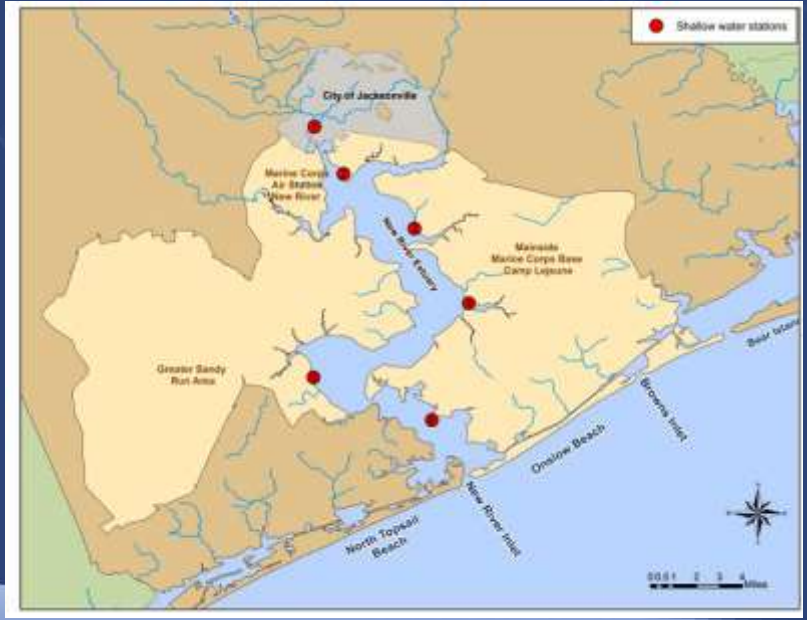


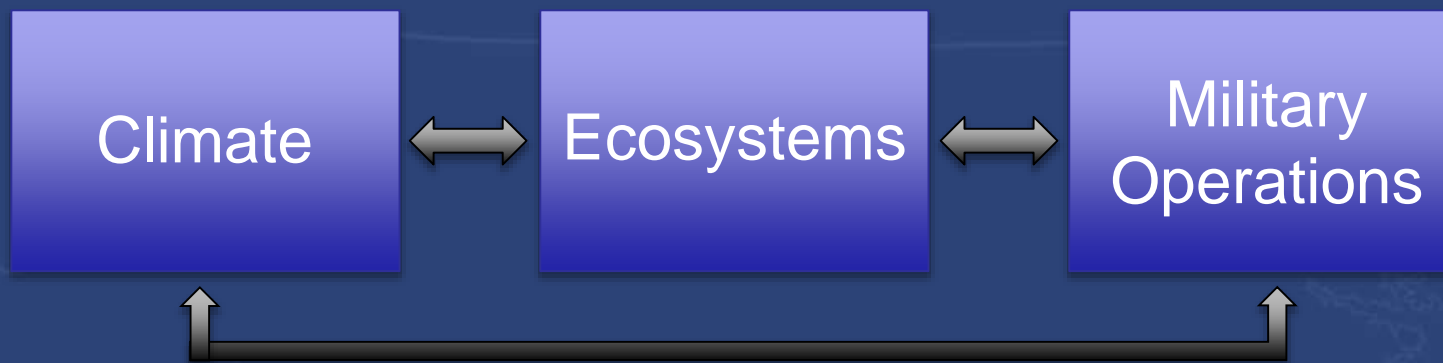
Climate Uncertainty for Coastal and Estuarine Environments

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Area of Interest: Camp Lejeune



So What?



- Executive Order: Department of Defense installations must include climate change in their strategic sustainability plan



Defense Coastal/Estuarine Research Program

- Multi-year project to understand the entire picture of what is happening at Camp Lejeune.
 - Stage 1: Evaluate environmental response from base activities.
 - Stage 2: How will climate change impact these systems?



