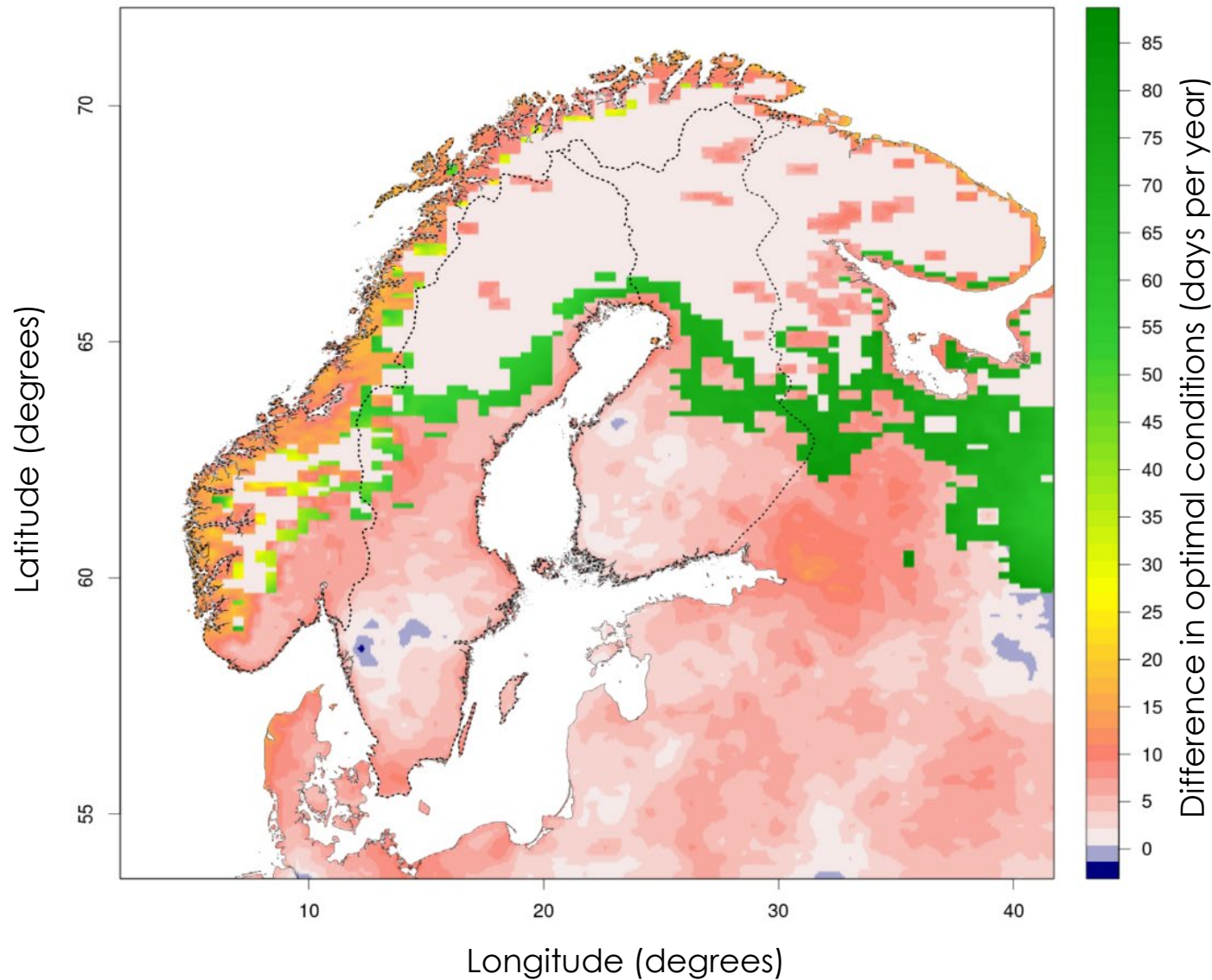


Tick-borne diseases and reindeer management (1)



