

**Plate 4.18** Morphometrical analysis of *Hipparchia syriaca* and *H. fagi*

Number of each butterfly's wing for the Morphometrical Analysis	Country	Department	Locality	Date Month Year	Altitude (m)	Name of species following HESSELBARTH et al (1995): Vol. 2, page 897	The number of the photograph in the archive. Notes on Bibliography.	Name of species: after present Morphometrical Analysis. (bold from Bibliography)	Male Female	Length: 12	Length: 34	Length: 45	Length: 67	Length: 4538	Area: (12341)	Area: (45674)	Perimeter: 12341	Perimeter: 45674	Number of each butterfly's wing for the Morphometrical Analysis	M/P	T/U	R/S	P/M	(P+M)/(O+N)
										M	N	O	P	Q	R	S	T	U		Ratio 1	Ratio 2	Ratio 3	Ratio 4	Ratio 5
1	Greece THE	Mt Kakarditsa Kastaniasa	19 7 1987	1000	<i>syriaca</i>	354025	<i>syriaca</i>	Male	89,221	33,106	5	84,12	339,11	4429	2243	278,66	272,8	1	1,061	1,0215	1,9746	0,9428	4,5489	
2	Greece MAC	Mt Falakro	29 7 1988	1800	<i>fagi</i>	454012	<i>fagi</i>	Male	57,741	16,492	7,28	74,007	331,85	2417	1624	208,4	247,14	2	0,78	0,8432	1,4883	1,2817	5,5422	
3	Greece MAC	Mt Alevitsa	26 8 1989	1500	<i>fagi</i>	551019	<i>fagi</i>	Male	58,052	17,205	10,77	101,87	433,93	2136	3564	197,16	281,51	3	0,57	0,7004	0,5993	1,7548	5,7167	
4	Greece MAC	Mt Smolikas Samarina	16 9 1989	1500	<i>fagi</i>	555018	<i>fagi</i>	Male	56,08	23,409	6,325	102,42	299,4	1980	2101	206,62	250,5	4	0,548	0,8249	0,9424	1,8264	5,3307	
5	Greece MAC	Mt Falakro Livadero	28 6 1990	600	<i>syriaca</i>	617030	<i>fagi</i>	Male	73,036	37,014	14,036	92,445	397,84	2412	1985	214,68	286,65	5	0,79	0,7489	1,2151	1,2657	3,2415	
6	Greece EPI	Mt Grammos Kamenik	2 9 1990	1450	<i>fagi</i>	672017	<i>fagi</i>	Male	72,193	21,932	11,662	105,89	463,29	4642	3640	292,84	316	6	0,682	0,9267	1,2753	1,4668	5,3011	
7	Greece AEG	I Rhodes Psinthos Maritsa	29 5 1991	200	<i>syriaca</i>	706023	<i>syriaca</i>	Male	89,055	58,138	17	58,694	362,11	4071	1927	301,77	223,13	7	1,517	1,3524	2,1126	0,6591	1,9664	
8	Greece MAC	Mt Triklari Agios Georgios	19 7 1991	1200	<i>fagi</i>	729024	<i>fagi</i>	Male	69,276	30	19	100,3	389,32	2288	2737	214,11	289,1	8	0,691	0,7406	0,836	1,4478	3,4606	
9	Greece THR	Mt Rhodope Kechros	23 7 1991	800	<i>syriaca</i>	731019	<i>fagi</i>	Male	69,722	30,806	8,246	95,74	369,7	2794	1725	226,84	267,62	9	0,728	0,8476	1,6197	1,3732	4,237	
10	Greece MAC	Mt Lailias Ski Center	15 8 1991	1600	<i>syriaca</i>	748029	<i>fagi or syriaca</i>	Male	75,252	33,615	8,944	80	439,56	3652	2706	245,72	277,98	10	0,941	0,884	1,3496	1,0631	3,6479	
11	Greece AEG	I Rhodes Profitis Elias	8 7 1992	400	<i>syriaca</i>	803036	<i>syriaca</i>	Male	87,44	37,054	16,031	53,367	359,98	3480	1629	262,67	215,58	11	1,638	1,2184	2,1363	0,6103	2,6525	
12	Greece MAC	Mt Rhodope Platanorema	12 7 1992	1000	<i>syriaca</i>	808022	<i>fagi</i>	Male	57,454	15,033	6	88,006	325,8	2487	2430	197,41	264,87	12	0,653	0,7453	1,0235	1,5318	6,9158	
