Camera traps – a suitable method to investigate the population ecology of raccoons (*Procyon lotor* L., 1758)

F.-U. MICHLER[1*], B. A. KÖHNEMANN[2*], M. ROTH[1]

* "Projekt Waschbär", Goldenbaum 38, D-17237 Carpin (Germany), e-mail: info@projekt-waschbaer.de, www.projekt-waschbaer.de

[1] Technical University Dresden, Institute of Forest Botany and Forest Zoology (Germany)
[2] University of Hamburg, Department of Biology, Division of Ecology (Germany)

Within the last years, camera trapping has become a common method to document various aspects of wild animal behaviour. The present long term study is carried out to investigate the ecology, distribution and social behaviour of raccoons in the "Müritz-National Park" (Mecklenburg-Vorpomerania, Germany). In this context, an intensive monitoring with camera traps is employed. Through camera trapping we determined extensive information on population density ("Capture-Mark-Recapture"), individual reproductive status and social system.

Raccoons are particularly well suited for that kind of investigation because they evidently do not feel disturbed by the presence of camera traps - they remained in front of them without showing any kind of timid reaction and sensitivity to flashlight. Moreover they can be easily lured because of their curiosity.

For this purpose, from April 2006 until May 2008, 91 different raccoons were captured in life traps over an area of 800 ha and fitted with diversicoloured ear tags and colour patterns, which are indispensable for individual recognition in the pictures.

15 self-triggered camera traps with PIR Sensor (BUSHNELL®, STEALTHCAM®) were placed in the investigation area at distinctive sites like faeces deposits, water edges and trap localities, which were regularly baited with cat food. The data was obtained by continuous camera trapping throughout the year. During the first year of research 7.496 pictures could be evaluated, showing raccoons in 41,5 % (n = 3.113); other animals (n = 42 different species) in 41 % (n = 3.080) of the shots. 17,5 % (n = 1.303) could not be specified. 60 different raccoons (46 marked and 14 unmarked) appeared in front of the camera traps. After completing the study, on basis of this sampling success it will be possible to estimate the precise raccoon abundance in the investigation area.

Our results suggest that camera trapping is a very suitable and comparatively easy method to get regular and detailed information about the raccoon's ecology.