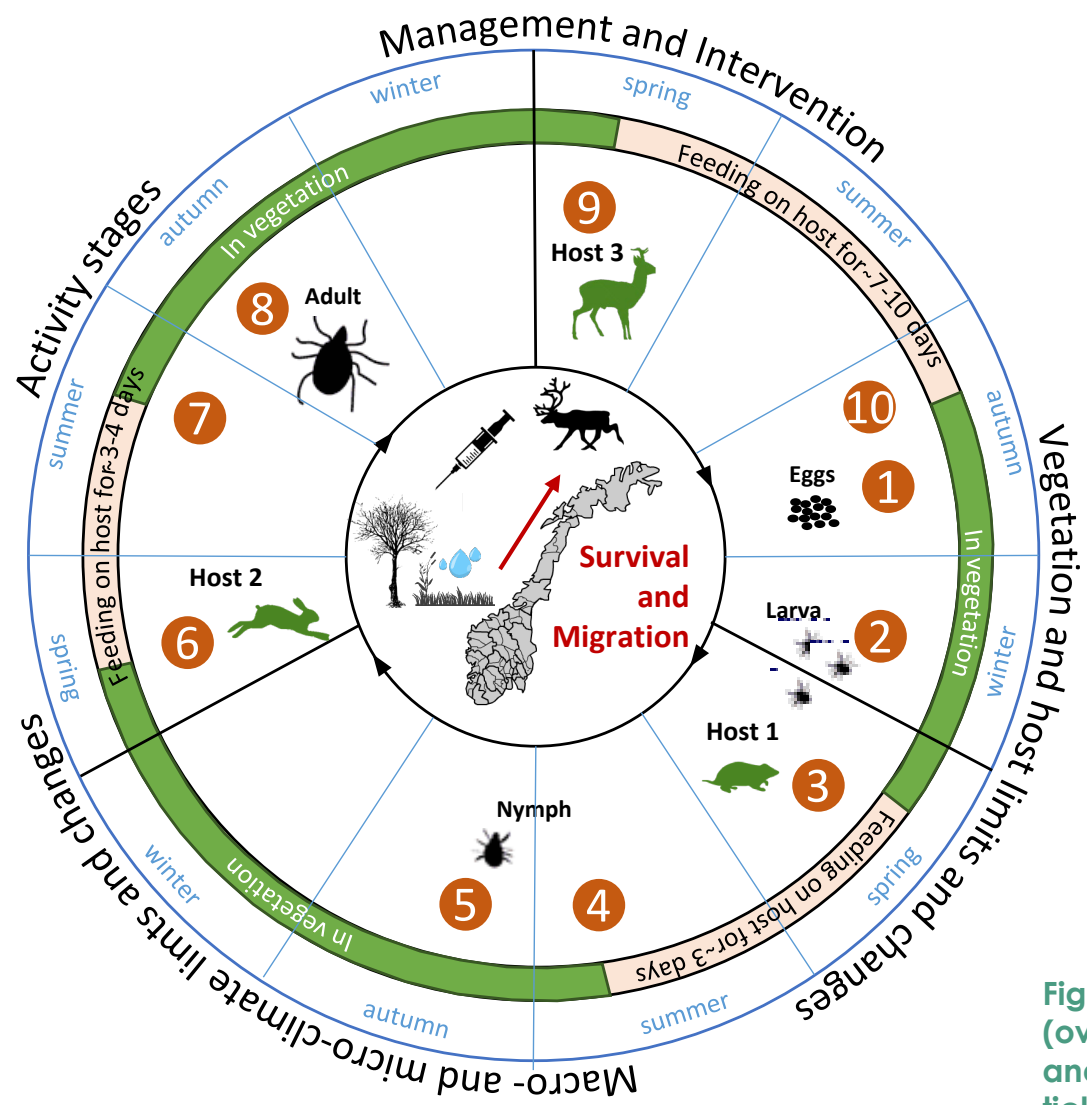
Climatic projections until 2050 (RCP4,5) suggest that in the Nordic region

- the tick season will get longer and
- the geographical distribution range of *Ixodus* ticks will expand northwards.

Changes in optimal climate conditions for tick development will lead to increased tick activity and to an increased risk of disease transfer.

Figure: Difference in number of days per year of optimal climatic conditions for tick development, based on climate data from 1995-2015 and forecasted to 2030-2050 in the RCP4,5 scenario.

Tick-borne diseases and reindeer management (2)



Climate change plays an important role in increased risk of tick-borne diseases. However, management of vegetation changes, disease hosts and vectors plays a significant role in determining, whether these CSI spread in the population.

Appropriate and seasonal management emerges as an important regulatory "tool" for reducing the risk for tick-borne diseases. Especially, shrub encroachment and pasture- and animal management are important factors.

Figure: The *Ixodes ricinus* (tick) life cycle and linkages with its environment. Development, inactive (overwintering) and active (questing and on host) stages, climate limits and changes, preferred hosts and vegetation, management and interventions all form boundaries for the survival and migration of ticks and the CSI pathogens they carry.