13	Greece EPI	Mt Tomaros Dodoni	12 7 1993	700	<i>fagi</i>	888029	<i>fagi</i>	Male	62,122	25,318	25,318	92,838	376,97	2547	3490	202,43	305,87	13	0,669	0,6618	0,7298	1,4944	3,0603	
14	Greece EPI	Mt Tomaros Dodoni	27 7 1993	700	<i>syriaca</i>	902012	<i>fagi</i>	Male	62,073	23,77	6,708	83,287	410,14	2417	2637	218,24	246,88	14	0,745	0,884	0,9166	1,3418	4,7693	
15	Greece EPI	Mt Tomaros Dodoni	27 7 1993	600	<i>fagi</i>	902014	<i>fagi</i>	Male	48,754	19	10,198	99,324	320,75	1915	2465	199,44	287,66	15	0,491	0,6933	0,7769	2,0372	5,0715	
16	Greece EPI	Mt Tomaros Dodoni	27 7 1993	600	<i>syriaca</i>	902015	<i>syriaca</i>	Male	68,376	22,023	7,071	65,419	335,77	2618	1470	217,22	228,46	16	1,045	0,9508	1,781	0,9568	4,5987	
17	Greece EPI	Mt Grammos Kamenik	19 7 1994	1400	<i>syriaca</i>	982018	<i>fagi</i>	Male	45,007	24,187	10,817	58,523	255,58	165	201	165,29	201,02	17	0,769	0,8223	0,8223	1,3003	2,9577	
18	Greece MAC	Mt Amouda Kalybia	30 7 1994	1300	<i>fagi</i>	990031	<i>fagi</i>	Male	45,243	12,166	6	66,054	453,23	1490	1815	159,05	259,54	18	0,685	0,6128	0,8209	1,46	6,1267	
19	Greece MAC	Mt Alevitsa	3 9 1994	1200	<i>fagi</i>	999032	<i>fagi</i>	Male	74,821	7,28	20,591	109,02	468,47	2300	3938	215,74	313,46	19	0,686	0,6883	0,5841	1,457	6,596	
20	Greece EPI	Mt Grammos Kamenik	13 7 1995	1300	<i>syriaca</i>	1051009	<i>fagi</i>	Male	66,219	23,409	9,487	66,287	355,31	2264	1909	203,76	238,92	20	0,999	0,8528	1,186	1,001	4,028	
21	Greece MAC	Mt Rhodope Frakto	26 7 1995	1300	<i>syriaca</i>	1065010	<i>fagi</i>	Male	66,129	16	16	96,338	343,09	2271	2374	234,64	314,32	21	0,686	0,7465	0,9566	1,4568	5,0771	
22	Greece SHE	I Evoia Ochi Myli	21 6 1996	350	<i>syriaca</i>	1126015	<i>syriaca</i>	Male	109,45	44,911	1,414	97,144	388,21	5445	2446	306,99	272,92	22	1,127	1,1248	2,2261	0,8875	4,4598	
23	Greece AEG	I Samos Kerkis	19 7 1996	600	<i>syriaca</i>	1138034	<i>syriaca</i>	Male	104,02	34,482	34,482	98,351	377	4084	3396	274,54	389,66	23	1,058	0,7046	1,2026	0,9455	2,9344	
24	Greece MAC	Mt Menoikio Karagkioz Giol	15 8 1996	1300	<i>syriaca</i>	1154017	<i>fagi</i>	Female	57,28	44,045	10,05	106,48	428,41	1726	1436	184,65	244,56	24	0,538	0,7551	1,2019	1,8589	3,0273	
25	Greece MAC	Mt Pagaion Petaloudas	28 8 1999	1550	<i>syriaca</i>	1251028	<i>fagi</i>	Male	56,824	26,476	17,117	109,07	384,23	2012	2386	204,85	303,43	25	0,521	0,6751	0,8433	1,9195	3,8056	
26	Greece EPI	Mt Mitsikeli Dikorfo	8 7 2000	1300	<i>syriaca</i>	1300034	<i>fagi</i>	Male	41,224	16,763	10,198	111,5	318,25	1301	1261	179,63	265,27	26	0,37	0,6772	1,0317	2,7046	5,6644	
27	Greece MAC	Mt Avgo Diza	28 7 2000	1450	<i>fagi</i>	1314002	<i>fagi</i>	Male	48,27	14,56	7,616	80,857	365,57	1668	1857	176,6	247,21	27	0,597	0,7143	0,8982	1,6751	5,8228	

