Journey to the ocean

The Saga of the leatherback sea turtle Final report

Santa fe school for the arts

April 5, 2006

Team 96
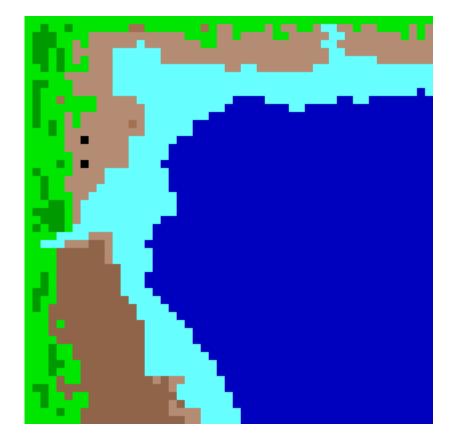MASON DOWLING
GARRETT GRANTHAM –PHILLIPS
DALE JENKINS

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Executive summary

Our project focuses on the pending extinction of the leatherback sea turtle. The leatherback population is mainly in the Sea of Cortez (Baja Calif.). Our project is based on a national park on the Sea of Cortez. Our background (below) is designed from a map of the Baja coast. The leatherback turtle has been endangered for the last 12 years. Scientists have been (unsuccessfully) trying to isolate the cause of endangerment. The results of these studies are as yet unknown.

Our project shows the struggles and obstacles that a young leatherback faces in the journey from the nest to the water. Hopefully, the results of this project will give us an idea of the future of the leatherback.

Problem: The leatherback sea turtle is quickly
becoming extinct. Each year, an estimated 6000
leather back sea turtles die.

Predators of the leatherback include: humans, dogs,
pigs, birds, and strange as it may sound, heat
(turtles can be "cooked" during the journey to the
sea). Once in the sea, leatherbacks are poached by

humans. The shell of the leatherback can bring thousands of dollars to poor Mexican families (when sold through the black market).

On the beach, families raid leatherback nests for the supposedly delicious eggs.

Method: We used a mentor, the internet, and our peers to gain information. Our "teacher", Dave showed us how to write Starlogo™ code. Recently, Nick, an "SCC person" helped us fine-tune our project. When programming, one of us would find commands, one of us would get turtle info, and one of us would write code.\

Results/Conclusions: The results prove that, without human intervention, the leatherbacks could be wiped from the face of the earth. If the leatherbacks lose 6000 turtles a year, it will,

take them about 12 years, or less, to become
extinct. Humans currently "save" about 1000 turtles
annually.

Software: Our project was created with Starlogo, and
there are graphs to show the "decrease data". We
have also made flowcharts to illustrate our code.

Achievement: We learned how to program with Starlogo.

Help: We were helped by Dave, SFSA, Santa Fe Animal
Humane Society, and Nick.

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Mason Dowling

Garrett Grantham-Phillips

Dale Jenkins

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Code Examples

```
to setup
  set-breeds
  coha
  pass-day
end

to coha
 setc green
end

to pass-day
        ask-predator [
        predator-go
        ]
  ask-sea-turtles [
        sea turtle go]
  ask-eggs [
        incubate]
  ask-pc if red [stamp brown]
end

to set-breeds
  set-breed turtle
  set-breed predator
  set-breed egg
end
```