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Morphometric Assessment of the Development of Scots Pine Trees in the Zone of Extremely High Degree of Forest Contamination with Cesium-137

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Abstract. The features of trunk wood formation and the index of fluctuating asymmetry (ELISA) of needles of 50-year-old Scots pine trees growing in an area with extremely high levels of radioactive contamination ($>40 \text{ Ki/km}^2$) are considered. An analysis of the average growth over the period of tree growth from 1962 to 2013 showed that the emissions of radioactive substances as a result of the Chernobyl disaster in 1986 did not have a noticeable effect on the development of the xylem of the studied trees, which may indicate their lower sensitivity as a result of the more severe stress of climatic factors of 1968–1969, we assume that this effect it could be the reason for the low values of the IFA of the needles of the common pine of this population.

Key words: radioactive contamination, biological stability of forests, trunk anatomy, scots pine.

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