*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. Pits dug by sea otters in sediments associated with eelgrass beds and qualitative sediment grain size descriptions in Southeast Alaska
2. **ABSTRACT**
   1. This dataset is composed of counts of the number of pits that were dug by sea otters, as well as a qualitative assessment of the primary and secondary sediment grain sizes (most common and second most common). The number of pits and sediment grain size were quantified at intertidal sites that included seagrass meadows (dominated by Zostera marina), in which three 100-m (year 2017) or 50-m (year 2018) transects were placed at different locations relative to the seagrass meadow: within the seagrass meadow, along the edge of the seagrass meadow, and outside the seagrass meadow. Across 2017 and 2018, observations were conducted at 37 different sites total in Southeast Alaska on Prince of Wales Island (n = 21 in 2017; n = 26 in 2018). These data directly compliment clamshell litter data (which was collected along the same transects) for which the cause of death for clams was estimated using shell forensics. Generally, 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 (search "APECS\_alaska" in KNB for all related datasets).
3. **DATES**
   1. **Begin date**: 29 April 2017
   2. **End date**: 22 August 2018
   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 identified to species.
   2. Taxonomic classification(s):

Rank Value

Genus/species Enhydra lutris

Genus/species Zostera marina

1. **METHODS & SAMPLING**
   1. Methods
      1. **Step 1:** Quantifying pits and sediment grain size in 2017: [Quantifying pits dug by sea otters] At each site, three 100-m transects were placed parallel to the water's edge in three distinct locations within each site: inside a seagrass meadow ("Inside"), at the continuous edge of a seagrass meadow ("Edge"), and outside the seagrass meadow ("Outside"). These three classifications required that the tidal elevation for each was different, with the "Edge" being the lowest (approx. -0.37 and -1.10 MLLW) and the "Outside" transect the highest (0.5 to 1.5 ft higher than the respective "Inside" transect). Frequently, the "Outside" transect corresponded with butter clam habitat. Each 100-m transect was divided into 10-m bins. For each bin, pits were counted within a 2-m swath centered on the transect line; this does mean that half of the 2-m swath of "Edge" transect sometimes overlapped with seagrass vegetation but the other half did not. [Quantifying sediment type] The sediment grain size was qualitatively described/quantified in each 10-m bin along the transect via the observer making an averaged, mental assessment as they surveyed for pits. Both the primary and secondary sediment types were recorded (sediment that is most representative and second most common, respectively). There were 10 qualitative categories for grain size, ranging from fine to solid reef: (1) mud, (2) sandy mud, (3) muddy sand, (4) sand, (5) coarse sand, (6) pebble, (7) gravel, (8) cobble, (9) boulder, (10) reef. The grain sizes were loosely based on geological classification of grain diameter, or the phi scale. The numerical numbers for each grain size bin (1-10) were used as numeric representations of the qualitative descriptions (represent a gradient in grain size), which allowed for numerical analysis and comparison across sites.
      2. **Step 2:** Quantifying pits and sediment grain size in 2018: We desired to survey more sites in 2018 but were confronted with the issue of not being able to find additional sites that were at least 100-m in length, running parallel along the shoreline. Instead, we modified the methods used in 2017 by quantifying pits and sediments along 50-m transects. All sites, including ones that were previously surveyed in 2017, were characterized using 50-m transects. We did not reduce the total area of the transect, however; instead of quantifying pits dug by sea otters within 2-m swaths along each transect, we counted pits within 4-m swaths. Sediments were also characterized within 4-m swaths. All other information provided above for 2017 is relevant here (e.g. each bin was still 10-m in length, resulting in 5 bins per transect instead of 10).
   2. Sampling
      1. **Sampling area and frequency**: Each site was visited once per year 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 or 50-m transect across it (parallel to shore).
      2. **Description**: Please refer to the above methods.