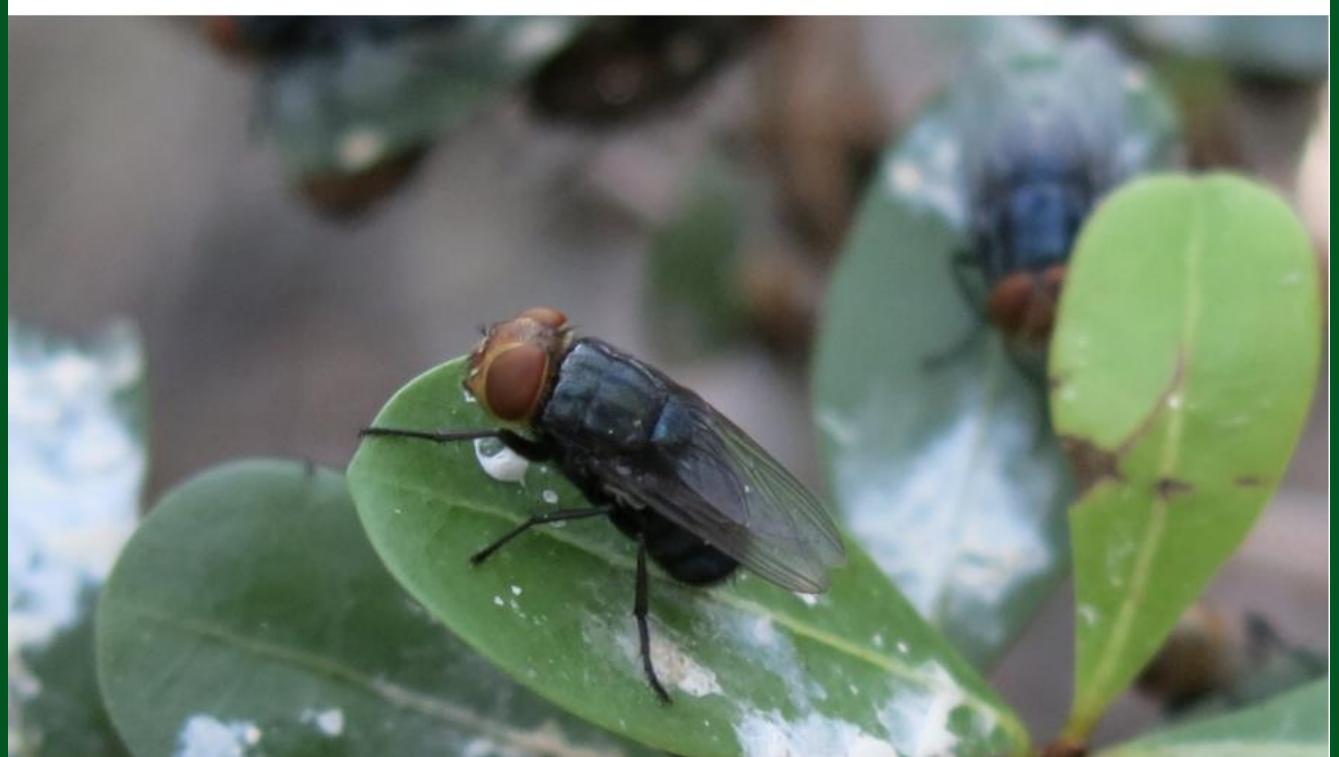


Potential risks of getting Screwworm in the EU due to climatic change

Jan Dahl, DVM
Danish Agriculture & Food Council



Landbrug & Fødevarer



- What is it, and what does it do?
- Where is it?
- Why are we worried?
- Is trade sufficiently regulated to avoid introduction?

- Acknowledgement – a lot of info is from USDA <https://www.youtube.com/watch?v=0ZdBU0mBXKE>



What is it?

