Simulating animals

The survivle of the lucky

Mats Hoem Olsen, Roy Granheim

Norwegian university of enviroment and biosciense

26/1-2021

1. Table of contents

2. Animals

3. Visuals

diversity

- Herbivore

diversity

- Herbivore
- Carnivore

diversity

- Herbivore
- Carnivore
- ???

More to be.

dynamic

If it is an animal, it will, therefore it can.

$$\overset{*}{x} = [\alpha x - \beta xy] \tag{1}$$
$$\overset{*}{y} = [\delta y - \gamma xy] \tag{2}$$

dynamic

If it is an animal, it will, therefore it can.

$$\overset{*}{x} = [\alpha x - \beta xy] \tag{1}$$
$$\overset{*}{y} = [\delta y - \gamma xy] \tag{2}$$

Interacts as they pleases

dynamic

If it is an animal, it will, therefore it can.

$$\overset{*}{x} = [\alpha x - \beta xy] \tag{1}$$
$$\overset{*}{y} = [\delta y - \gamma xy] \tag{2}$$

Interacts as they pleases
Everybody get approximatly the same treatment

dynamic

If it is an animal, it will, therefore it can.

$$\overset{*}{x} = [\alpha x - \beta xy] \tag{1}$$
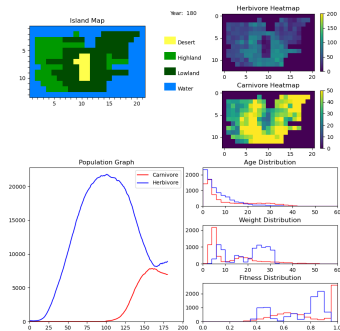$$\overset{*}{y} = [\delta y - \gamma xy] \tag{2}$$

Interacts as they pleases
Everybody get approximatly the same treatment
Some are more equal than others
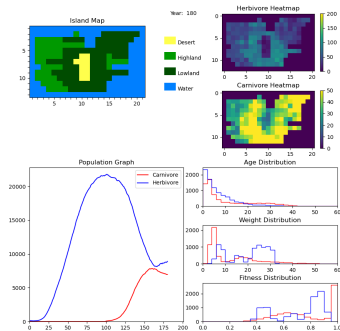
Graphical information

Display features:

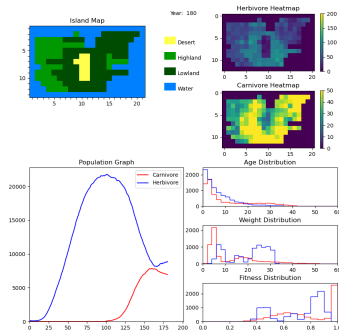# Graphical information

Display features:

- Display current year

Graphical information
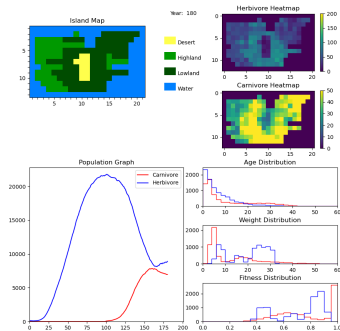
Display features:

- Display current year
- Display the island geography
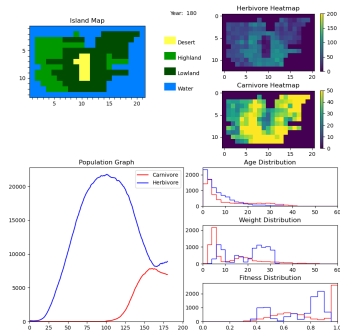
Graphical information

Display features:

- Display current year
- Display the island geography
- Display informational graphs
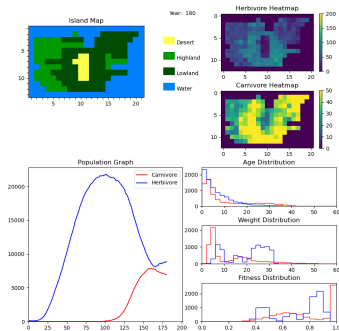
Graphical information

Display features:

- Display current year
- Display the island geography
- Display informational graphs
- Ability to
  save images of the simulation

Graphical information

Display features:

- Display current year
- Display the island geography
- Display informational graphs
- Ability to
  save images of the simulation
- Ability to set limits
  and graphical update step

Graphical handling

How does the graphics work?

Graphical handling

How does the graphics work?

1. The engine stores key information inside itself

Graphical handling

How does the graphics work?

1. The engine stores key information inside itself
2. The interface grabs that information

Graphical handling

How does the graphics work?

1. The engine stores key information inside itself
2. The interface grabs that information
3. Then graphics takes information from the interface and processes it