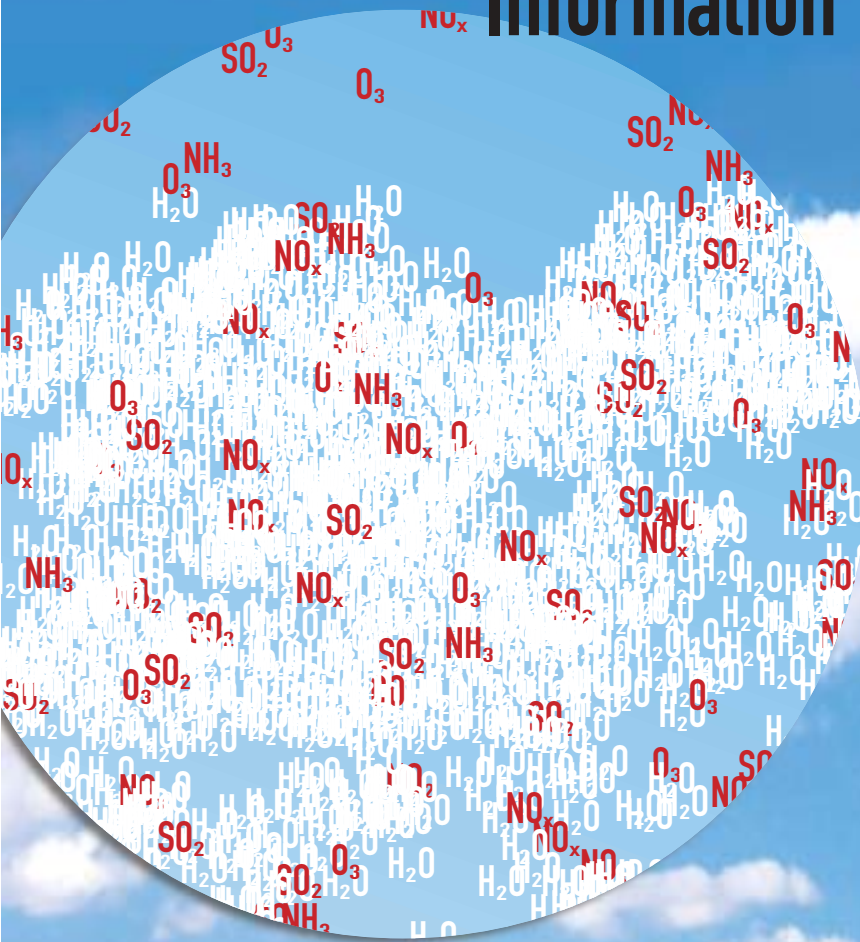


The Air Pollution Information System (APIS)



All you need to know at

www.apis.ac.uk

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For hundreds of years some of our activities have been causing environmental damage by polluting the air. In past decades much of the damage was caused by acid rain but now the greatest threats to our ecosystems come from nitrogen deposition and increased ozone concentrations.

Powerful European legislation is driving policy in the direction of an effect-based approach towards reducing pollution impacts to our ecosystems. The Air Pollution Information System (APIS) has been developed by the UK conservation and regulatory agencies to help us deliver this work.

This simple-to-use and freely available web-based database:

- Provides a comprehensive source of information on air pollution.
- Provides details of different air pollutants and their impact on habitats and species.
- Provides a support tool for staff in UK conservation and regulatory agencies, industry and local authorities to work out the potential effects of air-borne pollutants on habitats and species.
- Encourages a consistent approach to air pollution assessment across the UK.
- Comes with in-built instructions.





Potential users of APIS include:

- UK government agencies and departments.
- Local authorities.
- Non-governmental organisations.
- Industry.
- Universities, schools and members of the public.

The database provides:

Overview sections on:

- pollutants and their impacts;
- receptors and key air pollution concerns; and
- legislation and international obligations.

Interrogation by:

- pollutant (e.g. SO_2 , O_3 , NO_x);
- habitat or species; and
- air pollution issues (e.g. acidification, eutrophication).

Information on:

