Assamese macaque (*Macaca assamensis*) is one of the five monkey species in Thailand that can be found in northern and western regions. Basic information of this species is still lacking. The gathered data such as population size, age-sex composition, and general behavior and so on will be useful for management and conservation. There were four groups of macaques living at Tham Pla Temple, Mae Sai District, Chiang Rai Province, Thailand. The average number of monkey’s population counted in 2009 was about 150 individuals; the average male-female adult sex-ratio was 1:1.7. Scan sampling method modified from Altmann (1974) was used for quantitative data collection during February 2009 till January 2010. Only 5 individuals were observed within 5 minutes in each 15 minute interval from dawn till dusk. There were 13,552 cases of scan-sampling data observed (Feb-Dec, 09). The overall general behavior consisted of resting (28.9%), feeding (23.3%), movement (15.8%), comfort (13.2%), play (12.1%), aggressive (3.8%) and sexual behavior (2.8%). The percentage of time spent at different places included tree (38%), ground (28.9%), building (24.8%), mountain (6.2%), and pond (2.1%). Food composition comprised provisioning items 61.6% and natural food 38.4%. The monkeys spent most of their time resting and feeding due to living in the limited area and receiving provisioning food from tourists. They spent most of their time resting on trees due to security.

Keywords: Assamese macaque, behavior, temple, Thailand