

Year-Long Assessment of Soil Nematode Diversity and Root Inhibition-Indicator Nematode Genera in Rice Fields

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Supplementary Table S1: Datasets of frequency, density, and their relative data of nematode genera during the three seasons in the soil of the rice fields.

A. Before plantation (season I)

Nematode genera	Frequency	Relative frequency	Absolute frequency	Density	Relative density	Mean density	Nematode no.	c-p values
Plant-parasitic								
<i>Psilenchus</i>	10.00	3.70	25.00	80.00	130.93	2.00	12.00	2
<i>Radopholus</i>	6.00	2.22	15.00	65.00	106.38	1.63	8.00	2
<i>Longidorus</i> *	9.00	3.33	22.50	73.00	119.48	1.83	13.00	5
<i>Rotylenchus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Criconemoides</i> \$	2.00	0.74	5.00	22.00	36.01	0.55	5.00	3
<i>Ditylenchus</i>	5.00	1.85	12.50	46.00	75.29	1.15	8.00	2
<i>Meloidogyne</i> *	7.00	2.59	17.50	53.00	86.74	1.33	8.00	3
<i>Helicotylenchus</i>	5.00	1.85	12.50	45.00	73.65	1.13	6.00	3
<i>Heterodera</i> *	8.00	2.96	20.00	74.00	121.11	1.85	13.00	3
<i>Hirschmanniella</i> *	5.00	1.85	12.50	50.00	81.83	1.25	7.00	3
<i>Hoplolaimus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Globodera</i>	3.00	1.11	7.50	32.00	52.37	0.80	5.00	3

<i>Tylenchus*</i>	9.00	3.33	22.50	85.00	139.12	2.13	15.00	2
<i>Paratylenchus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Pratylenchus</i>	4.00	1.48	10.00	48.00	78.56	1.20	6.00	3
<i>Hexatylenchus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Tylenchorhynchus</i>	6.00	2.22	15.00	69.00	112.93	1.73	8.00	2
<i>Xiphinema</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Bacteriovores								
<i>Acrobelus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Cephalobus*</i>	1.00	0.37	2.50	15.00	24.55	0.38	4.00	2
<i>Eucephalobus</i>	14.00	5.19	35.00	83.00	135.84	2.08	18.00	2
<i>Rhabdolaimus</i> \$	3.00	1.11	7.50	25.00	40.92	0.63	7.00	1
<i>Diplogaster</i>	17.00	6.30	42.50	112.00	183.31	2.80	25.00	1
<i>Diploscapter</i>	14.00	5.19	35.00	109.00	178.40	2.73	21.00	1
<i>Rhabditis</i>	12.00	4.44	30.00	104.00	170.21	2.60	16.00	1
<i>Teratorhabditis</i> \$	8.00	2.96	20.00	86.00	140.75	2.15	13.00	1
<i>Mesorhabditis</i>	13.00	4.81	32.50	104.00	170.21	2.60	19.00	1
<i>Cuticularia*</i>	12.00	4.44	30.00	93.00	152.21	2.33	16.00	2
<i>Pelodera</i> \$	4.00	1.48	10.00	51.00	83.47	1.28	6.00	1

<i>Protorhabditis</i>	9.00	3.33	22.50	85.00	139.12	2.13	11.00	1
Omnivores								
<i>Eudorylaimus</i>	9.00	3.33	22.50	98.00	160.39	2.45	11.00	4
<i>Dorylaimus*</i>	10.00	3.70	25.00	103.00	168.58	2.58	18.00	4
<i>Mesodorylaimus</i>	8.00	2.96	20.00	78.00	127.66	1.95	10.00	4
<i>Discolaimius</i>	7.00	2.59	17.50	69.00	112.93	1.73	9.00	5
Predatory								
<i>Mononchus</i>	9.00	3.33	22.50	85.00	139.12	2.13	13.00	1
<i>Mylonchulus</i> \$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Prionchulus</i>	7.00	2.59	17.50	65.00	106.38	1.63	9.00	4
<i>Clarkus</i>	1.00	0.37	2.50	12.00	19.64	0.30	4.00	1
<i>Miconchulus</i>	6.00	2.22	15.00	71.00	116.20	1.78	8.00	4
Fungivores								
<i>Dorylaimellus</i>	8.00	2.96	20.00	76.00	124.39	1.90	14.00	4
<i>Dorylaimoides*</i>	12.00	4.44	30.00	94.00	153.85	2.35	15.00	4
<i>Tylencholaimus</i>	2.00	0.74	5.00	27.00	44.19	0.68	5.00	1
<i>Aphelenchus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Aphelenchoides</i>	5.00	1.85	12.50	57.00	93.29	1.43	9.00	2

Data is represented in mean values of each diversity trait. The nematode genera which were with higher density and frequency values are denoted with asterisk (*) and which lost persistence at flood irrigation are denoted with dollar (\$).

