



Swedish Plectida (Nematoda). Part 5. *Rhadinema timmi* (Vitiello, 1971) **comb. n.**

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Abstract

Leptolaimus timmi Vitiello, 1971 is redescribed from bottom sediments collected in the Skagerrak off the west coast of Sweden. New morphological data necessitate the transfer of this species to the genus *Rhadinema* Cobb, 1920. The main diagnostic characters of *Rhadinema timmi* (Vitiello, 1971) **comb. n.** include: 1.3–1.8 mm long body; rounded labial region weakly offset from body contour; cephalic setae 2–4 µm long; amphid located 12–19 µm from anterior end; first body pore located 22–30 µm from anterior end; lateral field absent; stoma tubular: cheilostom with six weakly cuticularised longitudinal rugae, gymnostom with sclerotized bar-shaped rhabdia, stegostom long, tubular; female without supplements, vagina without *pars refringens*, vulva midventral; male with 10–11 tubular and without alveolar supplements; spicules arcuate and 21–30 µm long.

Key words: *Leptolaimus*, Rhadinematidae, SEM, Skagerrak, Sweden, taxonomy

Introduction

Leptolaimus timmi Vitiello, 1971 was originally described from the Mediterranean based on morphometric data for three males and two females. It was distinguished from the other known species of the genus *Leptolaimus* de Man, 1876 based on its large body length, relatively short cephalic setae, large amphids and number of tubular supplements. The species has never been found or redescribed after the original publication. It was recently found in several samples collected in the Skagerrak and in Gullmarn Fjord off the west coast of Sweden. Close examination revealed new morphological features leading to a re-evaluation of the systematic position of *Leptolaimus timmi*, which is thus transferred to the genus *Rhadinema* Cobb, 1920. In a series of papers, this is the fifth contribution from the STI-supported project “Taxonomy and distribution of free-living nematodes of the order Plectida in Sweden” describing a species new to the fauna of Sweden, *Rhadinema timmi* (Vitiello, 1971) **comb. n.** found along the Swedish west coast.

Material and methods

Bottom sediment samples were collected in several locations in the southern part of the Skagerrak and in Gullmarn Fjord off the west coast of Sweden. All samples were collected with a bottom dredge or box corer and further sieved in the lab. Nematodes were extracted from samples using a decanting and sieving method. Fresh water was used during sieving to induce osmotic shock in nematodes, detaching them from the substrate. Samples were immediately fixed in formaldehyde. Formaldehyde-preserved specimens were transferred to pure glycerine using Seinhorst’s (1959) rapid method as modified by De Grisse (1969). Permanent nematode mounts on glass slides were prepared using the paraffin wax ring method. All curved structures were measured along the curved median line. After measuring and observations, some specimens were removed from the slides and rehydrated by first gradually adding drops of S1 (a solution made of 1% glycerine, 20% ethanol and 79% distilled water) to glycerine in an embryo-dish until the volume tripled and then gradually adding distilled water until the volume tripled again. The specimens were then washed in distilled water and resuspended in 4% formaldehyde solution. For SEM,

Type species

Rhadinema flexile Cobb, 1920

Other valid species

Rhadinema timmi (Vitiello, 1971) **comb. n.**
= *Leptolaimus timmi* Vitiello, 1971

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