- Not a worm – but a blowfly
- Old world screwworm - *Chrysomya bezziana*
- New world screwworm- *Cochliomyia hominivorax*

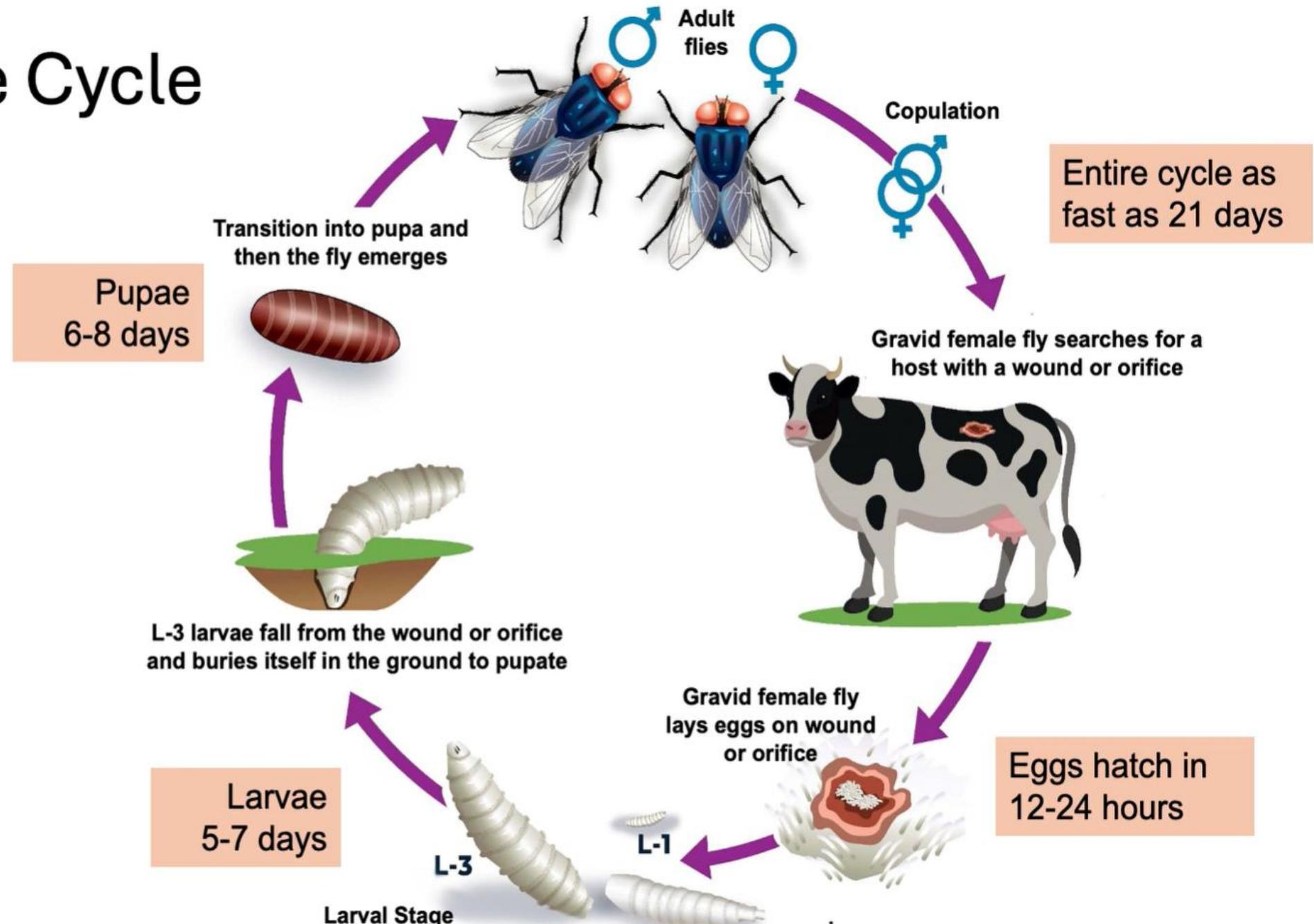


What does it do?