The base is...complicated



The base is...complicated



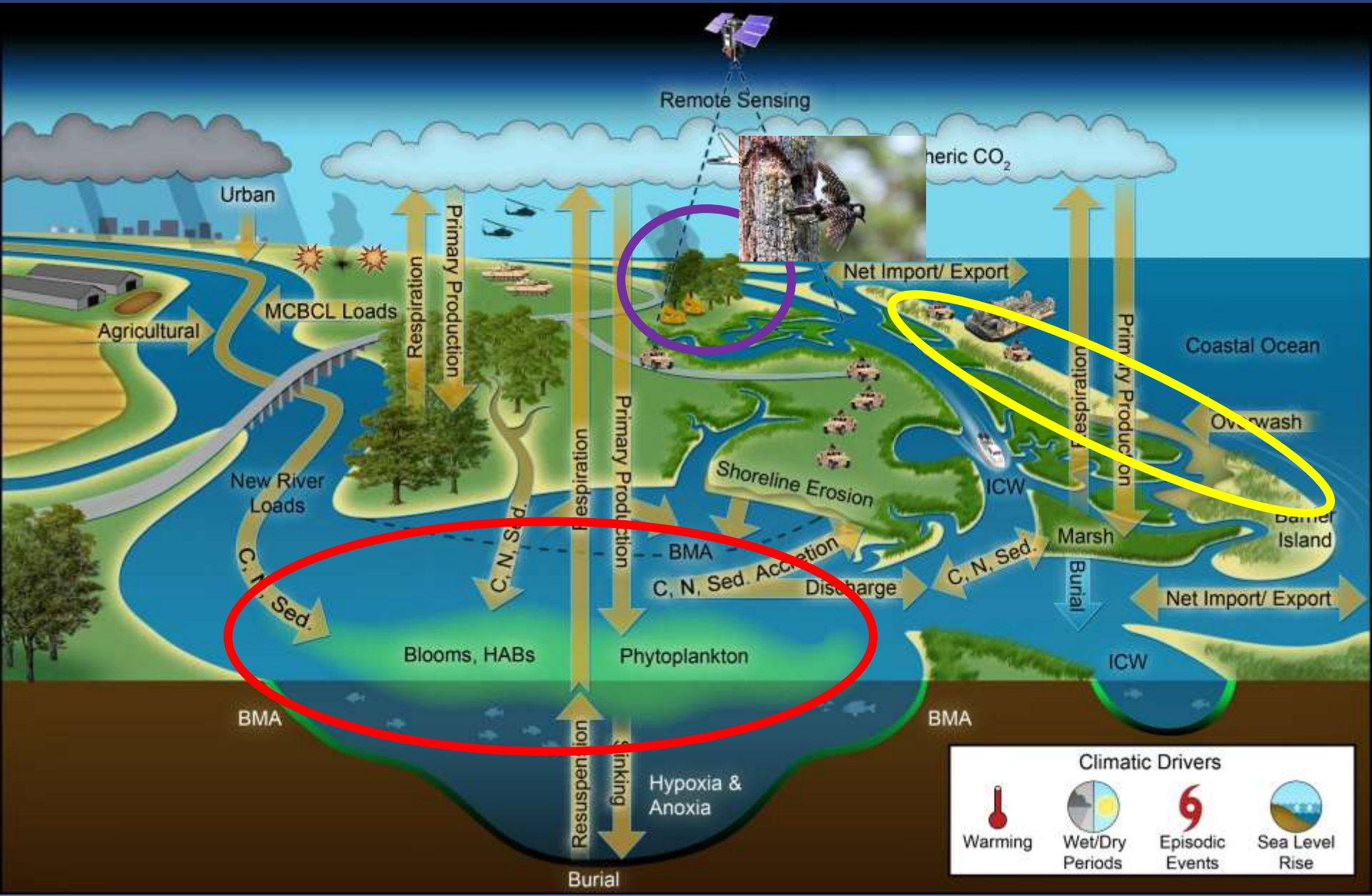
The base is...











Assessing these needs; discovering a disconnect

Group

Looking For:

-
-
-
-





FIND YOUR DATA!



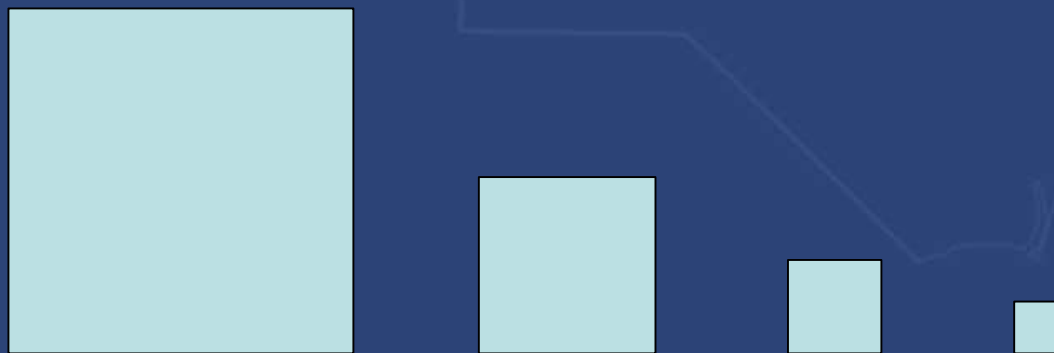
Regroup

- Did you find the data you want to use?
 - Some of it isn't there...
 - But, substitutions could be made
- Realistically, we want to use the same data
- You should use multiple models!



