



To the question of the validity of the species *Chromadorita arctica* Gagarin, 1999 (Nematoda, Chromadorida)*

К вопросу о валидности вида *Chromadorita arctica* Gagarin, 1999 (Nematoda, Chromadorida)

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Abstract. The synonymization of species *Chromadorita arctica* Gagarin, 1999, **syn. nov.** from Novaya Zemlya and *Ch. fennica* Jensen, 1979 from the Gulf of Finland is proposed.

Резюме. Предлагается синонимизация видов *Chromadorita arctica* Gagarin, 1999, **syn. nov.** с Новой Земли и *Ch. fennica* Jensen, 1979 из Финского залива.

Key words: nematodes, taxonomy, Novaya Zemlya, Nematoda, Chromadorida, *Chromadorita*, new synonym

Ключевые слова: нематоды, таксономия, Новая Земля, Nematoda, Chromadorida, *Chromadorita*, новый синоним

ZooBank Article LSID: urn:lsid:zoobank.org:pub:02AC13DB-B826-43A5-810B-53DCCEC16CCA

Twelve species of free-living nematodes, which have already been observed in Novaya Zemlya (Gagarin, 1997, 1999, 2001), were found in the material from freshwater bodies of Novaya Zemlya archipelago collected by A.A. Przhiboro in 2017 and put at the author's disposal. *Chromadorita leuckarti* (de Man, 1876) is the most numerous species, though it was not marked in the first publication on the nematodes fauna of Novaya Zemlya (Steiner, 1916). A comparison of the general morphology of Novaya Zemlya samples of this species with the morphology of other populations (Table 1) shows almost complete identity with both the first description (de Man, 1876) and the redescription of the type material (Loof, 1961). The difference is almost beyond the margin of error of the mean. The same can be said about the most frequently cited (reference) descriptions

of *Ch. leuckarti* populations from Denmark (Micoletzky, 1925) and Sweden (Andrassy, 1967), although the Swedish population is represented by somewhat larger specimens.

Chromadorita arctica Gagarin, 1999 discovered in Novaya Zemlya is of particular interest. This species was not involved in the early reviews of Novaya Zemlya fauna of free-living nematodes (Gagarin, 1997); however, it appears a little bit later (Gagarin, 1999, 2001). For a number of characters, *Ch. arctica* is well distinguished from *Ch. leuckarti* by its large body size, spicule length (45–50 μm vs. 30–40 μm) and the number of supplements (7 vs. 8). However, the same differences are observed between *Ch. leuckarti* and *Ch. fennica* Jensen, 1979 from the Gulf of Finland. At the same time, there is a significant similarity between *Ch. arctica* and *Ch. fennica*, especially

*Chairman of the Editorial Board comment

Perhaps the author is right in his opinion, but it is not enough well-grounded. Since neither description of *Ch. leuckarti* from NZ nor re-examination of *Ch. arctica* type specimens are presented.

Table 1. *Chromadorita leuckarti* (De Man, 1876)*, *Ch. arctica* Gagarin, 1999** and *Ch. fennica* Jensen, 1979***

Character	Novaya Zemlya (orig.)*		De Man (1876)*	Loof (1961)*	Micoletzky (1925)*		Andrassy (1967)*		Gagarin (1999)**		Jensen (1979)***	
	♀ (n=9)	♂ (n=9)	♂ (n=3)	♀	♀ (n=10)	♂ (n=10)	♀ (n=2)	♂ (n=2)	♀ (n=11)	♂ (n=16)	♀	♂
L	733–961 (856±21)	863–1120 (966±27)	1000–1216 (1092)	920	860–1110 (985)	870–1080 (990)	1050–1350 (1178)	1180–1300 (1240)	1118–1333 (1203)	913–1305 (1147)	1550	1262
a	17.9–26.8 (22.6±1)	20.4–29.5 (24.4±1)	35	23.6	23–32 (25)	24.5–35.4 (32)	29–33 (31)	35–38 (36)	17–21 (19)	15–22 (19)	15	27
b	6.4–8.8 (7.6±0.2)	7.3–9 (8±0.2)	7.4	7.4	7.1–8.7 (8)	7.4–8.9 (8.3)	8.8–9 (8.9)	8.7–8.9 (8.8)	6.7–7.9 (7.4)	6.4–7.7 (7.1)	7.4	6.8
c	5.4–7.7 (6.9±0.2)	7.6–9.4 (8.6±0.2)	8.2	6.4	6.1–8 (7.4)	7–8 (7.5)	7–8 (7.5)	8–8.2 (8.1)	6.1–7.6 (7)	7–9.1 (7.8)	7.4	7.7
c'	5–6	3–5 (4±1)	5	–	–	–	6.9–7.2 (7.1)	5.2–6.1 (5.6)	4.2–5.4 (4.8)	2.7–4.2 (3.5)	–	3.5
V%	44–50 (47±0.6)	–	–	49	45–52 (49)	–	46–48 (47)	–	46–50 (48)	–	48–50 (49)	–
Esophagus length	93–128 (112±3)	105–136 (121±3)	137–157 (147)	124	125	119	127	141	154–175 (164)	126–175 (162)	209	186
Tail length	98–155 (125±5)	102–120 (112±2)	118–137 (133)	144	135	132	150	153	154–193 (174)	112–172 (147)	209	164
Anal diameter	22–29 (25±1)	20–31 (28±1)	26	–	–	–	–	–	36	42	–	47
Head diameter	15–18 (16±1)	15–19 (17±1)	16	–	–	–	–	–	21–22	20–23 (22)	–	–20
Cephalic seta	6–9	9–10	–	–	–	–	10–12	10–12	17–19 (18)	16–18 (17)	15	15
Spicule length (chord)	–	28–31 (29±1)	31	–	–	–	–	36–39 (37)	–	45–50 (48)	–	45–53 (49)

in males, which is convincingly confirmed by the data in Table 1. The only difference between these species lies in the paired gubernaculum of *Ch. arctica*, which generally causes doubt on the naturalness of this phenomenon, not noted anywhere else within the taxonomic group under consideration, and more similar to an artifact. In accordance with the set forth, *Ch. arctica* should be considered as a junior synonym for *Ch. fennica*.

Chromadorita fennica was described from the western part of the Gulf of Finland off the coast of Finland and Sweden, as well as from the eastern part of the gulf near the Bolshaya Izhora Village (Jensen, 1979). Initially, this species was identified as *Ch. leuckarti* (Filipjev, 1930), and only after a thorough study of the materials from the collection of the Zoological Institute of the Russian Academy of Sciences performed by I.N. Filipjev, it was established that some of the *Chromadorita* specimens belong to *Ch. fennica* (Jensen, 1979).

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Received 22 February 2019 / Accepted 30 May 2019. Scientific editors: A.Yu. Ryss, A.V. Gorochov