Developing and maintaining a national biodiversity data infrastructure – an example from Norway

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Objectives

Make data on species occurrence in Norway available for:

- policy and decision makers
- researchers
- general public

Modularity and data exchange

The infrastructure is built as a modular system but with a high level of integration between the components. All exchange of data among components are performed using the Darwin Core standard or other open data standards. The core infrastructure only handles data that are open and adheres to the FAIR principles. An exception is observations of some threatened species that are managed in a separate, secure infrastructure.

The data owner is responsible for maintaining the data and publish their data using the Integrated Publishing Toolkit (IPT) either themselves or with assistance from NBIC or the national GBIF node. NBIC checks that the taxonomy is consistent with the Norwegian Taxonomic backbone database (also maintained by NBIC) and adds updated information on current red list status and risk assessments for alien species.

Species occurrence data are made available in a web portal, as WMS and in a public API that facilitates reuse of data by other systems and services. For example, the forestry industry integrates data on red listed species into their planning systems tools and has an option to display a subset of species occurrences on their forestry machine computers.

Integration with spatial planning

In Norway, spatial planning processes and decisions are required to use data from this infrastructure. If new information about the occurrence of red listed species or other species of special interest for environmental management and conservation are discovered through the planning process, the developer is required to make these observations publicly available through the infrastructure. The way the infrastructure is integrated in the legal framework for spatial planning is considered a key factor for the success of the infrastructure.

To read more, visit:

bit.ly/biodiversity-infrastructure

doi: 10.3897/biss.6.94078

Scientific institutions, other professional data providers

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IPT

NBIC's Citizen Science web portal
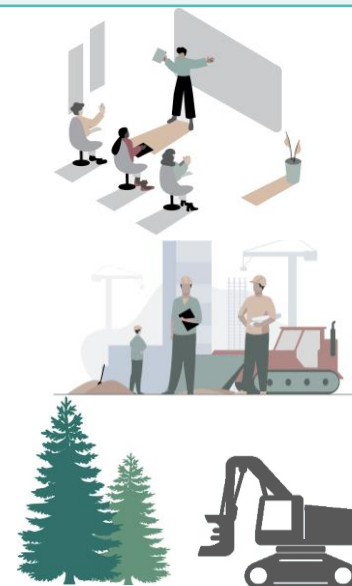
Species Map Service

Web interface

WMS

API

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