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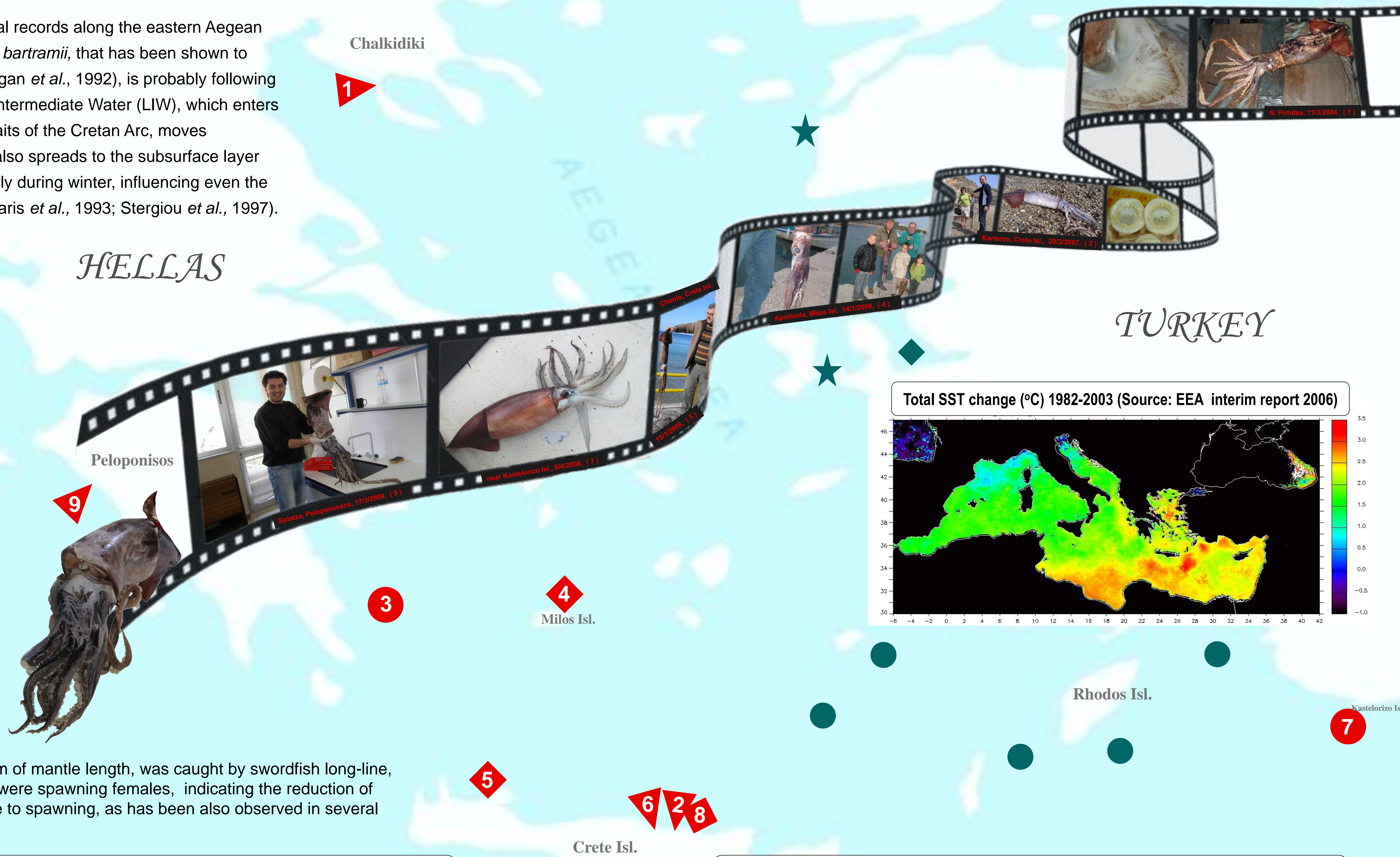
The neon flying squid, *Ommastrephes bartramii* (Lesueur, 1821), characterized as “truly oceanic”, occurs circumglobally in subtropical and temperate waters, sustaining important fisheries in the North Pacific but scarcely encountered in the Mediterranean Sea, where it was mainly reported from its western part (Zuev *et al.*, 1976; Sanchez *et al.*, 1998; Belcari, 1999).

