

Discoconchoecia elegans (Sars, 1865)

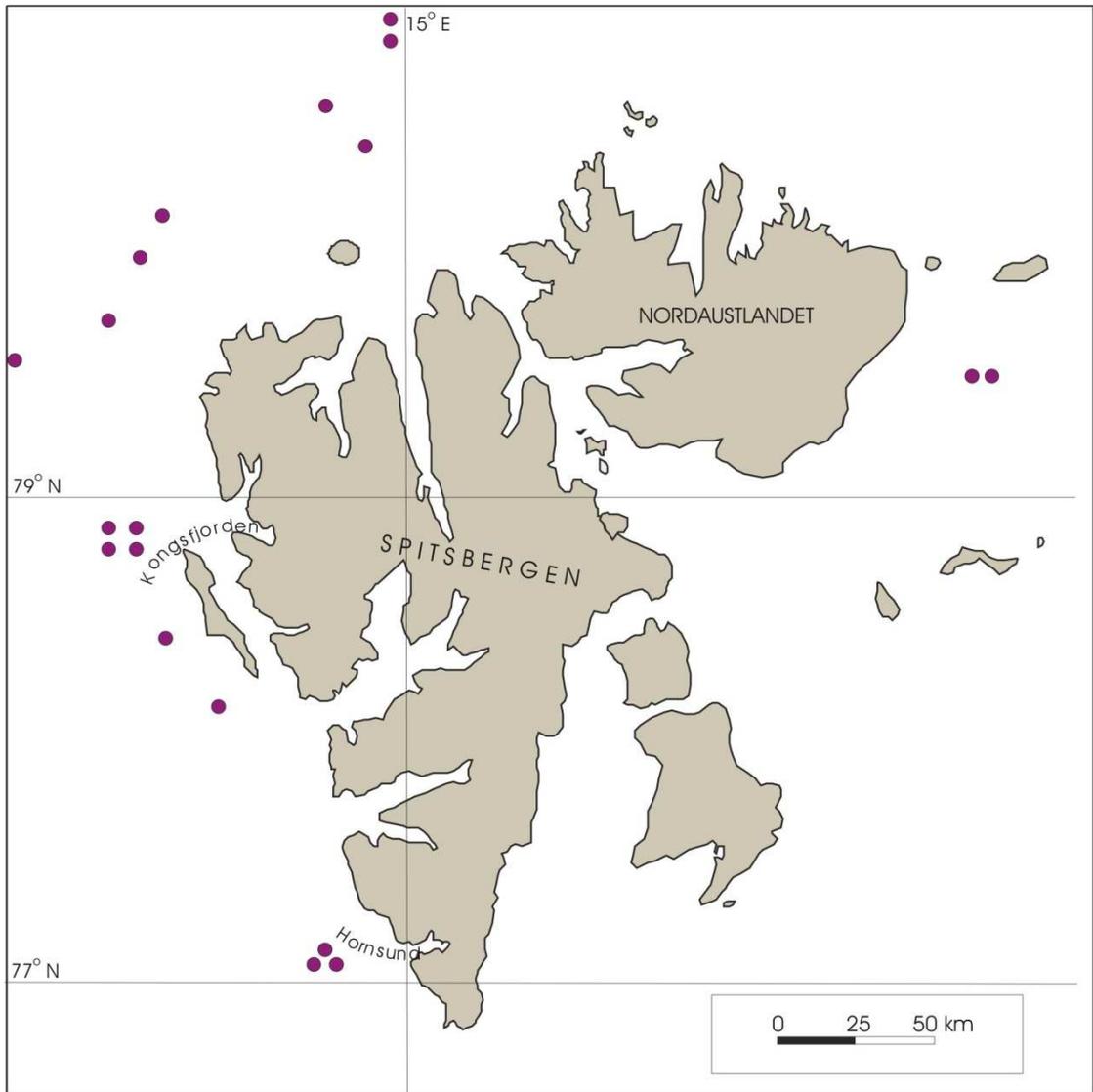
No. of individuals recorded – 1748

This species was one of the first halocyprids described (Sars 1866) from high latitudes in the Atlantic from samples collected off the Lofoten Islands (north-western Norway). Since then it has been the most frequently recorded species of halocyprid Ostracoda (e.g. Müller 1906; Skogsberg 1920; Deevey 1968; Angel 1977; Poulsen 1973; Martens 1979; Angel *et al.* 2007). Although it appears to have a cosmopolitan distribution, several different size forms of *D. elegans* have been reported (e.g. Skogsberg 1920; Deevey 1968; Mumm 1991) and preliminary results of molecular sequencing of the CO1 gene in halocyprids indicate that at least some of adult populations of similar looking species with mean carapace lengths differing by factors of around 1.3-1.4 are separate species (Nigro, personal communication). In the Svalbard material two different size ranges of adult *D. elegans* were distinguished [♀: 1.70-2.13 mm and 2.19-2.35 mm; ♂: 1.80-2.20 mm and 2.30-2.80], and are likely eventually to be divided into separate species. In Svalbard waters *D. elegans* constituted almost a half of all recorded Ostracoda (48%), with mean abundance 350 ind. m⁻², whereas in the Nansen Basin, Mumm (1991) reported much lower contribution of the species (20%) with average concentration of 160 ind. m⁻². Similarly, Bashmanov and Chavtur (2009), have found that *D. elegans* contributed from 10% in the Russian part of Arctic Basin to 26% near Svalbard, with the peak (28-65% of all pelagic Ostracoda) near Islands of Franz Josef Land.

Discoconchoecia elegans has been recognised as being a mesopelagic species (Angel *et al.* 2007), and in the Svalbard samples it occurred in highest abundances in the mid-layer, which is in agreement with Poulsen's (1977) and Bashmanov and Chavtur's (2009) data, but contrary to Mumm's (1991) results from the Nansen Basin, in which *D. elegans* was recorded as a surface layer inhabitant (abundances up to 2500 ind. 1000 m⁻³).

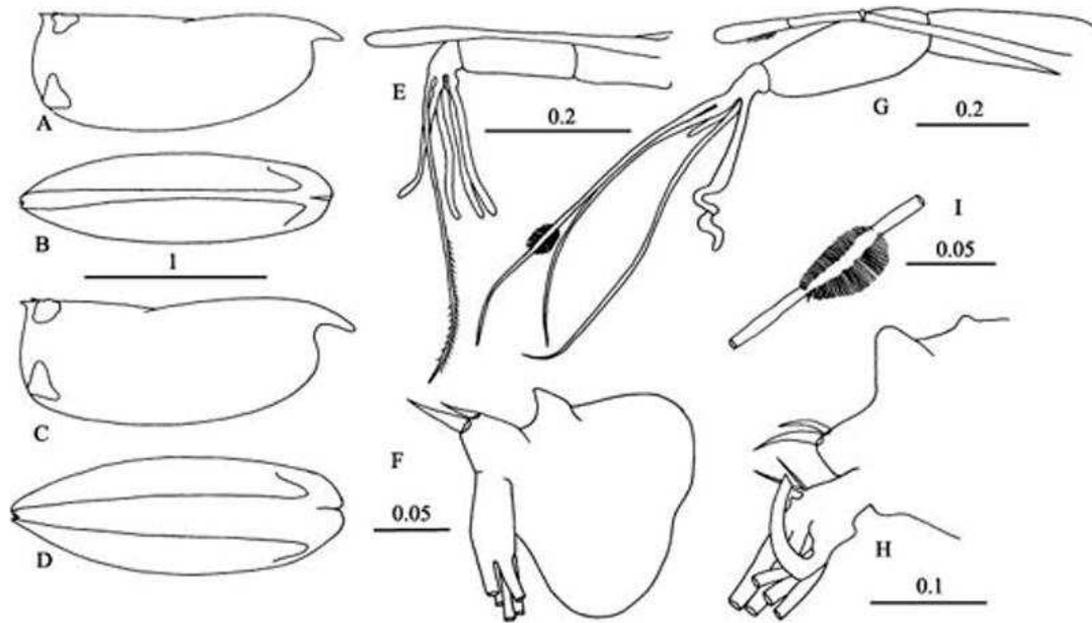
Table with sizes ranges [mm] of all developmental stages of *D. elegans* found in Svalbard waters from the adult (Ad) female and male to the youngest A-6 stage. Note different size ranges for two forms of *D. elegans* (1 & 2):

