Amphipods (Crustacea, Amphipoda) can be found in fresh and brackish waters and in oceans and seas, several species live in terrestrial habitats. In comparison with other Central European countries there are fewer species of amphipods in the Czech Republic, their number, however, increased over the last decade from 8 to 12 species. Despite that, there is no recent review on ecology and distribution of those species. Presented study is an overview of epigeous species presently occurring in the Czech Republic, their ecology and habitat preferences, deals with changes in distribution areas and factors governing these changes. Based on specific features of species, it can be concluded that for expansion of distribution range a tolerance to extreme temperature peaks is needed, important is also availability of suitable habitats.