

My thesis is focused on the nesting behaviour and reproductive strategies of solitary bee *Anthophora plumipes*, which nests in colonies and builds the nests in the ground. During behavioral observation in seasons 2009 and 2010 the basic demographic characteristics of studied species were described and all the observed behavioral patterns were described in ethogram. Existence of intraspecific cleptoparasitism in form of usurpations was proved. From field usurpations were 22-33 % assessed as a real usurpations and 66-67 % were cases of use of an empty nests. Number of usurpation was constant throughout the season. There was increase in cases of use of empty nests at the end of the season. The underground nests were marked by lanthanides. This way the interactions between females could be observed. In this way the intraspecific cleptoparasitism could be found out. 25-32 % samples were positive from 152 samples, that were measured on ICP. It suggests relatively low effectivity of marking. The mark losses reach up to 42 % during processing.