

The parasitic helminths are often forced in the environment to search for their host quickly in order to continue the ontogenetic development, or else to finish it. To search for and identify the host, they use various types of receptors which allow them to provoke a taxis corresponding to the oncoming stimulus and to react regarding the current situation. In respect to the concept relevant to the helminths, this work concerns trematodes, whose freely movable stadia are miracidium and cercaria, and then monogeneans which are viviparous or oviparous with oncomiracidium larva, and nematodes during which the third larva stage moves. The representatives of the groups of Myxozoans and Ciliophorea are also mentioned, since they use similar mechanisms to look for hosts as helminths. This thesis includes the summary of the existing knowledge related to the orientation of helminths in the environment. On the basis of the data that is already known, it is possible to compare which mechanisms are used for host-seeking by particular species, and according to which signals from the surroundings they most often orientate themselves.