A revised catalogue of the centipedes (Chilopoda) of the North Aegean Archipelago with particular reference to the islands of Híos, Límnos and Skyros

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Although there are numerous faunistic works concerning the centipede fauna of Greece (1, 2, 3, 4) and most of its islands (5, 6, 7, 8), there is still scanty information for many regions, such as the north Aegean archipelago. The centipedes of the north Aegean are almost unknown. Our poor knowledge derives mainly from scattered reports (1, 2, 3, 4, 5, 8, 9, 10).

The north Aegean archipelago consists of 6 large islands (>100km^2). Lésvos, the third largest Greek island and the seventh largest in the Mediterranean, is the largest and easternmost island of the area (1630km²), followed by Híos in the south with an area of 904km^2, Límnos, the most distant island from the continental areas with an area of 476km^2, Thásos, the northernmost island with an area of 380km^2, Skyros, the westernmost island of the region with an area of 209km^2, and Samothraki in the northeast of about 178km² (Fig. 1).

In the modern catalogue of the centipede fauna of Greece (4), one species has been recorded from Límnos, 2 from Skyros, 3 from Lésvos, 5 from Híos and Thásos as well as 7 from Samothraki.

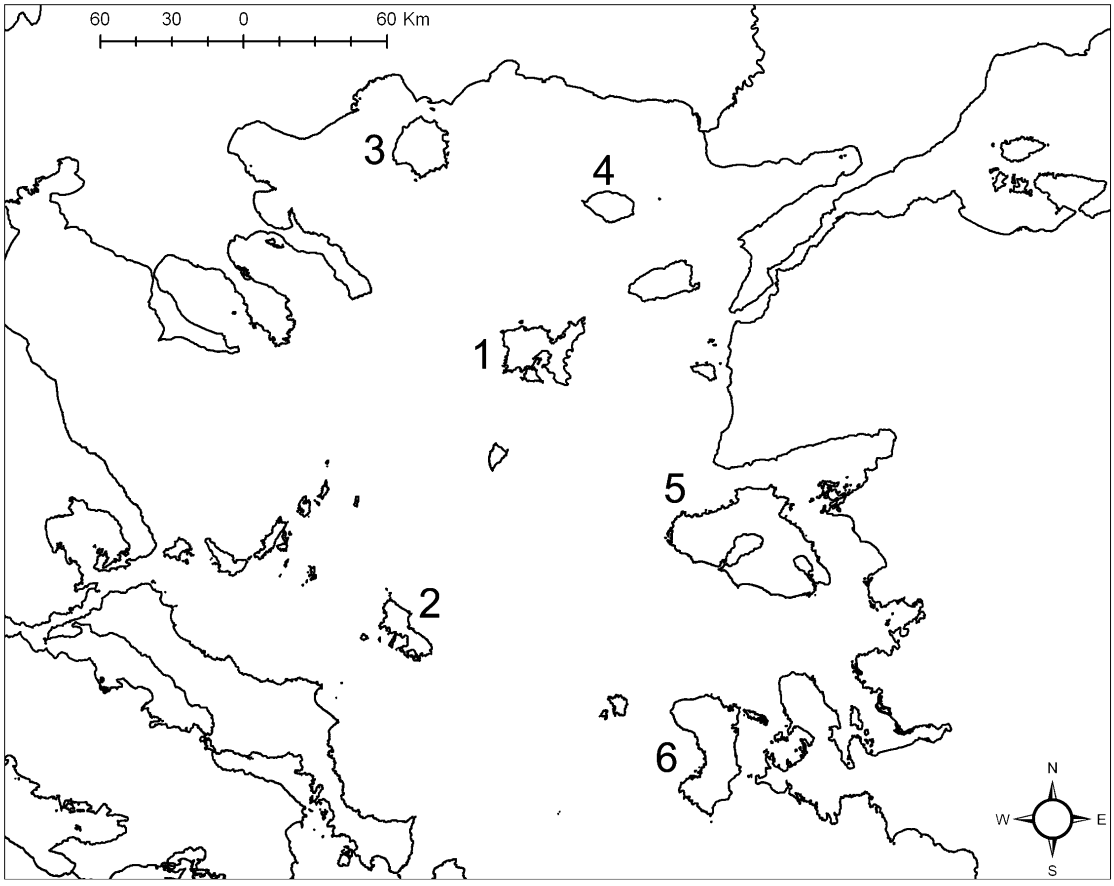

Fig. 1. – Map of north Aegean archipelago with the six largest islands numbered. 1: Límnos, 2: Skyros, 3: Thásos, 4: Samothraki, 5: Lésvos, 6: Híos.

Here, we present as complete a catalogue as possible of the centipede fauna of the north Aegean archipelago based mainly on unpublished records from Híos and Skyros deposited in the collection of the Natural History Museum of Crete (NHMC), and on recent records collected by the senior author on Límnos as well as on literature data.

