*The following prompts are directly derived from KNB. As you fill in each section, please consider that all future users will rely on the information you provide to support the data – please be clear and descriptive.*

1. **TITLE**
   1. Sediment organic and inorganic matter within intertidal eelgrass beds in Southeast Alaska
2. **ABSTRACT**
   1. Sediment cores were collected from 21 sites along western Prince of Wales Island and the surrounding archipelago in Southeast Alaska. The cores were collected to quantify the amount of organic and inorganic material within intertidal eelgrass (Zostera marina) beds in each site. The cores were 5 cm in diameter and were divided into 2-cm layers for analysis; the deepest core reached a maximum of 70 cm in sediment depth. Both organic and inorganic material were determined via loss-on-ignition (LOI) methods, consistent with the majority of existing literature. These data were collected to compliment a larger, interdisciplinary project called APECS (Apex predators, Ecosystems, and Community Sustainability), the focus of which investigated the role that sea otters have on seagrass habitats, their ecological function, and influences on traditional and subsistence harvest of specified marine organisms.
3. **DATES**
   1. **Begin date**: 29 April 2017
   2. **End date**: 22 August 2017
   3. **Publication date**: n/a
   4. **Alternate identifiers**: APECS\_alaska
4. **LOCATION**
   1. **Description**: The western coastline of Prince of Wales Island (Alaska, USA) and the adjacent archipelago.
   2. Bounding box coordinates
      1. **Northwest coordinates for box:** 56.4206 N, -134.4531 E
      2. **Southeast coordinates for box**: 54.5281 N, -132.0942 E

OR

* + 1. **Single point coordinates**: 55.2081 N, -132.826 W

1. **TAXA**
   1. General taxonomic coverage:
      1. All organisms were classified using the Linnean taxonomic system, and were largely clustered into larger taxonomic groupings instead of identifying to species (e.g. Family or Class).
   2. Taxonomic classification(s):

Rank Value

Genus Zostera

Genus Enhydra

1. **METHODS & SAMPLING**
   1. Methods
      1. **Step 1:** Fieldwork;
         1. the collection of sediment cores: At each site, duplicate sediment cores were collected between -0.37 and -1.10 MLLW by pounding PVC pipe (1-m long, 5-cm diameter) into the sediment as far as possible using a rubber mallet. When the pipe could not be pounded any deeper, the remaining PVC length protruding from the sediment was measured on the outside of the pipe and the inside of the pipe using a flexible measuring tape. The total depth of the core, the external measurement of PVC length protrusion from sediment, and the internal measurement of PVC length protrusion from sediment were necessary to determine the compaction coefficient for each core so that that standardized layer volumes could be calculated (see below). Then each core was capped using a mechanical plug and extracted; the bottom of the PVC was immediately closed using strong duct tape and the cores were immediately transferred (while sitting upright) to the lab. All cores were frozen upright once at the lab for later analysis of organic and inorganic matter.
         2. [1] Compaction = (Internal PVC length above sediment) - (External PVC length above sediment);
         3. [2] Absolute depth of core = (Compaction) + (Length of recovered core);
         4. [3] Compaction Coefficient = (Length of recovered core) / (Absolute depth of core)
      2. **Step 2:** Labwork;
         1. layering of cores, LOI, and determination of matter: Each core was sliced into corrected 2-cm layers throughout the entire core. The relative layer thickness for slicing was determined using the compaction coefficient; for example, if a core had a compaction coefficient of 0.6, it was necessary to slice each layer of the core at 1.2-cm intervals to represent 2-cm layer intervals. A table saw was used to slice frozen cores and relative intervals. Each layer was measured after slicing to ensure to record and correct for small errors in slicing thickness.
         2. Cores were processed one-at-a-time. After each layer was sliced, the frozen sediment plugs were removed from the PVC and transferred to appropriately labeled, pre-weighted aluminum tin trays and the wet weight of the sediment + tray recorded. The layers were then dried at 60 degrees Celsius and the dry weights were measured. Dry bulk density for each layer was calculated by dividing the dry weight of each slice by its volume.
         3. The total organic and inorganic content of each layer was determined via loss-on-ignition methods that are consistent with the majority of the existing literature. The total organic matter was quantified by combusting each layer at 450 C, after which the weights were recorded (total organic matter = pre-combustion weight - post-combustion weight). The total inorganic matter was quantified by combusting each layer at 950 C, after which the weights were recorded (total inorganic matter = pre-combustion weight - post-combustion weight).
         4. The percent of organic and inorganic matter values were determined by dividing the total dry weight of each by the dry weight of each layer’s sediment weight before combustion (e.g. percent organic matter = total organic matter / sediment weight pre-combusion @ 450 degrees C). The density of organic and inorganic matter values were determined by multiplying the total dry weight of each by each layer’s dry bulk density (e.g. density organic matter = total organic matter \* dry bulk density).
   2. Sampling
      1. **Sampling area and frequency**: We replicated the methods in 21 sites, each site was visited once for these sampling methods. These data were collected to compliment eelgrass community data (see other “APECS\_alaska” datasets). Sites were chosen based on the presence of intertidal access to meadows of the seagrass, Zostera marina, and whether the meadow was continuous enough to run a 100-m transect across it (parallel to shore).
      2. **Description**: Please refer to the above methods.