B. During plantation (season II)

Nematode genera	Frequency	Relative frequency	Absolute frequency	Density	Relative density	Mean density	Nematode no.	c-p values
Plant-parasitic								
<i>Psilenchus</i>	16.00	3.71	40.00	110.00	131.03	2.75	12.00	2
<i>Radopholus</i>	13.00	3.02	32.50	100.00	119.12	2.50	13.00	2
<i>Longidorus</i> *	18.00	4.18	45.00	120.00	142.94	3.00	16.00	5
<i>Rotylenchus</i>	9.00	2.09	22.50	88.00	104.82	2.20	12.00	1
<i>Criconemoides</i> \$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Ditylenchus</i>	19.00	4.41	47.50	130.00	154.85	3.25	20.00	2
<i>Meloidogyne</i> *	20.00	4.64	50.00	137.00	163.19	3.43	14.00	3
<i>Helicotylenchus</i>	14.00	3.25	35.00	95.00	113.16	2.38	9.00	3
<i>Heterodera</i> *	16.00	3.71	40.00	102.00	121.50	2.55	14.00	3
<i>Hirschmanniella</i> *	23.00	5.34	57.50	117.00	139.37	2.93	21.00	3
<i>Hoplolaimus</i>	12.00	2.78	30.00	98.00	116.74	2.45	16.00	1
<i>Globodera</i>	11.00	2.55	27.50	88.00	104.82	2.20	8.00	3
<i>Tylenchus</i> *	20.00	4.64	50.00	96.00	114.35	2.40	19.00	2

<i>Paratylenchus</i>	21.00	4.87	52.50	123.00	146.52	3.08	17.00	1
<i>Pratylenchus</i>	17.00	3.94	42.50	104.00	123.88	2.60	16.00	3
<i>Hexatylenchus</i>	9.00	2.09	22.50	83.00	98.87	2.08	11.00	2
<i>Tylenchorhynchus</i>	4.00	0.93	10.00	46.00	54.79	1.15	5.00	2
<i>Xiphinema</i>	3.00	0.70	7.50	28.00	33.35	0.70	8.00	1
Bacteriovores								
<i>Acrobelus</i>	11.00	2.55	27.50	100.00	119.12	2.50	8.00	2
<i>Cephalobus*</i>	9.00	2.09	22.50	95.00	113.16	2.38	7.00	2
<i>Eucephalobus</i>	5.00	1.16	12.50	55.00	65.52	1.38	9.00	2
<i>Rhabdolaimus\$</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Diplogaster</i>	8.00	1.86	20.00	77.00	91.72	1.93	11.00	1
<i>Diploscapter</i>	6.00	1.39	15.00	65.00	77.43	1.63	14.00	1
<i>Rhabditis</i>	7.00	1.62	17.50	73.00	86.96	1.83	9.00	1
<i>Teratorhabditis\$</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Mesorhabditis</i>	9.00	2.09	22.50	85.00	101.25	2.13	16.00	1
<i>Cuticularia*</i>	7.00	1.62	17.50	76.00	90.53	1.90	19.00	2
<i>Pelodera\$</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Protorhabditis</i>	5.00	1.16	12.50	62.00	73.85	1.55	13.00	1

Omnivores								
<i>Eudorylaimus</i>	9.00	2.09	22.50	99.00	117.93	2.48	9.00	4
<i>Dorylaimus</i> *	11.00	2.55	27.50	103.00	122.69	2.58	17.00	4
<i>Mesodorylaimus</i>	13.00	3.02	32.50	109.00	129.84	2.73	13.00	4
<i>Discolaimius</i>	7.00	1.62	17.50	87.00	103.63	2.18	8.00	5
Predatory								
<i>Mononchus</i>	8.00	1.86	20.00	40.00	47.65	1.00	7.00	1
<i>Mylonchulus</i> \$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Prionchulus</i>	4.00	0.93	10.00	22.00	26.21	0.55	3.00	4
<i>Clarkus</i>	3.00	0.70	7.50	31.00	36.93	0.78	4.00	1
<i>Miconchulus</i>	2.00	0.46	5.00	14.00	16.68	0.35	5.00	4
Fungivores								
<i>Dorylaimellus</i>	12.00	2.78	30.00	97.00	115.54	2.43	12.00	4
<i>Dorylaimoides</i> *	15.00	3.48	37.50	109.00	129.84	2.73	9.00	4
<i>Tylencholaimus</i>	8.00	1.86	20.00	86.00	102.44	2.15	8.00	1
<i>Aphelenchus</i>	14.00	3.25	35.00	108.00	128.65	2.70	10.00	2
<i>Aphelenchoides</i>	13.00	3.02	32.50	100.00	119.12	2.50	11.00	2

Data is represented in mean values of each diversity trait. The nematode genera which were with higher density and frequency values are denoted with asterisk (*) and which lost persistence at flood irrigation are denoted with dollar (\$).

