

## PROMISING PARTNERSHIP: UBC FORESTRY FACULTY *Integrated Remote Sensing Studio (IRSS)*

Since 2017 the NHRI team has been collaborating on projects with the **Integrated Remote Sensing Studio (IRSS)**, a research group at **UBC forestry faculty**. The IRSS team studies the use of remote sensing and geospatial information for forest productivity and conservation. Imagery acquired at a wide range of scales allows them to assess a broad range of factors, including; leaf chemistry characteristics, forest structure and dynamics, biodiversity, carbon accumulation, disturbance and change.

The IRSS team, lead by **Dr. Nicholas Coops**, faculty member in the Department of forestry at UBC and holder of a Canada Research Chair (CRC) in remote sensing, also focuses on the development of instruments and applications that assess forest ecosystems and resources in innovative ways. The team's mandate is essentially applying satellite and airborne remote-sensing technology to provide cost-effective and accurate solutions for sustainable forest management and conservation.

From 2012 to 2017 multiple imagery acquisition were undertaken by the **NHRI's Precision Forestry Team** in the McCoy brook research and training forest area of New Brunswick. Based on those images, and by using a photogrammetry algorithm, the researchers at the IRSS were able to generate three dimensional recreations of these forests. This line of research can help us better understand how forests are structured and create useful geospatial data, like digital terrain models. The research has found that terrain models based on acquisition in spring, late fall and early winter proved to be most accurate and that tree dimension accuracy and tree height measurements fluctuate with acquisition timing.



**“ Remote sensing technology, such as drones are continuing to facilitate a data driven revolution in forest inventory management.”**

**Dr. Nicholas Coops**  
*UBC Department of forestry*

**Pamela Hurley Poitras, NHRI**  
*Sylviculture specialist and drone pilot*







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**VISIT IRSS WEBSITE**



The collaboration between **NHRI** and **IRSS** has led to two peer reviewed academic articles—written by graduate students Tristan Goodbody and Rik Nuijten. More importantly, it has already had an impact on how foresters should consider data when making important decision regarding forest management. According to Dr. Coops “remote sensing technology, such as drones are continuing to facilitate a data driven revolution in forest inventory management”. We could not agree more and can only hope that our partnership with the IRSS team helps bring momentum to this very important revolution.

**NHRI & IRSS COLLABORATION  
WATCH VIDEO !**







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