Models

Regression

- GLM (lasso pen. + quad. terms)
  - P-only (DW)
  - P/A
- GAM
  - P-only (DW)
  - P/A

Linked to regression methods

- Default MaxEnt
  - P-only

Tree-based

- Tuned BRT
  - P-only (DW)
  - P/A ?

  No issue with class overlap ?
- Random Forest
  - P-only with DS
  - P/A

  // class overlap

Ensemble

- Default Biomod

  Weighted averaging
- Custom ensemble

  Lasso GLM + GAM + MaxEnt + BRT + P-only RF

  Unweighted averaging

P-only (DW) : presence-only with down-weighting
P-only with DS : presence-only with down-sampling
P/A : presence/(pseudo-)absence

Predictors

Temperature

- Default
  - Mean/extremes/ seasonnality
- Custom

  Try to represent growing season and over-wintering conditions..
  e.g. sum of T°>threshold between two dates ?.

Precipitation

- Default
  - Mean/extremes/ seasonnality
- Custom
  - Water balance (prec. - PET)

Nutrients

- Surrogates
  - Texture, pH...
- Nitrogen

Disturbance

- Frost-related ?

What about **land-use** ?
Predictor or filter (// PBM) ?

Discarded predictors

- Light

  Only significatant at a fine scale ?
- Biotic interactions

  Realized vs fundamental...
- Topography

  Indirect effects (//water, T°.)