Table S1. Description of the codes was reported in Supplementary materials

CODE	DESCRIPTION
111	Continuous urban fabric: when urban structures and transport networks are dominating the surface area. >80% of the land surface is covered by impermeable features like buildings, roads, and artificially surfaced areas. Non-linear areas of vegetation and bare soil are exceptional
112	Discontinuous urban fabric: when urban structures and transport networks associated with vegetated areas and bare surfaces are present and occupy significant sur-faces in a discontinuous spatial pattern
211	Non-irrigated arable land: cultivated land parcels under rainfed agricultural use for annually harvested non-permanent crops, normally under a crop rotation system, including fallow lands within such crop rotation. Fields with sporadic sprinkler-irrigation with non-permanent devices to support dominant rainfed cultivation are included
221	Vineyards: areas planted with vines, vineyard parcels covering >50%, and determining land use. The impermeable features like buildings, roads and artificially surfaced areas range from 30 to 80 % land coverage
242	Complex cultivation patterns: mosaic of small cultivated land parcels with different cultivation types - annual crops, pasture and/or permanent crops, eventually with scattered houses or gardens.
243	Land principally occupied by agriculture, with significant areas of natural vegetation
244	Agro-forestry areas: annual crops or grazing land under the wooded cover of forestry species.
311	Broad-leaved forest: vegetation formation composed principally of trees, including shrub and bush understorey, where broad-leaved species predominate
523	Sea and ocean: zone seaward of the lowest tide limit

Table S2. ICP-MS instrumentation and operating conditions

Instrument parameters	**(Agilent 7500A, Agilent Technologies, Tokyo, Japan)**
Nebulizer	Babington
Torch	Quartz glass torch
Spray chamber	Scott double-pass type at 2 °C
Sample cone	Nickel, 1.00 mm aperture
Skimmer cone	Nickel, 0.40 mm aperture
Plasma mode	Normal plasma
RF power (W)	1240
Sampling depth	8.8 mm
Nebulizer gas	1.07 L/min
Plasma gas	15 L/min
Sampling period (s)	0.3

Integration time (s)	0.1
Repetitions	3
Sample uptake rate	0.4 mL/min

Table S3. Elemental composition of polyfloral honey found in the present research (Abruzzo) and those found in the literature (μg g^{-1} ± standard deviation (n=3)).

	Abruzzo	Lazio	Sicilia	Lazio[a]	Umbria	South Italy	South Italy	South Italy	Marche	Campani	Basilicata	Piemonte	Italia	Centre Italy	MAX	MIN
Mg	20.24		8.17	23.0							19.3				69	8
K	590.56		168.80	347.0				1610.0							1610	56
Ca	39.56		26.10	77.0			68	176.0			44.1				206	6.64
Cr	0.222	0.08	0.11	<0.04	0.27	0.71	0.01	0.26	0.009	0.07	0.02	0.078	0.0190	0.072	2.19	0.00158
Mn	0.244			0.20	0.87		0.66	1.34		0.88	1.60	1.920	6.10		9.02114	0.049
Co	0.002			<0.004			0.00396				0.004	0.008	0.0083		0.0151	0.00074
Ni	0.023	0.1		<0.6				0.13	0.039	0.17	0.03	0.168	0.0370		0.321	0.01495
Cu	0.249		1.98	<0.4	0.39		0.22	0.26		1.05	0.24	0.632	0.9100	0.300	1.98	0.02642
Zn	1.087	3.00	2.03	<1	0.30		1.07	3.45			1.08	1.20	1.50		11.23	0.1
As	0.004	0.03		<0.03			0.001			0.015	0.001	0.013	0.0061		0.03	0.0001
Rb	0.407			4.49								8.500	16.0		23	0.006
Sr	0.184			0.3			0.232				0.115				1.557	0.0248
Tl	0.001			0.0007			0.032								0.535	0.00002
Pb	0.032	0.03	0.171	0.011	0.18	0.289	0.033	0.04	0.00	0.030	0.0111	0.036	0.0140	0.042	1.39	0.00085

U	0.001	0.0003		0.0003			0.0001								0.00 09	0.000 01
Cd		0.003		0.0007	0.02	0.013	0.0006		0.00	0.006	0.0033			0.005	0.27	0.000 17
Hg		0.0021		0.0008	0.07		0.0002			0.881					1.71 3	0.000 4
Ref	*	[48]	[74]	[75]	[83]	[79]	[76]	[77]	[42]	[2]	[18]	[16]	[40]	[84]		

* present research

Table S4. Elemental composition of polyfloral bee pollen found in the present research (Abruzzo) and those found in the literature (μg g^{-1} ± standard deviation (n=3)).

	Abruzzo	**Lazio**	**Lazio**	**Swiss**	**Turky**	**Review**
Mg	854		483	200-3000	648–2150	200-3600
Al	12.6		24.1			
K	5985.5		4880	4000-20000		
Ca	1233.7		973	200-3000	726–2202	180-6500
V	0.0563		0.08			
Cr	0.18	0.22	0.12		0,85-3,4	0.002–42
Mn	37.3		26	20-110	18-117	5.1–430
Fe	72.6		42.7	11-170	35–811	6.6–1180
Co	0.05		0.044			

Ni	1.25	0.3	<0,7		2.32-21.7	0,002-6,85
Cu	12.9		6.2	2-16	8–26	0.11–27.7
Zn	75.6	27	23	30-250	18-48	5.1–162
As	0.05	0.05	<0,2		1.3–2.25	0.007-14,71
Rb	5.46		30.1			
Sr	3.20		3.9			
Cd	0.03	0.033	0.021		0.039–1.39	0,0016-15,40
Cs	0.03		0.065			
Tl	0.02		0.0091			
Pb	2.08	0.12	0.08		0.005–0.622	0,001-18,2
U	0.02	0.0057	0.026			
Hg		0.0067	0.0008			
Ref	*	[48]	[74]	[84]	[27]	[58]

* present research