**Plate 4.18** Morphometrical analysis of *Hipparchia syriaca* and *H. fagi*

Number of each butterfly's wing for the Morphometrical Analysis	Country	Department	Locality	Date Month Year	Altitude (m)	Name of species following HESSELBARTH et al (1995): Vol. 2, page 897	The number of the photograph in the archive. Notes on Bibliography.	Name of species: after present Morphometrical Analysis. (bold from Bibliography)	Male Female	Length: 12	Length: 34	Length: 45	Length: 67	Length: 4538	Area: (12341)	Area: (45674)	Perimeter: 12341	Perimeter: 45674	Number of each butterfly's wing for the Morphometrical Analysis	M/P	T/U	R/S	P/M	(P+M)/(O+N)
										M	N	O	P	Q	R	S	T	U		Ratio 1	Ratio 2	Ratio 3	Ratio 4	Ratio 5
28	Greece	EPI	Mt Avgo Vovousa Aratsi	28 7 2000	1200	<i>fagi</i>	1314011	<i>fagi</i>	Male	54,562	15,866	10,77	90,64	310,9	1837	1990	208,03	255,71	28	0,602	0,8135	0,9231	1,6612	5,4513
29	Greece	EPI	Mt Mitsikeli Aristi	13 8 2000	1000	<i>fagi</i>	1317033	<i>fagi</i>	Male	83,096	30,676	23,087	95,415	458,93	2812	3240	238,63	291,62	29	0,871	0,8183	0,8679	1,1483	3,3203
30	Greece	MAC	Mt Peristeri Ag Germanos	7 7 2001	1150	<i>fagi</i>	1343021	<i>fagi</i>	Male	42,72	13	13	63,953	312,97	1397	1396	160,36	220,49	30	0,668	0,7273	1,0007	1,497	4,1028
31	Greece	THR	Mt Rhodope Toxotes	8 7 2002	50	<i>fagi</i>	1378026	<i>fagi</i>	Male	43,267	14,142	20	96,177	401,97	1327	2034	157,02	284,25	31	0,45	0,5524	0,6524	2,2229	4,0842
32	Greece	MAC	Mt Falakro Achladia	13 7 2002	550	<i>syriaca</i>	1381007	<i>syriaca</i>	Male	109,94	50,606	17,804	81,056	397,21	4054	1885	284,97	287,82	32	1,356	0,9901	2,1507	0,7373	2,7919
33	Greece	MAC	Mt Falakro Achladia	13 7 2002	550	<i>syriaca</i>	1381019	<i>syriaca</i>	Male	94,874	35,468	28,284	100,47	318,77	2718	1865	247,36	278,93	33	0,944	0,8868	1,4574	1,059	3,0642
34	Greece	MAC	Mt Rhodope Olougiala	16 8 2002	1200	<i>syriaca</i>	1397017	<i>fagi</i>	Male	71,021	30,871	10,77	87,132	420,96	1989	1736	196,78	255,74	34	0,815	0,7694	1,1457	1,2268	3,798
35	Greece	EPI	Mt Mitsikeli Monodendri	14 7 2004	1050	<i>syriaca</i>	1489034	<i>fagi</i>	Male	39,21	20,1	20,1	90,355	291,14	1866	1724	193,59	281,49	35	0,434	0,6877	1,0824	2,3044	3,223
36	Greece	MAC	Mt Alevitsa	4 8 2004	1450	<i>syriaca</i>	1500006	<i>fagi</i>	Male	67,119	39,56	16,125	106,37	414,03	1765	2114	187,58	263,54	36	0,631	0,7118	0,8349	1,5848	3,1155
37	Greece	MAC	Mt Vermio Agia Sotira	7 8 2005	1350	<i>syriaca</i>	1663008	<i>fagi</i>	Male	26,833	5	5	27,659	194,82	391	393	86,641	124,38	37	0,97	0,6966	0,9949	1,0308	5,4492
38	Greece	MAC	Mt Vermio Agia Sotira	7 8 2005	1350	<i>syriaca</i>	1663009	<i>fagi</i>	Male	63,953	13,153	13,153	59,933	339,12	2113	2007	213,88	258,26	38	1,067	0,8281	1,0528	0,9371	4,7094
39	Greece	SHE	Mt Tymfristos Karameti Katsantoni	20 8 2005	1300	<i>syriaca</i>	1680009	<i>fagi</i>	Male	66,098	26,926	5,831	90,377	373,97	2793	3315	227,46	299,76	39	0,731	0,7588	0,8425	1,3673	4,7768
