We measured decomposition of filter paper (2012–2014), and later native plant material taken from each plot (2014-2015), using litter bags placed 10 cm below the peat surface. We placed five filter papers (Whatman® 41; 70 mm diam.) inside nylon liner fabric bags and sealed the bags. In May 2012, we placed 10 litter bags into the peat in each plot. We retrieved five of these bags in October 2012 and five in October 2013. Each subsequent May until 2014, we buried 10 bags and in each October we removed 10 bags, 5 deployed in the previous year and five deployed in May of the current year.

In late May of 2014 and 2015, we collected vascular plant litter from the surface of each plot, along with Sphagnum peat from roughly 5-15 cm below the capitula. We placed nylon mesh litter bags with mixed vascular plant litter (approx. 1.7 g dry mass; comprised of leaves from Andromeda polifolia and Eriophorum vaginatum, along with remnants of the flowering components of E. vaginatum and Stenochlaena palustris) or peat approximately 10 cm below the peat surface in early June (in 2014, 3 bags per plot of vascular litter and 3 bags of Sphagnum peat; in 2015, 4 bags of each material). In October of each year, we manually removed debris from each retrieved bag before drying at 55 °C for a minimum of 5 days and weighed them.