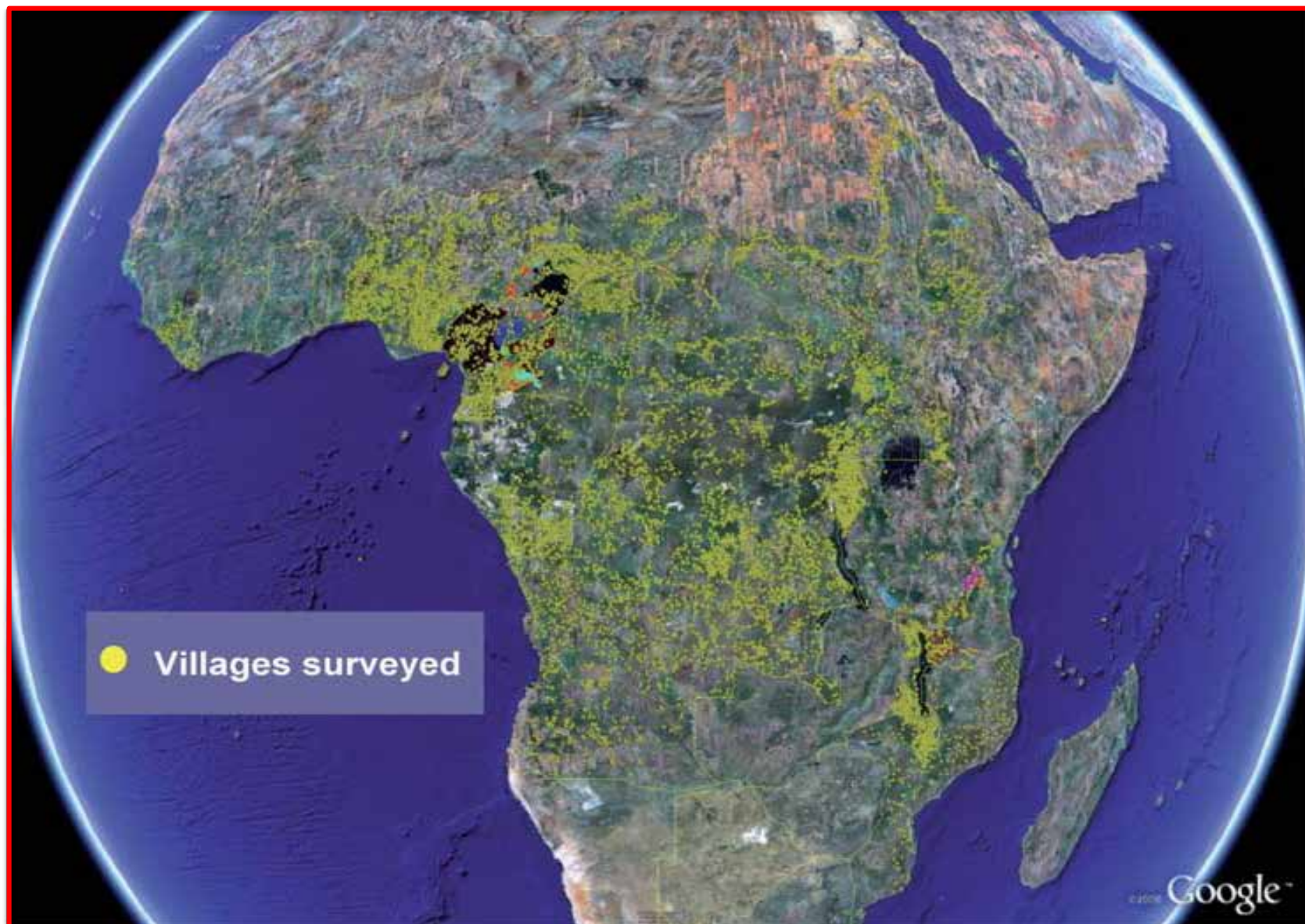


# Onchocerciasis distribution in sub-Saharan Africa (2011)

(Source = APOC : >13,000 villages in 19 countries, 120 million people)