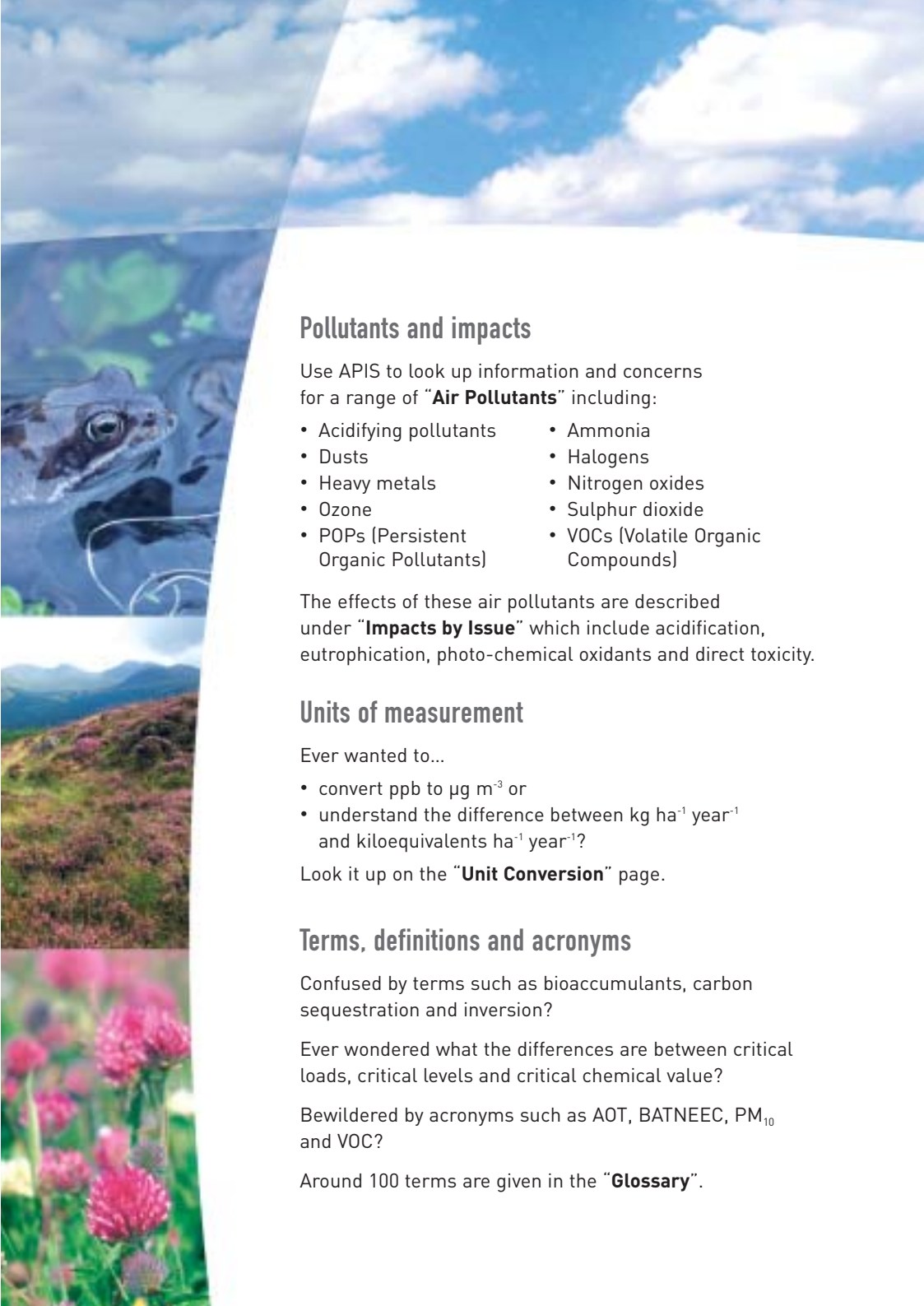
- critical loads and levels;
- qualitative impact assessment; and
- biomonitoring methods.

It also allows site-specific queries.

Summary of legislation

APIS provides easy access to all the relevant laws on air pollution and ecosystem protection.





Pollutants and impacts

Use APIS to look up information and concerns for a range of “**Air Pollutants**” including:

- Acidifying pollutants
- Dusts
- Heavy metals
- Ozone
- POPs (Persistent Organic Pollutants)
- Ammonia
- Halogens
- Nitrogen oxides
- Sulphur dioxide
- VOCs (Volatile Organic Compounds)

The effects of these air pollutants are described under “**Impacts by Issue**” which include acidification, eutrophication, photo-chemical oxidants and direct toxicity.

Units of measurement

Ever wanted to...

- convert ppb to $\mu\text{g m}^{-3}$ or
- understand the difference between $\text{kg ha}^{-1} \text{ year}^{-1}$ and kiloequivalents $\text{ha}^{-1} \text{ year}^{-1}$?

Look it up on the “**Unit Conversion**” page.

Terms, definitions and acronyms

Confused by terms such as bioaccumulants, carbon sequestration and inversion?

Ever wondered what the differences are between critical loads, critical levels and critical chemical value?

Bewildered by acronyms such as AOT, BATNEEC, PM_{10} and VOC?

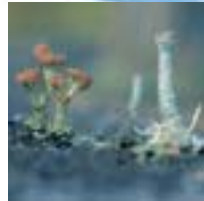
Around 100 terms are given in the “**Glossary**”.

Search by habitat

Look up the BAP habitat “coastal saltmarsh” in the habitats table and see:

- which key pollutants are of concern;
- what the impacts of these pollutants are.

The look-up table gives 32 categories of habitat and active links to relevant websites.



Search by species

The key pollutant concerns for 72 species are given. Look up species using their scientific or common name.

Simple site-based assessment

Put in your grid reference and select a habitat and a pollutant.

APIS then tells you what the critical load is, the deposition, and whether the critical load has been exceeded.

It's a rough assessment, but shows whether a more detailed site-based assessment is needed.

Both a Great Britain National Grid Map and a Northern Ireland Grid Map are available.

Biomonitoring methods

Biomonitoring can give us insights into the long-term health of an ecosystem, especially in working out the impacts of pollutants on species and their habitats.

In APIS, each biomonitoring method describes:

- the basis of the approach;
- the suitability to indicate types of polluting effects;
- limitations of the method;
- what expertise is needed in the field or lab, an indication of cost; and
- key references.

Each method is ranked for:

- robustness;
- ease of use; and
- state of development.



Developed in partnership by:



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