Making Plague a Tropical Disease

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“Tropical” disease....definitions

“Tropical diseases are those occurring only, or are specially [sic] prevalent, in warm climates. Certain diseases are common to man and the lower animals...and are found [where] these species...are most frequent.”

--Patrick Manson, *Tropical Diseases* (1912), xiii/xvi

“Changing land use, agriculture...and poverty and inequality make tropical diseases.”


Surveillance for plague: keeping Europeans and cities safe
1914

Plague on a highveld farm

Domestic animals?

Racial hierarchy of plague susceptibility
Veld rodents

gerbilles
mice
Taterona, Desmodillus, Mastomys *spp.*

& fleas
*Xenopsylla, Dinopsyllus* *spp.*
Veterinary Institute’s role in plague studies

A. Theiler of Onderstepoort Veterinary Institute

G.A. Bedford, entomologist at Onderstepoort
1909:
The new Bacteriological Laboratory at Onderstepoort

K.F. Meyer (center)

A. Theiler’s vet pathologist – and nemesis

Meyer became the U.S. plague expert
Conclusions

Plague became a “tropical” disease in the early 1900s, when:

1. Agricultural workers fell ill with bubonic or pneumonic plague; and
2. South African scientists realized plague had become endemic in native wild rodents.
3. International publications and reports:
   - Furthered ideas of racial susceptibility to plague
   - Reinforced the “ecological” approach to investigating plague outbreaks
   - Established the idea of permanent centers of endemic plague south of the equator
KEEPING THE PLAGUE AT BAY

CITY OF JOHANNESBURG
PUBLIC HEALTH DEPARTMENT
PLAN OF BUBONIC PLAGUE
SHOWING AREAS CLOSED AND AFFECTED WITH RODENTS

The poison belt which protects Johannesburg from the approach of rodents is shown in light shading in this map.

The city is surrounded by a belt of poison which is kept constant at all times. The poison is sprayed along the boundaries of the city and three miles beyond, as Johannesburg has a perimeter of over 40 miles.

The poison belt is divided into sections and is controlled by inspectors who keep a constant watch on the boundaries.

It is the duty of the rodent inspectors to ensure that the poison belt is kept constant at all times. The poison is sprayed along the boundaries of the city and three miles beyond, as Johannesburg has a perimeter of over 40 miles.

The poison belt is divided into sections and is controlled by inspectors who keep a constant watch on the boundaries.

By L. SOWDEN

Louis Fourie Papers, Adler Museum, Univ Witswatersrand