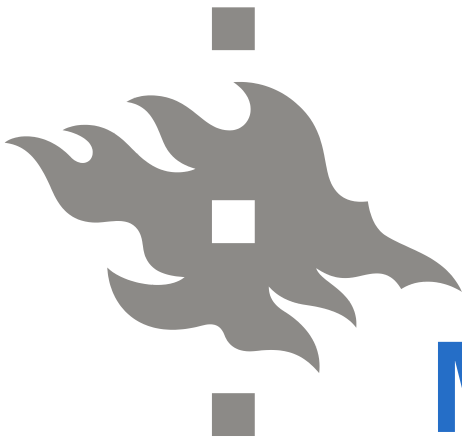


A stylized grey flame logo with a square cutout in the center, positioned to the left of the title.

Mitigating the Effects of Climate Change – Assisted Dispersal and Regulation

FMNH
Young Scientist
Elina Vaara



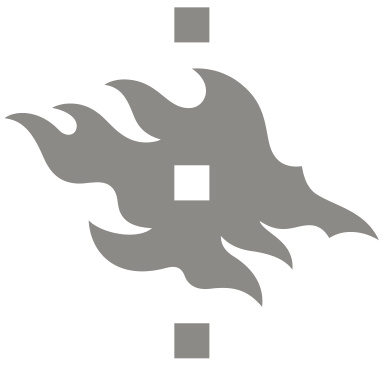
Mitigating the Effects of Climate Change – **Assisted Migration** and Regulation

FMNH
Young Scientist
Elina Vaara



Outline

- Assisted Migration
 - Definition
 - Term
 - Connection to Law Drafting
- Legal Framework in Finland
- Take Home Message