40	Greece	THR	Mt Rhodope Gibrena	14 9 2006	300	<i>syriaca</i>	1786020	<i>fagi or syriaca</i>	Male	70,264	24	3,162	71,84	348,69	2581	1452	220,11	255,73	40	0,978	0,8607	1,7775	1,0224	5,2317
41	Greece	MAC	Mt Falakro Dendrakia	10 8 2008	900	<i>fagi</i>	1938034	<i>fagi</i>	Male	56,332	7,28	7,28	92,698	404,11	1736	2046	180,25	307,58	41	0,608	0,586	0,8485	1,6456	10,236
42	Turkey					HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.		<i>syriaca</i>	Male	21,954	9,434	2	20,146	95,464	233	169	68,623	66,293	42	1,09	1,0351	1,3787	0,9176	3,682
43	Turkey					HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.		<i>syriaca</i>	Male	22,885	7,81	3,606	21,095	95,661	220	181	64,951	71,942	43	1,085	0,9028	1,2155	0,9218	3,8525
44	Turkey					HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.		<i>syriaca</i>	Male	25,942	9,22	5,22	22,471	99,989	329	220	79,291	84,129	44	1,154	0,9425	1,4955	0,8662	3,3527
45	Turkey					HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.		<i>syriaca</i>	Male	25,581	12,042	6,03	23,71	98,95	326	201	80,5	85,16	45	1,079	0,9453	1,6219	0,9269	2,7275
46	Turkey					HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.		<i>syriaca</i>	Male	19,416	7,211	3,606	18,796	94,17	183	122	61,208	66,351	46	1,033	0,9225	1,5	0,9681	3,5326
47	Turkey					HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.		<i>syriaca</i>	Male	19,723	6,708	3,162	18,358	90,616	175	94	60,207	70,954	47	1,074	0,8485	1,8617	0,9308	3,8583
48	Germany					FELDMAN et al (1999): page 283		<i>fagi</i>	Male	16,401	5	2,236	21,932	108,75	172	194	60,4	86,805	48	0,748	0,6958	0,8866	1,3372	5,2975
49	Germany					FELDMAN et al (1999): page 283		<i>fagi</i>	Male	15,811	3,606	2,236	23,259	110,22	156	229	61,88	79,607	49	0,68	0,7773	0,6812	1,4711	6,6878
50	FYROM					Shaider et al (1988): Tafel 35		<i>fagi</i>	Male	18,385	2,236	2,236	16,763	85,137	160	143	54,617	64,403	50	1,097	0,8481	1,1189	0,9118	7,8596
51	FYROM					Shaider et al (1988): Tafel 35		<i>fagi</i>	Male	17,692	3,606	3,606	20,616	83,397	144	105	51,098	62,284	51	0,858	0,8204	1,3714	1,1653	5,3117
52	FYROM					Shaider et al (1988): Tafel 35		<i>syriaca</i>	Male	19,849	9,434	2,236	18,974	76,633	201	112	62,163	65,216	52	1,046	0,9532	1,7946	0,9559	3,3267
53	FYROM					Shaider et al (1988): Tafel 35		<i>syriaca</i>	Male	23,204	9,434	2	20,248	75,773	187	131	58,401	62,459	53	1,146	0,935	1,4275	0,8726	3,8002
54	Bulgaria					ABADJIEV (1995): Plate IX		<i>syriaca</i>	Male	23,601	7,211	2,236	25,08	118,32	269	139	75,044	72,411	54	0,941	1,0364	1,9353	1,0627	5,1531
55	Bulgaria					ABADJIEV (1995): Plate IX		<i>fagi</i>	Male	20,616	8,062	2,236	30,871	97,227	251	248	74,587	88,859	55	0,668	0,8394	1,0121	1,4974	4,9997
