

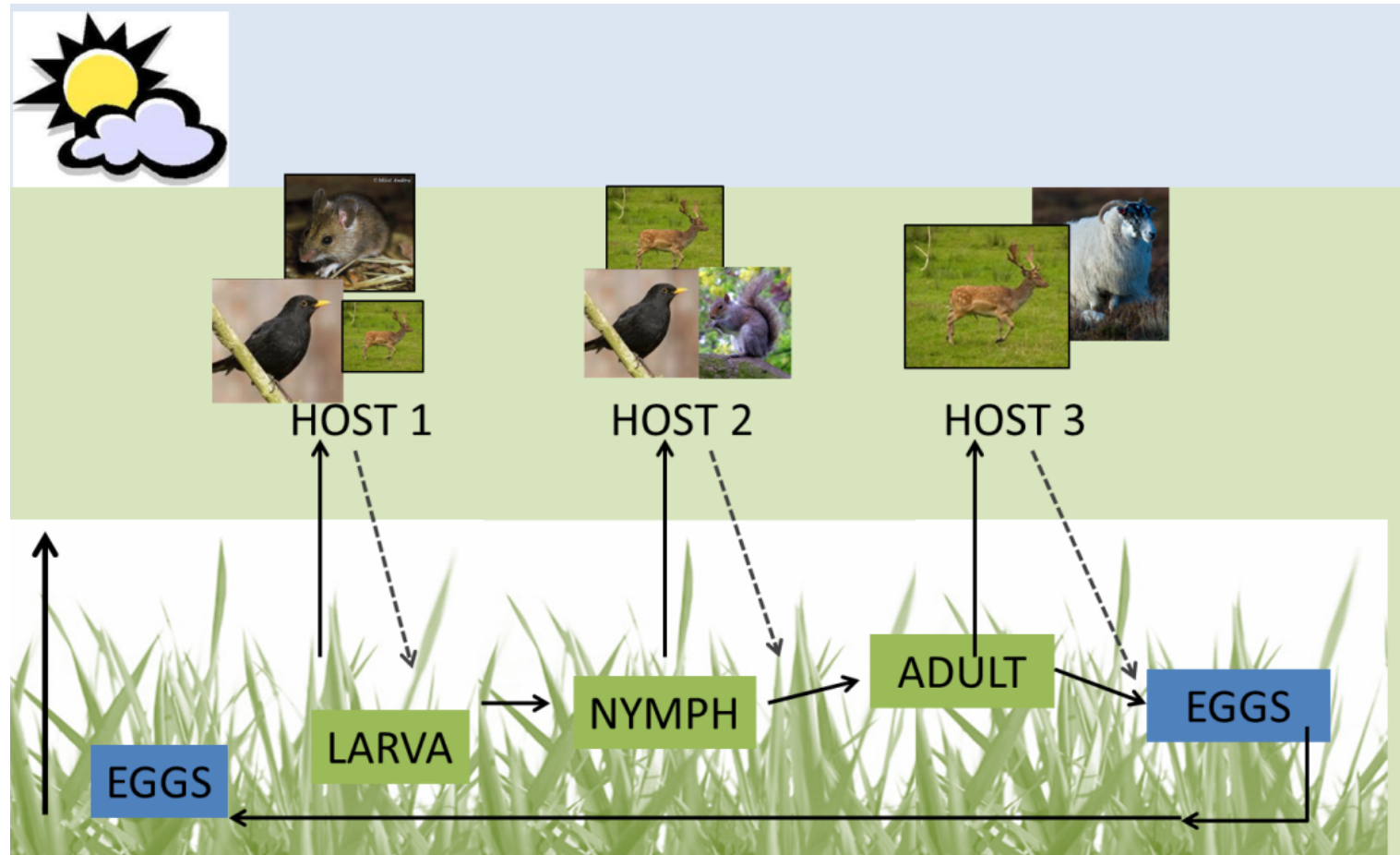
# Vertebrate Host Communities and the Risk of Lyme disease in Scotland

