

- There are two purposes to this activity...
 - SPECIFIC: See how coupled differential equations are used by researchers in 'mathematical ecology'
 - GENERAL: Learn how to approach reading an academic research paper

WHEN YOU ARE READY...

- Read the Title and try to understand what 3 things are being studied in the paper
- Read the "Abstract" and try to understand 70% of it

Now your brain should have some idea of what the scientists were interested in!

- Jump to page 4 and look at the system of equations (numbered "1")
 - What kind of equations are they?
 - What letters are the **variables**?
 - All the other letters are **parameters** - things that can be altered to try and closely model the real world
- Look through the text before the equations to find out what each **variable** represents and what its units are
- Jump to page 5 and look at the table that summarises all the parameters and what they represent

Now your brain should have some idea of the data the scientists are considering, and what they are modelling.

- Also on page 5 is Section 2.2, "Model Reparametrization"
 - Don't try too hard to read the paragraph - start by looking at the set of equations "2"
 - The researchers have made some changes to their equations. Is there one change that is particularly noticeable?

Notice that the bottom of page 5 includes some values for the parameters, decided by the researchers.

- Read the text at the top of page 6 to understand where they got those values from.

Now jump to page 15 and look at Section 4 Discussion. [Only read 1 or 2 paragraphs]

- What real life predictions are the scientists making, based on their model?

Now jump to page 18, "References"

- How many references have the scientists listed, that informed all of their work?!