

From	Observation	To
1	Stylet or spear present	2
1	Stylet or spear absent	30
2	Tylenchid stylet present, esophagus usually with a median bulb containing valvular apparatus, ventral supplements absent, bursa usually present	3
2	Dorylaimid spear present, esophagus usually bottle-shaped, median bulb absent, supplements hardly ever absent, bursa seldom present	86
3	Lip region with four setae	Atylenchidae
3	Lip region without setae	4
4	Bursa absent	5
4	Bursa present	11
5	Median bulb conspicuously well developed, already distinct at low magnification, dorsal esophageal gland empties into the lumen of esophagus w within the median bulb, posterior body part strongly bent to the ventral side	Aphelenchoididae
5	Median bulb not conspicuously developed, posterior body part at most slightly bent to the ventral side	6
6	Tail shorter than anal body width	7
6	Tail longer than one anal body width	9
7	Body not twisted	Verutus
7	Body twisted	8
8	Amphids conspicuous, halfway lip region	Meloidogynidae
8	Amphids at frontside of the lip region, inconspicuous	Heteroderidae
9	Esophagus differentiated, tail more than five anal body widths	Tylenchidae
9	Esophagus reduced one tail shorter than five anal body widths	10
10	Median bulb recognizable	Trophonema
10	The median bulb entirely degenerated	Paratylenchidae
11	Bursa with ribs	Aphelenchidae
11	Bursa without ribs	12
12	Bursa situated in the proximity of the anus	13
12	Bursa tail enveloping	22
13	Body conspicuous slender looks like glass fibre, the body behind anus conspicuous · narrower, bursa lobulate	Ecphyadophoridae
13	Body plumper, ratio a < 100	14
14	Esophagus and stylet degenerated	15
14	Esophagus and stylet not degenerated	16
15	Headframe slightly sclerotized	Rotylenchulus
15	Headframe not visible	Paratylenchidae
16	Median bulb conspicuously strongly developed, dorsal esophageal gland empties in esophagus lumen just before valvular apparatus, bursa rudimentary	Paraphelenchus

16	Median bulb not conspicuously muscular, bursa well developed	17
17	The anterior part of esophagus spool - like swollen, median bulb absent	Neotylenchidae
17	Median · bulb well developed	18
18	Esophageal glands overlap intestine	Pseudhalenchus
18	Esophageal glands not overlapping	19
19	The anterior part of the spicula broadened, tail conical, and bursa nearly reaches the tail tip	Anguinidae
19	The anterior part of the spicula is not broadened, the tail thread-like extended, bursa situated in the proximity of the anus	20
20	Stylet knobs absent, phasmid on the tail, amphids slit-like, on the lateral side of lip region	Psilenchidae
20	Stylet knobs present, phasmids at the middle of body, amphids pore-like, in lateral view nearly invisible	21
21	Stylet long reaches 40% of the distance from anterior to median bulb	Tylodoridae
21	Stylet shorter, at most to 1/3 of the distance from anterior to median bulb	Tylenchidae
22	Esophageal glands overlapping	23
22	Esophageal glands not overlapping	27
23	Median bulb and valvular apparatus absent	Deladenus
23	Median bulb present	24
24	Headframe well developed	25
24	Headframe slightly developed	26
25	Lip region flattened at front side	Pratylenchidae
25	Lip region spherical at front side, body after heat fixation usually C - shaped	Hoplolaimidae
26	Lip region dorsally more developed than ventrally, spicula shorter than 20 um	Hoplotylus
26	Lip region symmetrical, spicula more than 20 um	Telotylenchus
27	Esophagus without median bulb	Paurodontus
27	Median bulb and valvular apparatus present	28
28	Headframe slightly developed	Dolichodoridae
28	Headframe strongly developed	29
29	Lateral field with four lines	Pararotylenchus
29	Lateral field with six lines	Amplimerlinius
30	Esophagus with a conspicuous median bulb	31
30	Esophagus at most with a weak median bulb	33
31	Mouth cavity tubular, without conspicuous teeth	Diplogasteroididae
31	Mouth cavity with one or two large chambers, teeth conspicuous	32
32	Dorsal tooth in mouth cavity immovable, both sub ventral metastom- swellings are identical	Diplogasteridae

