Unusual Bioactive 4-Oxo-2-alkenoic Fatty Acids from *Hygrophorus eburneus*

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Dedicated to Dr. Helmut Besl on the occasion of his 60th birthday

From fruit bodies of the basidiomycete *Hygrophorus eburneus* (Bull.: Fr.) Fr. (Tricholomataceae) eight fatty acids (C_{16}, C_{18}) with γ-oxocrotonate partial structure could be isolated. Initial tests demonstrate their bactericidal and fungicidal activity. The structures of (2*E*,9*E*)-4-oxooctadeca-2,9,17-trienoic acid (**1**), (2*E*,11*Z*)-4-oxooctadeca-2,11,17-trienoic acid (**2**), (*E*)-4-oxohexadeca-2,15-dienoic acid (**3**), (*E*)-4-oxooctadeca-2,17-dienoic acid (**4**), (2*E*,9*E*)-4-oxooctadeca-2,9-dienoic acid (**5**), (2*E*,11*Z*)-4-oxooctadeca-2,11-dienoic acid (**6**), (*E*)-4-oxohexadec-2-enoic acid (**7**), and (*E*)-4-oxooctadec-2-enoic acid (**8**) were elucidated on the basis of their spectroscopic data.

Key words: Hygrophorus eburneus, Basidiomycetes, 4-Oxo-2-alkenoic Fatty Acids