TABLE 1

Presence of the centipedes in the six largest north Aegean islands, general distribution in the Aegean archipelago and the adjacent continental regions as well as chorotypes (6,7). NAeg: north Aegean, Dist: Distribution in the Aegean archipelago, M Gr: Mainland Greece, Turk: Turkey, BAL: Balkan, EN: Endemic, EUR: European, MED: Mediterranean, CEU: Central European, CSE: Central South European, CWP: Central West Palearctic, EME: East Mediterranean, NEM: North East Mediterranean, SEU: South European, SWA: South West Asiatic, SWP: South West Palearctic, WA: West Asiatic, N-S: north & south Aegean archipelago, N: distribution in the north Aegean archipelago, +: record based on literature data, f: first record for the island, n: new record for north Aegean archipelago, @: record based on recent and literature data, x: presence of species in mainland Greece or/and Turkey. Index numbers show the exact bibliographic reference.

	Híos	Lésvos	Límnos	Samothraki	Skyros	Thásos	NAeg	Chorotype	Chorotype	Dist	M Gr	Turk
Geophilomorpha								s.str	s.l.			
Dignathodontidae Cook, 1895												
1 *Henia athenarum* Pocock, 1891					f		n	NEM	MED	N-S	x	x
2 *Henia bicarinata* Meinert, 1870			f				n	CEU-MED	MED	N-S	x	x
3 *Henia illyrica* (Meinert, 1870)	f						n	SEU	EUR	N	x	x
Geophilidae Cook, 1895												
4 *Clinopodes flavidus* C. L. Koch, 1847	f	+(3)	f					CSE-WA	TUE	N-S	x	x
5 *Geophilus conjungens* Verhoeff, 1898			f		f		n	NEM	MED	N-S		x
6 *Geophilus naxius* Verhoeff, 1901					f		n	NEM	MED	N-S		x
7 *Pachymerium ferrugineum* C. L. Koch, 1835						f		n	CWP	WPA	N-S	x
8 *Tuoba poseidonis* (Verhoeff, 1901)			f					MED-SWA	MED	N-S		x
Himantariidae Cook, 1895												
9 *Bothriogaster signata* (Kessler, 1874)	@(13)			+(2)				EME-WA	TUM	N-S	x	x
10 *Himantarium gabrielis* (Linné, 1767)	@(13)			+(2)	@(1)			BAL-MED	MED	N-S	x	x
11 *Stigmatogaster gracilis* (Meinert, 1870)						+(8)		MED	MED	N-S		
12 *Thracophilus chiosensis* Stavropoulos & Matic, 1990	@(13)							EN	EN	N		
Lithobiomorpha												
Lithobiidae Newport, 1844												
13 *Eupolybothrus litoralis* (L. Koch, 1867)	f		@(8)		f	+(14)		BAL-EME	MED	N-S	x	x
14 *Eupolybothrus werneri* (Attems, 1902)					f		n	BAL	BAL	N	x	
15 *Lithobius agilis* C. L. Koch, 1847	f						n	EUR	EUR	N-S	x	x
16 *Lithobius aeruginosus* (L. Koch, 1862)			f				n	EUR-NEM	EUR	N-S	x	x
17 *Lithobius carinatus* L. Koch, 1862			f				n	EME	MED	N-S	x	x
18 *Lithobius erythrocephalus* C. L. Koch, 1847			f		f		n	EUR-WA	EUR	N-S	x	x
19 *Lithobius forficatus* (Linné, 1758)				+(5)				EUR	EUR	N-S	x	x
20 *Lithobius lucifugus* L. Koch, 1862	f				f		n	EUR-WA	EUR	N-S	x	x
21 *Lithobius microps* Meinert, 1868	f						n	EUR	EUR	N-S	x	x
22 *Lithobius nigripalpis* L. Koch, 1867	@(5)	+(3)						NEM	MED	N-S	x	x
23 *Lithobius tiasnatensis* Matic, 1973				+(13)				BAL	BAL	N		
24 *Pleurolithobius orientis* (Chamberlin, 1952)	f						n	NEM	MED	N-S	x	x
25 *Harpolithobius anodus* (Latzel, 1880)	f			+(5)		+(2)		SEU-NEM	MED	N-S	x	x
Scolopendromorpha												
Cryptopidae Kohlrausch, 1881												
26 *Cryptops anomalans* Newport, 1844	+(2)		f	+(8)				SWP	WPA	N-S	x	x
27 *Cryptops dianae* Stavropoulos & Matic, 1990						+(13)		EN	EN	N		
28 *Cryptops hortensis* Leach, 1815						+(2)		CWP	WPA	N-S	x	x
29 *Cryptops kosswigi* Chamberlin, 1952	f		f				n	EME	MED	N-S	x	x
30 *Cryptops trisulcatus* Brölemann, 1902	f		f		f		n	MED	MED	N-S		x
Scolopendridae Newport, 1894												
31 *Scolopendra cingulata* Latreille, 1829	f		f	+(4)	@(1)			MED-WA	TUM	N-S	x	x
Scutigeromorpha												
Scutigeridae Gervais, 1837												
32 *Scutigera coleoptrata* (Linné, 1758)	f	+(8)	f		f			SEU-MED	MED	N-S	x	x

