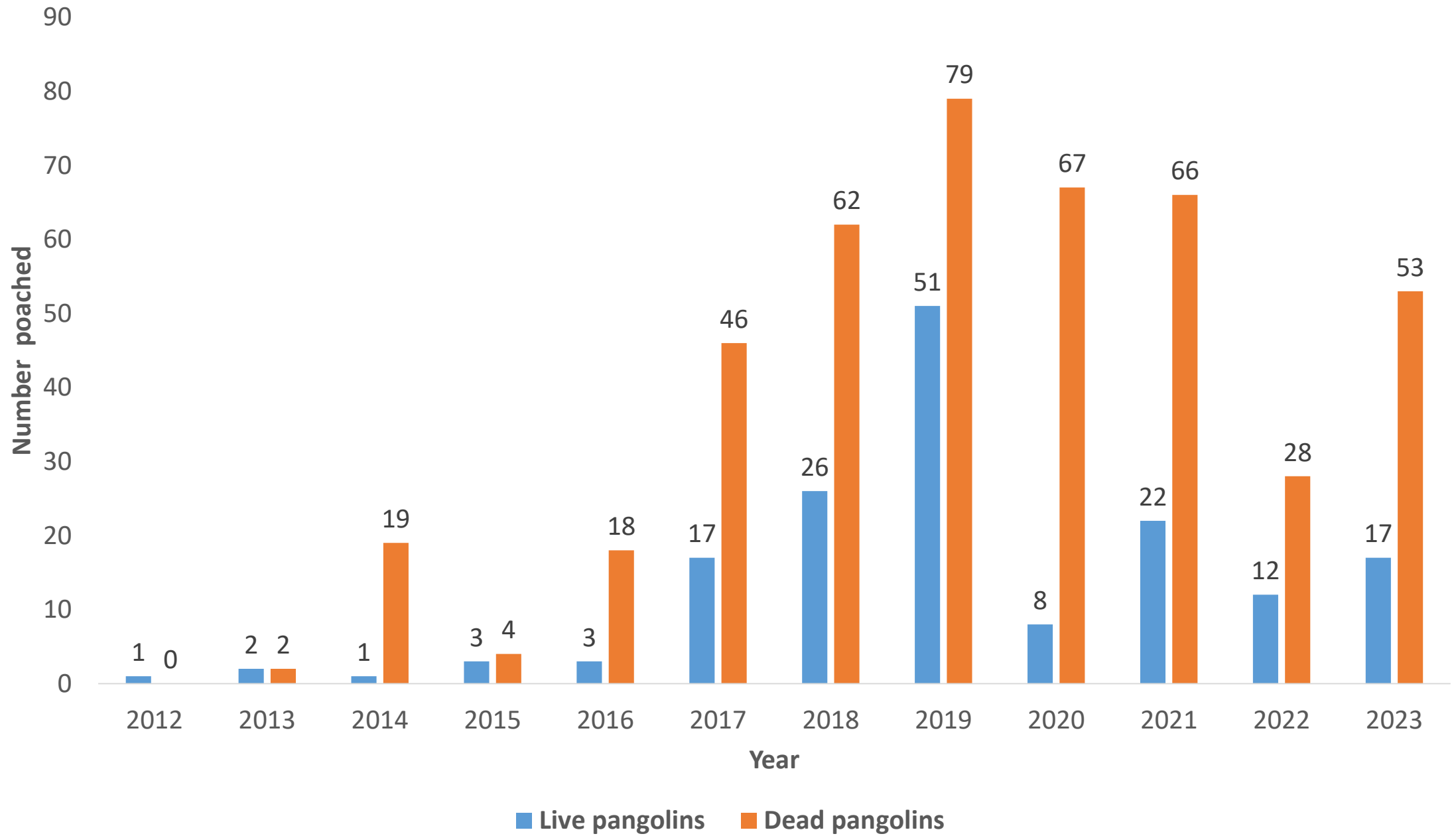


***What was done?***

# Main strategies...







***What then?***

***Thus,***

There is a need to:

- Investigate the drivers of pangolin poaching,
- Carry out effectiveness assessment of the strategies deployed,
- Determine the size of the wild pangolin population and ultimately the relationship between poaching and population growth,
- **Explore new possible protective measures and strategies,**
- Develop a dedicated Species Management Strategy ,
- Evaluate the financial investment in pangolin protection strategies – to determine “*bad investment*”.



# References

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**Thank you!**

