

## **Patterns of Life**

Edward Lorenz and Chaos Theory

## **Voice Over:**

Why can't we get a good weather forecast? And just what are the chances of sudden apocalypse? Chaos theory is the noble attempt to solve such quandaries by studying chaotic systems.

These are systems where even a slight change to the input can cause a huge unpredictable outcome.

They led meteorologist, and bank holiday ruiner, Edward Lorenz to declare long term weather forecasting is utterly impossible.

In chaotic systems any inaccuracy in your starting values quickly multiplies and leads to a different result, turning a seemingly benign trip to Torquay into a dangerous game of Russian Roulette.

It's not just your holidays chaos curtails. The orbits of Mercury, Venus and Earth all affect each other in a chaotic systems kind of way.

Mathematical models show a one percent chance that at some point in the next 5 billion years Mercury could crash into either Venus or the Sun!

And chaotic systems are everywhere ruining our best laid plans and turning weather forecasting into the twisted ramblings of a fantasist.