56	Greece	I Samos				TOLMAN (2001): page 187		<i>syriaca</i>	Male	16,264	7,071	2	17,029	75,616	149	85	51,432	51,649	56	0,955	0,9958	1,7529	1,047	3,6703

**Plate 4.18** Morphometrical analysis of *Hipparchia syriaca* and *H. fagi*

Number of each butterfly's wing for the Morphometrical Analysis	Country	Department	Locality	Date Month Year	Altitude (m)	Name of species following HESSELBARTH et al (1995): Vol. 2, page 897	The number of the photograph in the archive. Notes on Bibliography.	Name of species: after present Morphometrical Analysis. (bold from Bibliography)	Male Female	Length: 12	Length: 34	Length: 45	Length: 67	Length: 4538	Area: (12341)	Area: (45674)	Perimeter: 12341	Perimeter: 45674	Number of each butterfly's wing for the Morphometrical Analysis	M/P	T/U	R/S	P/M	(P+M)/(O+N)
										M	N	O	P	Q	R	S	T	U		Ratio 1	Ratio 2	Ratio 3	Ratio 4	Ratio 5
57	(EUROPE)						CHINERY (1998):page 178	<b>fagi</b>	Male	16,492	5	1,414	19,925	101,57	136	136	51,494	70,069	57	0,828	0,7349	1	1,2082	5,6777
58	Cyprus						MAKPHΣ (2002): page 241	<b>syriaca</b>	Male	66,31	31	9,849	65,765	281,77	1885	1146	189,37	180,07	58	1,008	1,0517	1,6449	0,9918	3,2332
59	Turkey						BAYTAS (2007):page 169	<b>syriaca</b>	Male	24,739	7,28	7,28	24,515	92,327	236	185	65,313	85,145	59	1,009	0,7671	1,2757	0,9909	3,3828
60	Romania						Dinca et al (2010): Fig. S19a	<b>fagi</b>	Male	26,833	12,207	5	29,547	136,79	419	338	84,648	96,073	60	0,908	0,8811	1,2396	1,1011	3,2766
61	Romania						Dinca et al (2010): Fig. S19b	<b>fagi</b>	Male	26,926	4,243	4,243	32,65	132,98	401	335	85,706	100,9	61	0,825	0,8494	1,197	1,2126	7,0205
62	Romania						Dinca et al (2010): Fig. S19c	<b>syriaca</b>	Male	25,456	9,487	4,123	20,1	132,55	363	239	78,514	84,32	62	1,266	0,9311	1,5188	0,7896	3,3472
63	Romania						Dinca et al (2010): Fig. S19d	<b>syriaca</b>	Male	32,527	11,662	6,708	24,187	129,45	504	360	101,47	102,95	63	1,345	0,9856	1,4	0,7436	3,0873
64	Greece THE	Mt Trigia Tria Potamia		6 8 1989	1000	<i>fagi</i>	538024	<i>fagi</i>	Female	72,56	44,091	25	83,295	391,09	2933	3457	233,04	275,78	64	0,871	0,845	0,8484	1,1479	2,2558
65	Greece MAC	Mt Vourinos Palaiokastro		23 8 1989	1000	<i>fagi</i>	549030	<i>fagi</i> or <i>syriaca</i>	Female	109,42	77,356	56,056	129,17	452,69	6100	5733	343,19	351,34	65	0,847	0,9768	1,064	1,1805	1,7884
66	Greece MAC	Mt Alevitsa		26 8 1989	1500	<i>fagi</i>	551025	<i>fagi</i>	Female	85,44	55,082	55,082	116,244	428,799	4210	4854	284,1	329,5	66	0,735	0,8622	0,8673	1,3605	1,8308
67	Greece MAC	Mt Rhodope Pefki		3 7 1990	350	<i>syriaca</i>	625014	<i>syriaca</i>	Male	88,662	52,454	17,029	91,924	366,22	2554	1851	235,11	261,9	67	0,965	0,8977	1,3798	1,0368	2,599
68	Greece EPI	Igoumenitsa		14 7 1990	300	<i>syriaca</i>	632029	<i>fagi</i>	Female	100,6	51,788	26,926	131,09	411,62	4871	3653	299,58	315,58	68	0,767	0,9493	1,3334	1,303	2,9434
