

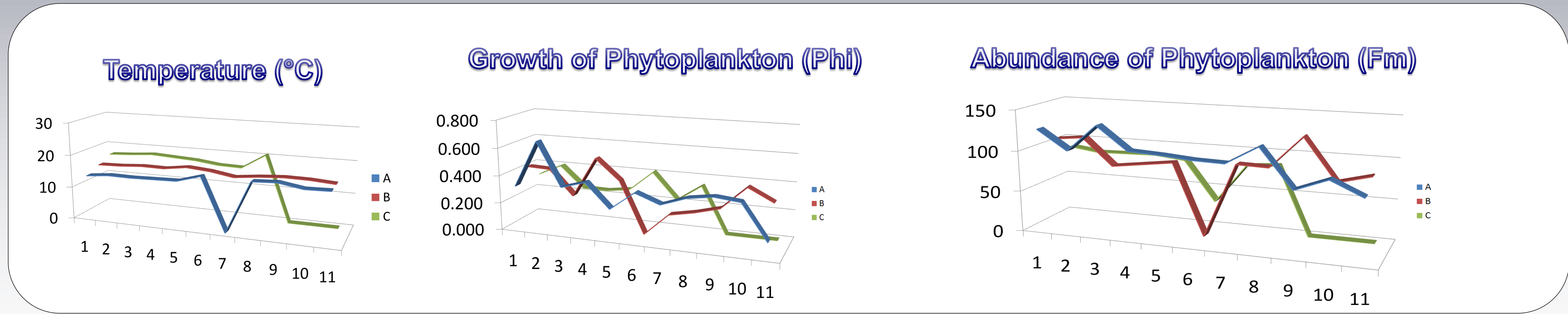
# CSUCI Summer Institute: Spatial Variability of Phytoplankton in the Santa Barbara Channel

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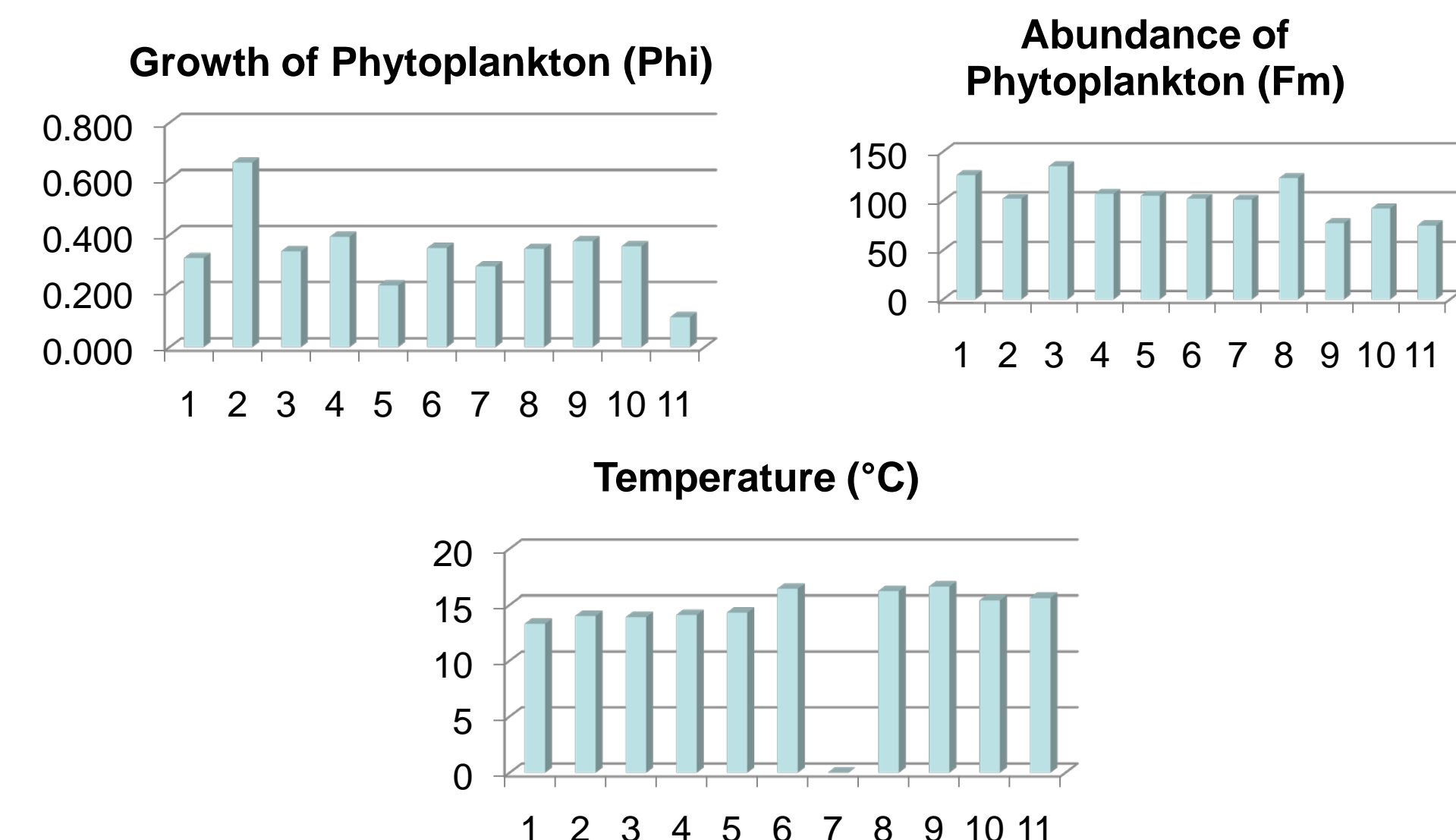