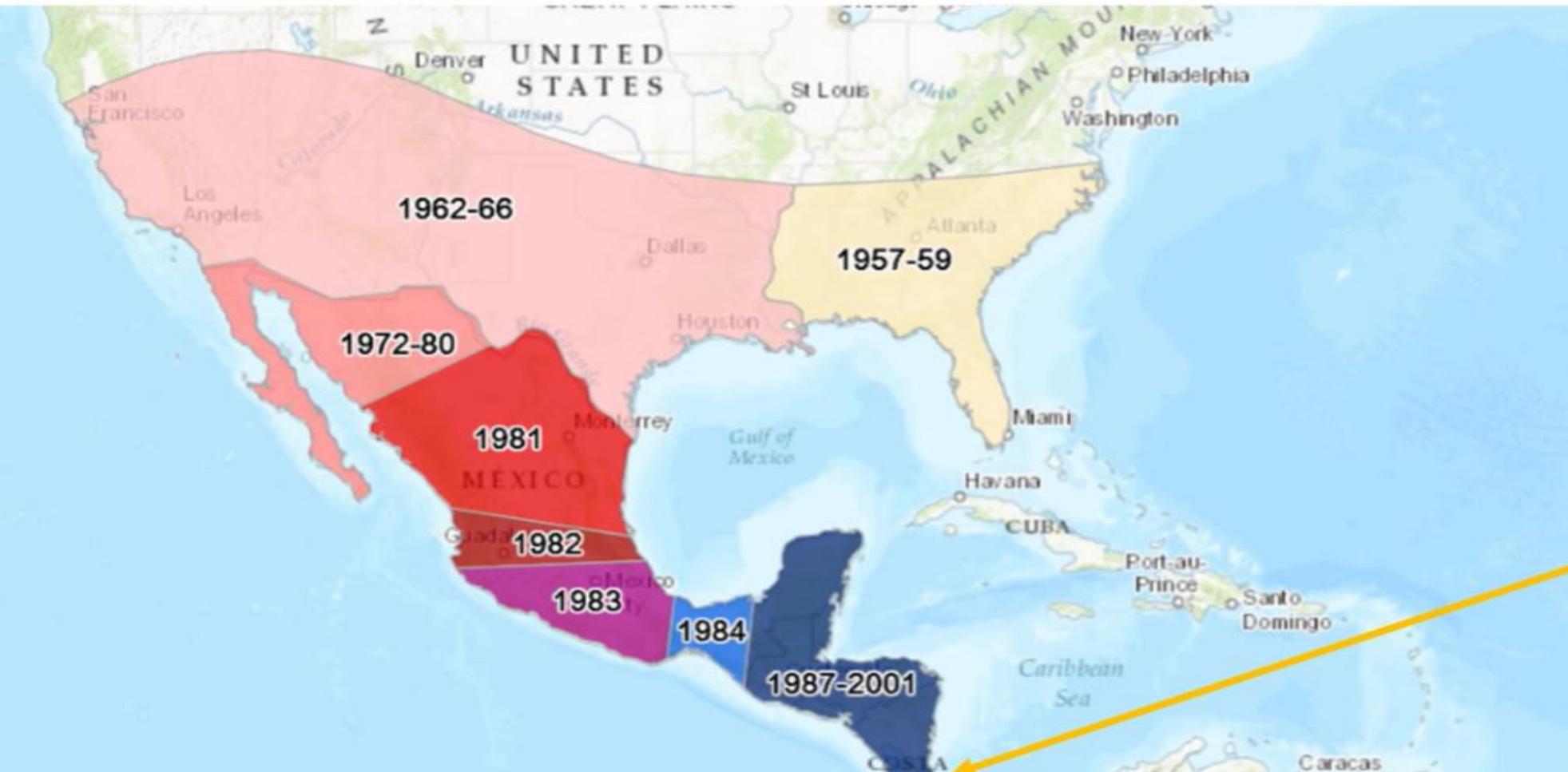
- In contrast to "normal" blowflies, it will only lay its eggs in wounds or mucosal membranes of all warmblooded animals
 - Wild life including birds
 - Pets
 - Farm animals
 - Even humans – several cases described in debilitated persons
- Untreated high fatality
 - Secondary bacterial infections
 - Treated animals – severe damage of hides