69	Greece EPI	Mt Grammos Pano Arena		24 7 1988	1700	<i>syriaca</i>	449030	<i>syriaca</i>	Female	130,79	86,187	39,115	94,557	412,59	5326	4365	350,18	314,72	69	1,383	1,1126	1,2202	0,723	1,7984
70	Greece AEG	I. Samos Pythagorio		22 5 1993	50	<i>syriaca</i>	868004	<i>syriaca</i>	Female	117,72	120,32	74,734	98,864	407,24	7689	4377	420,62	347,72	70	1,191	1,2096	1,7567	0,8398	1,1104
71	Greece EPI	Igoumenitsa		14 7 1994	100	<i>syriaca</i>	975021	<i>syriaca</i>	Female	111,07	90,871	39,56	117,06	475,81	6850	5251	351,24	335,96	71	0,949	1,0455	1,3045	1,0539	1,7491
72	Greece EPI	Mt Mitsikeli Monodendri		22 7 2000	900	<i>fagi</i>	1312008	<i>fagi</i>	Female	82,28	44,283	29,275	121,28	380,1	3415	3698	250,62	316,23	72	0,678	0,7925	0,9235	1,474	2,7673
73	Greece MAC	Mt Falakro Achladia		23 9 2003	550	<i>syriaca</i>	1439031	<i>fagi</i> or <i>syriaca</i>	Female	83,302	71,021	41,976	113,32	391,54	4558	3320	309,48	287,83	73	0,735	1,0752	1,3729	1,3603	1,74
74	Greece MAC	Mt Falakro Achladia		23 9 2003	550	<i>syriaca</i>	1439032	<i>fagi</i>	Female	97,551	58,464	20,616	107,84	408,06	2198	2066	225,41	297,51	74	0,905	0,7576	1,0639	1,1055	2,5972
75	Greece THR	Mt Rhodope Dadia		22 7 2004	200	<i>syriaca</i>	1490026	<i>syriaca</i>	Female	63	43,966	34,785	51,884	219,94	1349	1441	163,66	183,16	75	1,214	0,8935	0,9362	0,8236	1,4588
76	Greece EPI	Mt Mitsikeli Monodendri		26 7 2004	1300	<i>syriaca</i>	1493014	<i>fagi</i>	Female	66,439	50,16	13,601	92,418	354,84	2521	2225	231,78	242,93	76	0,719	0,9541	1,133	1,391	2,4914
77	Greece EPI	Mt Mitsikeli Monodendri		11 8 2004	1300	<i>syriaca</i>	1501013	<i>syriaca</i>	Female	89,275	60,583	36,77	93,944	404,06	3716	3396	274,91	306,6	77	0,95	0,8966	1,0942	1,0523	1,882
78	Greece EPI	Mt Mitsikeli Monodendri		11 8 2004	1300	<i>fagi</i>	1502007	<i>fagi</i>	Female	84,22	42,19	21,932	96,799	398,33	3283	3128	243,44	260,78	78	0,87	0,9335	1,0496	1,1494	2,823
79	Greece EPI	Mt Mitsikeli Monodendri		11 8 2004	1350	<i>fagi</i>	1502032	<i>fagi</i>	Female	76,694	54,708	48,877	115,4	382,58	3517	3310	254,36	362,98	79	0,665	0,7007	1,0625	1,5046	1,8544
80	Greece SHE	Mt Tymfrystos Karameti Katsantoni		20 8 2005	1300	<i>syriaca</i>	1679002	<i>fagi</i> or <i>syriaca</i>	Female	99,005	50,774	35,847	97,082	458,32	3275	3939	258,33	318,84	80	1,02	0,8102	0,8314	0,9806	2,2637
81	Greece THR	Mt Rhodope Tris Vrises		23 6 2008	800	<i>syriaca</i>	1908037	<i>fagi</i> or <i>syriaca</i>	Female	95,047	52,773	46,065	96,566	382,1	4064	4135	284,41	369,11	81	0,984	0,7705	0,9828	1,016	1,9387
82	Greece MAC	Mt Rhodope Frakto Vrachokipos		12 8 2008	1700	<i>fagi</i>	1939019	<i>fagi</i>	Female	84,241	39,85	30,083	91,444	370,44	4117	5350	278,59	352,25	82	0,921	0,7909	0,7695	1,0855	2,5122
83	Romania						Dinca et al (2010): Fig. S20	<b>fagi</b>	Male	66,843	13,601	13,601	64,63	3145	2097	236,32	276,49	83	1,034	0,8547	1,4998	0,9669	4,8332	