<http://gardenwebs.net>

Torreya taxifolia

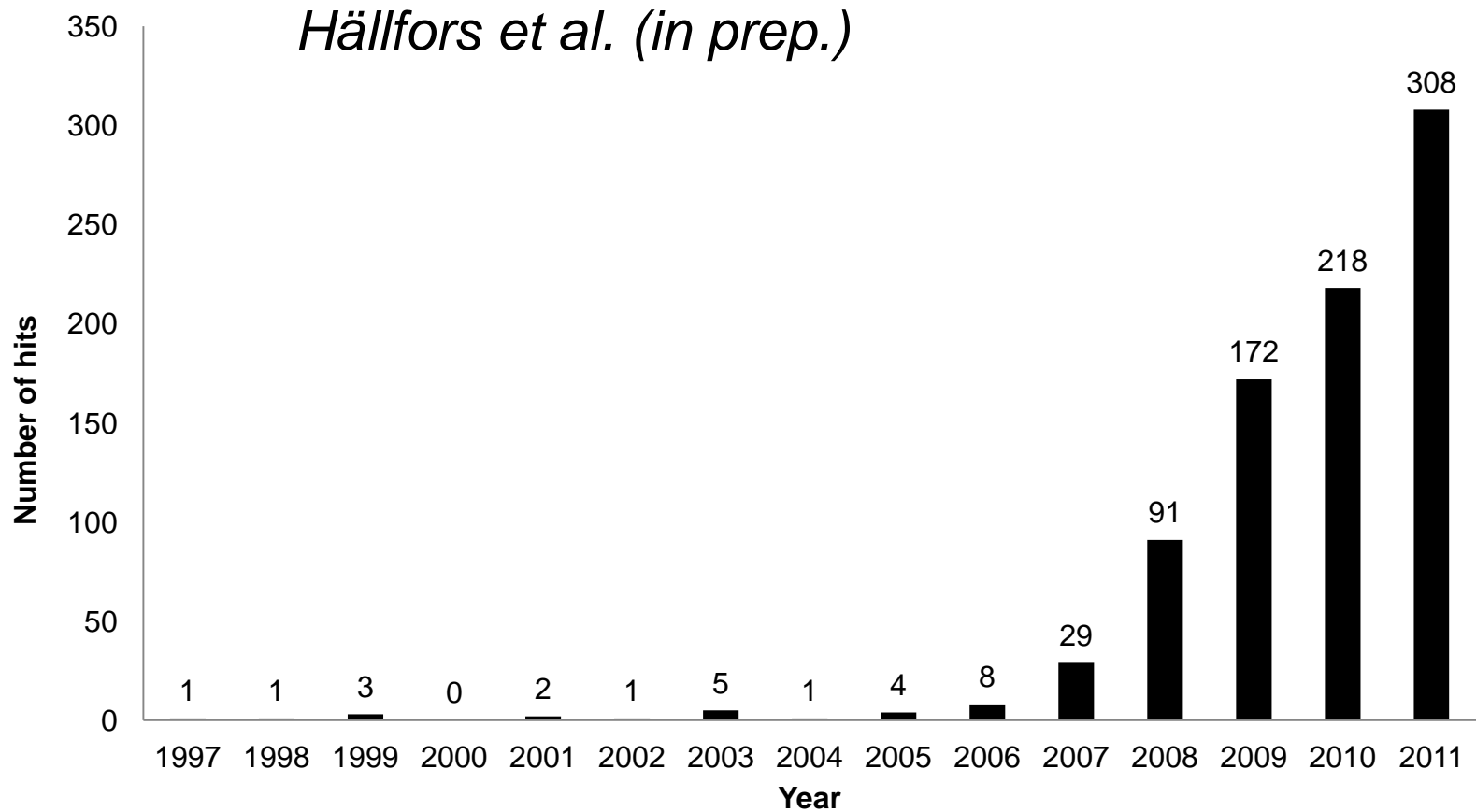


Kristian Peters

Melanargia galathea

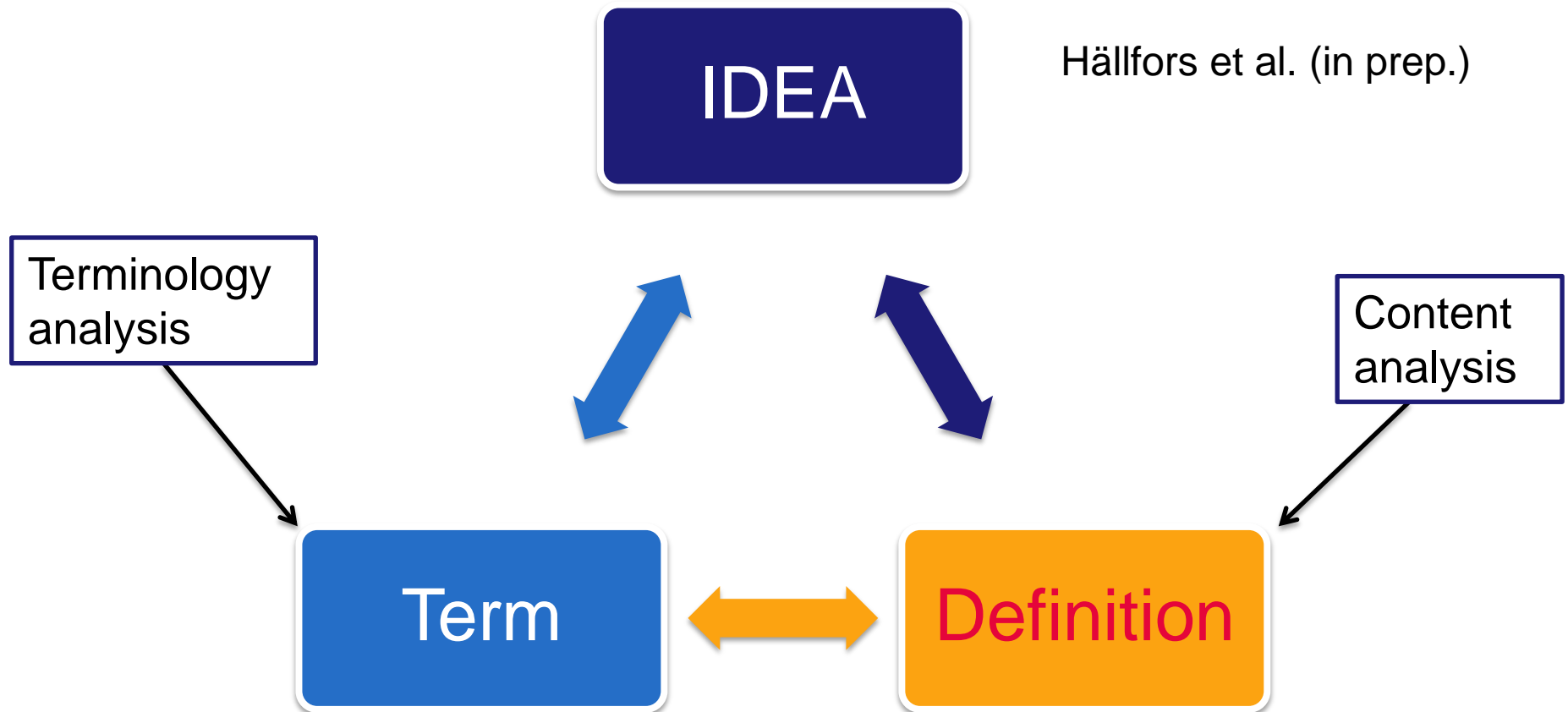


Introduction: *DISCUSSION*



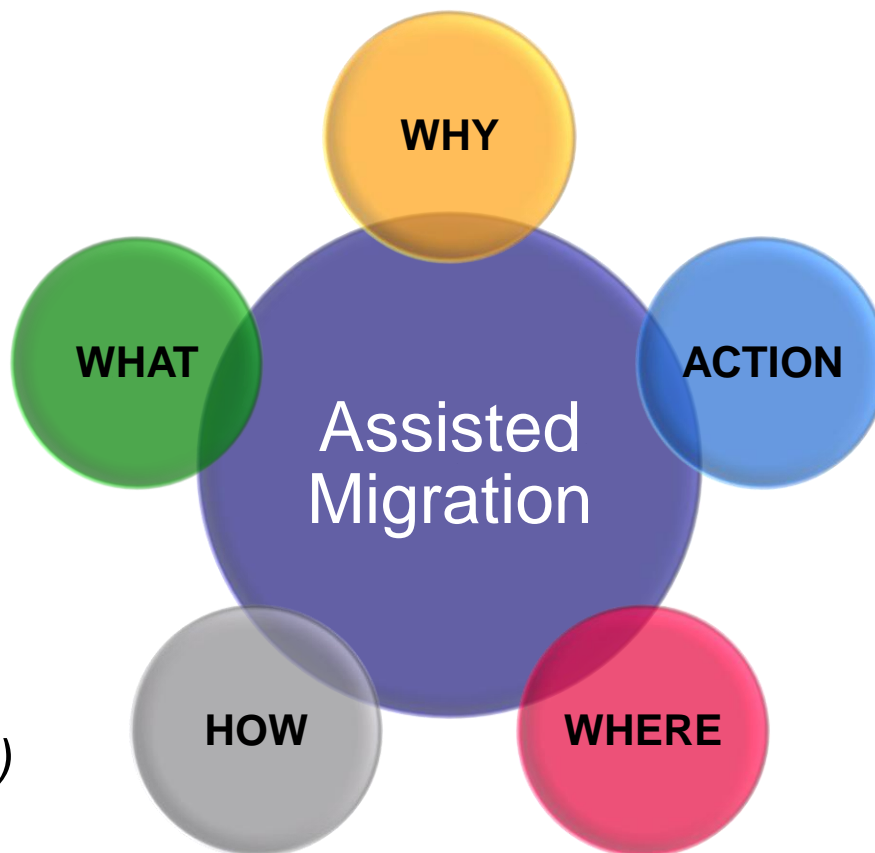


Assisted Migration: *CONCEPT*





Assisted Migration: *DEFINITION*



Hällfors et al. (in prep.)



Assisted Migration: *DEFINITION*

=

The idea deals with humans intentionally moving an operational taxonomic unit (OTU: species, population or alike) threatened by climate change to an area outside its current distribution area, where it is predicted to move and establish if the climate changed at a slower pace and no obstacles and restrictions of space prevented the movement.

Hällfors et al. (in prep.)



