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THE MORPHOLOGY OF HAIR STAMEN CELLS OF *TRADESCANTIA* AFTER BOUIN'S FIXATIVE (MORPHOMETRIC ANALYSIS)

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It is shown that the fixation of the hair cells of the stamens of *Tradescantia* using Bouin fixative leads to significant morphological artifacts. The cells of each stamen filament were conventionally divided into three groups: apical, median and basal cells. In all groups of cells, compression of the cytoplasm occurs, most strongly in the basal cells. Fixation leads to discoloration of cells and cytoplasmic vesiculation. The chromatin of the nucleus is well preserved. After fixation in Bouin fixative, in addition to compression of the cytoplasm, the cell wall is compressed. In the apical group, the surface area and cell volume decreases by 33 and 43%, in median cells by 28 and 36% and in basal cells by 15 and 2%, respectively. A high variability in the volumes of and fixed samples, the most pronounced in the group of apical cells, was noted.

Keywords: picric acid, Bouin fixative, cells of hairs of stamen filaments, artifacts, morphometric analysis