Developmental stage	<i>D. elegans</i> 1		<i>D. elegans</i> 2	
	sizes ranges			
	min	max	min	max
Ad female	1.70	2.13	2.19	2.35
Ad male	1.80	2.20	2.30	2.80
A-1	1.40	1.66	1.75	2.00
A-2	1.00	1.20	1.32	1.60
A-3	0.63	0.89	1.00	1.32
A-4	0.46	0.52	0.80	1.00
A-5	0.28	0.44	0.50	0.67
A-6	0.25	0.28	0.35	0.36



Discoconchoecia elegans distribution

Discoconchoecia elegans

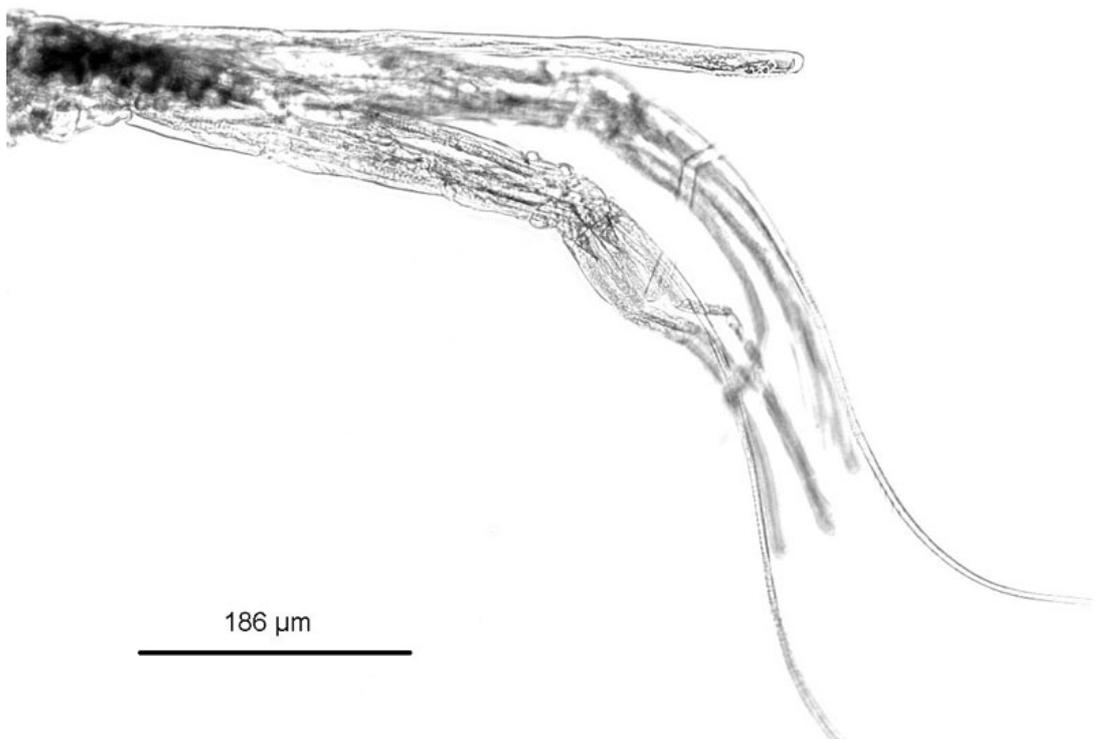


Sketches of the carapace shapes of adult females (A, B) and males (C, D); the first antennae and frontal organs and the endopodite of the left second antennae of females (E, F) and of males (G and H) and the details of the armature of the male first antenna setae (I).

Carapace shape of *Discoconchoecia elegans* female:



Frontal organ of *Discoconchoecia elegans* female:



Carapace shape of *Discoconchoecia elegans* male:



Frontal organ of *Discoconchoecia elegans* male:

