MODELS

- Landscape for: Denmark, Poland, The Netherlands, Portugal and Belgium..... *More on the way.*
- Eurasian Skylark (*Alauda avensis*)
- Field Vole (*Microtus agrestis*)
- Linyphiid Spider (*Erigone atra*)
- Carabid Beetle (*Bembidion lampros*)
- Roe Deer (*Capreolus capreolus*)
- Grey Partridge (*Perdix perdix*)
- European Brown Hare (*Lepus europaeus*)
- European Rabbit (*Oryctolagus cunilus*)
- Great Crested Newt (*Triturus cristatus*)
- Pink Footed Goose (*Anser brachyrhynchus*)
- Greylag Goose (*Anser anser*)
- Barnacal Goose (*Branta leucopsis*)
- Hunters and farmers

Many more models are on the way see almass.dk

ALMaSS

SUPPORT FOR ALMaSS DEVELOPMENT

B-GOOD
PoshBee
PERIAMAR
efsa
Umwelt Bundesamt
Horizon 2020 European Union Funding for Research & Innovation

KEY PUBLICATIONS

Williams J.H. et al. (2018). Where to go goose hunting? Using pattern-oriented modelling… Hum. Dimens. Wildl. 23(6): 533-551.

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Topping et al. (2017). Simulation to aid in interpreting biological relevance and… Regul. Toxicol. Pharmacol. 89:40-49.

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Topping et al. (2010). Opening the Black Box—Development, Testing and Documentation of... Ecol. Model. 221(2): 245-255.

Topping et al. (2003). ALMaSS, an agent-based model for animals in temperate European landscapes. Ecol. Model. 167(1-2): 65-82.

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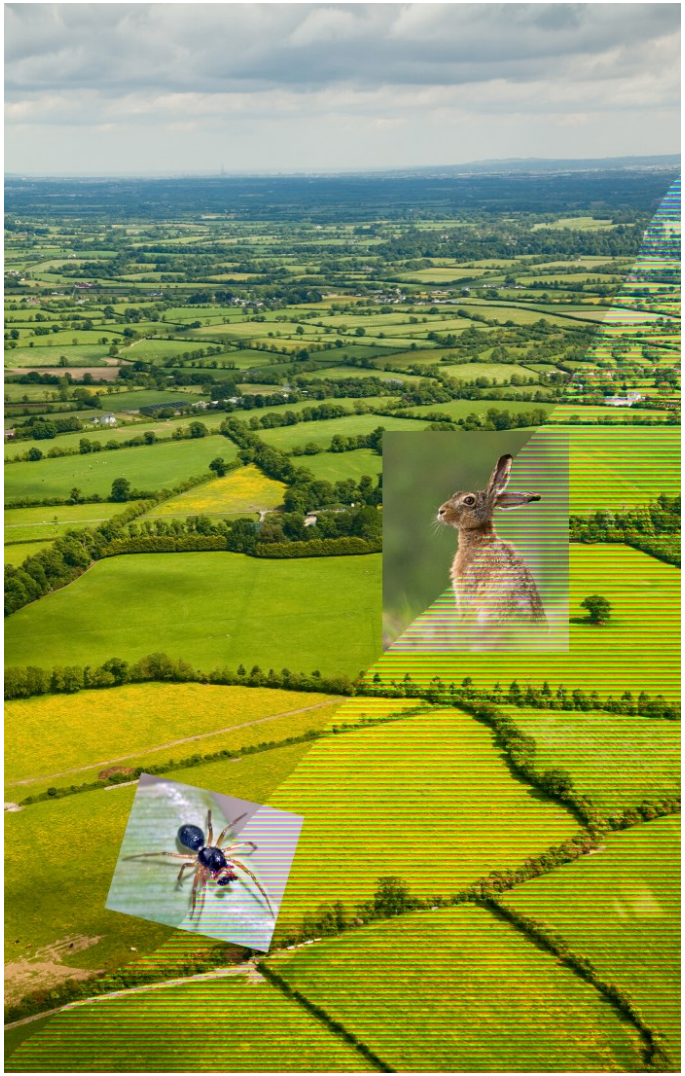
The ALMaSS

Erigone image by Marcello Consolo

ALMaSS

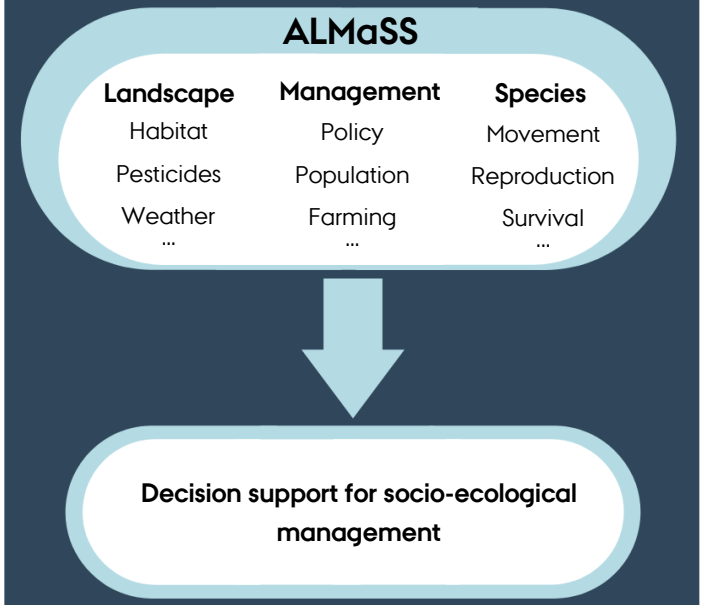
The Animal, Landscape and Man Simulation System



OVERVIEW

ALMaSS is a model system comprised of primarily **agent-based models**. It is a flexible tool to address questions about landscape management, impacts on selected wildlife and much more.

What sets ALMaSS apart is its **utilization of dynamic landscapes simulation:** a representation of **virtual socio-ecological systems** which change in space and time.



EXPANDING KNOWLEDGE

ALMaSS provides us with a tool we can use to determine the best way to implement policy, undertake management and take account of local conditions.

ALMaSS can thereby evaluate the effects of changing landscape structure and management on animal populations in European landscapes.

ALMaSS includes human agents to:

- Capture human decision-making and behavioural processes.
- Link management tools and policy with human agents.
- Determine impacts of human interaction on ecological processes.

APPLICATION

Decision-making. Integrating socio-economic factors into decision-support tools for landscape management and policy evaluation.

Population ecology. Adaptive framework to evaluate our understanding of the ecology of the species.

Risk assessment. Context affects both exposure and susceptibility for individuals and populations.

Population management. Evaluate scenarios and suggest potential management actions.

Impact assessment. Linking societal response, practical management and ecological changes.

Population genetics. ALMaSS models can include mate selection and genetics on individual level.