# Global elimination goals

**2020** Lymphatic filariasis

**2025** Onchocerciasis





# Scabies (疥癬)



*Sarcoptes scabiei* var. *hominis* (0.4mm)



Images courtesy of M. Kodama, Keio Univ. School of Medicine

**300 million cases per year globally**

**(Scabies mites found worldwide, affecting all socioeconomic classes)**

# Strongyloidiasis (糞線虫症)



♂ (0.7mm)



♀ (2.2mm)

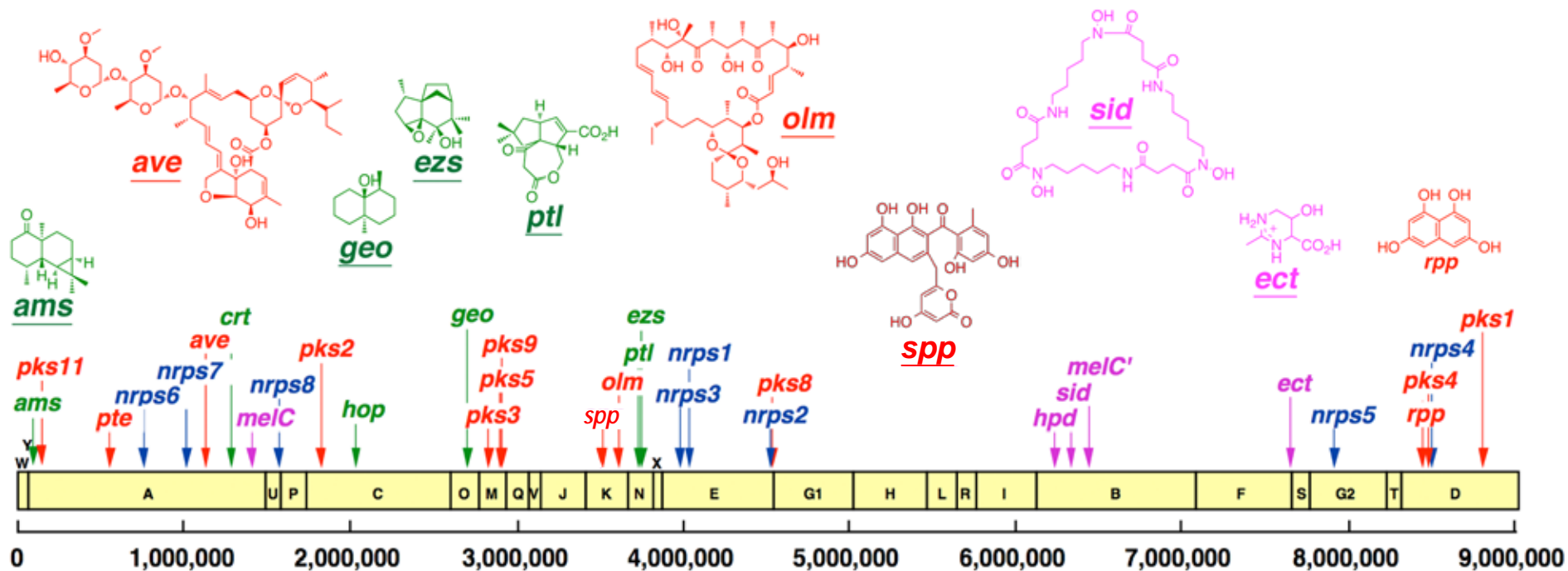
## *Strongyloides stercoralis* (adults)

- 30-100 million people infected globally
- Infection may be severe and even life-threatening
- Untreated, infection will persist for life

# Distribution of gene clusters for secondary metabolite biosyntheses in *Streptomyces avermitilinis* (*avermitilis*)

S. Ōmura *et al.*, Proc. Natl. Acad. Sci., USA., 98, 11115 (2001)

H. Ikeda *et al.*, Nature Biotech., 21, 526 (2003)



*Streptomyces avermitilis* (9,025,608 bp; *Asel* physical map)

