1. Dataset Title
    DEM and DSM data based on leaf-off lidar for the core area in CHEESEHEAD domain

2. Dataset Author(s)

    Ting Zheng* and Philip A. Townsend
    Ting Zheng: tzheng39@wisc.edu, https://orcid.org/0000-0003-4728-6627, Department of Forest and Wildlife Ecology, University of Wisconsin-Madison
    Philip A. Townsend: ptownsend@wisc.edu, https://orcid.org/0000-0001-7003-8774, Department of Forest and Wildlife Ecology, University of Wisconsin-Madison
    *: corresponding author. Room A125, Russell Laboratories, 1630 Linden Dr. Madison, WI 53706. Position: Scientist.

3. Award/Grant ID:

4. Time of Interest
    2018 and 2019, see data description for details

5. Area of Interest
    45.901 to 45.987; -90.206 to -90.34

6. Data Frequency
    One time, see data description for details

7. Data restrictions - None

8. Digital Object Identifier (DOI) – Yes

9. GCMD Keywords – DIGITAL ELEVATION/TERRAIN MODEL (DEM), Digital Surface Model (DSM)

Data Description:

1. This dataset provides the digital elevation model (DEM) and digital surface model (DSM) derived from leaf-off lidar for CHEESEHEAD core study area (10km ×10km). DEM and DSM are projected to WGS 84 / UTM zone 15N (EPSG:32615) at **1m** spatial resolution. The unit for the height is **foot**.

2. The dataset includes following files:

   DEM data in ENVI format:

   - **ch_dem_10km** and **ch_dem_10km.hdr**

   DSM data in ENVI format:

   - **ch_dsm_10km** and **ch_dsm_10km.hdr**

   tile list file: **tile_lookup.csv**

   user guide: **cheesehead_leafoff_dem_dsm_guide.pdf**

3. The DEM and DSM are mosaics from tiles for three counties: Ashland, Iron, and Price. Detailed tile list can be found in **tile_lookup.csv**. All the tiles are derived from leaf-off lidar point cloud collected by USGS and can be found at
   https://geodata.wisc.edu/?f%5Bdct_provenance_s%5D%5B%5D=WisconsinView
   Meta info for each county is listed below:
   Ashland: acquired during 20191025-20191030
   https://geodata.wisc.edu/catalog/9023862e-a6f6-4fc3-8d44-04a93ced0320
   Iron: acquired during 20191026-20200520
   https://geodata.wisc.edu/catalog/570be1de-6697-4a08-9379-feb7b479d824
   Price: acquired during 20180511-20180517
   https://geodata.wisc.edu/catalog/9150a2a9-dbc2-4926-8ec2-d0e82355bef4