Capital High

;Jaguars

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;NetLogo

;;## WHAT IS IT?

;This netlogo project showes a red improted fire ant colony.

;## HOW IT WORKS

;This model shows ants picking up food and bringing it back for reproduction

;## HOW TO USE IT

;press setup and go and adjust the slider

;## THINGS TO NOTICE

100 ticks = 1 hour

globals [ food-source ]

turtles-own [energy]

to setup

clear-all

ask patches

[ set pcolor green

]

create-turtles 10

ask turtles

[

set color red

set size 4

set shape "bug"

]

rocks

food

water

Ant-hill

reset-ticks

end

to rocks

ask patches [

if (distancexy (-2.4 \* max-pxcor) -45) < 8

[ set pcolor gray]

if (distancexy (-2.7 \* max-pxcor) 80 ) < 9

[ set pcolor gray]

]

end

to food

ask patches

[

if (distancexy (0.6 \* max-pxcor) 0) < ant-food / 1.2

[ set pcolor red]

if (distancexy (1.2 \* max-pxcor) 0) < ant-food / 1.3

[ set pcolor red]

if (distancexy (.75 \* max-pxcor) -66) < ant-food / 1.5

[ set pcolor red]

]

end

to water

ask patches[

if (distancexy (0.2 \* max-pxcor) 50) < 12

[ set pcolor blue]

]

end

to Ant-hill

ask patches

[

if (distancexy (0 \* max-pxcor) 0) < 5.5

[ set pcolor brown]

]

end

to eat

ask turtles

[

if pcolor = red

[

set pcolor green

right 180

]

if pcolor = blue

[

set pcolor green

right 180

]

]

end

to go

eat

tick

ask turtles

[

move

if pcolor = blue or pcolor = red

[ set energy energy + 20 ]

if energy > 100

[set heading towards patch 0 0

if pcolor = brown

[

set energy energy - 75

hatch 1

[ set energy 10

move]

]

]

if pcolor = gray

[

left 180

]

]

end

to move

left random 40

right random 40

forward 1

end