European level identification survey of Leptidea sinapis, L. reali and L. juvernica

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In a cryptic species complex, it is difficult to have accurate knowledge about the distribution of the similar taxa. This yields uncertainties for monitoring activities and conservation policies.

Such a cryptic complex was recently described (Dinca et al. 2011, 2013) in the genus *Leptidea*. Identification criteria, based on French material, for the triplet *Leptidea sinapis* (Linnaeus, 1758), *L. reali* Reissinger, 1989 and *L. juvernica* Williams, 1946 were published (Mazel 2012).

To thoroughly test these criteria at an European level, a web-based identification study with volunteers was set up by the VVE Workgroup Butterflies. The study is based on wing vouchers from 86 DNA barcoded specimens kindly provided by V. Dinca and R. Vila. Upper-and underside of the wings were photographed in a standardized way. In order to process all the results for each criterion and the identifications based on external characters, a web-based database application (based on Oracle Apex) was used by all volunteers. A demonstration of this system will be given during the presentation. This blinded (no details available on collecting date and locality) module was set up for

scoring all criteria and providing the first identification for each specimen. Thereafter, locality data were released and each volunteer could record the final identification. When all volunteers finalized the identification of a specimen, the DNA-based identification was revealed.

The scoring results for each parameter and for the identifications will be documented. The utility of the module for the *Leptidea* complex and for potential other cryptic butterfly complexes is discussed.

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