

ABSTRACT

Lipids from the fat body of queens of *Bombus terrestris* species in different life stages were studied using chromatographic methods. High-performance liquid chromatography - mass spectrometry with electrospray ionization was used to analyze all lipids from the tissue. Semi-preparative thin-layer chromatography was used to isolate triacylglycerols (TGs) from the fat body tissue. The TGs were subsequently analyzed by high-performance liquid chromatography – atmospheric pressure chemical ionization mass spectrometry. Quantitative differences between different life stages have been found. Qualitative composition has not been changing significantly. Only minor differences have been found in the substances, which were present in amount less than 1%.