Dr Roman Biek & Caroline Millins



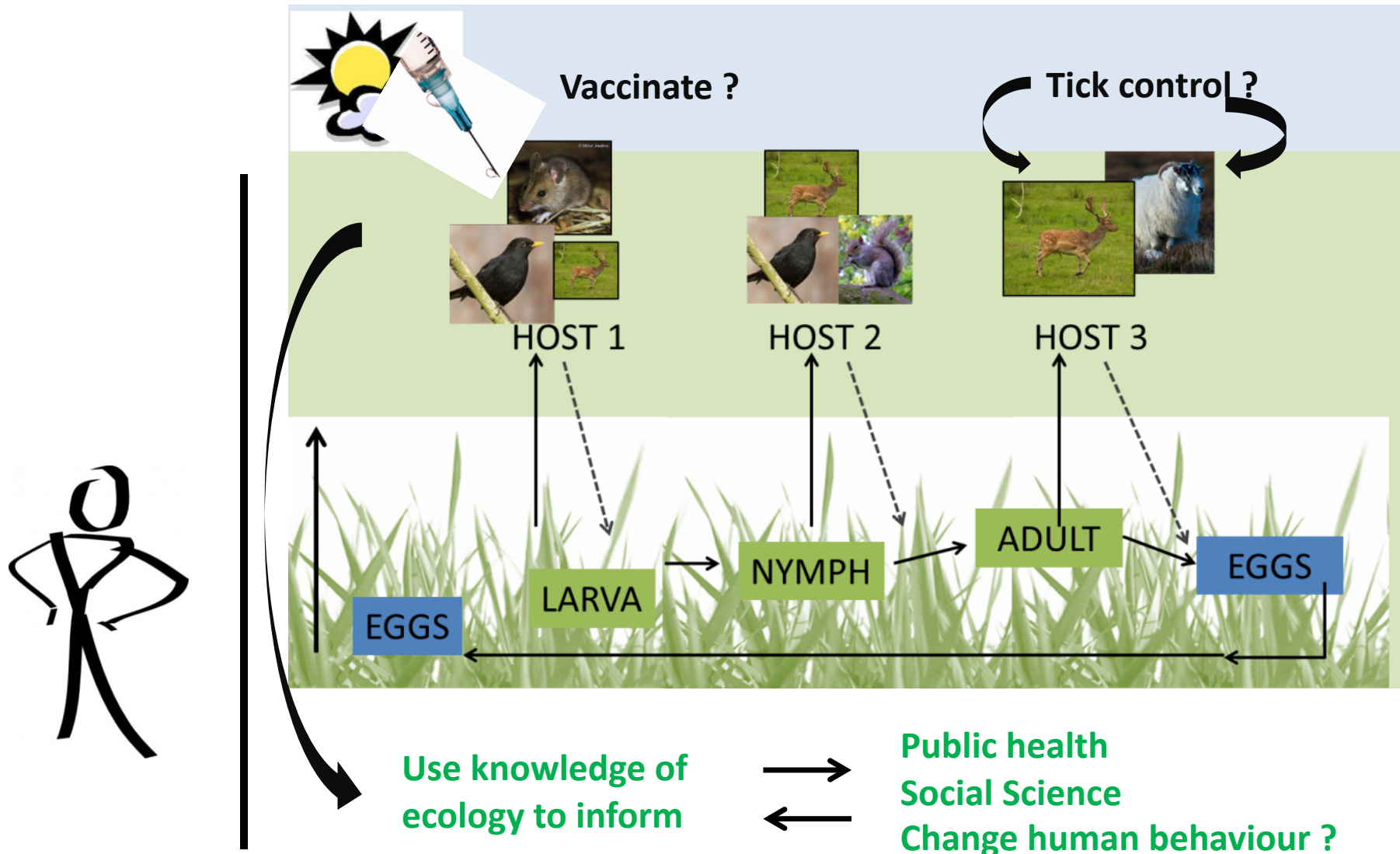
## Current Approaches:

- Ecology
- Modelling
- Parasitology
- Molecular genetics



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# Control of Cattle tick: Cattle and *Rhipicephalus microplus*

Professor Nick Jonsson

## Current Approaches

- Host Genetics – resistance traits
- Parasitology }  
Taxonomy } Is *R. microplus* one  
Genetics } species or several ?  

- Parasite biology: Mechanism of parasite resistance to Amitraz (tick killing drug)

## Future Interdisciplinary Project:

- **Social science – history of tick control in South Africa**

# Control of *Theileria Parva* (East Coast Fever) & *Babesia* spp.

Professor Brian Shiels & Dr Willie Weir

## Current Approaches

- Genetics:  
Host resistance traits
- Molecular biology:  
Host – parasite biology,  
manipulation of host genes by parasite
- Chemistry: Regulation of protozoan development → transmission blocking vaccine /drug ?



## Future Interdisciplinary Projects:

- **Polyomics: parasite biology/regulation**
- **Mathematical modelling: antigenic diversity**

