

A peatland productivity and decomposition parameter database

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Abstract. A peatland productivity and decomposition parameter database was compiled to estimate parameters for the Canadian Model for Peatlands (CaMP); a module developed by the Canadian Forest Service to address the need for national-scale greenhouse gas emission estimates from peatlands present in the forested area of Canada. Data were compiled for 186 peatland sites from 69 sources. The SITES table contains wetland classification, tree classification, province or state, country, latitude, longitude, and an indication of coordinate accuracy. The NPP ALL table contains annual net primary productivity (NPP; $\text{g}\cdot\text{m}^{-2}\cdot\text{yr}^{-1}$) data for cases where one estimate for NPP was reported for all aboveground vegetation. The NPP SHRUB, NPP MOSS, and NPP HERB SEDGE tables each contain a classification of species (if available) or vegetation layer and their NPP ($\text{g}\cdot\text{m}^{-2}\cdot\text{yr}^{-1}$). The BIOMASS TREE, BIOMASS SHRUB, BIOMASS HERB SEDGE, and BIOMASS MOSS tables each contain a classification of species (if available) or vegetation layer and their standing above-ground biomass (g/m^2). Shrubs in the NPP SHRUB and BIOMASS SHRUB tables were further classified into low or tall shrubs, and plants in the NPP HERB and BIOMASS HERB tables into herbs or sedges. The DECAY LITTER table contains decomposition parameters for different litter types and contains a classification of the type of decomposition study, study duration, information on experimental treatments, classification of above- or belowground plant parts, plant species, litter classification, root litter diameter, indication of hardwood or softwood, indication of evergreen or non-evergreen, litter bag depth classification, classes for bag placement relative to the water table and relative to the peat surface, water table depth, decay rate (k exponent), and mass loss values for years 1, 2, 3, 6, 7, 12, and 23 of a decomposition study. The REFERENCES table contains complete citation information and provides links to the source reference pdf file. This data set is vital to the national Canadian peatland modeling effort and should be useful to other peatland scientists and ecosystem modelers. © Her Majesty the Queen in Right of Canada, 2018. Information contained in this publication or product may be reproduced, in part or in whole, and by any means, for personal or public non-commercial purposes, without charge or further permission, unless otherwise specified. You are asked to exercise due diligence in ensuring the accuracy of the materials reproduced; indicate the complete title of the materials reproduced, and the name of the author organization; and indicate that the reproduction is a copy of an official work that is published by Natural Resources Canada (NRCan) and that the reproduction has not been produced in affiliation with, or with the endorsement of, NRCan. Commercial reproduction and distribution are prohibited except with written permission from NRCan. For more information, contact NRCan at copyright.droitdauteur@nrcan-rncan.gc.ca.

Key words: *decomposition; forested peatland; mass loss; net primary productivity; parameters; peatland; peatland classification; standing biomass; vegetation layers.*

The complete data sets corresponding to abstracts published in the Data Papers section in the journal are published electronically as Supporting Information in the online version of this article at <http://onlinelibrary.wiley.com/doi/10.1002/ecy.2462/supinfo>.