Base de données · Database
HAND

HARVESTING AFTER NATURAL DISTURBANCES

National database on the effects of disturbances and salvage logging in Canadian boreal forest

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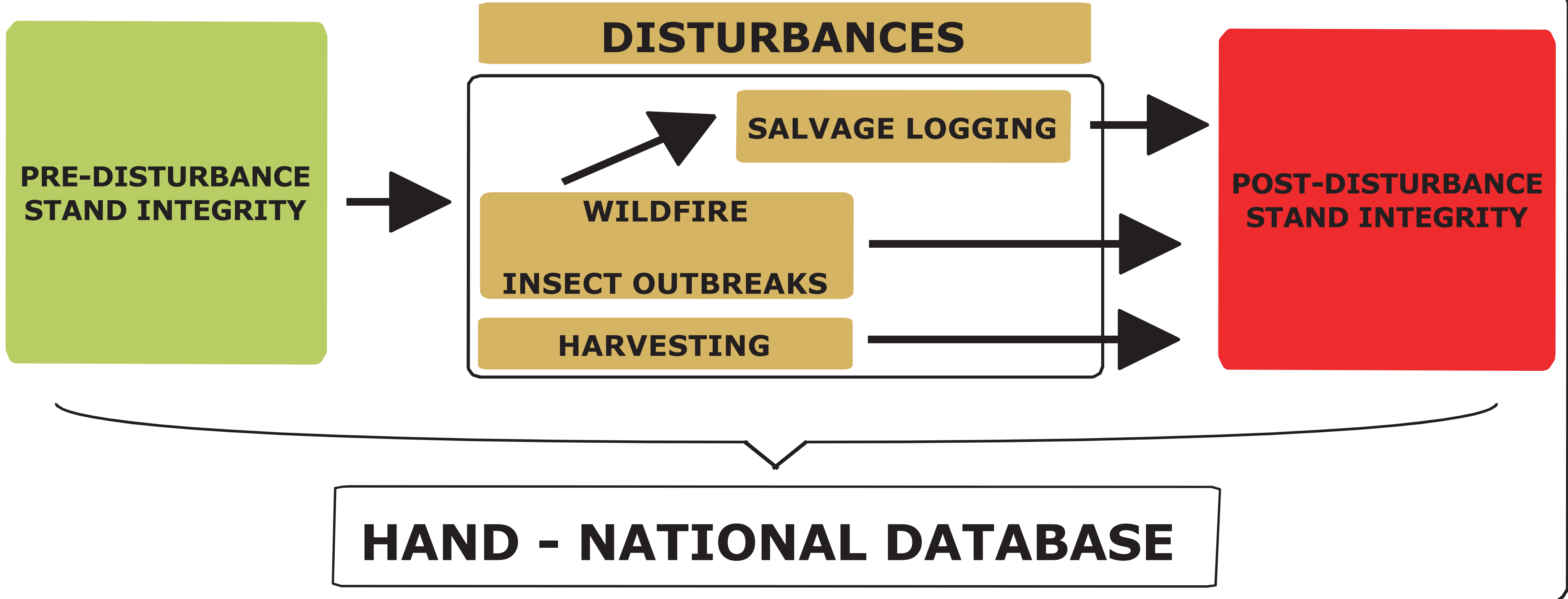
Natural disturbances such as wildfire and insect outbreaks generate a significant flow of deadwood in Canadian forests.

This key biological legacy shapes the trajectory of forest recovery by supporting a variety of ecological processes (biodiversity, regeneration, nutrient cycling), but also undergoes increasing human pressure through salvage logging.

Since North American boreal forests are becoming more and more prone to natural disturbances with increasing impacts of climate change, salvage logging is also expected to increase.

Knowledge gaps surrounding post-disturbance ecosystems and the impacts of salvage logging on ecosystem integrity in North American boreal forests lessen our ability to recommend improvements to harvesting practices after natural disturbances.

Therefore, the integration of data on ecological processes after natural disturbances and salvage logging, from different regions of Canada, could contribute to adapting harvesting practices to disturbance type.

General objectives
Assess the impact of salvage logging on ecosystem integrity after the following natural disturbances:

- *Fire*
- *Mountain pine beetle outbreak*
- *Spruce budworm outbreak*

Ecological Target
- Better understand post-disturbed ecosystems in order to suggest guidelines for implementing sustainable salvage logging

DISTURBANCES

PRE-DISTURBANCE STAND INTEGRITY → SALVAGE LOGGING → POST-DISTURBANCE STAND INTEGRITY

WILDFIRE
INSECT OUTBREAKS
HARVESTING

HAND - NATIONAL DATABASE

TARGET DATA

NUTRIENT AND CARBON CYCLING
- Soil & water

STAND COMPOSITION & STRUCTURE
- Live trees
- Saplings & seedlings (regeneration)
- Dead trees (snags & CWD)

BIODIVERSITY
- Birds
- Plants (vascular & non-vascular)
- Insects
- Mammals

IDENTIFY DATA NEEDS

HAND database workshop
META-DATA REQUEST FORM

FIND POTENTIAL COLLABORATORS

NATIONAL DATABASE NETWORK:
Governmental, industrial & academic researchers

NETWORK OBJECTIVES:
Foster collaborations & data exchange:

Make available collected information via the HAND database in order to support large-scale projects

COORDINATE DATA ACQUISITION INITIATIVE

DATA MANAGEMENT PROTOCOL
STANDARDIZATION
FIELD CAMPAIGN COORDINATION

WANT TO PARTICIPATE?

We are actively seeking collaborators who have data on abiotic and biotic variables after:

- **Wildfire**
- **Mountain pine beetle outbreaks**
- **Spruce budworm outbreaks**

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