84	Romania						Dinca et al (2010): Fig. S20	<b>fagi</b>	Male	64,288	16,492	16,492	57,245	2222	2317	214,29	277,6	84	1,123	0,7719	0,959	0,8904	3,6846	

**Plate 4.18** Morphometrical analysis of *Hipparchia syriaca* and *H. fagi*

Number of each butterfly's wing for the Morphometrical Analysis	Country	Department	Locality	Date Month Year	Altitude (m)	Name of species following HESSELBARTH et al (1995): Vol. 2, page 897	The number of the photograph in the archive. Notes on Bibliography.	Name of species: after present Morphometrical Analysis. (bold from Bibliography)	Male Female	Length: 12		Length: 34		Length: 45		Length: 67		Length: 4538		Area: (12341)		Area: (45674)		Perimeter: 12341		Perimeter: 45674		Number of each butterfly's wing for the Morphometrical Analysis	M/P	T/U	R/S	P/M	(P+M)/(O+N)
										M	N	O	P	Q	R	S	T	U	Ratio 1	Ratio 2	Ratio 3	Ratio 4	Ratio 5										
85	Romania						Dinca et al (2010): Fig. S20	<b>fagi</b>	Male	66,37	17,117	9	89,09			2599	1979	214,18	269,51	85	0,745	0,7947	1,3133	1,3423	5,9524								
86	Romania						Dinca et al (2010): Fig. S20	<b>fagi</b>	Male	55,218	19,026	15	74,061			2025	1853	181,24	258,52	86	0,746	0,7011	1,0928	1,3412	3,7994								
87	Romania						Dinca et al (2010): Fig. S20	<b>syriaca</b>	Male	61,555	22,804	16,279	61,714			2434	1688	195,96	254,14	87	0,997	0,7711	1,4419	1,0026	3,154								
88	Romania						Dinca et al (2010): Fig. S20	<b>syriaca</b>	Male	88,091	31,78	27,459	72,339			3681	2802	275,35	296,92	88	1,218	0,9274	1,3137	0,8212	2,7082								
89	Romania						Dinca et al (2010): Fig. S20	<b>syriaca</b>	Male	86,406	38,013	6,083	64,63			3536	1538	257,99	214,83	89	1,337	1,2009	2,2991	0,748	3,4252								
90	Romania						Dinca et al (2010): Fig. S20	<b>syriaca</b>	Male	87,576	45,122	40,262	74,847			4512	3365	280,47	292,69	90	1,17	0,9582	1,3409	0,8547	1,9023								
91	France						Lafrancis (2000): page 343	<b>fagi</b>	Female	34,015	15,62	15,62	44,598	200,99	621	800	108,14	133,59	91	0,763	0,8095	0,7763	1,3111	2,5164									
92	Bulgaria						ABADJIEV (1995): Plate IX	<b>syriaca</b>	Female	34,059	18,028	3,162	24,166	131,49	429	247	90,559	78,131	92	1,409	1,1591	1,7368	0,7095	2,7478									
93	Germany						Gunder Ebert (1991): page 14	<b>fagi</b>	Female	27,306	16,031	12,042	29,457	109,26	355	339	83,936	95,062	93	0,927	0,883	1,0472	1,0788	2,022									
94	Greece						TOLMAN (2001): page 186	<b>fagi</b>	Female	26,306	17,029	10,05	28,165	113,62	350	345	82,148	89,371	94	0,934	0,9192	1,0145	1,0707	2,0116									
95	Europe						CHINERY (1998):page 178	<b>syriaca</b>	Female	32,558	23,77	17,464	26,495	129,84	467	399	96,318	109,79	95	1,229	0,8773	1,1704	0,8138	1,4321									