Its presence in the southern Aegean Sea (Eastern Mediterranean) has been noted for the first time by Zuev *et al.* (1976) reviewing data from Russian research cruises carried out in 1952-1974 and available literature. The next findings (●) were recorded in 1990-1991, when dense schools of *O. bartramii* were detected by echosounders at 200-250 m depth, during Turkish seasonal surveys around Rhodes Island (Katagan *et al.*, 1992). In 2002 a large female was taken from shallow waters of Ismir Bay (◆) (Akyol & Sen, 2004), whereas the expansion of *O. bartramii* up to the northern Aegean Turkish territorial waters has been declared (★ unpublished records, Salman personal communication). In spring of 2004 a mature female (▶) has been stranded at Nea Potidea of Chalkidiki Peninsula (NW Aegean) (Vafidis *et al.*, 2008), but the reports of individuals found stranded (▼) / drifting near the coast (◆) or caught during fisheries (●), became more frequent since 2007, showing the expansion of the species up to the northernmost part of the Aegean Sea and the southeastern Ionian Sea, while its presence might be considered permanent at least in the deep basin of the Cretan Sea (southernmost part of Aegean).

As indicated by the distribution of several records along the eastern Aegean and the periphery of the Cretan Sea, *O. bartramii*, that has been shown to form dense schools at 200-250 m (Katagan *et al.*, 1992), is probably following the circulation of the warm Levantine Intermediate Water (LIW), which enters into the Aegean through the eastern straits of the Cretan Arc, moves northward along the Turkish coast and also spreads to the subsurface layer (30-200 m) of the Cretan Sea, particularly during winter, influencing even the flow in the southeastern Ionian (Theocharis *et al.*, 1993; Stergiou *et al.*, 1997).

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The smallest individual (7), with 470 mm of mantle length, was caught by swordfish long-line, whereas all stranded squids dissected were spawning females, indicating the reduction of their capability for active locomotion due to spawning, as has been also observed in several cephalopod species.

Measurements of the examined females *Ommastrephes bartramii* from the Hellenic waters

	▶	●	◆	◆	▶
Body weight (g)		5900	4950	9000	6060
Dorsal Mantle length (mm)	608	552	533	580	535
Total length (mm)		1300			1410
Mantle circumference (max) (mm)	465*				415
Fin length (mm)	295*		249		265
Fin width (mm)	455*	423	448		425
Arm length I (mm)	283*	235	352	363	315
Arm length II (mm)	347*	244	375	355	360
Arm length III (mm)	350*	310	375	333	368
Arm length IV (mm)	345*	290	282		367
Tentacle length (mm)	640*	728	835	742	765
Arm Sucker Diameter (max) (mm)		7			13
Tentacle Sucker Diameter (max) (mm)		10			12
Upper Beak Rostral length (mm)	20	14.5	15		14.5
Upper Beak Hood length (mm)	47.2	39.7	43.5		42.7
Upper Beak Crest length (mm)	60.7	53.0	49		53.4
Lower Beak Rostral length (mm)	12.3	13.4	13		14
Lower Beak Hood length (mm)	14.9	9.9	13		11.3
Lower Beak Crest length (mm)	30.7	24.3	26		27.7

*measurements taken after the specimen's fixation in formalin solution.

Records of *Ommastrephes bartramii* in the Mediterranean Sea (+ : not specified number of specimen; in parenthesis additional records from stomach contents of top predators)

		1900-10	1950-74	1982-92	2000-09
Area	Western	1	+	13(+)	
	Central	1	2+	1+	1
	Eastern		+	16	12 (+18)
Season	winter-spring	1	2	14	11
	summer-autumn		+	15	2
Collection way	Stranded		1		4
	Drifting near the coast	1			4
	Fished	1	1+	30	2
Sex	From predators			+	18
	Females			19	6
	Males			4	
	Undetermined	2	All	7	7

The review of the published records of *O. bartramii* in the Mediterranean Sea reveals its more frequent appearance during the last two decades. In the period 1982-1992 it has been mainly due to individuals caught by pelagic trawl and jigs during experimental cruises carried out in the Ligurian Sea (Orsi-Relini, 1990) and around Rhodes Island (Katagan *et al.*, 1992). On the contrary, the most recent records concern accidental catches by fishermen or stranded individuals, indicating the species higher abundance in the eastern basin, which is also evidenced by its findings in the stomach content of dolphins and large pelagic fishes (Salman 2004; Ozturk *et al.*, 2007; Salman & Karakulak, 2009) and is probably favoured by the more pronounced warming of sea upper layers observed in this area since 1994 (Raitsos *et al.*, 2009). The geographical spread of species of warm water affinity, like most of those carried from the Atlantic into the Mediterranean, is an evident tendency in the Mediterranean realm since the 1980s, correlated with direct and indirect effects of global warming (Bianchi, 2007; CIESM, 2008).

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