



Seasons in Europe

Workshop

nature's calendar /standardized analyses /
data cleaning methods

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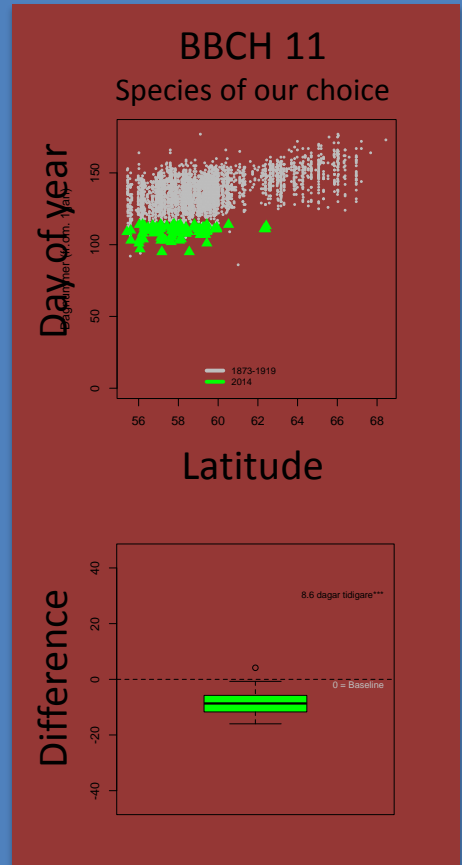
This Rutishauser (University of Bern, rutis@giub.unibe.ch)

ZAMG Vienna, 28 April 2014, 14.00 – 18.30

Seasons in Europe



Seasons in Europe



Vision and requirements

- All data on one common European map
- All data in one common European graph
- News and information from all national networks on one single website

Requirements

- Quality controlled data
- Standardized species and phases selection
- Real-time data processing

Requirements to reach this vision

- Quality controlled data
- Standardized selection
- Real-time data processing

- Keep it simple.
- Keep the observers in mind.

