Operational Forestry (Silviculture) Under a Triad Forest Management Approach

Gareth Davies

2019 Eastern Woodland Conference

Personal Details

Gareth Davies

- Forestry professional- been working full-time in forest industry since 1994.
 - Former professional logger
 - Former tree planter
 - Former brushsaw operator
 - Former logging contractor
 - Former operations manager

Currently:

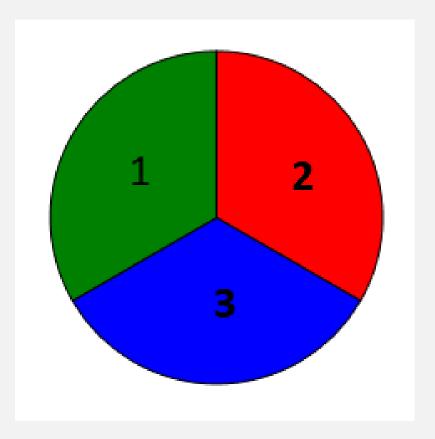
- Academic Chair and Instructor at MCFT in Fredericton
 - » Lead instructor: Forest Ecology, Silviculture, Forest Management
- Own and operate small farm-woodlot business with my wife, Rebecca Jones:
 - » Livestock breeding stock and sales (chickens, pigs, sheep, cattle)
 - » Agroforestry

Personal Details

- Personal Woodlot Management Strategy
 - Agroforestry:
 - » Field, meadow and woodland livestock forage;
 - » Timber management and harvesting;
 - » Old tree structure and function.
 - Timber Management:
 - » We are interested in making money- not maximizing timber production.
 - Old tree structure and function:
 - » Maintenance of large old, dying, and dead trees.

The Triad Approach to Forest Management

- The forest is divided into three zones:
 - Protected Natural Area Zone
 - Intensive Timber
 Management
 (Intensive Silviculture)
 Zone
 - 3. Ecological Silviculture Zone



Protected Natural Areas

- What is a protected natural area (PNA)?
- Are PNAs important? Why or why not? Andif so- what percentage of the forest landbase should PNAs occupy? Justify this number!
- How should PNAs be managed?

Intensive Timber Management (Intensive Silviculture)

- What is intensive timber management?
- Should intensive silviculture be practiced?
 Why or why not? And- if so- what percentage
 of the forest landbase should be intensively
 managed for timber production? Justify this
 number!
- Can other values be produced and maintained in intensively managed stands?

Ecological Silviculture

- What is ecological silviculture?
- Should ecological silviculture be practiced? Why or why not? And- if so- what percentage of the landbase should be managed using ecological silvicultural systems? Justify this number!
- Can timber production be maximized using ecological silvicultural systems?
- Can natural ecosystem composition, structure and function be maintained using ecological silvicultural systems?

Timber Production

- Is timber production important?
- Can we grow enough wood if the entire forest landbase is managed using ecological silviculture?
- Can intensive timber management on a portion of the landscape reduce the timber management pressure on the rest of the landscape?
- Could a certain amount of intensive timber management sustain a certain amount of timber supply while increasing the amount of land available for PNAs?