C. After harvesting (season III)

Nematode genera	Frequency	Relative frequency	Absolute frequency	Density	Relative density	Mean density	Nematode no.	c-p values
Plant-parasitic								
<i>Psilenchus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Radopholus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Longidorus*</i>	12.00	3.11	30.00	104.00	137.16	2.60	9.00	5
<i>Rotylenchus</i>	9.00	2.33	22.50	83.00	109.47	2.08	10.00	1
<i>Criconemoides</i> \$	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Ditylenchus</i>	9.00	2.33	22.50	78.00	102.88	1.95	13.00	2
<i>Meloidogyne*</i>	12.00	3.11	30.00	89.00	117.38	2.23	7.00	3
<i>Helicotylenchus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Heterodera*</i>	14.00	3.63	35.00	107.00	141.12	2.68	9.00	3
<i>Hirschmanniella*</i>	17.00	4.40	42.50	113.00	149.04	2.83	10.00	3
<i>Hoplolaimus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Globodera</i>	9.00	2.33	22.50	75.00	98.92	1.88	6.00	3
<i>Tylenchus*</i>	16.00	4.15	40.00	100.00	131.89	2.50	11.00	2
<i>Paratylenchus</i>	15.00	3.89	37.50	88.00	116.06	2.20	10.00	1
<i>Pratylenchus</i>	13.00	3.37	32.50	78.00	102.88	1.95	8.00	3

<i>Hexatylenchus</i>	7.00	1.81	17.50	55.00	72.54	1.38	7.00	2
<i>Tylenchorhynchus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Xiphinema</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Bacteriovores								
<i>Acrobelus</i>	16.00	4.15	40.00	112.00	147.72	2.80	5.00	2
<i>Cephalobus</i> *	17.00	4.40	42.50	115.00	151.68	2.88	10.00	2
<i>Eucephalobus</i>	11.00	2.85	27.50	98.00	129.25	2.45	9.00	2
<i>Rhabdolaimus</i> \$	9.00	2.33	22.50	94.00	123.98	2.35	11.00	1
<i>Diplogaster</i>	14.00	3.63	35.00	109.00	143.76	2.73	14.00	1
<i>Diploscapter</i>	8.00	2.07	20.00	78.00	102.88	1.95	10.00	1
<i>Rhabditis</i>	11.00	2.85	27.50	97.00	127.93	2.43	13.00	1
<i>Teratorhabditis</i> \$	7.00	1.81	17.50	75.00	98.92	1.88	15.00	1
<i>Mesorhabditis</i>	13.00	3.37	32.50	100.00	131.89	2.50	9.00	1
<i>Cuticularia</i> *	15.00	3.89	37.50	109.00	143.76	2.73	17.00	2
<i>Pelodera</i> \$	10.00	2.59	25.00	91.00	120.02	2.28	7.00	1
<i>Protorhabditis</i>	14.00	3.63	35.00	115.00	151.68	2.88	18.00	1
Omnivores								
<i>Eudorylaimus</i>	7.00	1.81	17.50	65.00	85.73	1.63	9.00	4

<i>Dorylaimus*</i>	9.00	2.33	22.50	85.00	112.11	2.13	10.00	4
<i>Mesodorylaimus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Discolaimius</i>	5.00	1.30	12.50	54.00	71.22	1.35	8.00	5
Predatory								
<i>Mononchus</i>	7.00	1.81	17.50	55.00	72.54	1.38	8.00	1
<i>Mylonchulus</i> \$	5.00	1.30	12.50	45.00	59.35	1.13	9.00	5
<i>Prionchulus</i>	4.00	1.04	10.00	35.00	46.16	0.88	8.00	4
<i>Clarkus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
<i>Miconchulus</i>	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Fungivores								
<i>Dorylaimellus</i>	10.00	2.59	25.00	96.00	126.62	2.40	15.00	4
<i>Dorylaimoides*</i>	18.00	4.66	45.00	116.00	152.99	2.90	16.00	4
<i>Tylencholaimus</i>	15.00	3.89	37.50	109.00	143.76	2.73	11.00	1
<i>Aphelenchus</i>	16.00	4.15	40.00	112.00	147.72	2.80	15.00	2
<i>Aphelenchoides</i>	12.00	3.11	30.00	98.00	129.25	2.45	14.00	2

Data is represented in mean values of each diversity trait. The nematode genera which were with higher density and frequency values are denoted with asterisk (*) and which lost persistence at flood irrigation are denoted with dollar (\$).