

**Additional file 3. Correct and incorrect posterior assignment of nests to their population based on cuticular hydrocarbon profiles.**

Posterior probabilities of each nest to be assigned to its original population in which it was sampled based on the chemical hydrocarbon profile. Cases, in which posterior probabilities were higher for another population (bold), this posterior probability, as well as the identification of the other population is given.

Original population	Nest number	Posterior probability for		
		Original population	Alternative population	Alternative population
Ghent	1	0.99		
	2	0.37	0.62	Jena
	3	1.00		
	4	0.87		
	5	1.00		
Seva	1	0.98		
	2	0.99		
	3	0.99		
	4	0.91		
	5	1.00		
Paris	1	0.00	0.38	Bellaterra
	2	0.50		
	3	1.00		
	4	0.96		
Budapest	1	0.19	0.34	Toulouse
	2	0.97		
	3	1.00		
Toulouse	1	0.87		
	2	0.67		
	3	0.40		
	4	0.38		
	5	0.31	0.38	Volterra
Warsaw	1	1.00		
	2	1.00		
	3	1.00		
	4	1.00		
	5	1.00		
Bellaterra	1	0.34	0.60	Toulouse
	2	0.20	0.52	Volterra
	3	0.03	0.57	Debrecen
	4	0.55		
	5	0.61		
Debrecen	1	0.13	0.45	Toulouse
	2	0.68		
	3	0.77		
	4	0.49		
	5	0.63		

Jena	1	0.91		
	2	0.96		
	3	0.36	0.62	Edirne1
	4	0.99		
	5	0.83		
Volterra	1	0.94		
	2	1.00		
	3	0.56		
Bayramiç	1	0.00	0.77	Ghent
	2	1.00		
	3	1.00		
	4	0.90		
	5	0.99		
Edirne1	1	0.87		
	2	0.89		
	3	0.60		
	4	0.83		
	5	0.80		
	6	0.18	0.70	Budapest
	7	0.74		
Edirne2	1	0.65		
	2	0.92		
	3	0.86		
	4	0.94		
	5	0.99		
	6	0.97		
Edirne3	1	0.95		
	2	0.78		
	3	0.50		
	4	0.97		
	5	0.59		