

FREDERICA Database

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Abstract

Any system for assessing the impact of a contaminant on the environment requires an analysis of the possible effects on the organisms and ecosystems concerned. To facilitate this, the FREDERICA radiation effects database has been developed to provide an online search of the known effects of ionising radiation on non-human species, taken from papers in the scientific peer reviewed literature. The FREDERICA radiation effects database has been produced by merging the work done on radiation effects under two European funded projects (FASSET and EPIC) and making the database available online. Through the IAEA organised EMRAS and MODARIA programmes, further additions have been made to the FREDERICA database and the existing data have been evaluated and checked.

This presentation will highlight potential applications for the database, gaps in the available data and explain the use of quality scores to help users of the database determine which papers may benefit their research in terms of techniques and reproducibility. The FREDERICA database remains live and it is hoped that new data will continue to be added for the benefit of all interested in the biological effects of ionising radiation and in particular for the purpose of deriving numeric criteria for use in risk characterisation.