ACTA MYCOLOGICA
VOL. XVIII (1): 123 - 125
1982

# Fructification of Elaphomyces granulatus Fr. are food for boars

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Genov P.*: *Fructification of Elaphomyces granulatus Fr. are food for boars*, Acta Mycol. 18(1): 123-125, 1982.

In searching for food boars intensely furrowed an area of the forest soil 5-10 cm deep. There they mainly find fructifications of *Elaphomyces granulatus* which is one of the main components of the food they consume in winter.

The investigations were performed in the Kurpiowska Puszcza (Green) in the forest inspectorate of Nowogród, and in the forest districts Kuzie and Serafin in two phenological periods — from April 1975 — March 1976 and from April 1976 till March 1977.

On the basis of analysis of stomach content and faeces collected in the above-mentioned area during both periods we found that during winter one of the basic components of the food eaten by boars are the fructifications of *Elaphomyces granulatus* Fr. a fungus common in Poland (Skirgiełło, Wosińska 1963). In the contents of three stomachs analyzed in the first period of investigations the fructifications constituted 36% of the total mass of food. In the 20 faeces samples of boars collected in winter, fungi constituted 10% of the mass of the mass of the faeces.

On the basis of analysis of soils samples the place of occurrence of *Elaphomyces granulatus* Fr. was determined. Its fructifications occurred in a dry forest in soil on the border between sand and humus at a depth

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of 5-10 cm. in places where the litter layer was relatively tick. On hilly areas in dry forests the fructifications of this species occurred mainly on northern slopes. The presence of small by but fresh fructifications was noted in all soil samples collected in this area in different phenological periods.

On the basis of analysis of 40 soil samples 20×20 cm in size each taken in the winter from places which were furrowed (20 samples) or untouched by boars (20 samples) statistically significant differences in the numbers of fructifications of *Elaphomyces granulatus* in the two kinds of samples and in control samples from both periods of investigations was observed. In all control areas (0.4 m² — 10 samples) in the first period 204 g fructifications were collected and in the second 94 g, or more than two times less with the same number of samples. The analysis of samples taken from furrowed places indicated that in the first period of investigations the boars had chosen all the fructifications of the fungus and in the second period they left 7 g of small fructifications (G e n o v 1981a). The fructifications in the first period of investigations were large and fresh, and in the second period the small ones were fresh, and the large ones were old and cracked, therefore they probably were from the previous period.

The places where the boars furrowed were correlated with the places of occurrence of the fructifications. In a search for fructifications the boars furrowed the surface if an over thirty year old pine forest (dry forest). This was observed particularly in a group of trees over 175 years old. The intensity of furrowing was correlated with the abundance of fructifications in the forest, and the abundance itself depended on climatic conditions such as humidity and temperature, the higher the humidity and the heating of the bottom of the forest, the grater the intensity of occurrence of fructifications. The humidity in the first period of investigations was considerable (in the neighbouring alder swamp forest water stagnated until July) and the intensity of furrowing by boars was three times greater than in the second dry period (in the neighbouring alder swamp forest there was no water in the spring). The average surface of the furrowed area was 24.93 m² in the first period and 7.34 m² in the second (G e n o v 1981a).

Due to the relatively short period of the investigations no effect of the furrowing by boars on the development of fungi could be determined. It seems, however, that such an effect could be determined in a longer period of investigations.

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