

The evolving epidemiology and ecology of mpox in Maniema, Democratic Republic of Congo: Findings from a decade of surveillance data

Eugene Bangwen ¹, Ruth Diavita ², Elise De Vos ¹, Sabin Sabiti ², Emile Malembi ³, Isabel Brosius ¹, Christophe Van Dijck ¹, Placide Mbala ², Laurens Liesenborghs ¹

Institute of Tropical Medicine Antwerp, Belgium ¹,
National Institute for Biomedical Research Kinshasa, DRC ²,
National Program for Fight Against Monkeypox and Viral Haemorrhagic Fevers, DRC ³

1 INTRODUCTION

Mpox is an emerging viral disease, that is highly endemic in the DRC



Fig1: 7 year old girl with mpox in the DRC
Source, <https://www.pnas.org/doi/full/10.1073/pnas.1005769107>

The incidence has been on the rise with concerning indications of geographical expansion.

The province of Maniema, with densely forested communities in the north and predominantly savannah areas in the south, has notified cases of mpox for more than a decade.

Following an outbreak of mpox in a savannah community, we investigated the spatial distribution of cases over the past 13 years.

2 METHODS

We retrospectively analyzed aggregated mpox surveillance data from the provincial ministry of health of Maniema province, DRC.

DRC, Democratic Republic of Congo

3 RESULTS

2010 and 2014 → declining annual incidence of mpox from 6.31 to 2.52 per 100000 population

→ mostly **forest** communities.

2014 and 2020 → low but sustained annual incidence which ranged between 0.0 and 1.67 per 100000 population

→ an almost equal spatial distribution of cases across **forest** and **savannah** communities.

2021 onwards → steep rise in incidence from 1.0 in 2020 to 11.25 per 100000 in 2021 and 13.96 per 100000 in 2022

→ unprecedented outbreak occurring in a **savannah** community with several other case notifications from almost all other **savannah** areas.