Assisted Migration: *TERM*

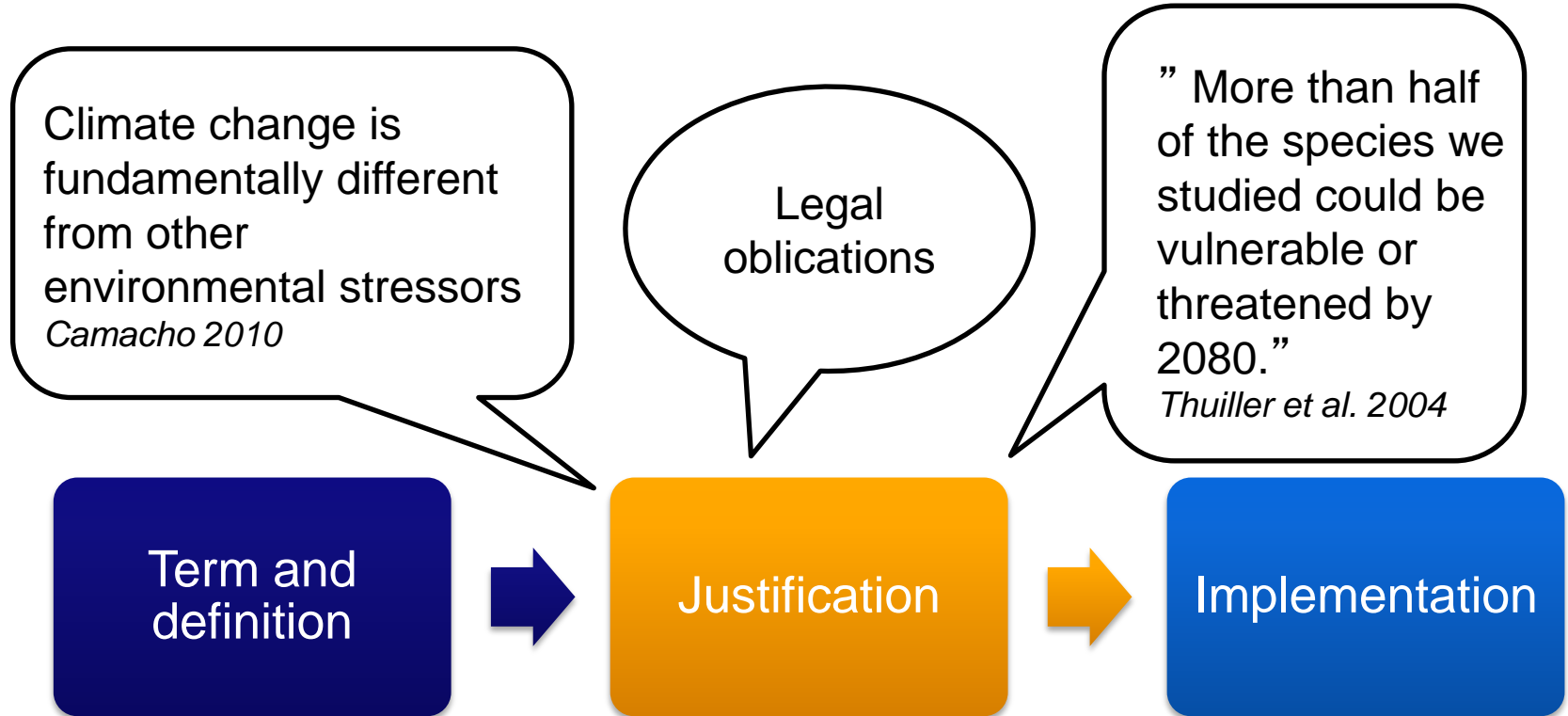
Benign introduction
Assisted relocation
Assisted translocation
Human-aided translocation
Human-assisted migration management
Transformative restoration
Human-assisted translocation
Planned invasions process

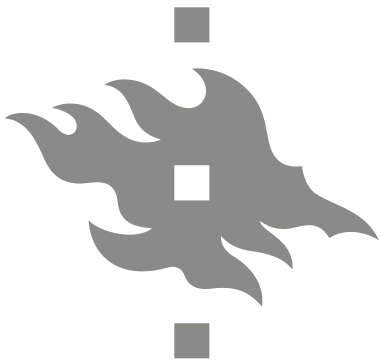
Human assisted establishment
Assisted migration
Facilitated translocation
Human assisted establishment
Assisted reintroduction
Assisted colonization
Managed relocation
Translocation
Human-assisted migration
Human-assisted dispersal
Assisted species dispersal
Assisted species relocation

Assisted ecosystem migration
Assisted afforestation
Assisted range expansion
Managed migration
Facilitated migration
Assisted dispersal
Artificial translocation
Human-assisted relocation
Facilitated dispersal
Managed translocation
Conservation introduction



Assisted Migration: Justification





Assisted Migration: Connection to Law Drafting

- The slow process of law drafting:
 - Domestic and international strategies focus on conservation and mitigation inside national borders
 - need for paradigm shift
 - Possible options in future: Allow, forbid, allow in strict conditions or...



Legal Framework in Finland

- Nature Conservation Act
 - Water and forest legislation
- NCA 1:1 § : Aim of the act is to **maintain** biological diversity
 - Is AM an effective method for maintaining diversity?
 - Is the tension between AM and the aim of NCA too strong to solve?
- Multiple regulators → how to coordinate?
- Ecological knowledge is growing – is knowledge moving to state officials and do they want to promote it?



Legal Framework in Finland

- Where is the place of AM species in legal framework?
- AM species are interpreted by law and legal praxis as alien species
- [Turku Administrative Tribunal 11/0001/1](#)
 - Continued appeal pending in Supreme Administrative Court
 - Three important dimension that will have affect to AM



Legal Framework in Finland

1. “--- The alien status of a species is defined according to its **biological distribution area** ---”
2. Introduction outside species biological range is against NCA 43 §
 - Condition: when there is a risk of permanent population establishment
3. Covers also species that occur naturally in Finland

A stylized grey flame logo with a central square cutout, positioned to the left of the title.

Take Home Message

1. According to our analysis Assisted Migration is the best term
2. Very few international agreements or domestic laws expressly regulate AM → Improvement of conservation legislation or completely new comprehensive regulation mechanisms
3. In the project also biological and ethical aspects are considered → holistic view?



Thank **You** for Listening!



Assisted Migration group:

Susanna Lehvävirta (PL)

Leif Schulman

Marko Hyvärinen

Markku Oksanen

Helena Siipi

Maria Hällfors

Kai Kokko

Terhi Rytteri

Erja Werdi

Sami Aikio