Long-term consequences of Hypochoeris maculata L. chronical irradiation on the East-Urals radioactive trace.

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The caryological study has been carried out on Hypochoeris maculata L. plants growing on the East-Urals radioactive trace. Two Hypochoeris maculata L. populations have been observed. The experimental population grows in contaminated area. 90Sr contamination density is 55 MBq/m2, 137Cs contamination density is 2,5 MBq/m2 . The control population grows in radionuclide-free area. Both in the experimental and in the control populations the plants have been detected bearing extra B-chromosomes in their karyotype. But their frequency was higher in the experimental population than in the control one. In the experimental population the plants with main A-chromosome set caryotype changes have been met in 9 families out of 30 families observed. In the control population one such family has been detected out of 27 families observed. Two plants with karyotype changes in both chromosome sets have been detected in one family of the experimental population, which indicates sibling species appearance in the experimental population.

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