

### Introduction

- Emerita analoga is an abundant species of invertebrate and a primary food source for many shorebirds and marine life.
- Habitat selection for this invertebrate determines survival rate.
- The purpose of this study is to find whether or not different grain levels of sand will affect the burrowing time of Emerita analoga and its choice of habitat selection.



## Methods

- Sand samples are collected at each study site and grain size analysis was conducted at Cal Poly Humboldt Geology department.
- Sand crab burrowing trials took place at one study site and the sand samples are given fresh ocean water prior to each trial.
- Relative abundance is measured with a core sampler. Measurements occured on a transect line within the middle of the swash zone for a total of 10 core samples with a 5m interval.

# Sand Crab, *Emerita analoga,* Burrowing Time in Relation to Relative Abundance in Humboldt County Andrew Cha Department of Wildlife, Cal Poly Humboldt

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#### Results

- Burrowing trials indicate Clam, Mad River, and Samoa Beach to have the fastest burrowing rate while Moonstone and Trinidad State beach shows to have slower burrowing rates.
- Relative abundance varied throughout each study site.
- Shapiro-Wilk normality test: P-value: 0.1471



Study Site	Grain Size	Relative Abundance
Samoa Beach	Fine/Very Fine	7
Mad River Beach	Coarse	13
Clam Beach	Coarse	11
Moonstone Beach	Very Fine	0
Trinidad State Beach	Fine	0

#### Conclusion

- population abundance.

Figure 1: Averages in burrowing time at each study site.



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**Table 1:** Study sites with grain
 size analysis in relation to relative abundance.





• Sandcrabs, *Emerita analoga* are seen to burrow faster in course sand rather than fine sand and are more abundant in habitats that hold this particular grain size. • Correlation between both grain size and

• Possible errors: burrowing rate in native vs foreign sand and presence of parasites.

