

# Evaluating habitat types in space and time

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# HD Monitoring: how well-defined are aims?

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- In principle: conservation objectives are set for all significant features (HD species, habitat types) on a site (1994 'snapshot')
- Monitoring feeds the assessments of status and trends against 'favourable' values
  
- But: not self-evident that objectives for this snapshot are or will remain reasonably coherent regarding
  - natural dynamics, succession and interactions;
  - specific responses to common processes and pressures;
  - ...

# Including natural dynamics, interactions...

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- Project (started 2015): Assessment of Natura 2000 features at the landscape level in sites
- Initiated by the Ministry of Economic Affairs (following Government Vision for Nature 2014) because of
  - new insights about ecosystem functioning and restoration at the landscape level (e.g. in coastal and floodplain areas);
  - needs to consider ecosystem services (e.g. water safety issues) and regional participation;
  - concerns about effectiveness and efficiency of conservation efforts.

# Beyond the snapshot...

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- Features may be significantly present as a result of environmental deterioration
  - e.g. dry woodlands in degraded alluvial systems
- Principal features may still be absent awaiting restoration
  - e.g. bog habitats in former peat cutting areas
- Current features may be significantly affected by restoration projects
- High biodiversity values not considered by Natura 2000

# 9190 Old acidophilous oak woods...?!



# A landscape approach (1)

landscape ecological (LE)  
systems analysis



vision for the LE-system  
'integrity'

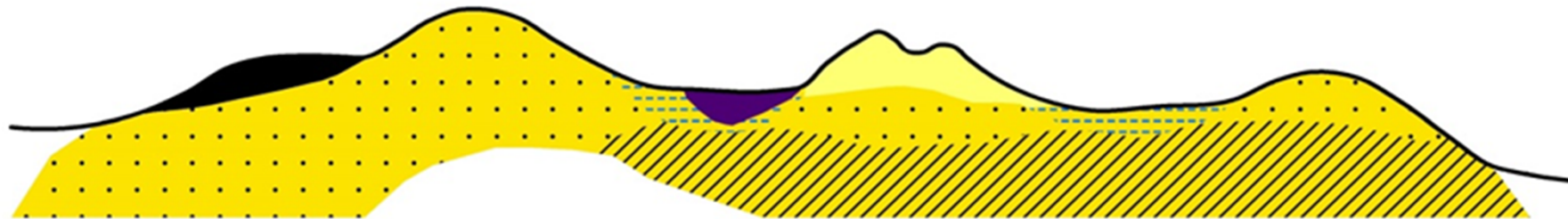
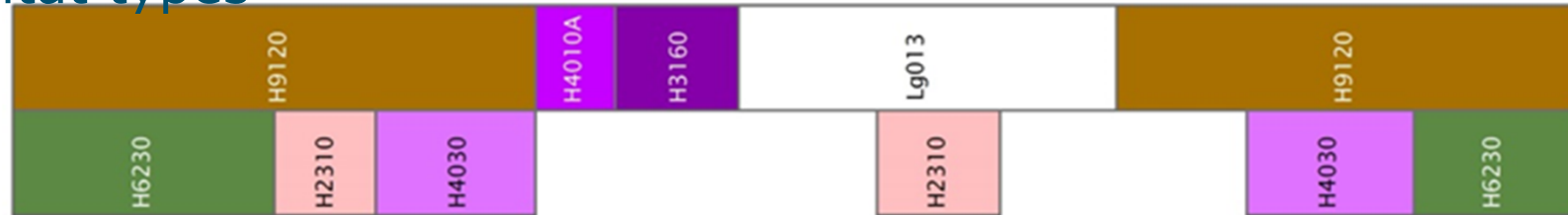


- geology > geomorphology > historical maps > hydrology > succession trajectories
- sometimes already part of the site management plan

options for conservation objectives and corresponding abiotic features and processes

# Example of a landscape ecological profile

habitat types



geomorphological units

soil units

Es	Leemarme dekzandrug	Dekzandlaagte	Landduin	Dekzandlaagte	Lemige dekzandrug
Enkeerdgronden	Haarpodzolen	Vlakvaag- en moerige gronden	Duinvaaggronden	Vlakvaag- en eerdgronden	Moderpodzolen

# A landscape approach (2)



Conservation priorities (categories):

1. Vulnerable (with lower limit)
2. Robust (with band width)
3. Subordinate (presence)

weighting of features with respect to vulnerability, natural dynamics, colonizing ability etc.



SDF Assessment  
indicators for Representativity,  
Structure and Functions

indicators based a.o. on occurrence relative to other features and gradients





# Similar approaches in other countries...?

- Band widths (upper and lower limits) for areas of salt marsh types depending on the position of the site along the Dutch coast: proposed by Dijkema (2005) and used in the Natura 2000 Standard Data Forms in 2013
- Case studies for 3 Dutch sites differing in dynamics and Natura 2000 features are now explored as part of the project. To be continued...

Are you aware of similar initiatives in your country?

Please, contact me!

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