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ABSTRACT BOOK

S12.4 - LEVERAGING BIODIVERSITY INTEROPERABILITY THROUGH LIFEWATCH SEMANTIC RESOURCES

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“Creating a scientific world based on e-infrastructures will not be easy. (...) how will users from a wide range of backgrounds understand the data they are accessing? (...) Diversity is a dominant feature of scientific information – diversity of data formats and types, but also of the people and communities that generate and use the data”. [1] The final report of the high level Expert Group on Scientific data suggested a wish list for scientific e-infrastructure, highlighting the importance of supporting data with metadatation, persistent identification and interoperability. LifeWatch, the e-science european infrastructure for biodiversity and ecosystem research, is taking into account these issues. Semantic technologies (ontologies, thesauri, linked data) have been successfully adopted in other fields (biomolecular studies, environmental abiotic data management, astronomic data) to fix problems of identifying specific communities concepts and to enhance interoperability, data discovery and re-usability. Within LifeWatch Italy, following past experiences of related research projects and communities (e.g. LTER network, EnvEurope project) we promoted the definition of semantic resources, to be published as Linked Data [2] and through SPARQL [3] endpoints that will be maintained by the LifeWatch Service Centre. We will present some example of use of these resources and we will discuss our proposal of adoption of GeoNames Ontology [4] for referencing toponymic and geographic features.