

MATH 111: Techniques of Calculus II

Section 1: 110 Osmond Lab, TR 10:10 AM - 11:00 AM

Section 2: 106 Osmond Lab, TR 1:25 PM - 2:15 PM

Suppose you are an aide to a newly appointed UN politician Leslie Knope. One of her biggest concerns is the biodiversity of the world's waters. Because resources are limited, she's interested in determining problem countries before they are truly a problem. That, of course, requires prediction. She has asked her aides (including you) to help her find potential indicators for declining biodiversity in waterways.

Your task is to determine if the countries that release the large amounts of CO_2 also have the highest numbers of threatened fish. You are to write Ms. Knope a 3+ page report detailing your findings. You'll be using data available through the World Bank, which can be found here:

- <http://data.worldbank.org/indicator/EN.FSH.THRD.NO>
- <http://data.worldbank.org/indicator/EN.ATM.CO2E.PC>

In your report, be sure to include:

1. A plot of your data and any function used to assess a relationship
2. A list of missing countries with an explanation of why (e.g. incomplete data, outliers)
3. A discussion of the strengths and weakness of the data used
4. A discussion of whether a relationship (if one exists) is causal or not (if no, be sure to include other possible reasons for a relationship)
5. A conclusion: Can we assume that high levels of CO_2 emissions are a good indicator of a threat to biodiversity in the waterways?