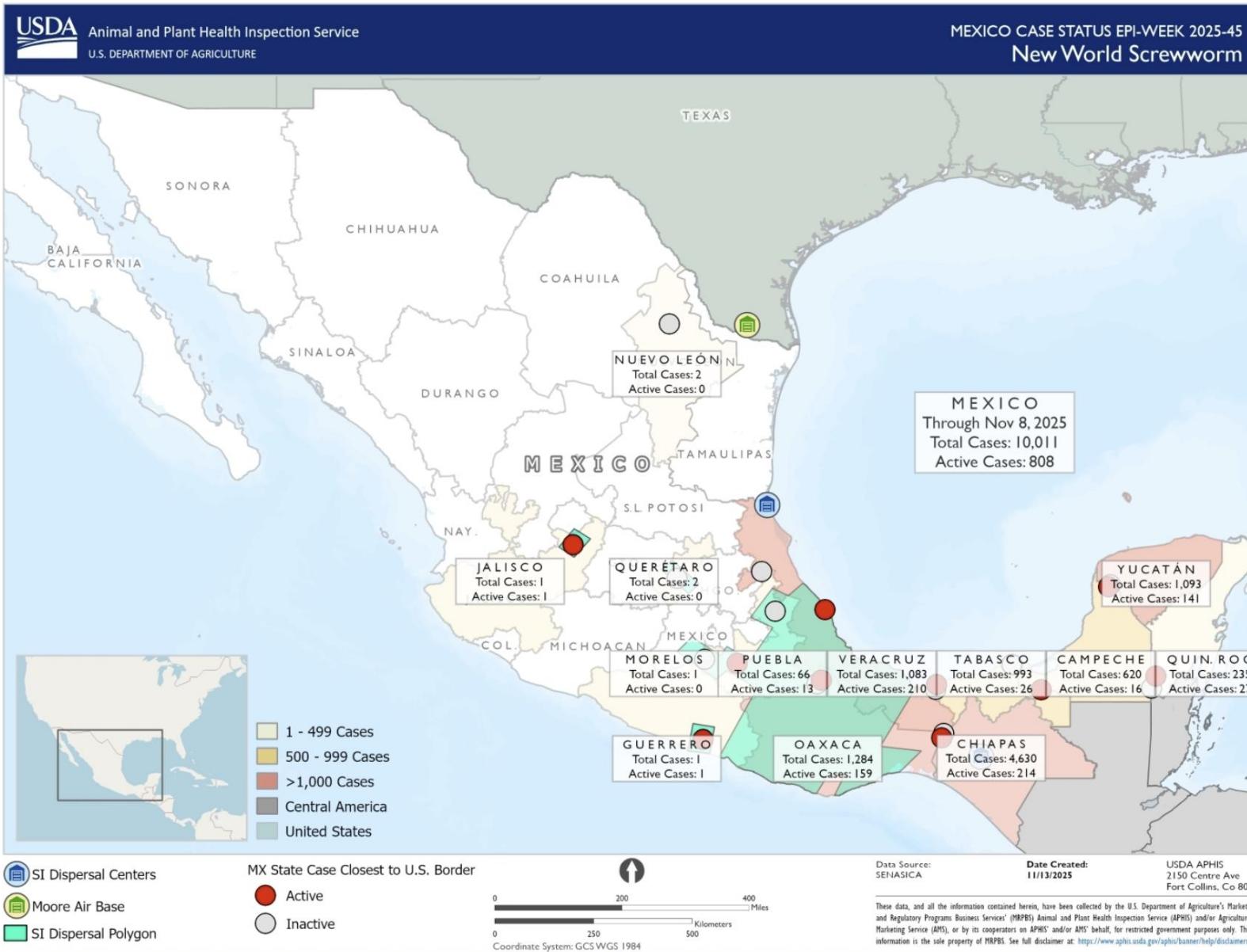
NWS Life Cycle



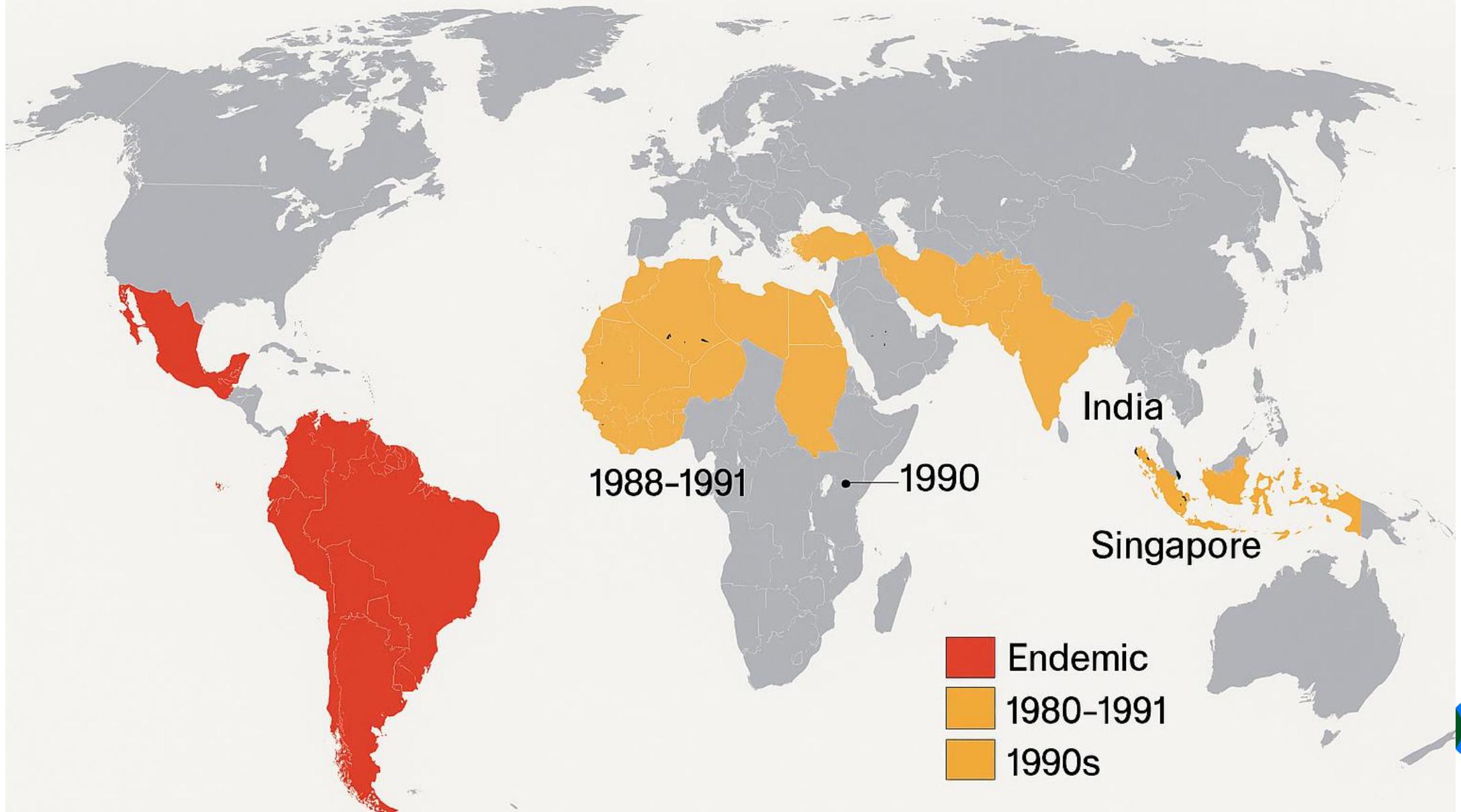
History: infected areas in the Americas



Present situation (<https://www.aphis.usda.gov/livestock-poultry-disease/cattle/ticks/screwworm/outbreak-central-america>)



New World Screwworm Historical Occurrences Outside of the Americas



Why are we worried?