96	Turkey						HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.	<b>syriaca</b>	Female	34,409	21,401	13,601	24,597	106,89	429	243	92,63	88,181	96	1,399	1,0505	1,7654	0,7148	1,6858									
97	Turkey						HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.	<b>syriaca</b>	Female	33,015	19,416	7,211	25,06	114,02	420	221	92,8	72,174	97	1,317	1,2858	1,9005	0,759	2,1811									
98	Turkey						HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.	<b>syriaca</b>	Female	36,125	24,187	12,53	26,926	115,05	481	395	99,668	102,84	98	1,342	0,9692	1,2177	0,7454	1,7172									
99	Turkey						HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.	<b>syriaca</b>	Female	32,202	25,393	8,544	33,554	119,38	482	392	94,628	98,738	99	0,96	0,9584	1,2296	1,042	1,9376									
100	Turkey						HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.	<b>syriaca</b>	Female	28,659	18,601	16,401	34,017	111,37	388	283	88,828	94,648	100	0,842	0,9385	1,371	1,187	1,7906									
101	Turkey						HESSELBARTH et al (1995): Vol. 3, Tafel 58, page 205.	<b>syriaca</b>	Female	28,32	18,358	14,318	33,636	110,92	377	300	81,904	106,19	101	0,842	0,7713	1,2567	1,1877	1,8961									
102	Italy						Villa (2010): page 269	<b>syriaca</b>	Female	26,19	15,811	11,705	26,251	111,65	297	249	76,541	87,076	102	0,998	0,879	1,1928	1,0023	1,9058									
103	Italy						Villa (2010): page 269	<b>syriaca</b>	Female	27,659	14,866	11,402	26,926	109,97	279	260	76,63	82,005	103	1,027	0,9345	1,0731	0,9735	2,078									
104	Turkey						BAYTAS (2007):page 169	<b>syriaca</b>	Female	40,259	31,145	15,045	31,042	114,11	515	446	106,7	102,53	104	1,297	1,0406	1,1547	0,7711	1,5436									
105	Greece AEG	I Rhodes					Olivier (1993):page 131	<b>syriaca</b>	Male	34,205	13,416	5,385	19,925	100,2	366	149	90,568	68,908	105	1,717	1,3143	2,4564	0,5825	2,8791									
106	Greece AEG	I Rhodes					Olivier (1993):page 132	<b>syriaca</b>	Male	29,698	11,705	4,123	19,235	95,247	381	134	91,83	72,641	106	1,544	1,2642	2,8433	0,6477	3,0915									
107	Greece AEG	I Rhodes					Olivier (1993):page 133	<b>syriaca</b>	Male	21,401	9,434	4,472	16,763	95,425	220	161	62,471	64,633	107	1,277	0,9665	1,3665	0,7833	2,7444									
108	Greece AEG	I Rhodes					Olivier (1993):page 134	<b>syriaca</b>	Male	26,173	9,434	4,472	19,313	95,907	293	152	77,466	67,66	108	1,355	1,1449	1,9276	0,7379	3,271									
109	Greece AEG	I Rhodes					Olivier (1993):page 135	<b>syriaca</b>	Female	34,059	26,077	23,022	32,915	115,92	575	484	104,66	107,9	109	1,035	0,97	1,188	0,9664	1,3641									
110	Greece AEG	I Rhodes					Olivier (1993):page 136	<b>syriaca</b>	Female	32,558	16,643	11,662	28,862	107,99	482	323	96,945	97,677	110	1,128	0,9925	1,4923	0,8865	2,1699									
111	Greece AEG	I Rhodes					Olivier (1993):page 137	<b>syriaca</b>	Female	38,949	27,295	10,296	26	117,12	525	365	101,43	95,165	111	1,498	1,0658	1,4384	0,6675	1,7278									