

The results of introductions of tropical and subtropical plants in the stock greenhouses of the Polar-Alpine Botanical Garden Institute of KSC RAS at 68° northern latitude are presented. As of March 2017, living collections of tropical and subtropical plants have 728 specimens belonging to 625 species from 312 genera of 109 families. They are the center of the primary introduction of ornamental plants in the Arctic, serve as the richest source for the development and enrichment of zoned assortments of greenhouse plants and the basis for conducting large scientific and educational work, popularizing botanical knowledge. Greenhouse funds include plants introduced from different regions of the globe, there are representatives of many morphological ones (trees – 82, shrubs – 168, semishrubs – 45 and grasses – 330 species) and ecological groups. Most of the plants in the collection are in a generative state: about 65% of the flowers bloom and bear fruit. Collections are a repository of rare and endangered plants. About 20 species are listed in the International Red Book. The existing species diversity of families and life forms is shown. The taxonomic composition and duration of growing of collection plants are given. The review of the collection expositions on ecological groups and the results of the geographical analysis of succulent plants are presented. The conditions and methods of growing introduced plants are described, which allows them to retain characteristics characteristic of their behavior in natural habitats (restoration of populations by active propagation of seeds and spores – self-seed or brood kidneys). The study of ecological and biological features of introduced plants, their economic and decorative qualities, the search for and development of methods and methods of plant propagation, and the peculiarities of cultivation applied to local conditions, contributed to the development of scientifically grounded technologies for growing greenhouse decorative plants in the Murmansk region, introduction to culture 18 new greenhouse-cuttings and more than 300 species of potted plants of tropical and subtropical flora.