

1 SUPPORTING INFORMATION

2 **Chemicals and Standards.** All dichloromethane, methanol, acetonitrile and hexane were
3 HPLC grade or pesticide grade, obtained from Fisher Scientific (New Jersey, USA). HHCB
4 (1,3,4,6,7,8-hexahydro-4,6,6,7,8,8-hexamethylcyclopenta[g]-2-benzopyran), AHTN(7-acetyl-
5 1,1,3,4,4,6-hexamethyltetrahydronaphthalene), ADBI (4-acetyl-1,1-dimethyl-6-tert-
6 butylindan), musk ketone (4-tertbutyl-3,5-dinitro-2,6-dimethylacetophenone), musk xylene
7 (1-tert-butyl-3,5-dimethyl-2,4,6-trinitrobenzene), musk ambrette (1-tert-butyl-3,5-dinitro-2-
8 methoxy-4-methylbenzene or 2,6-dinitro-3-methoxy-4-tert-butyltoluene) and musk tibeten
9 (1-tert-butyl-2,6-dinitro-3,4,5-trimethylbenzene) were obtained from Dr. Ehrenstorfer GmbH
10 (Augsburg, Germany). HCB, α -HCH, β -HCH, γ -HCH, DDTs (including o,p'-DDD, p,p'-DDD,
11 o,p'-DDT, p,p'-DDT, o,p'-DDE, and p,p'-DDE) were all purchased from Chemservice
12 (Chester, England), and p,p'-DDMU was from Sigma (St. Louis, MO, USA). Deuterated
13 polycyclic aromatic hydrocarbon (phenanthrene-*d*₁₀) obtained from Cambridge Isotope
14 Laboratory (Andover, MA, USA) was used as the surrogate standard for analyzing musk in this
15 study. PCB 121 and PCB 198 (IUPAC), purchased from Accu Standard (Connecticut, USA),
16 were used as the surrogate for HCB, HCH and DDT analysis. Standard stock solutions were
17 prepared in methanol. Ultra pure water was prepared using an Easypure UV Compact
18 Ultrapure System (Fisher Chemical Co., China) with a conductivity of 18.3 Ω ·cm.

19 **Chemical Analysis.** GC-MS analysis was performed with a Hewlett-Packard 5890 gas
20 chromatograph connected to a Hewlett-Packard 5971 low-resolution mass spectrometer. The
21 mass spectrometer was operated at a resolution of about 1000 and in the electron impact
22 ionization mode with an ionizing energy of 70 eV. Quantitative analysis was performed using

1 selected ion monitoring mode, and the fragment ions were selected according to the most
 2 abundant ions in the mass spectra, which were scanned from 50 to 500 m/z amu (atomic mass
 3 units). These ions were listed in Supporting Information Table 1. The injector temperature was
 4 maintained at 250°C, and the source temperate was kept at 280°C. An HP-5MS capillary
 5 column (30 m × 0.25 mm i.d. with a film thickness of 0.25 μm) was programmed to increase
 6 from 50°C (2 min) to 186°C at 10°C/min (keeping this temperature for 2 min), and to 235°C at
 7 5°C/min, which was held for 2 min. The injection volume was 1 μL, and splitless mode was
 8 used.

9
 10 Table 1. Ions Monitored in SIM Mode

Chemicals	Monitoring Ions	
HHCB	243, 258	11
AHTN	243, 258	12
ADBI	229, 244, 173	
musk ketone	279, 294	13
musk xylene	282, 297	
musk ambrette	253, 268	14
musk tibeten	251, 266	
p,p-DDE	318, 246, 176	15
o,p-DDE	318, 246, 176	
p,p'-DDMU	282, 284, 212	16
p,p-DDD	235, 165, 199	
o,p-DDD	235, 165, 199	17
p,p-DDT	235, 165, 199	
o,p-DDT	235, 165, 199	18
phenanthrene-d ₁₀	188, 187, 80	
PCB 121	326, 328, 324, 254	
PCB 198	358, 360, 293, 288	