A unique arsenic speciation profile in *Elaphomyces* spp. (“deer truffles”) – trimethylarsine oxide and methylarsonous acid as significant arsenic compounds

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Table S1 All measured elements with the elected octopole gas modes and m/z ratios

| Element Name | octopole gas mode | m/z     |
|--------------|-------------------|---------|
| Li           | nogas             | 7       |
| B            | nogas             | 11      |
| Na           | He                | 23      |
| Mg           | He                | 24      |
| Al           | nogas             | 27      |
| P            | O2                | 31 -> 47|
| S            | O2                | 32 -> 48|
| K            | He                | 39      |
| Ca           | He                | 43      |
| V            | He                | 51      |
| Cr           | He                | 52      |
| Mn           | He                | 55      |
| Fe           | He                | 56      |
| Co           | He                | 59      |
| Ni           | He                | 60      |
| Cu           | He                | 65      |
| Zn           | He                | 66      |
| As           | O2                | 75 -> 91|
| Se           | H2                | 78      |
| Rb           | He                | 85      |
| Sr           | He                | 88      |
| Mo           | nogas             | 98      |
| Ag           | nogas             | 107     |
| Cd           | nogas             | 111     |
| Sn           | nogas             | 118     |
| Sb           | nogas             | 121     |
| Te           | nogas             | 125     |
| Cs           | He                | 133     |
| Ba           | nogas             | 137     |
| Gd           | nogas             | 157     |
| Hg           | nogas             | 201     |
| Tl           | nogas             | 205     |
| Pb           | nogas             | 208     |
| Bi           | nogas             | 209     |
| U            | nogas             | 238     |
**Table S2** Configuration of ICPQQQMS. Differing settings during HPLC-ICPMS in O₂-mode in brackets

|                      | O₂  | H₂  | He  | nogas |
|----------------------|-----|-----|-----|-------|
| **Scan Type**        | MS/MS | Single Quad | Single Quad | Single Quad |
| RF Power [W]         | 1600 | 1600 | 1600 | 1600  |
| RF Matching [V]      | 1.8  | 1.8  | 1.8  | 1.8   |
| Smpl Depth [mm]      | 8    | 8    | 8    | 8     |
| Carrier Gas [L/min]  | 1.1 (0.85) | 1.1 | 1.1 | 1.1 |
| Option Gas [%]       | 0 (15) | 0 | 0 | 0 |
| Nebulizer Pump [bps] | 0.1 (0.5) | 0.1 | 0.1 | 0.1 |
| S/C Temp [°C]        | 2    | 2    | 2    | 2     |
| Extract 1 [V]        | 0    | 0    | -1.5 | -1.5 |
| Extract 2 [V]        | -160 | -150 | -195 | -185 |
| Omega Bias [V]       | -90  | -80  | -110 | -95   |
| Omega Lens [V]       | 6.6  | 6.6  | 7.9  | 7.9   |
| Q1 Entrance [V]      | -1   | -1   | -3   | 0     |
| Q1 Exit [V]          | -1   | -1   | -1   | -1    |
| Cell Focus [V]       | 2    | -4   | -3   | -6    |
| Cell Entrance [V]    | -50  | -50  | -50  | -50   |
| Cell Exit [V]        | -60  | -60  | -60  | -60   |
| Deflect [V]          | 3.2  | -60  | -6   | 13    |
| Plate Bias [V]       | -60  | -60  | -60  | -60   |
| Q1 Bias [V]          | -2   | -4   | -4   | -3    |
| Q1 Prefilter Bias [V]| -44  | -36  | -48  | -40   |
| Q1 Postfilter Bias [V]| -18  | -18  | -34  | -2    |
| He flow [mL/min]     | 0    | 0    | 4    | 0     |
| H₂ flow [mL/min]     | 0    | 5.5  | 0    | 0     |
| 4th cell gas flow [%]| 25   | 0    | 0    | 0     |
| OcP Bias [V]         | -5   | -18  | -18  | -8    |
| OcP RF [V]           | 190  | 200  | 130  | 120   |
| Energy discrimination [V] | -7  | 0    | 3    | 5     |

*Table S3 and Table S4 available under “Supplementary material”*
Fig. S1 HPLC-ES-MS chromatograms of m/z 137 ((CH₃)₃AsOH⁺). Solid line = extract of ASP-058, diluted 1+9 with water. Dotted line = same sample as for the solid line, spiked with a pure solution of TMAO (200 µg As L⁻¹). Dashed line = same sample and chromatographic method as for the solid line, but with ICPMS (ICPQQQMS 8800, oxygen mode, m/z 75 → 91) as detector instead of ES-MS