

# FATTY ACID COMPOSITION IN THE WILD BOARS MUSCLES FROM DIFFERENT REGIONS OF POLAND

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## Introduction:

Meat and meat products are one of the most relevant food groups in the human diet due to high content of protein. Meat from wild animals is considered a delicacy and commands a high price compared to other sorts of meat. Due to the characteristic sensory properties (taste), lower fat and cholesterol contents and higher share of polyunsaturated fatty acids (PUFA) a growing interest of this meat is noted (1, 2).

## Objectives:

The aim of the study was to compare fatty acid profile in wild boars muscles depending on the feeding grounds.

## Materials and Methods:

The research material consisted of 37 samples of wild boars (*Sus scrofa*) muscles from three different regions in Poland: Warmia and Mazury, Podlasie and Silesia. The fat was extracted from the muscle samples by the Folch method. The fatty acid (FA) composition was determined after the acids were trans-methylated according to the Peisker method. Chromatographic separation was performed using an Agilent Technologies 7890A gas chromatograph with a flame-ionization detector (FID).



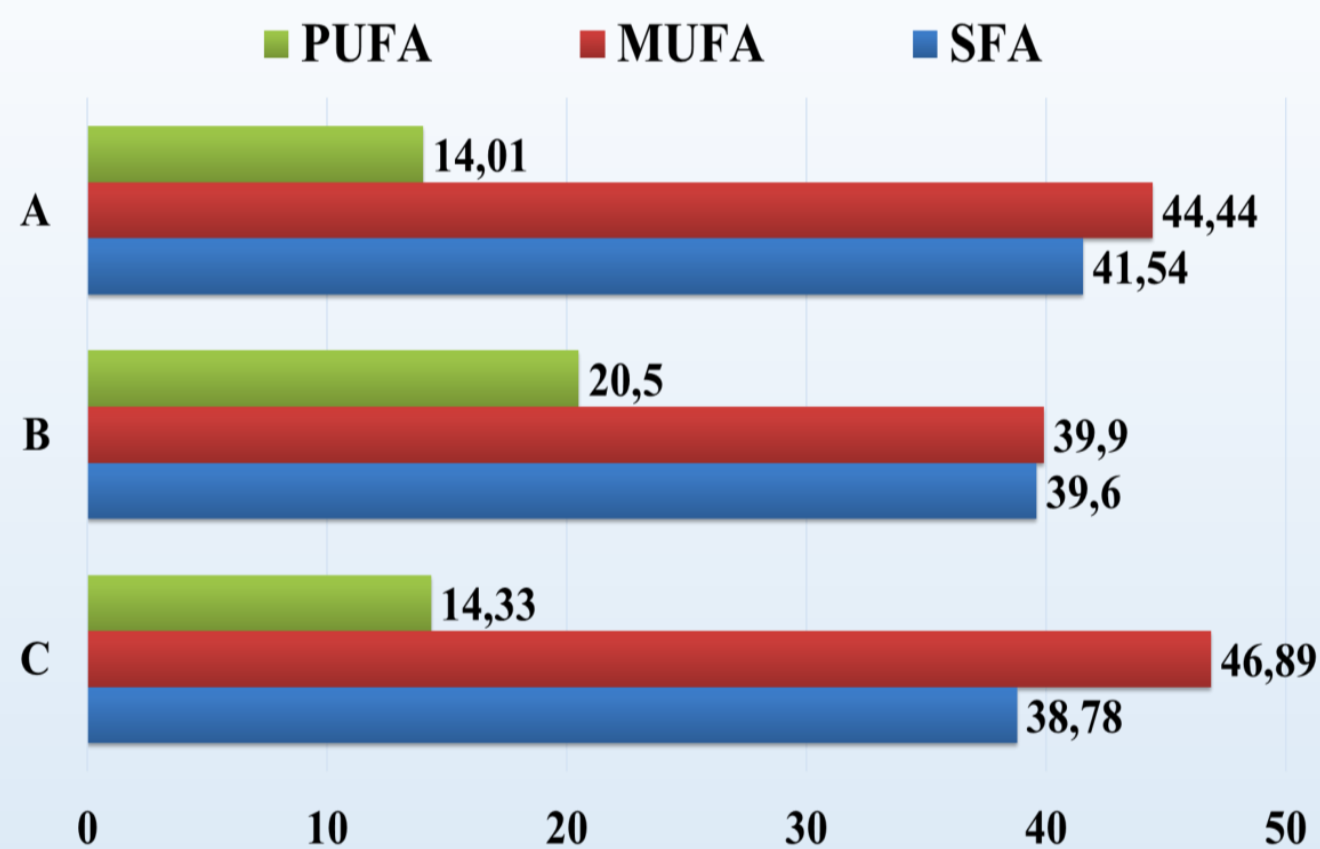
Fig. 1. Location of sampling of wild boars muscles from selected regions in Poland: Warmia and Mazury (A), Podlasie (B) and Silesia (C).

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## Results:

The average share of sum of saturated fatty acids ( $\Sigma$ SFA) in wild boars fat from Warmia and Mazury, Podlasie and Silesia regions were 41.5%, 39.6% and 38.8%, respectively. In wild boars fat from Silesia the highest share of sum of monounsaturated fatty acids ( $\Sigma$ MUFA) was found (46.9%), while in wild boars fat from Warmia and Mazury, Podlasie it accounted for: 44.4% and 39.9%, respectively. A similar share of  $\Sigma$ PUFA (approx. 14%) was determined in wild boars fat from Warmia and Mazury, and Silesia region, whereas in those from Podlasie region  $\Sigma$ PUFA accounted for approx. 12%.



Ryc. 1. Percentage share of  $\Sigma$ SFA,  $\Sigma$ MUFA and  $\Sigma$ PUFA in of wild boars muscles from selected regions in Poland (%).

## Conclusions:

Meat fat from wild boars is a valuable source of fatty acids with a beneficial impact on human health. However, the fatty acids profile depends on the region, which indicated the predominant influence of the animal's feed on FA composition of meat fat.

## References:

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