The LifeWatch Taxonomic Backbone: How can it help you with your research and how can you help to make it more complete?

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The LifeWatch Taxonomic Backbone facilitates the standardization of species data, and the integration of the many distributed databases and data systems. It – virtually - brings together different component databases and data systems, dealing with five major components: (1) taxonomy, through regional, national, European, global and thematic databases, (2) biogeography, based on databases dealing with species occurrences, (3) ecology, in the form of species-specific traits, (4) genetics and (5) literature, by linking all available information to the relevant sources and through tools that can intelligently search this literature. The development of the LifeWatch Taxonomic Backbone started in 2012 and has now entered it maintenance phase. The content of the taxonomic and biogeographic components still grows on a daily basis and efforts are being made to document traits information and to link all components with available literature.

The LifeWatch Taxonomic Backbone offers a whole range of services to the scientific community, which can support them in answering specific ecological questions that have so far not been dealt with due to the lack of accessibility, availability, standardization and linking of data. Both easy-to-use online tools and web services allow scientists e.g. to compare their own data with already collected data from the same or similar regions, to check whether any of the taxa in their database is still known under that name or to see whether any of their listed species is e.g. tagged as an endangered or alien species.

The LifeWatch Taxonomic Backbone is offering tools and functionalities which are often developed based on identified needs within the scientific community. In addition, scientists can also contribute themselves to make it more complete. Feedback on e.g. taxonomy and traits is highly appreciated and communicated with the involved experts of the different component databases. And all distribution information collected by individual scientists can become part of the biogeographic component of this backbone, e.g. by contributing occurrence data with the biogeographic component of the system.

We will demonstrate the content and functionalities of the LifeWatch Taxonomic Backbone, including e.g. the World Register of Marine Species (WoRMS), the Interim Register of Marine and Non-marine Genera (IRMNG), the European Ocean Biogeographic Information System (EurOBIS) and the many available web services related to these systems.

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