- Challenges
 - Blowflies can fly up to 300 km (The reemergence of the New World screwworm and its potential distribution in North America. Uriel Mauricio Valdez-Espinoza, Lucas A. Fadda, Roberta Marques, Luis Osorio-Olvera, Daniel Jiménez-García, Andrés Lira-Noriega)
 - Maggots can be carried for long distances on cattle
 - Infects all warmblooded animals
 - Blowflies can be transported by cars, trains, plains – and even carried on humans
 - Northern limit is being pushed further to the North

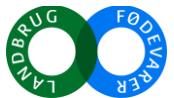


Eradication and control

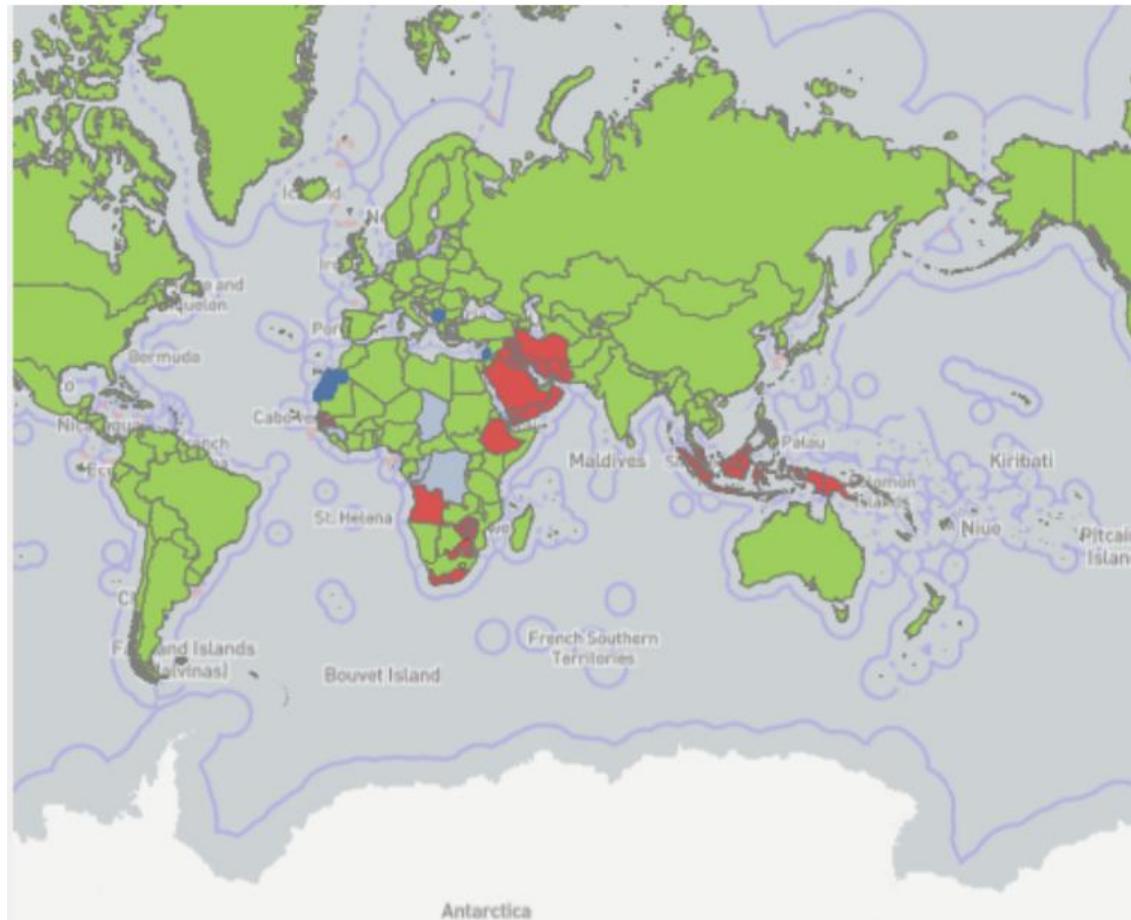
- Sterile Insect Technique
 - Production of millions of sterile blowfly males (radiation)
- Insecticides
 - Effective for treatment
 - Ineffective for long-run control

WOAH-regulations

- Meat is not a problem
- But live animals – veterinary certificate
 - Clinical inspection for wounds and larvae
 - Insecticides
- Is this sufficient?



To complete the picture – Old Worm Screwworm



Just one of many
challenges due to
climate change and
trade