This first complete cytotaxonomical review of any flora confirmed that the relationship of the Icelandic flora is mainly with the arctic-alpine plants of Siberia and Greenland-Canada. The about 550 species show weak differentiation into endemic races, probably because of the high frequency of established polyploids. (The IC [indicates that this paper has been cited in over 130 publications—the most-cited paper from this journal.)

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“Our dissertation investigations at the University of Lund in Sweden just before and during World War II concerned the cytogentic significance of sterility and sex determination in plants. These studies led to our interest in cytotaxonomy and cytogeobotany, fields initiated by Nordic botanists. During the war, we counted chromosome numbers in Swedish plants and compiled the first critical list of such numbers then known for the Nordic flora. That list and those that followed became the foundation for statistical studies of the geobotanical significance of polyploidy. The studies confirmed suggestions by Hagerup and Müntzing that the frequency of polyploids increases with latitude and altitude, supposedly because of the high frequency of polyploid species of Siberia and Greenland-Canada. The about 550 species of the complete Icelandic flora is mainly with the arctic-alpine plants of Siberia and Greenland-Canada. That, however, is a matter of more concern to the native botanists.”