



Abstract

Invasive Raccoon Dog (*Nyctereutes procyonoides*) and Raccoon (*Procyon lotor*) Monitoring in Lithuania Based on Camera Traps Data [†]

Marius Jasiulionis ^{*}, Vitalijus Stirke and Linas Balčiauskas 

Nature Research Centre, Akademijos 2, LT 08412 Vilnius, Lithuania; vitalijus.stirke@gamtc.lt (V.S.); linas.balciauskas@gamtc.lt (L.B.)

^{*} Correspondence: marius.jasiulionis@gamtc.lt

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Abstract: Invasive mammal species outside their natural range are causing damage to native ecosystems. Raccoon dogs were first observed in Lithuania in 1948, and since then, they have spread across the country. Surveys of this species stopped in 1997; therefore, numbers and trends are currently unknown. Raccoons were first observed in Lithuania in 2012, with only a few sporadic reports over the decade. Both species are listed as EU species of concern. Between September 2019 and July 2021, we evaluated the distribution and density of these animals using camera traps (system with a motion trigger/sensor that activates a camera to take a photograph when an animal is present) at 85 locations with a total sampling effort of 11,501 camera trap days. Raccoon dogs were identified in 57 locations (67.1% of all surveyed) and raccoons in 1 location (1.2%). The average relative shooting frequency of raccoon dogs was 5.12 photos/100 days and that of raccoons was 0.18 photos/100 days. The abundance of raccoon dog was not uniform. In the northeastern part of Lithuania, their relative shooting frequency was significantly higher than in western part (6.26 and 2.31 photos/100 days, respectively; $p < 0.05$). Raccoons were present in only one location; however, during the study period, they were registered 21 times. This indicates that a viable population has developed and could become a source of further invasion in the nearest future, requiring immediate control actions.

Keywords: invasive mammals; raccoon dog; raccoon; camera trap; relative shooting frequency



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