

# ICP Waters

Progress 2014-2015

# Highlights since September 2014 - I

- Task Force meeting in Grimstad, Norway in October 2014
  - Recovery of fish populations in Norway
  - Biological and chemical recovery
  - Report from Russia on acidification
  - Dynamic modelling/  
Critical loads

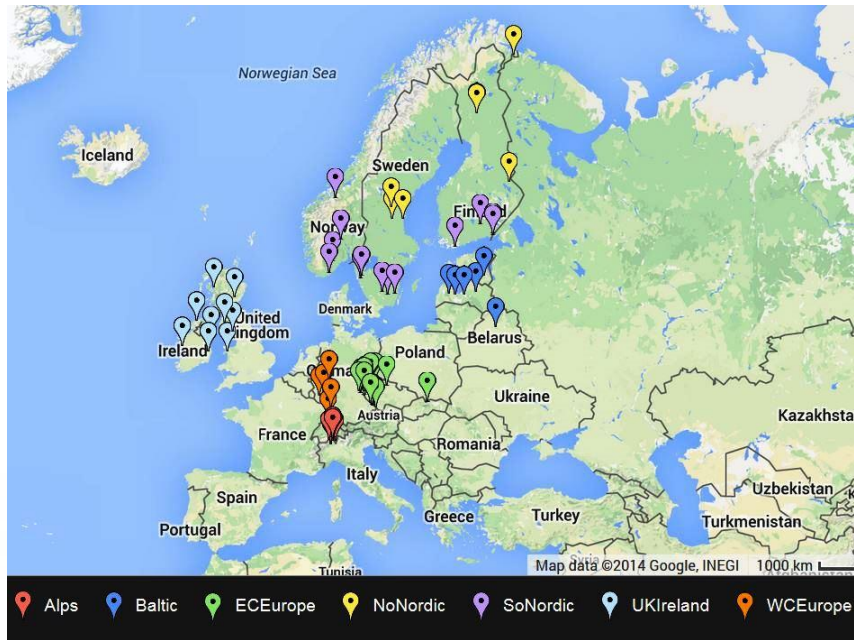


# Activities in 2014 - trends

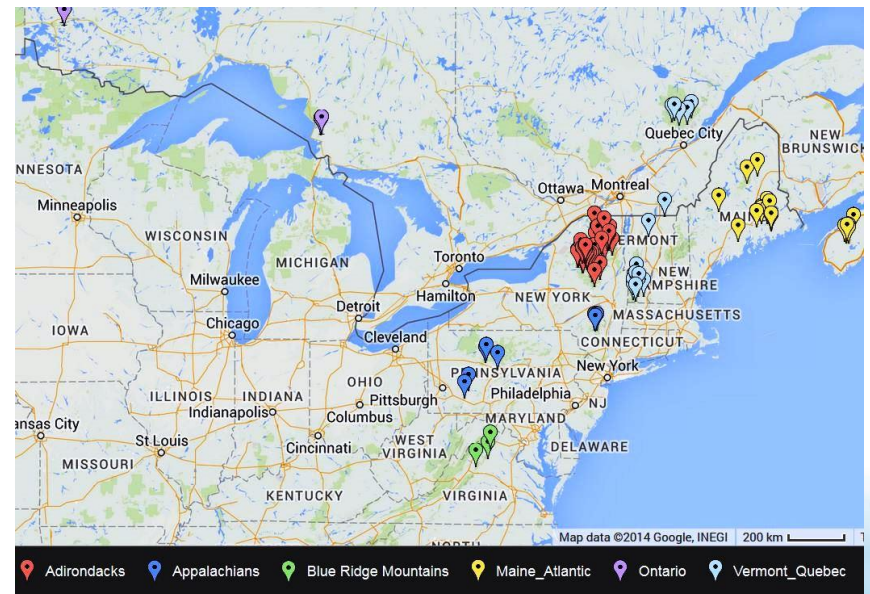
- Trend report ICP Waters in 2011:
  - most distinct changes in water chemistry prior to 2000
  - paved the way for partial biological recovery.
- Trend report ICP Waters in 2014
  - Focus on changes in water chemistry after year 2000
  - Present a prognosis for development in the near future based on current legislation in the revised Gothenburg protocol from 2012.
  - Update on biological trends