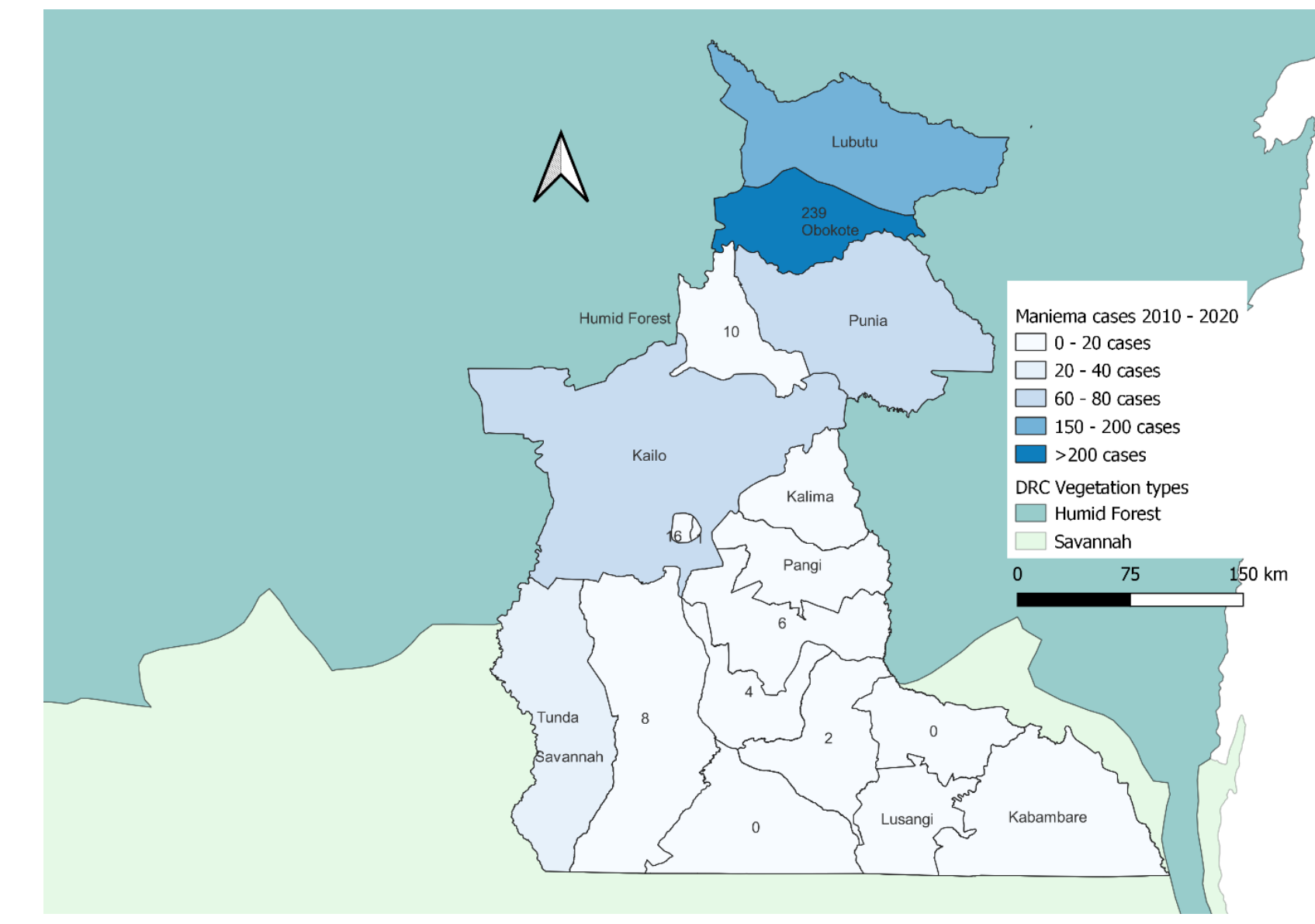


Fig 2a: Mpox in Maniema province between 2010 to 2020

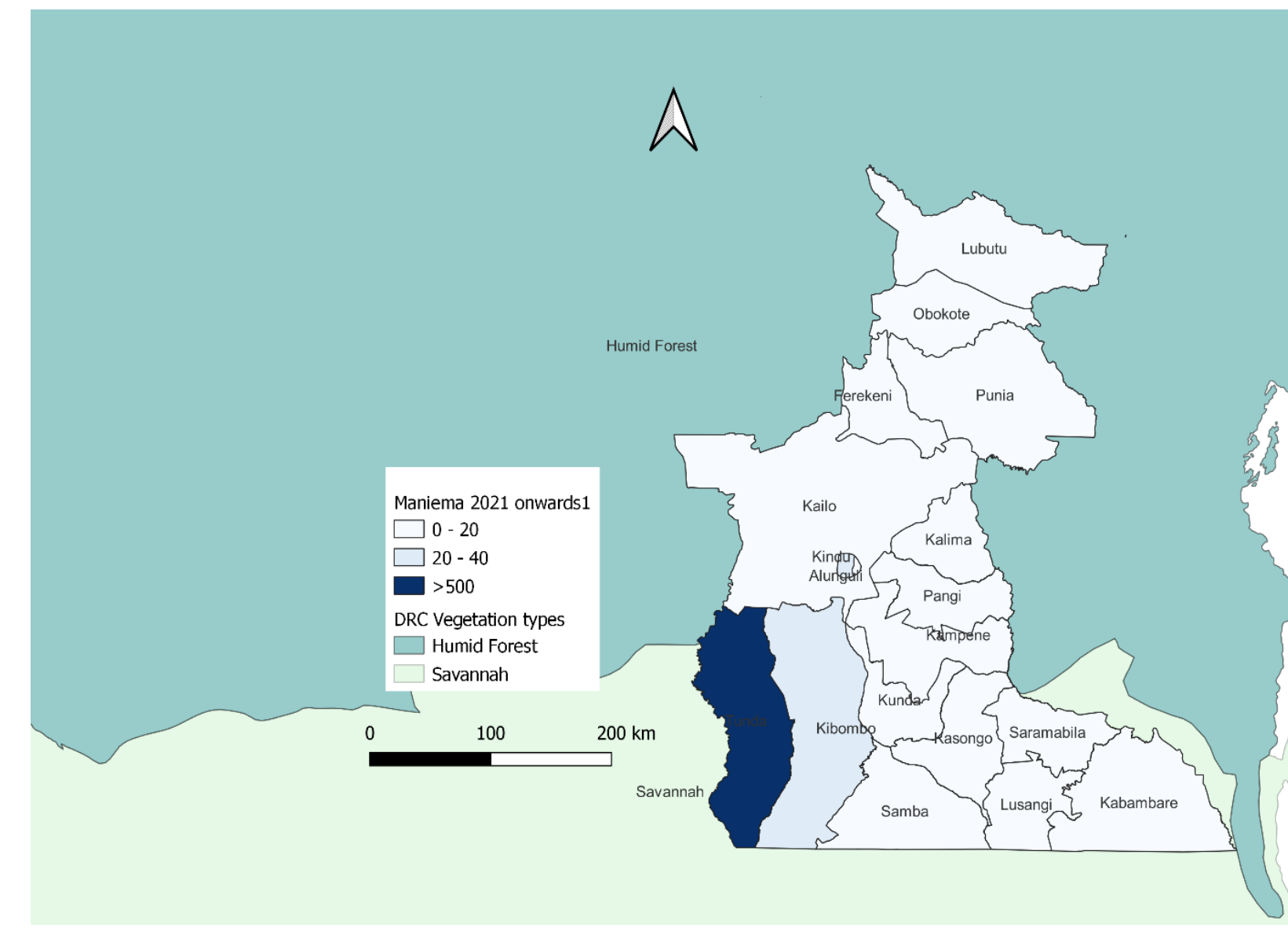


Fig 2b: Mpox in Maniema from 2021 onwards

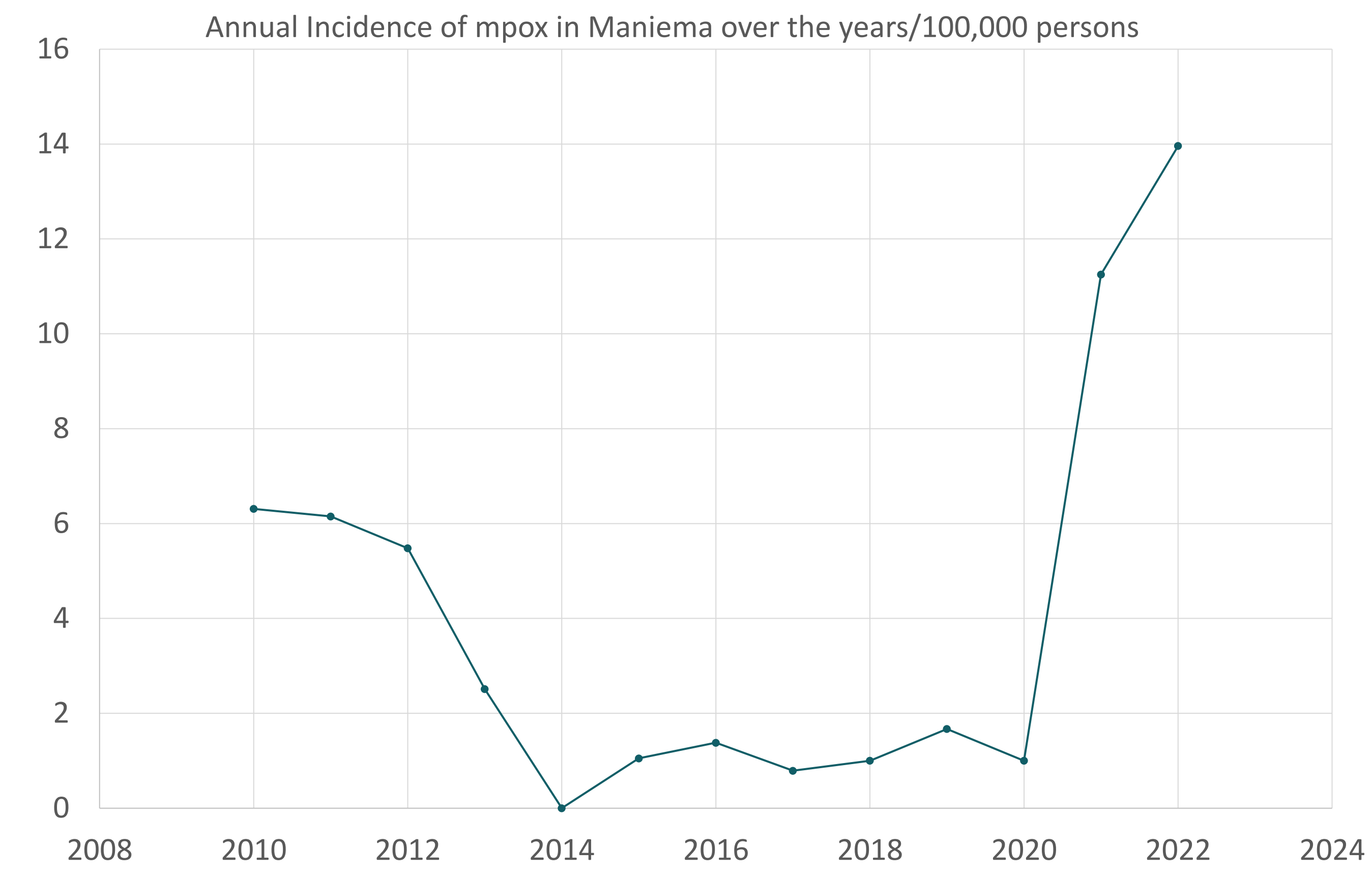


Fig 3: Annual Incidence of mpox in Maniema province over a 13 year period

4 CONCLUSION

Our data shows a changing epidemiological and ecological pattern of mpox occurrence in Maniema.



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