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OIE REFERENCE LABORATORY FOR AFRICAN HORSE SICKNESS

CURRENT ARCHIVE

- More than 1 000 African horse sickness virus isolates and strains, spanning more than 60 years
- Custodian of the prototype strains of AHSV used as reference strains

DIAGNOSTIC LABORATORIES

Molecular Diagnostics

- Hemi-nested RT-PCR; Real-time RT-PCR (sequenced based serotype ID)

Virology / Serology:

- AHS iELISA
- VNT serotyping
- Virus isolation

Number of samples per season: 665 (211 positive),

March & April 66% of positives tested

Species: AHSV in dog (1) rhino (1) and Zebra (4) samples

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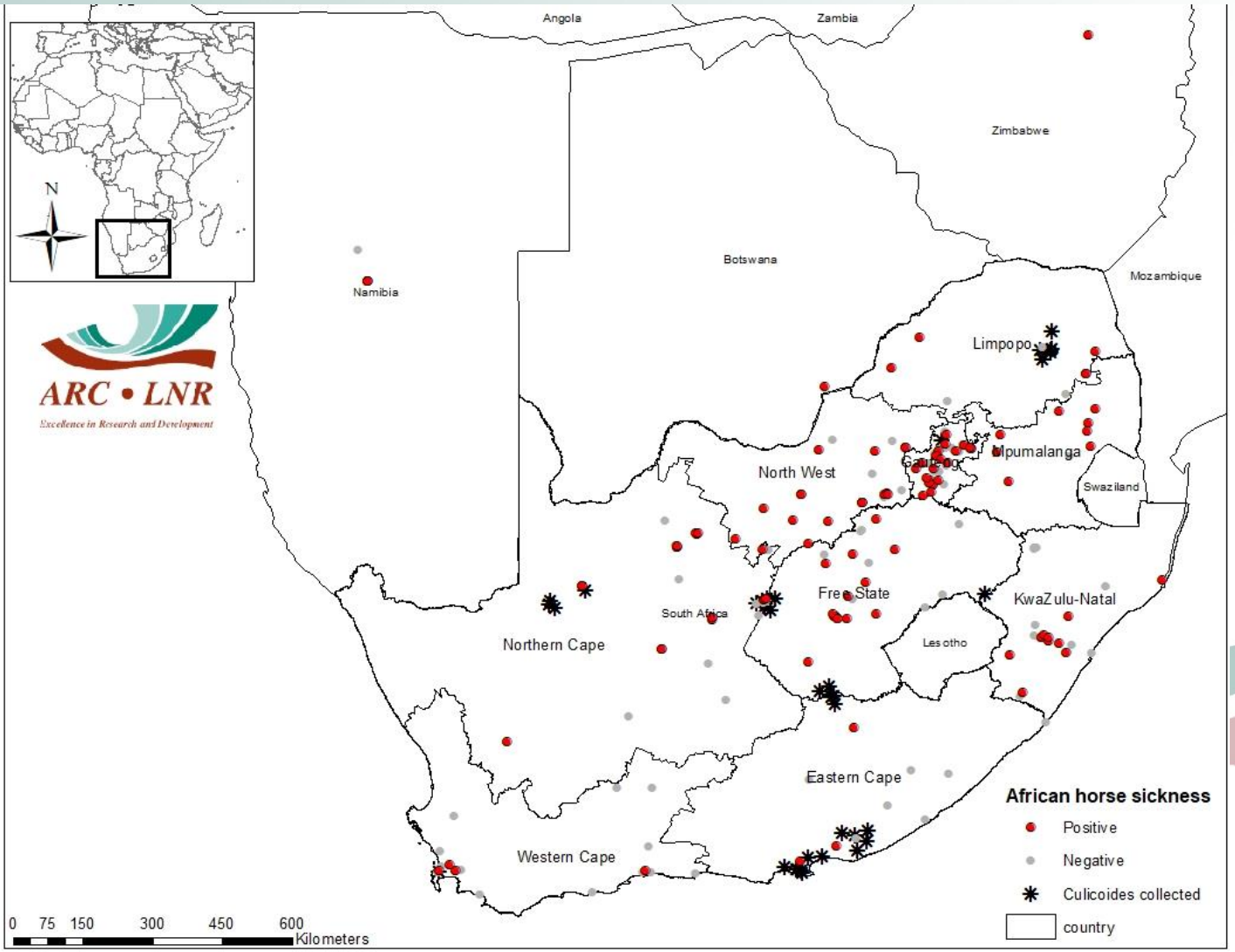
EPIDEMIOLOGY

