

Bog and swamp areas in the north east German lowlands – ideal habitats for raccoons?

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Raccoons (*Procyon lotor* L., 1758) are among the least investigated carnivores in Europe. The aim of this study (started in March 2006 and continuing until 2009) is to collect extensive basic data concerning the ecology of raccoons in a natural woodland habitat in the east German area for the first time. The investigations have taken place in the “Müritz-National Park” (Mecklenburg-Vorpomerania, Germany) within a characteristic bog and marsh landscape. Containing a large amount of wetland habitats, especially bog and swamp districts, this area supposedly demonstrates a very opportune habitat concerning the essential resources for raccoons.

According to the „*resource dispersion hypothesis*“ (MACDONALD 1983) a good availability of resources should be apparent by the means of comparatively small home ranges as well as by a high population density. In order to verify this thesis, telemetric investigations on seasonal spatial behaviour (March till August 2006) of adult raccoons were accomplished on an area of 6000 ha (KÖHNEMANN 2007).

For this purpose 17 raccoons (11 male, 6 female) were caught in wooden traps, immobilized by a ketamine-xylazine anaesthetic agent and fitted with VHF radio collars as well as with earmarks. With the help of telemetric data survey (n = 1252 localisations), captures and camera trapping, statements could be made concerning the home ranges, daytime resting sites and population density. In comparison to the only corresponding study in Europe for natural woodland habitat (HOHMANN 1998), the investigated raccoons showed noticeable small home range use (males: x = 702 ha; Min. = 514 ha; Max. = 1083 ha; S = 238; MCP 100 %; females: x = 263 ha; Min. = 165 ha; Max. = 344 ha; S = 114; MCP 100 %). These small home ranges indicate a landscape with a high amount of essential resources. Such dimensions are only known from comparable wetland habitats in North America – thus these kind of habitats seem to be very appropriate for raccoons.

With the help of 301 raccoon trappings and using a capture-recapture rate, a population density of 4-6 animals per 100 ha was estimated (Peterson-Lincoln-Index). In comparison with the population density in natural woodland habitats in the central part of Germany (2-3 animals per 100 ha; HOHMANN 1998) the density in the eastern region is nearly twice as high. It is thereby also the highest density ever measured in Europe for a natural habitat until now.

The special bog and swamp areas in the national park have turned out to be markedly good habitats for raccoons. This is demonstrated by means of small home ranges and a high population density.

References:

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