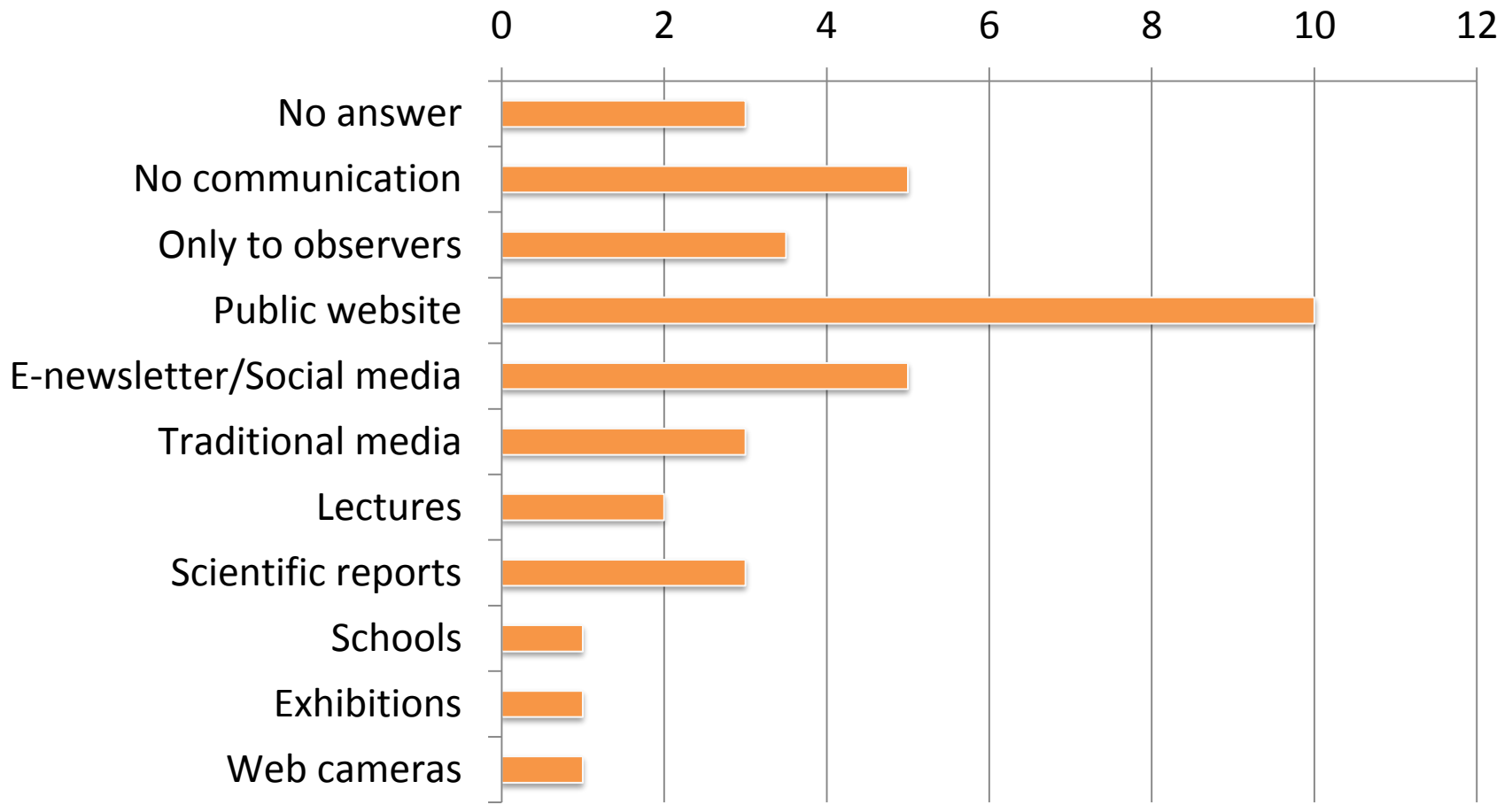
Questionnaire

- How do you **communicate** the “nature’s calendar” in your country?
- Are governmental **indicators** used? If yes: what kind of indicators based on phenological observations or models are used?
- What are your criteria for **data cleaning/correction**?
- Does it make sense to use/provide **standardized analyses** for phenological applications?

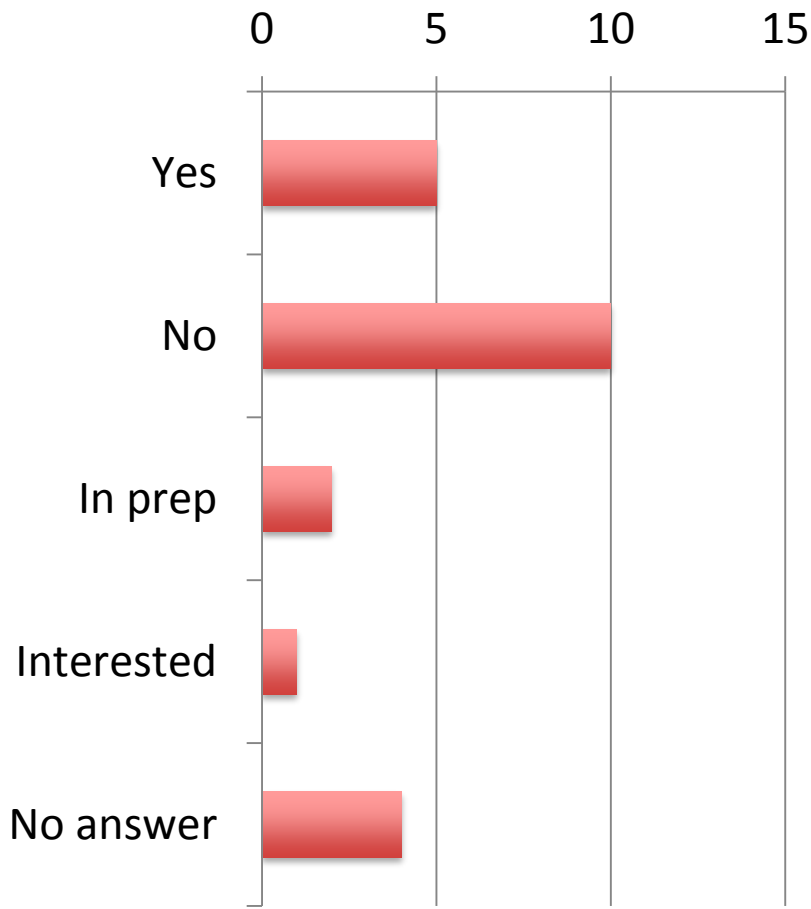
Replies

- New Zealand, Macedonia, Croatia, Check Republic, Sweden, Canada, Latvia, UK, Brazil, Italy, South Africa, Switzerland, Slovakia, USA, Ireland, Germany, Catalonia, The Netherlands, Finland, Spain

How do you **communicate** the “nature’s calendar” in your country?



Are governmental indicators used?

