

ENVIRONMENT AGENCY

Coastal Observatories

What is their value to the
Environment Agency?

Andrew Wither - Science Group

Environment Agency Responsibilities

- Flood Defence & Coast Protection
- Water Quality
- Ecological Integrity
- Sustainability

- Marine work of the EA is overwhelmingly focussed on transitional waters.
- Estuaries and near-shore coastal environments
- Water-framework Directive is (currently) limited to within the 1nm boundary

- National Legislation is increasingly a response to international, particularly European, legislation.
- Control of Anthropogenic Inputs.

Much of the legislation defines fixed emission standards or environmental quality standards.

‘One size fits all’

Premise for decision makings

- Quality of transitional waters is a function of the anthropogenic inputs.
- The sea water component is a fixed influence

Why that is wrong:

- Systemic changes: climate, increased storminess etc.
- Seasonal variability
- Natural randomness

Spatial effects

- Example of nutrients in the Irish Sea.
High concentrations in the Eastern Irish Sea have little impact. (Other controlling factors)
The same anthropogenically derived nutrients may have a significant impact in deep western Irish Sea waters at much lower concentration.

Temporal effects

- Early detection of significant change for long term planning of remedial
- Forecasting of significant change

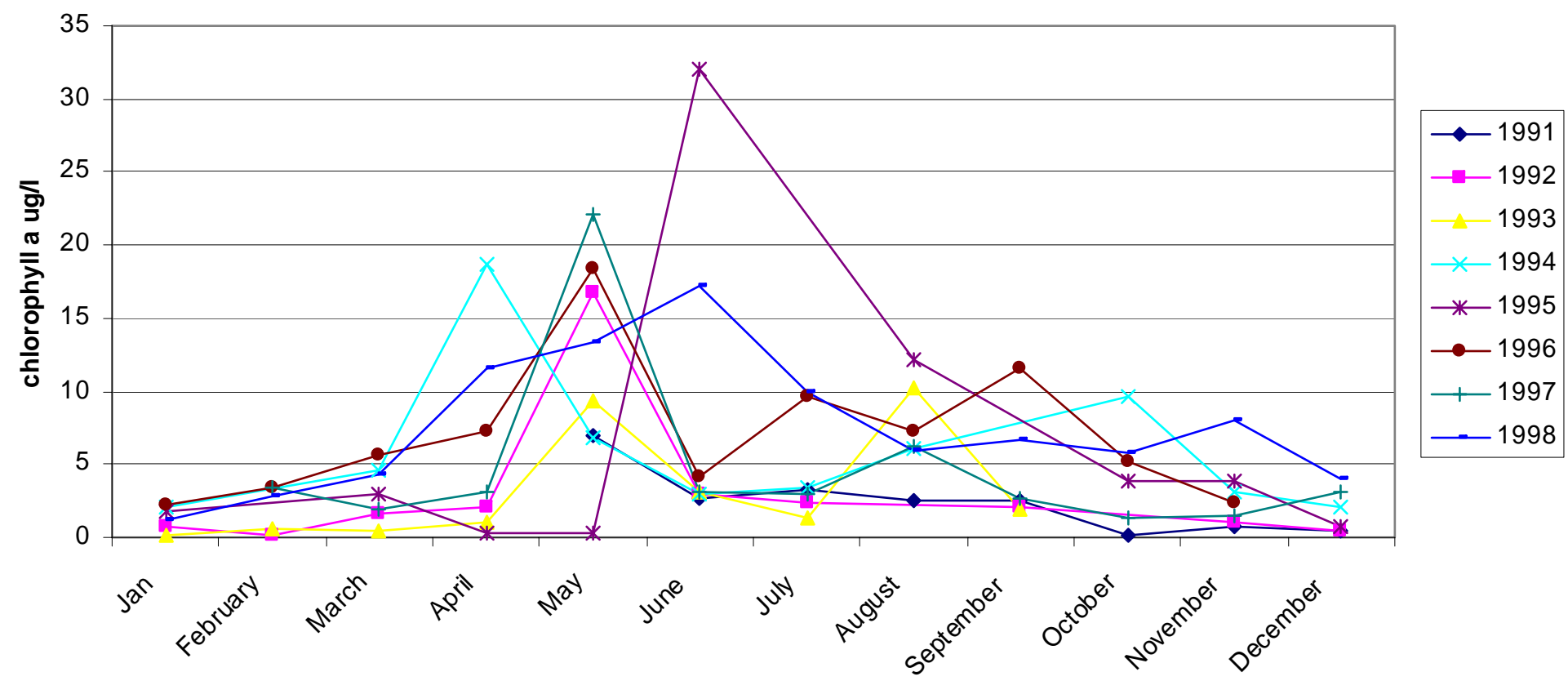
The problem...