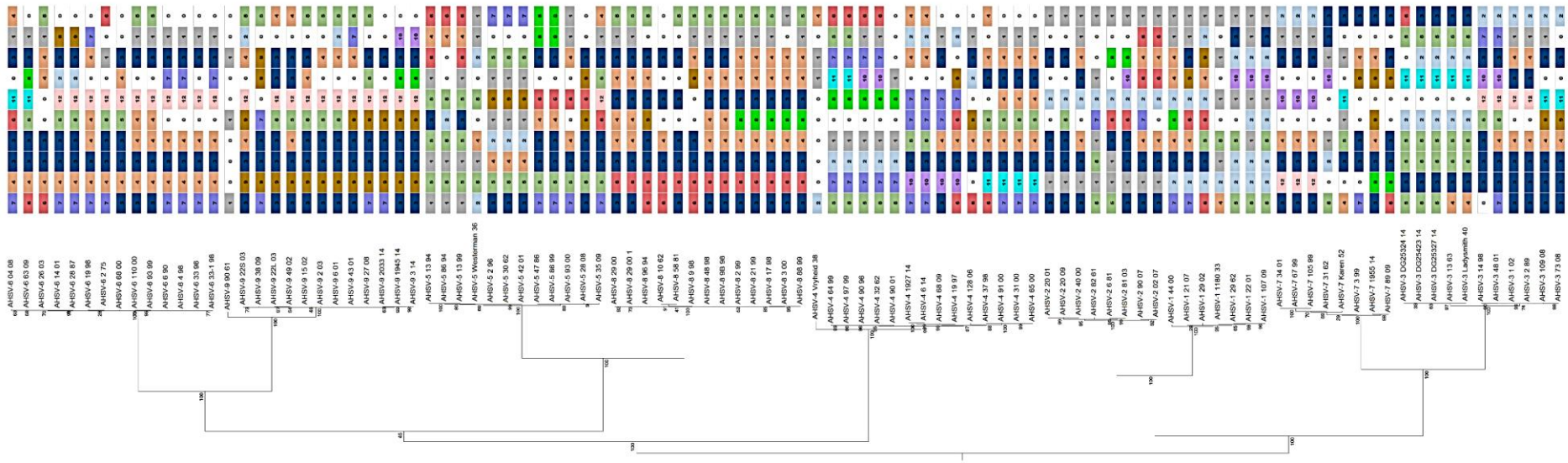
Distribution maps



RESEARCH PROJECTS

Genetics and evolution of African horse sickness virus

Genetic reassortments between viruses and its influence on vaccine efficacy