**Introduction:** This research consisted of observing the spatial variability of marine phytoplankton in the Santa Barbara Channel incorporating ship-based oceanographic and geographic methods to collect and analyze data.

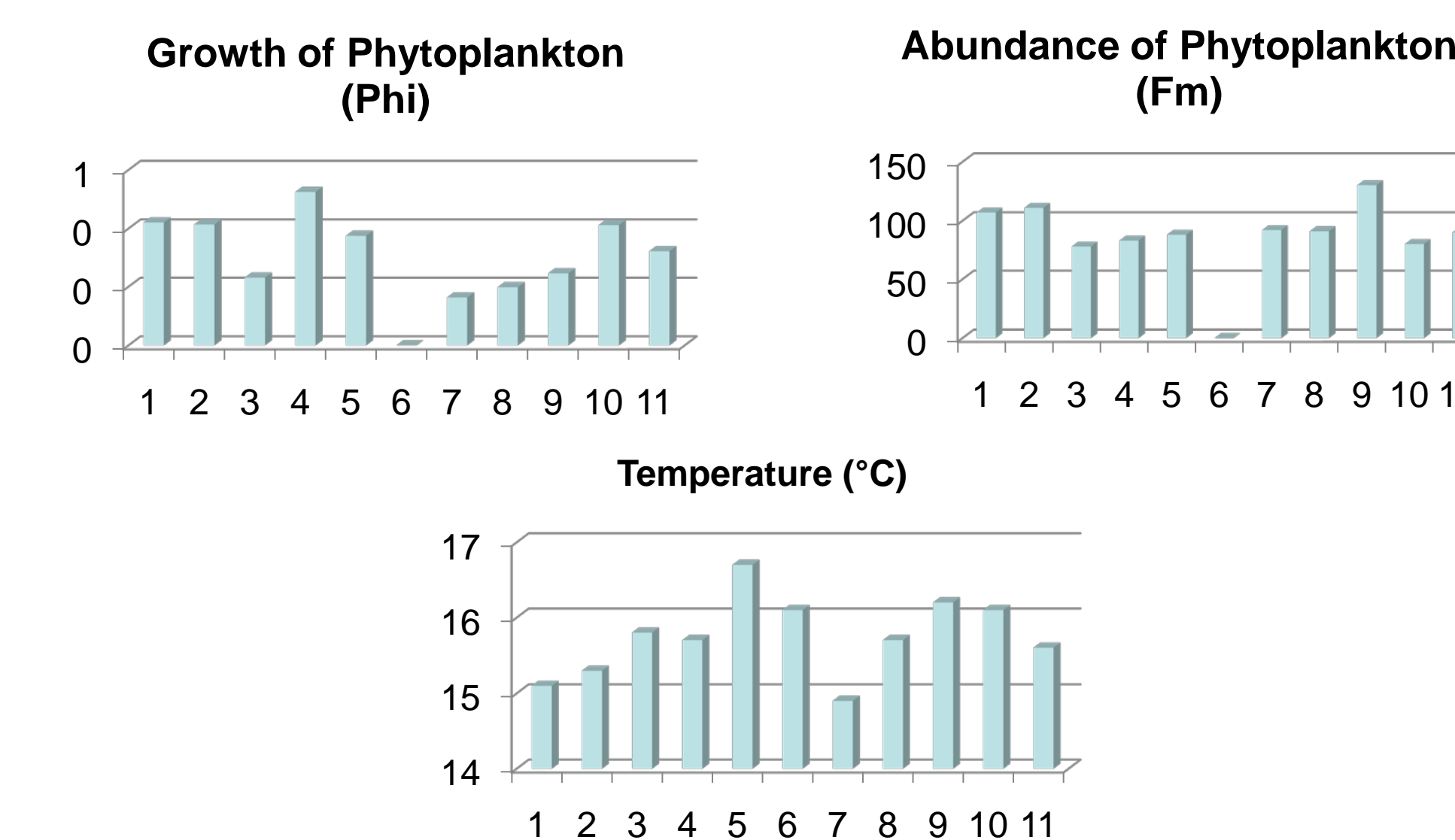
## Data Compilation from trips A, B, and C