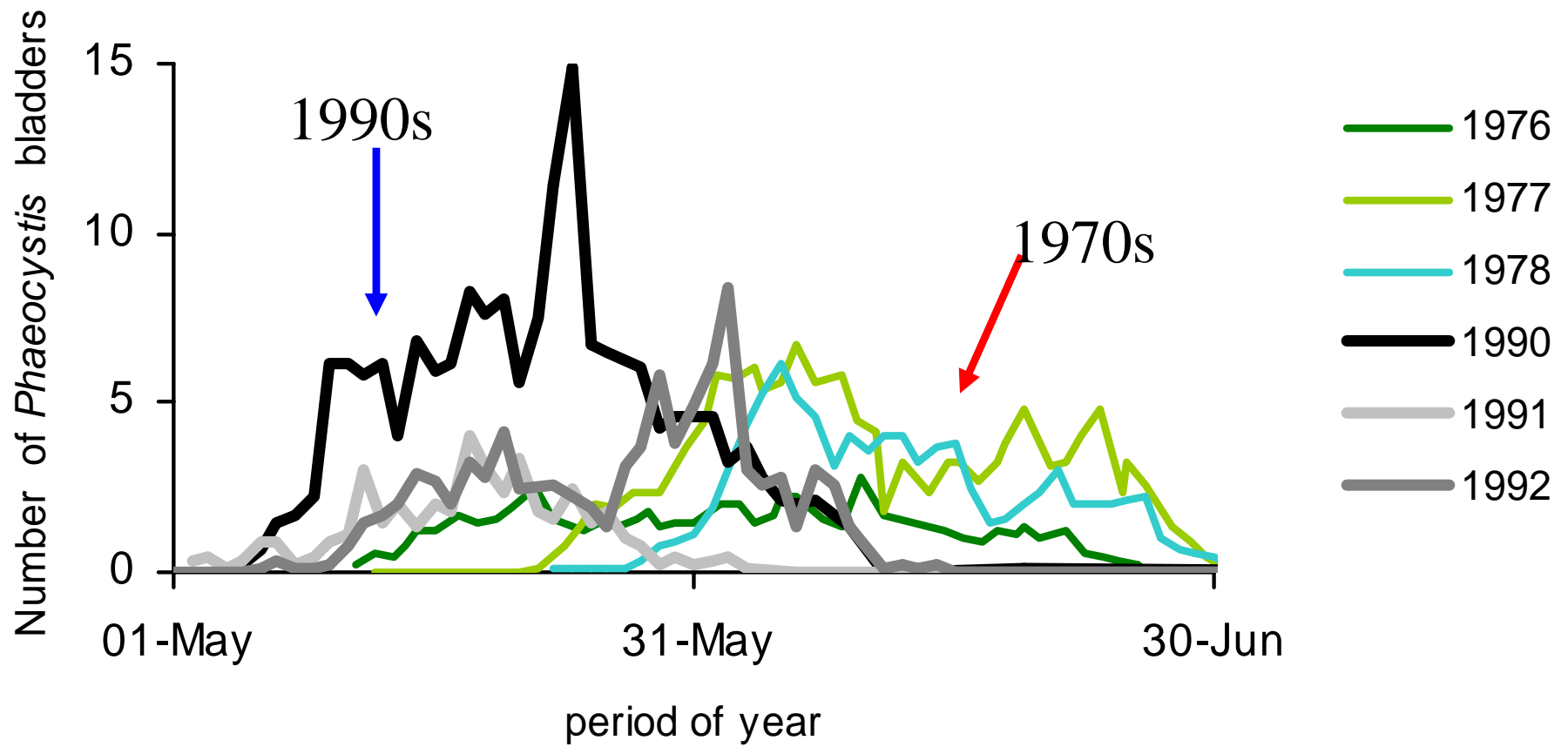
There is a lack of international acceptance that the ecological and management response to a given level of disturbance can be different in different places.

Area Subject to Comprehensive Procedure



Fairway Buoy





phaeocystis bladder counts