

Application of the EAGLE concept for parameterized data collection on habitats

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THEME: Data and information systems and spatial data infrastructure. Special session: Remote sensing ontology and semantics

KEY WORDS: data model, object-orientation, semantics, parameterized information, habitat monitoring

ABSTRACT:

The increasing political commitment to preserve natural resources and biodiversity from the pressure of human activities has led over the last decades to a variety of national and European initiatives to monitor changes of landscape (land cover and land use) and habitats. Following user needs, each of these schemes focuses on different aspects of land surface, which leads to a diversity of classification systems that hinder data exchange and restrict comparability between schemes.

The EAGLE group (Eionet Action Group on land Monitoring in Europe) is building a new concept for land monitoring that can help to address this situation. Its object-oriented approach allows a parameterized description of land instead of classifying it to a limited number of pre-defined classes, vital when attempting to describe complex habitat situations.

The presentation introduces the results of assessing the EAGLE model's ability for the description of habitats, by testing the model against the General Habitat Categories (GHC). Assessment has led to the conclusion that a system similar to EAGLE's analytical descriptive approach thematically adapted to habitat assessment purposes would have potential in

- improving habitat nomenclatures through systematic decomposition of class definitions, resulting in the identification of semantic gaps / overlaps / inconsistencies within or between classes,
- translating between classes of different habitat classification systems,
- serving as a data model for collecting information on the status of habitats.

Particular benefits of the EAGLE model for habitat description are the detailed representation of management practices and the manner the model tackles temporal aspects of land. Besides the classification of habitats the assessment of the changes in their condition (habitat state) receives increasing attention as a result of the Biodiversity Strategy 2020, giving a special significance to the representation of temporal phenomena in data models applied for habitat monitoring.