Assessing these needs; discovering a disconnect

- Variables Available
- Scale concerns
- Number of Datasets



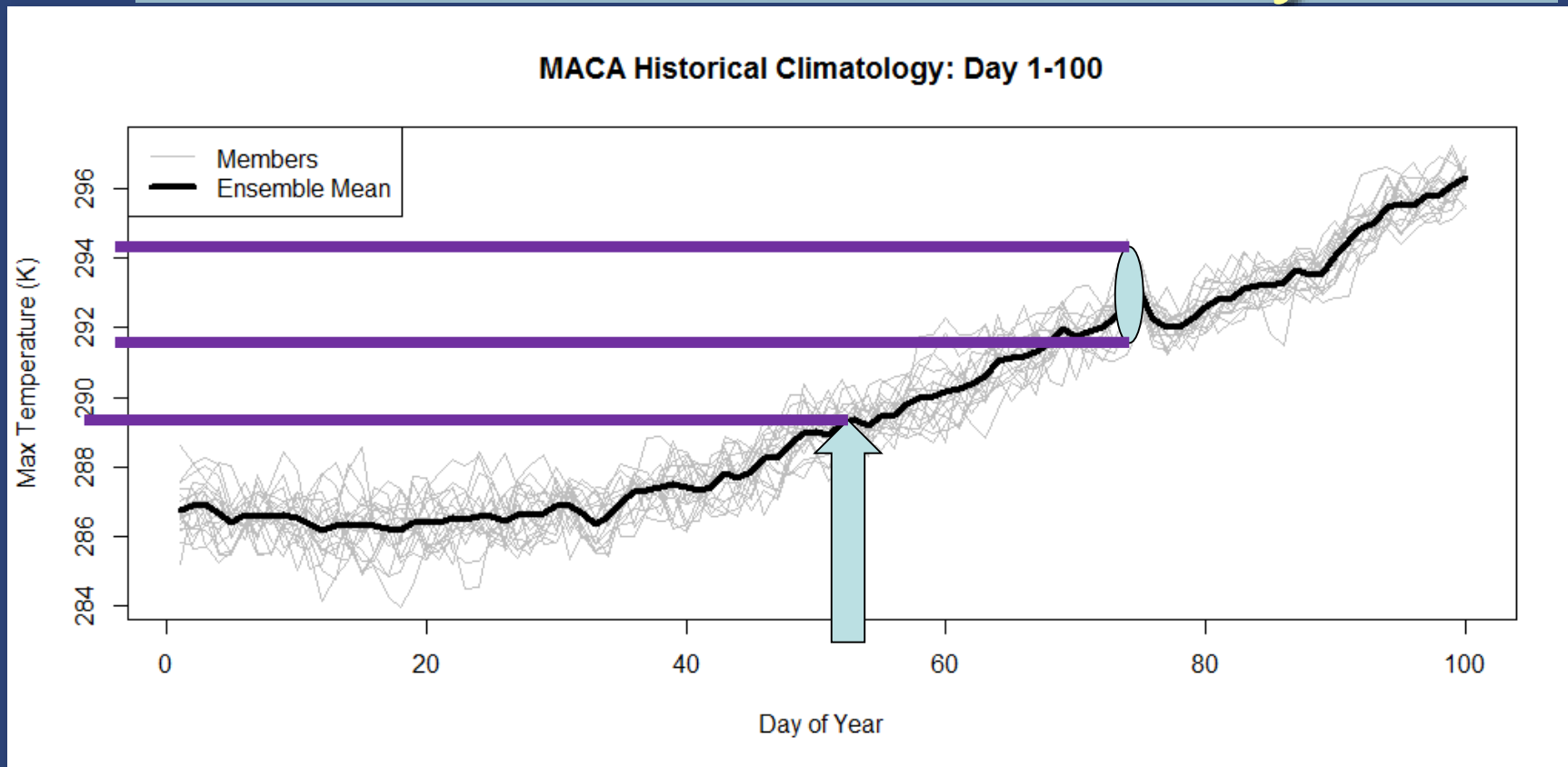
Too Much Data?

80+
Potential
Model
Members

Data Set	Spatial Resolution	Downscaling Method	# of GCMs
BCCA-CMIP5	~12 km	Statistical	20
MACA	4 km	Statistical	19
CLAREnCE10	10 km	Dynamic	3
Hostetler	15 km	Dynamic	3
CCR-WICCI	11 km	Statistical	13
SERAP	12 km	Statistical	16



Need Multiple Climate Models to Assess Uncertainty



Still, too much data??

- 80 sources of data x 4 management scenarios x 6 hour run time = 80 days of constant computing
- This is a problem that is motivating research out of our office.



2-types to please



That's all folks!

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