Virus Genes
https://doi.org/10.1007/s11262-018-1567-y

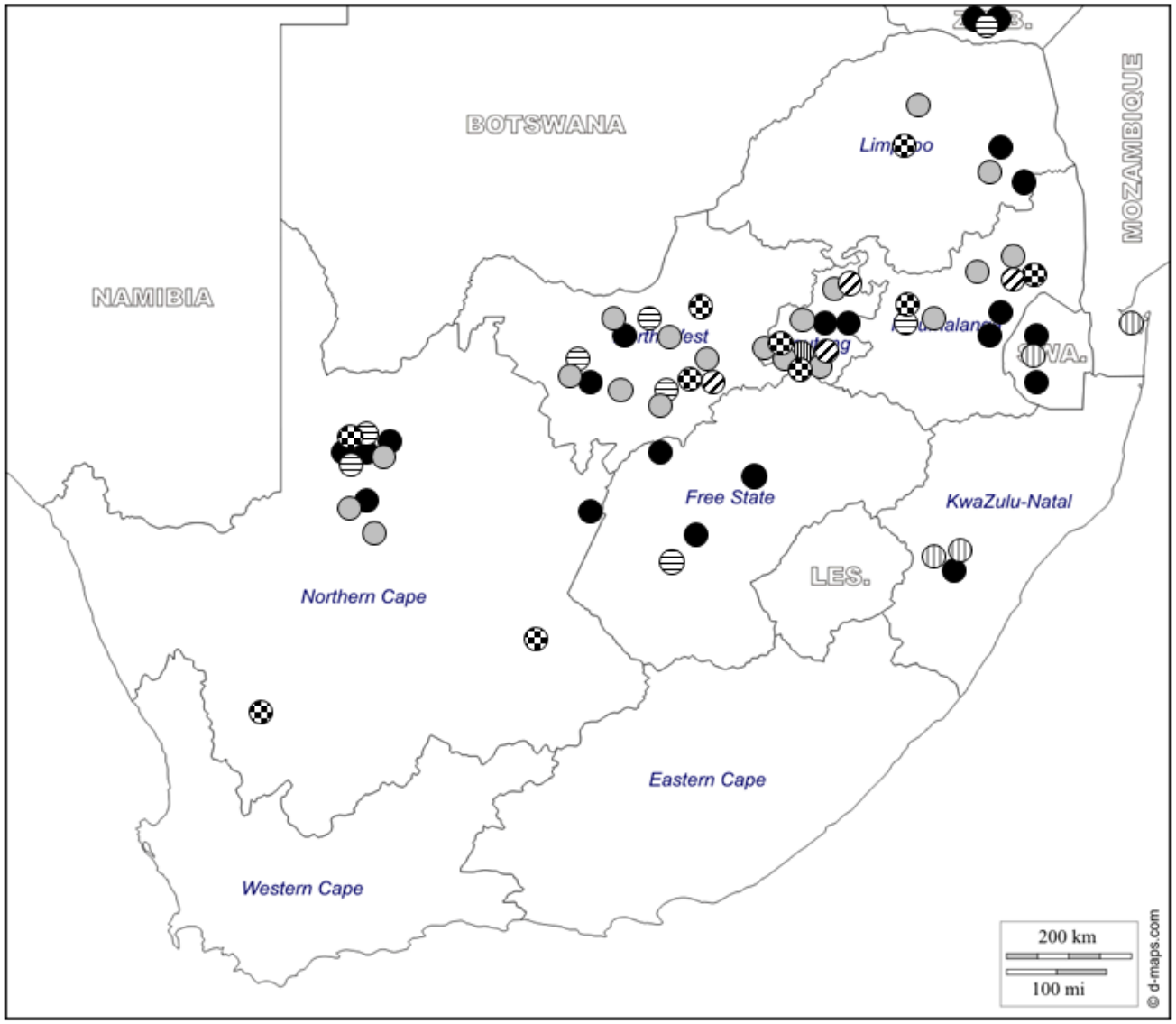
CrossMark

A correlation between capsid protein VP2 and the plaque morphology of African horse sickness virus in cell culture

