Interdisciplinarity in practice -

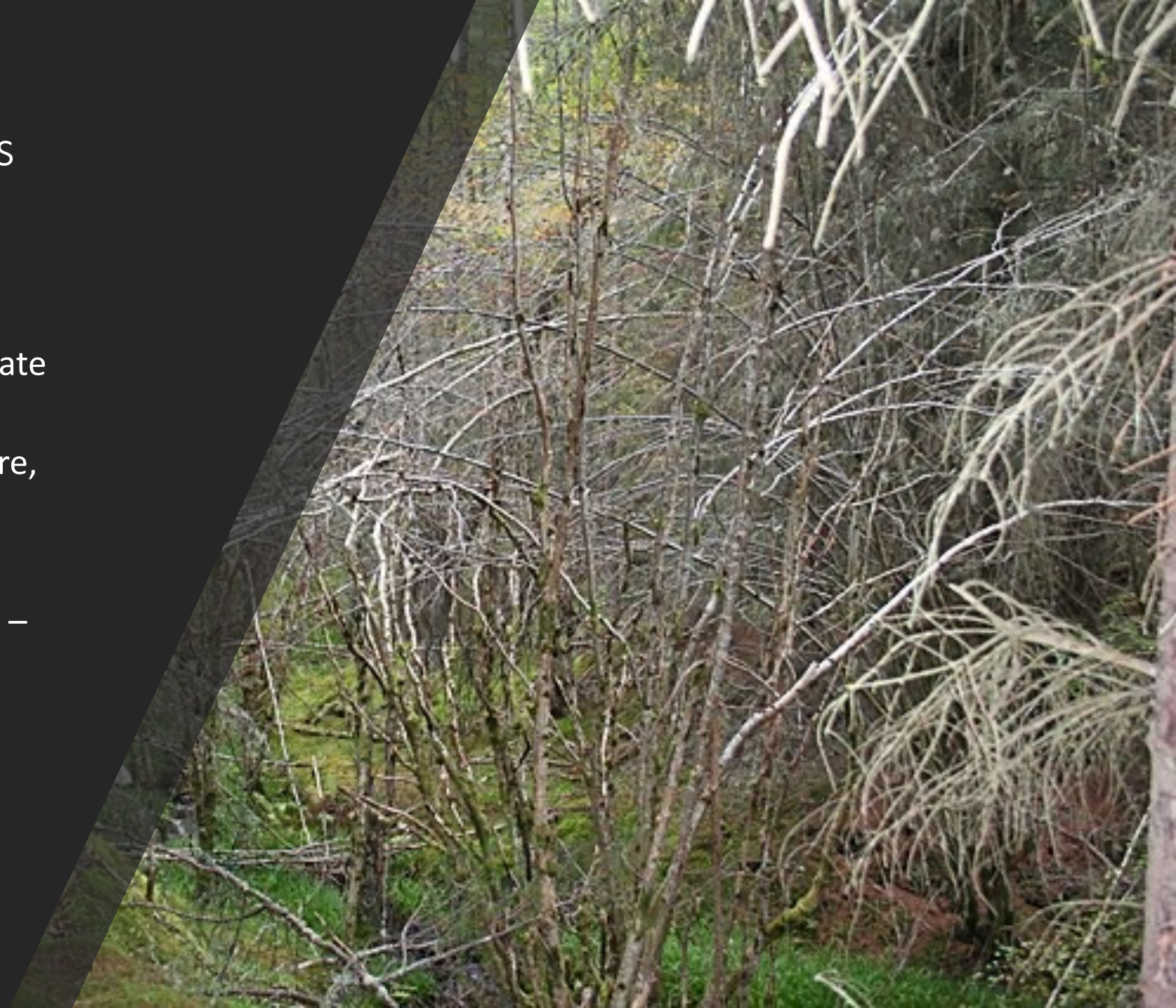
success factors and problems

Erland Mårald

Umeå University

Solving messy problems

- Problems about forests, agriculture, environment climate etc. are complex:
- Involves nature, society, culture, facts and values
- Many different perspectives
- Different kinds of knowledges – scientific, local, indigenous, practical …
- Bridging academia-society
- Bridging past-present-future



Future Forests: 2010-2017

Different scientific traditions

- Natural science (ecology)
- Applied techno-science (forestry)
- Social science and humanities

Applied techno-science - forestry

- Give me a problem and I will solve it!
- Know-how and management – *rason d'etre ,* without do something active in the forest these sciences become meaningless
- Find solutions and technological fixes
- Optimize systems
- Close contact with industrial partners and forest owners
- Goal and future-oriented
- Sustainable growth and economic growth

Natural science – ecology

- Academic researchers – find the truth “out there”
- Ecological values/biodiversity – nature for its own sake
- Preserve and protect
- Ecological boundaries – planetary boundaries
- Tradition of activism/”crisis disciplines” – ”saviours” of the world
- Networks with public authorities and ENGO:s
- Diversity instead of optimization
- Ecological sustainability and resilience

Social science and humanities

- Science is never “pure”
- Knowledge and power are connected
- Investigates discourses, understandings, frames and narratives
- Scientific discoveries and technological innovations is not always progressive
- The implementation of technology take always place somewhere and are therefore always political
- - Learning from history and open alternative futures
- - Academic and critical perspective – question everything
- - Social, cultural and democratic sustainable

Different epistemologies and goals

- Different frameworks for understanding
- What is the goal - find solutions, preserve nature or uncover power?
- Find facts in nature, optimize systems or equality?
- Different traditions of collaboration - partnership, activism or standing aside (to not be compromised by influential actors)

Problems

- Different wills
- Closings
- Stereotypes and misunderstandings
- Distrustfulness
- External partners …
- Hurt feelings and conflicts

Sucesses

- Many interdisciplinary collaborations and articles
- Tried to find bridging concepts and combine different perspectives and knowledges
- Dialogue with networks of different social interests and politicians
- Opened new questions for discussion (“clear cut free” forestry, social values, climate, international comparisons …)
- Challenged old truth (the Swedish forestry model, private property, forestry education, not only “out there” …)
- The humanities were involved and gained importance
- Reflexivity

Lernings

- Interdisciplinarity takes time
- Ask when interdisciplinarity is beneficial or not
- Come out of your comfort zone and learn to listen to other perspectives
- Find common ground for cooperation – but not consensus!
- Find bridging concepts
- Facts is important but don’t avoid discussions of values and differences of opinion
- How to change the future is not an objective issue
- Interesting and fun!