# ICP Waters monitoring network

## Europe

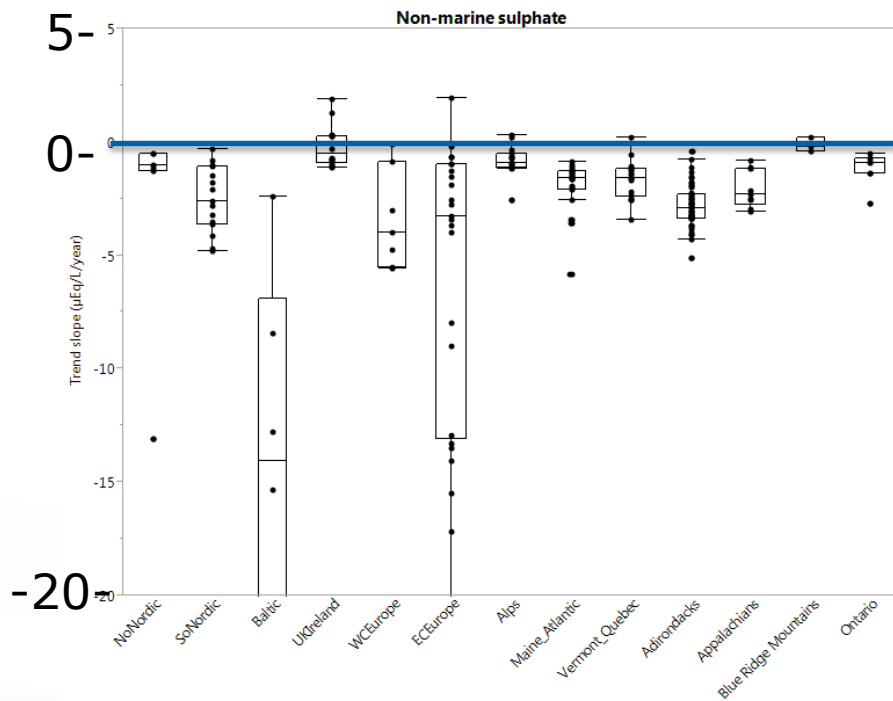


## North America

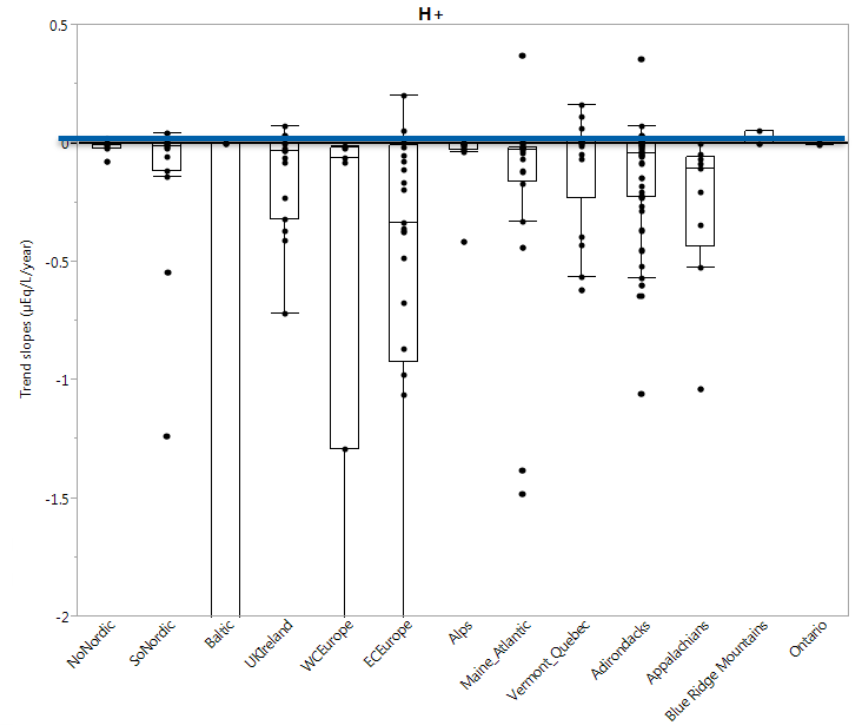


# Results water chemistry

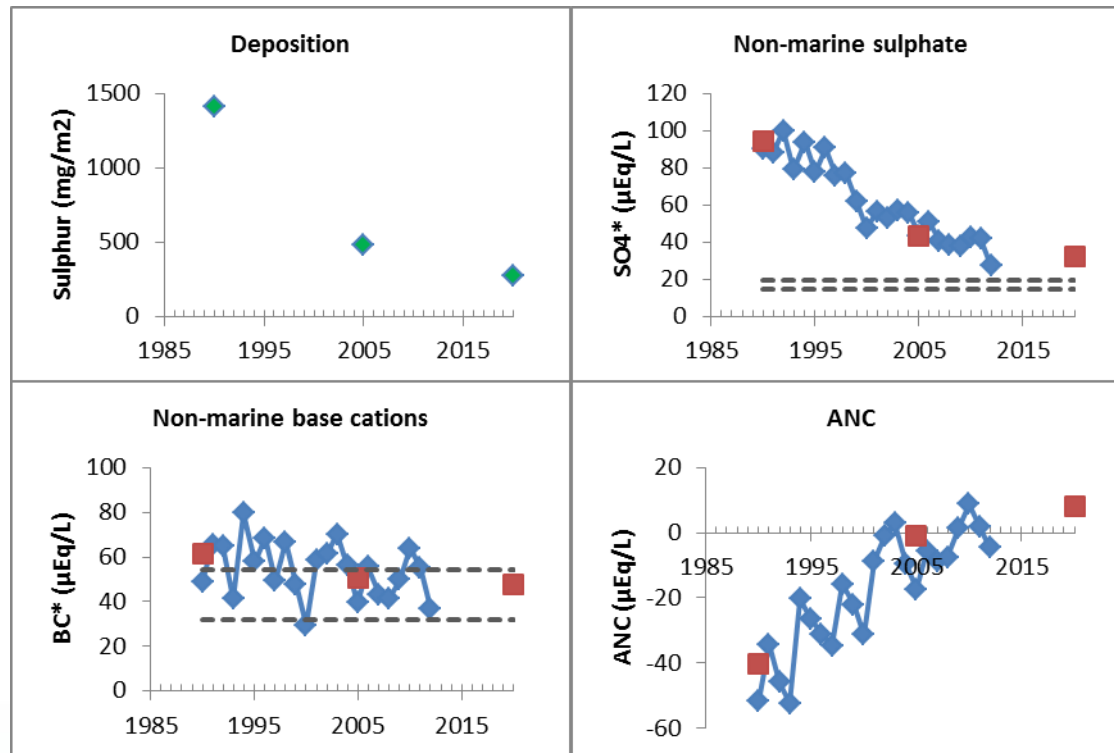
## Sulfate trends



## H<sup>+</sup> trends



# Prognosis






Example from southern Norway: Birkenes











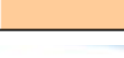

# Prognosis 2020

- Continued decrease in sulphur deposition
- Predicted small improvements in water quality (ANC)
- Interannual variation in ANC related to deposition, climate, seasalts will be larger than improvement related to reduced sulphur deposition between 2010 and 2020

# Biological recovery

- In short: many positive trends, but far from full recovery

*Table x. Summary of findings from national reporting on biological recovery. Colour coding for trends: , only positive trends;  mixture of positive and no trend;  no trends. Source: De Wit et al. (2015), Skjelkvale and De Wit (2011)*

Region	Country	Water body	Biota	Biological parameter	Period	Trends	
Nordic	Norway	5 rivers	Zoobenthos	Acidification index, Biodiversity, Acid-sensitive organisms	1982-2013		
	Sweden	8 lakes	Phytoplankton	Species number, abundance, richness	1988-2008		
			Zoobenthos	Species number, abundance	1988-2008		
	Finland	21-30 lakes	Fish	Abundance, Population structure	1985-2012		
			29 lakes	Zoobenthos	Communities	1985-2001	
			30 lakes	Periphyton, phytoplankton	Communities	1985-2001	
Central Europe	Czech Republic	8 lakes	Phytoplankton	Species number, abundance	1999-2011		