More than 120 specimens of centipedes were collected from 30 different sites during field work in Límnos (from April to September 2006), approximately 100 specimens were collected from 20 different sites in Skyros (from January to May 2002), and 65 specimens were collected from 16 different sites in Híos (December 2006). The specimens were collected by hand and preserved in 95% alcohol. Identifications were carried out at the Natural History Museum of Crete (NHMC). The map of the area and the figures were drawn with Arc View GIS version 3.1 and Corel Draw 10.

We present a complete centipede list from the 6 largest islands of north Aegean archipelago (Lésvos, Híos, Límnos, Skyros, Thásos, Samothraki), the chorotype and the distribution for each species, new records for each island and the wider area of north Aegean archipelago as well as possible faunistic affinities with the adjacent continental regions (mainland Greece and Turkey) (Table 1). However, it was not the subject of this work to focus on the taxonomic status, the diagnosis, the general distribution and the ecology (habitat preferences) of certain species, mainly because all these data were presented in previous papers (3, 4, 6, 7, 8, 11, 12). The known composition of the centipede fauna of Híos, Límnos and Skyros, has dramatically increased the known diversity. Thus, the new data show 17 species from Híos, 13 species from Límnos and 12 from Skyros.

The number of previously undocumented species for the north Aegean region is relatively large. Thirty-two species are now known, belonging to 7 families and 16 genera. Sixteen species (50% of the centipedes) are recorded for the first time from the north Aegean archipelago. *Eupolybothrus werneri* and *Henia illyrica*, two widespread species in mainland Greece (4), are reported for the first time from insular Greece (collected on the island of Skyros and Híos, respectively). Twelve species are recorded for the first time from Híos and Límnos, respectively, and 10 from Skyros. Five species (*Henia illyrica, Thracophilus chiosensis, Eupolybothrus werneri, Lithobius tiasnatensis, Cryptops dianae*) are not distributed in the southern parts of Aegean, while the rest are widely distributed. Two of them are endemic (*Thracophilus chiosensis, Cryptops dianae*). The genus *Lithobius* is by far the most species-rich, being represented by 9 species on north Aegean islands (28% of the centipede species in the area) followed by *Cryptops* with 5 species (16% of the centipede species).

Chorotypes of the centipede species of the north Aegean archipelago are summarized in Fig. 2. Fifteen species (48%) examined from north Aegean Islands have Mediterranean affinities (s.l.), 7 species (22%) have European affinities (s. l.). Another 6% belong to the Balkan (2 species) element, 9% are west Palearctic (3 species), 6% Turano–Mediterranean (2 species) and 3% Turano–European (1 species). Endemic centipedes (6%) have been recorded from 2 islands, Híos (*Thracophilus chiosensis*) and Thásos (*Cryptops dianae*), respectively. As far as south Aegean islands are concerned almost the same pattern is presented. Thus, the dominant faunistic element is the Mediterranean s.l. accompanied by the European, the Balkan and the west Palearctic (7). Regarding the faunistic element of the adjacent continental areas, species with Mediterranean affinities (s.l.) predominate in Turkey (12), whereas species in the south Balkan Peninsula have mainly European (s.l.) characteristics (11).

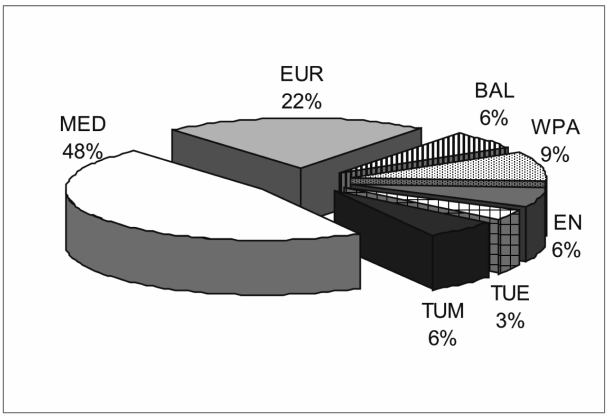

Fig. 2. – Chorotypes of the north Aegean centipede fauna (%). BAL: Balkan, EN: endemic, EUR: European, MED: Mediterranean, WPA: west Palearctic, TUE: Turano – European, TUM: Turano – Mediterranean.

Unlike the north Aegean centipedes (32 species), the centipede fauna of the southern Aegean archipelago (Crete, Kyklades, Dodekanisa) has been very well worked**:** 71 taxa from the south Aegean archipelago are already known (7). Therefore, it is apparent that the north Aegean region is still a field for future intensive faunistic research.

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