Soil changes following silvicultural disturbances - An 11 year perspective. (S07-trettin083109-Poster)

Authors:

- C.C.Trettin* - *USDA Forest Service*
- M.F.Jurgensen - *Michigan Technological Univ.*
- M.R.Gale - *Michigan Technological Univ.*

Abstract:

Most information on the effects of timber harvesting on soil carbon pools and processes in non-drained, forested wetlands are for relatively short time periods (2 to 3 years). While many of these studies have found significant soil carbon losses after harvesting, little is known about soil carbon recovery rates, and if these soil carbon changes have influenced long-term site productivity. Therefore, a study was established to determine long-term response of soil carbon pools and site productivity to clearcut harvesting and various site preparation treatments (bedding, trenching) in a conifer wetland in northern Michigan, United States. The study site is characteristic of sub-boreal, histic-mineral, forested wetlands in this region, which are dominated by jack pine (Pinus banksiana), black spruce (Picea mariana), and larch (Larix laricina). Previous measurements 18 months and five years after harvesting showed considerable losses of soil carbon, the extent of which depended on site preparation treatment. Eleven years after regeneration the soil carbon pools have recovered relative to the reference stand. The recovery is attributable primarily to the development of the forest floor.

Corresponding Author Information:

Carl Trettin
USDA Forest Service
2730 Savannah Hwy
Charleston, SC 29414

phone: 843-766-0371 x 103
fax: 864-766-8734
e-mail: trettinc@cofc.edu

Presentation Information:

Presentation Date: Wednesday, November 13, 2002
Presentation Time: 3:00-5:00 pm
Poster Board Number: 2212

Keywords:

soil productivity, carbon, silviculture