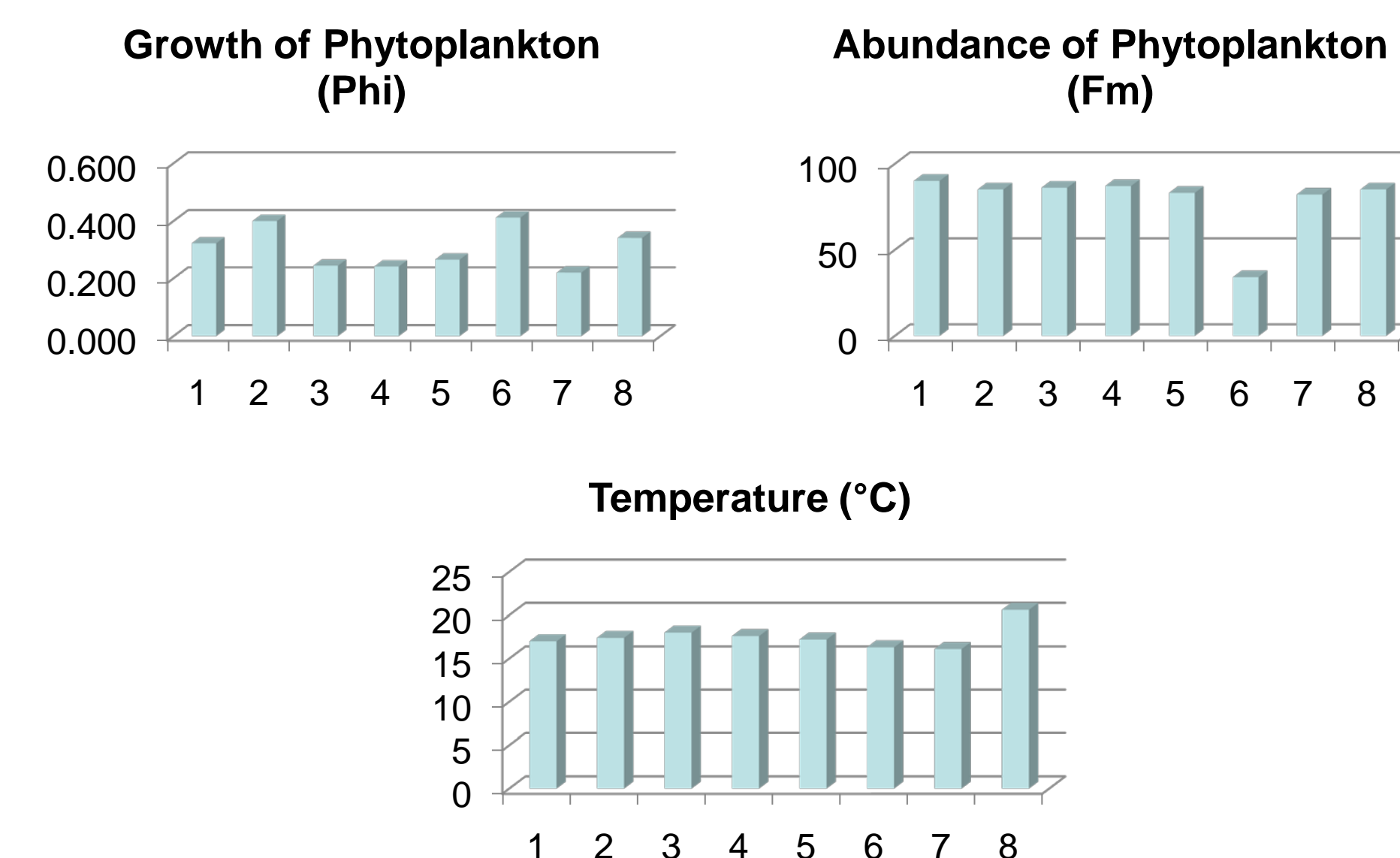
## Cruise A 26-27 May



## Cruise B 2-3 June



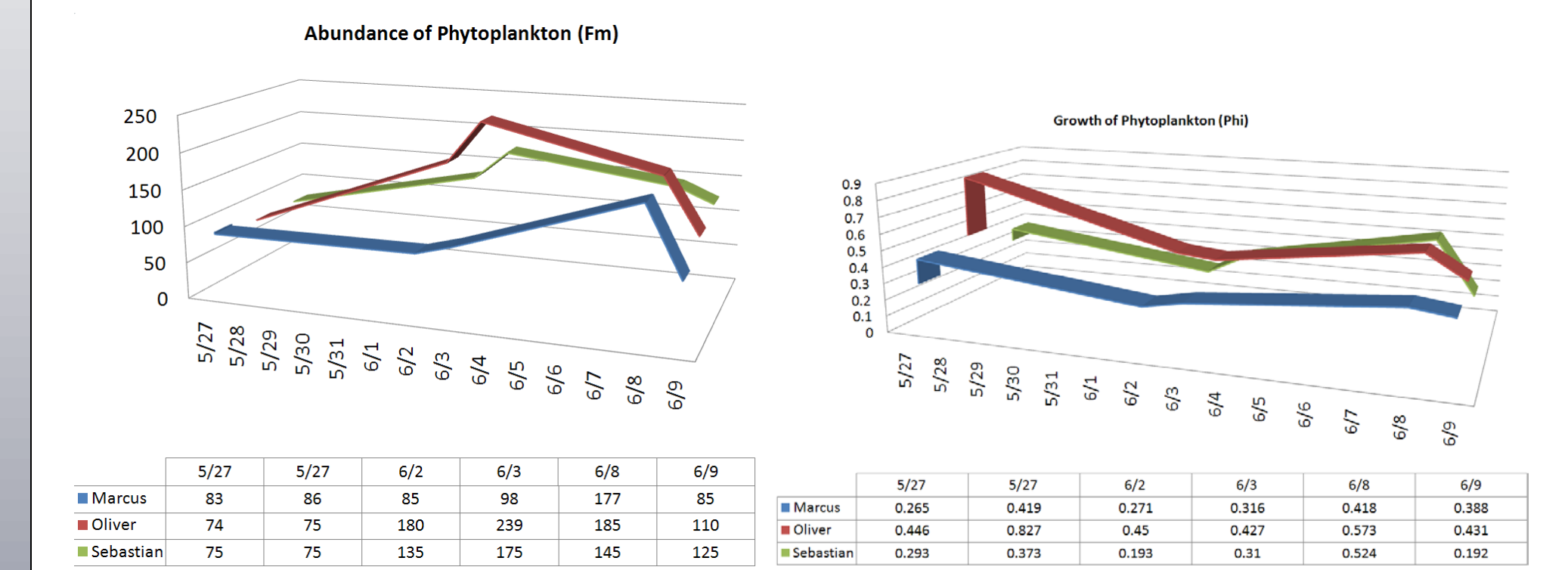
## Cruise C 8-9 June



## Our Experiment 27 May – 9 June

During Cruise "A" we collected three separate samples of ocean surface water. Each of these three samples were placed under different conditions and measured periodically over a span of three weeks. Below are the graphs displaying the variations displayed in each "named" bottle chronologically.

- a) **Marcus:** Control- Unaltered
- b) **Oliver:** Experimental: Shaded; Fertilized
- c) **Sebastian:** Experimental: Light; Fertilized



	5/27	5/27	6/2	6/3	6/9	6/9
Marcus	83	86	85	98	177	85
Oliver	74	75	180	239	185	110
Sebastian	75	75	135	175	145	125

	5/27	5/27	6/2	6/3	6/9	6/9
Marcus	0.265	0.427	0.271	0.318	0.418	0.388
Oliver	0.448	0.827	0.48	0.827	0.375	0.431
Sebastian	0.289	0.373	0.399	0.31	0.334	0.382

- Observations:**
- a) **Marcus**- Over a period of three weeks, phytoplankton abundance stayed steady and then experienced a steady increase in density followed by the sharpest decline observed in all three bottles.
  - b) **Oliver**- Phytoplankton abundance experienced a rapid increase followed by a steady decrease, then a sharp decline.
  - c) **Sebastian**- Experienced a constant growth in abundance followed by the slowest decline of all three bottles.

Fm- Maximum Fluorescence