			Zooplankton	Species number, abundance	1999-2011		
			Zoobenthos, Nepomorpha	Species number, abundance	1999-2011		
			Macrophytes	Abundance	2004-2010		
	Germany	lakes, streams	Zoobenthos	Species number, abundance, acidification index	1982-2010		
	Switzerland (Alps)	4 lakes, 3 rivers	Zoobenthos	Species number, abundance	2000-2011		



# Activities in 2015 - I

- Data harmonisation and quality control
  - Chemical intercomparison
    - Activity across several ICPs
  - Biological intercomparison
- Task Force meeting October 6-8, Ascona, Switzerland

# Activities in 2015 - II

- Deliver 2015 report on biodiversity and climate
  - Biodiversity indices and acidification indices
  - Draft to be presented at WGE meeting in September
- Coordinate the WGE trend report
  - Ready end of June, to be printed before WGE meeting
- Follow-up of 2007 trend analysis DOC
  - DOC, dissolved organic carbon, has increased between 1990 and 2004
  - Focus on 1990 to 2012.

# Activities in 2015 - III

- Participation in meetings of relevance for the programme and reporting to WGE
- Contribute to integrated assessments under WGE
  - See workplan item 1.8
- Cooperation with other bodies within and outside the Convention such as the LTER-network, EU-projects, and other relevant organisations.
- Increase the Cooperation with EECCA countries
- Maintenance
  - Homepage, database, proceedings

# Plans for 2016

- Thematic report on mercury in the environment
- Possibly (probably?) have a joint meeting in ICP IM in May 2016