

Simulating animals

The survive of the lucky

Mats Hoem Olsen, Roy Granheim

Norwegian university of enviroment and bioscience

26/1-2021

1 Table of contents

2 Animal logic

- logic

general

- feeding

general

- feeding
- breeding

general

- feeding
- breeding
- migrate

general

- feeding
- breeding
- migrate
- grow old

general

- feeding
- breeding
- migrate
- grow old
- die

general

- feeding
- breeding
- migrate
- grow old
- die

general

- feeding
- breeding
- migrate
- grow old
- die

This sounds like a song...

general

feeding

Herbivore eat what they can, carnivore eat what's left.

breeding

- 1 birth if fit

migation

Mostely random...

general

feeding

Herbivore eat what they can, carnivore eat what's left.

breeding

- 1 birth if fit
- 2 have enough fat

migation

Move if it can.

general

feeding

Herbivore eat what they can, carnivore eat what's left.

breeding

- 1 birth if fit
- 2 have enough fat
- 3 random

migation

Mostely random...

Theory

- 1 type-casting to avoid pointer bugs
- 2 `eval()` to create general code.

```
[n for n in dir(sys.modules["biosim.animal"])]  
if not re.match("(__)|(np)|(ran)|(animal)",n)]
```