



## **Finding the truth in the noise - potentials and limitations of big ecological datasets for new knowledge generation**

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Nowadays, technical possibilities in Earth Observation provide enormous amounts of data that open great possibilities to review existing ecological theories and develop new ones. Several examples for that are shown in the presentation in order to discuss potentials and limitations of the underlying concepts and provide feedback to large infrastructures carrying out ecological observations or experiments. Since different ecological questions or theoretical approaches require different methods, data interoperability and co-location are practical challenges. Nevertheless, we also have to learn that not every method is applicable in all ecosystems and that data have to be critically scrutinized before being sure that we can really draw ecological conclusions. This is time consuming and very often frustrating since we may learn that we have sometimes invested lots of work and money for building infrastructure at a site that is not suitable for the method.