CALIFORNIA STATE SCIENCE FAIR
2009 PROJECT SUMMARY

Name(s)
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Project Number
S1608

Project Title
Computer Generated Simulation of the Migration Path of Ancient Native Americans into North America

Abstract

Objectives/Goals
The migration path of the ancient Native Americans has long been a much sought for, yet abstract concept. The present method of determining the ancient Native Americans# migration route into North America relies heavily upon the discoveries of fossils and other ancient artifacts that scientists can use to locate the assumed settlements of ancient Native American tribes. The object of this project is to produce a realistic computer simulation of the migration path of the ancient Native Americans.

Methods/Materials
The migration path is simulated using inputted data, which are the factors of living conditions, such as land formations and climate, which must have played a significant role in the migration of ancient Native Americans. The inputted data are then translated in the program into configurable values which are used to set the parameters of the harshness of living conditions. The migration is realistically portrayed, significantly affected by the migration hindrances (mountain ranges, etc), which further enhances the accuracy of the simulated migration path.

Results
The accuracy of the resulting simulated migration path was determined by comparing the computer generated migration path with the migration path determined by professional researchers using paleontological and archaeological information.

Conclusions/Discussion
The simulation proved highly compatible, and it could ultimately become a major source of data and reference for researchers in the future.

Summary Statement
By using simple living condition factors (such as land formations and climate), the migration path of the ancient Native Americans can be determined by a computer generated simulation.

Help Received
Paleontological map used to verfiy simulation provided by Dr. David Glenn Smith from University of California Davis.