



## **New and established forests turn N pollution into C stocks**

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Forests are one of the main biomes on Earth and contribute substantially to C sequestration from the atmosphere, countering the effects of anthropogenic greengouse gas emissions. In contrast with tropical deforestation, expanding forests in temperate and boreal regions are also immobilizing C in soils and biomass. From the analysis of 60 time-integrated datasets from new (n=31) and established (n=29) forests, we suggest that forest C sinks are determined to a large extent by atmospheric N deposition, largely the result of anthropogenic N emissions from agriculture and fossil fuel combustion. The very high sensitivity of C sequestration to N deposition (C:N = 228:1) stems from the stoichiometry of biomass (and in particular woody biomass), which accounts for 91% of ecosystem C sequestration. The results have important implications for environmental policies aimed at managing the various components of anthropogenic global change as a whole.