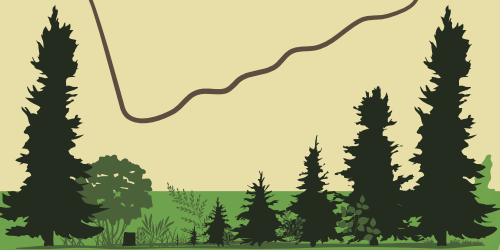
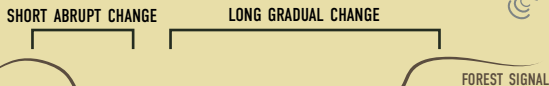


Using Remote Sensing to Monitor Forest Recovery

Effective forest monitoring requires mapping and detecting changes over very large areas. Forest disturbance can easily be detected using satellite imagery, but forest recovery is a slower and more complex process that is not as easily detected. To monitor forest recovery more easily, we developed a workflow using open-access satellite imagery and cloud-based tools (Google Earth Engine).

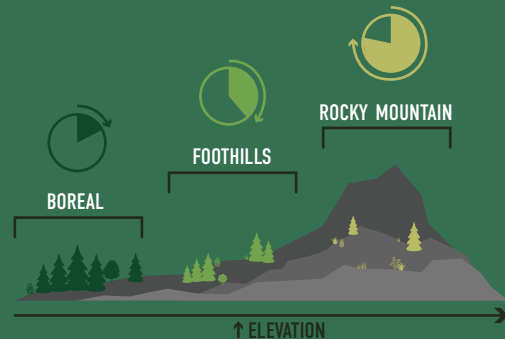


To access our custom Google Earth Engine visualization tool visit:

<https://abmigc.users.earthengine.app/view/harvest-area-spectral-regen-2018>

Using our workflow, we produced an open-access dataset of forest harvest recovery in Alberta that spans 34 years. Through this tool we determined:

Different ecological regions — Boreal, Foothills, and Rocky Mountain — show variability in starting conditions and rates of recovery.



Areas with higher elevations and less favourable growing conditions take more time to recover



Spectral measures of recovery capture biomass and structural complexity at a landscape-level.



They are complementary but not equivalent to on-the-ground measures of vegetation community status or ecological function.

The ability to develop easily reproducible, adaptable, and scalable methods for generating maps of forest disturbance and recovery is vital to forest health. Next steps aim to enhance understanding of the relationship between spectral and on-the-ground measurements. To download our dataset, visit abmi.ca

