

Ulanovsky et al. Calculating dose conversion coefficients for biota

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Plants and animals may be exposed to ionizing radiation from radionuclides in the environment. This paper describes the underlying data and assumptions to assess doses to biota due to internal and external exposure for a wide range of masses and shapes living in various habitats. A dosimetric module is implemented which is a user-friendly and flexible possibility to assess dose conversion coefficients for aquatic and terrestrial biota. The dose conversion coefficients have been derived for internal and various external exposure scenarios. The dosimetric model is linked to radionuclide decay and emission database, compatible with the ICRP Publication 38, thus providing a capability to compute dose conversion coefficients for any nuclide from the database and its daughter nuclides. The dosimetric module has been integrated into the ERICATool, but it can also be used as a stand-alone version.

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