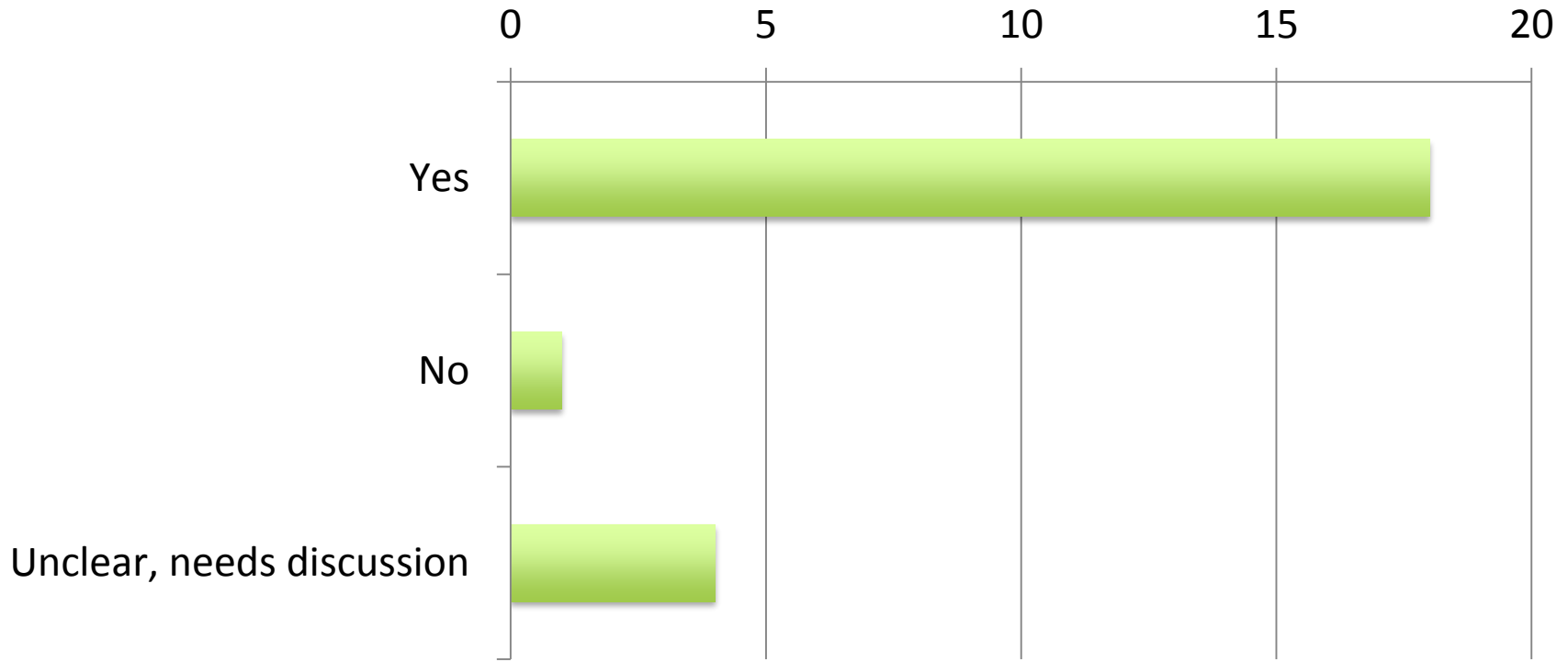


- Spring index, CH
(multi-species index)
- Spring index model, USA
(Lilac flowering start)
- Start of phenophases, SK
- Phenological season, D
(From flowering of *Salix caprea* to fall colors of *Quercus robur*)

What are your criteria for data cleaning/correction?

- Self validation
- Admin editing/deleting
 - “logic”
 - “simple quality check”
 - “possible extreme outliers are removed”
 - Phase sequence
 - Contacting observers
 - Control photo
- Statistically based
 - $>2SD$ (2) / $>3SD$
 - Between stations (2), temperature model, lat-lon-alt model
 - Phase sequence
- Flagged wrong
- None

Does it make sense to **standardize analyses** for phenological applications?



Next steps

- Agree on species/phases sample
- Quality control of data
- Label for data sources (professional, registered volunteer, no registration)
- Real-time upload for selected phases
- Create map from verified observations or observers
- Initiate (process to set up) working group on standardized analysis/es

PEP-News

- Enhance outreach
(blog-style, facebook page style)
- Target audience:
 - Observers
 - Network coordinators
 - Stakeholders / agencies
 - Media
- Follow the seasons across Europe.
- Share the news in the original language with a headline and a 2-sentence summary in English. Include pictures and graphs whenever possible.