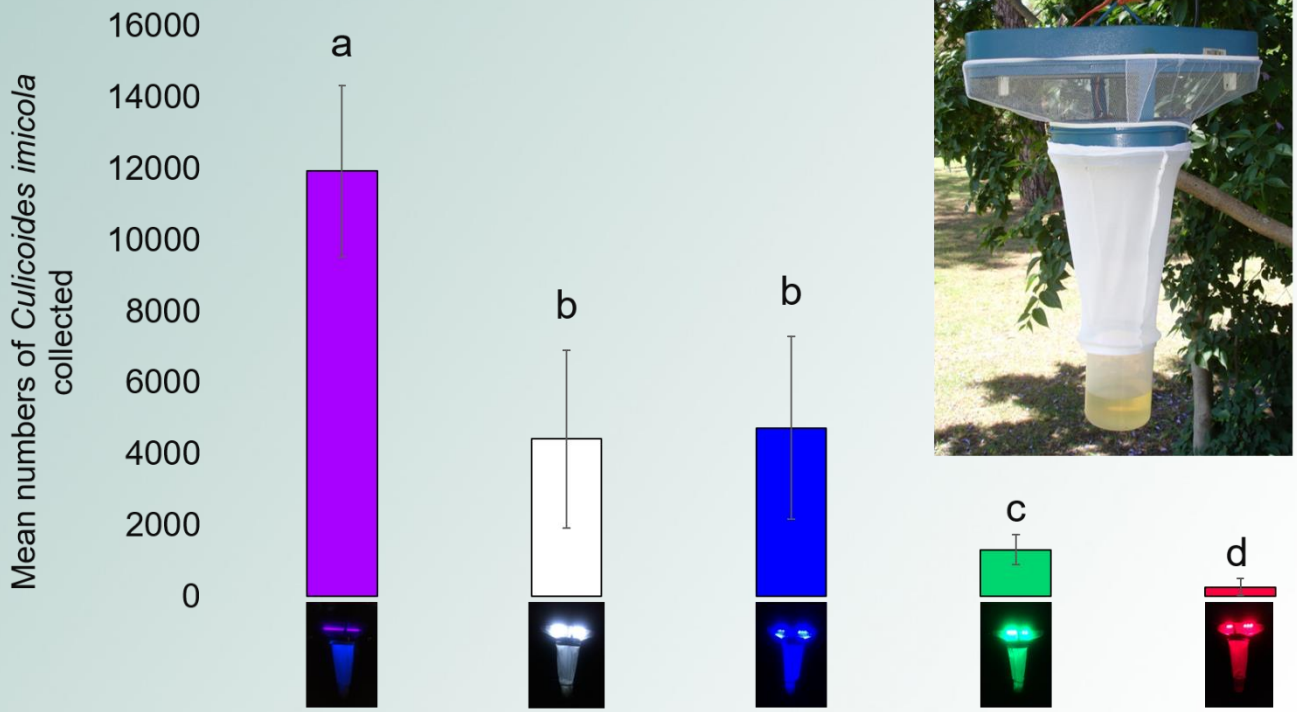
Mathilde L. Schade-Weskott[1,2] · Antinette van Schalkwyk[1] · J. J. O. Koekemoer[1]

New diagnostic test development

AHSV serotypes identified in 2016/2017



The efficiency of light traps for the collection of South African livestock associated Culicoides species



220 V Onderstepoort lights trap with different light sources (fluorescent UV & LED)

220 V fluorescent UV traps were more efficient than 220 V traps fitted with either red, white, blue or green LEDs for the collection of livestock associated *Culicoides* spp.

Similarly 220 V fluorescent UV traps collected greater numbers of *Culicoides* than 12 V fluorescent traps or 12 V white, blue or green LED traps.

Despite lower number collected, 12 V traps can be used in the field to effectively determine *Culicoides* spp composition, population age structure and the most abundant species in an area.

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OTHER SERVICES

Supply reference antigens and sera to perform inter laboratory comparison tests

Coordinate and participate in proficiency testing schemes

Maintain epidemiological database

COLLABORATORS

University of South Africa – Faculty of Veterinary Science

Onderstepoort Veterinary Institute

University of Cape Town

EU Reference Laboratory for AHS

Internal:

Alison Lubisi - Virology and Serology

Marco Romito - PCR Diagnostics

Antoinette van Schalkwyk – Molecular studies, Serotype

Chantelle de Beer – Epidemiology, GISLaura Lopez-

Rebollar – Registration, material shipment

Gert Venter (Retired) & Colleagues – Vector studies

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