32	The dorsal tooth is movable and can protrude, right metastom swelling also has a prominent tooth, left bump is smooth or carries a crenate plate	Neodiplogasteridae
33	Body caterpillar-like, with alternating broad and narrow annules, amphids vesicle-shaped	Desmoscolecidae
33	Body not caterpillar-like	34
34	Body asymmetrical, right body half has a fine net structure and a series of fins or shields	Bunonematidae
34	Body symmetrical	35
35	Bursa present	36
35	Bursa absent	42
36	Bursa without ribs	37
36	Bursa with ribs	38
37	Spicula with elbow-shaped outgrowth, bursa lobulate	Fungiotonchium
37	Spicula without outgrowths	40
38	Spicula present, mouth cavity tubular	39
38	Spicula absent, mouth cavity with a massive dorsal tooth	Myolaimus
39	Sub median lips hook-shaped	Diploscapteridae
39	Sub median lips are not so hook-shaped	Rhabditidae
40	Spicula C-shaped	Hemicycliophoridae
40	Spicula weakly bent	41
41	Body longer than 0.7 mm	Loofia
41	Body shorter than 0.7 mm	Criconematidae
42	Lip region with crown	Teratocephalidae
42	Lip region without crown	43
43	Esophagus degenerated and without structure	Sphaeronematidae
43	Esophagus well developed	44
44	Mouth cavity tubular, with stylet knobs, tail thread-like extended	Tylopharyngidae
44	Mouth cavity without stylet knobs tail not thread-like extended	45
45	Amphids absent, mouth cavity long and not differentiated large nematodes, longer than 3 mm, tail bluntly rounded, esophagus conspicuously short, ratio $b > 10$	Isolaimidae
45	Amphids present, ratio $b < 10$, tail not bluntly rounded, body less than 3 mm	46
46	Cuticle punctated, amphids usually spiral-shaped	47
46	Cuticle not punctated, amphids not spiral-shaped	53
47	Supplements are trapezium-shaped, esophagus anterior constricted	Ethmolaimidae
47	Supplements, when present, are not trapezium-shaped	48

48	Amphid slit-like	49
48	Amphid spiral-shaped	51
49	Cuticle not punctated	Osstellidae
49	Cuticle punctated	50
50	Dorsal and sub ventral teeth are equally significant; the part of the esophagus which surrounds the mouth cavity is symmetrical	Chromadoridae
50	A small dorsal tooth is an extension of esophageal tissue, sub-ventral teeth hardly develop ed, dorsal part of the esophagus is anteriorly broader than ventral part	Hypodontholaimidae
51	Tail blunt, conical and broadly rounded	Choanolaimidae
51	Tail more than 1.5 anal body width	52
52	Supplements absent	Achromadoridae
52	Supplements present	Cyatholaimidae
53	Supplements present	54
53	Supplements absent	68
54	Tube-shaped supplements	56
54	Supplements not tube-shaped	55
55	Urn-shaped supplements	Tobrilidae
55	Supplements not urn-shaped	58
56	Anterior part of valvular apparatus internal with small teeth	Lepidolaimidae
56	Valvular apparatus, when present, without teeth	57
57	Bulb with valvular apparatus, the esophagus has no extension behind the terminal bulb	Plectidae
57	Bulb, when present, without valvular apparatus, the esophagus has behind terminal bulb a tongue-like extension	Lepidolaimidae
58	Mouth cavity wide, barrel-shaped	59
58	Mouth cavity tubular, a minute or almost absent	62
59	Mouth cavity with large movable teeth	Onchulidae
59	Mouth cavity without movable teeth	60
60	Mouth cavity small, with basal inconspicuous tooth, tail thread-like extended	Prismatolaimidae
60	Mouth cavity large with sclerotized walls and one or some large teeth, tail never thread-like extended	61
61	The base of the mouth cavity is funnel-shaped, dorsal tooth not identical to sub ventral teeth, and no blisters at the bottom of the esophagus	Mononchidae
61	The base of the mouth cavity is flattened, dorsal tooth identical to sub ventral teeth, and three vesicles at the base of the esophagus	Anatonchidae
62	Mouth cavity tubular and longer than half of the proper esophagus	Aulolaimidae
62	Mouth cavity, when tubular, shorter	63
63	Cuticle annulated	64

63	Cuticle smooth	66
64	Nematodes are conspicuously slender, a ratio > 40	Bastianiidae
64	Body not as slender	65
65	Amphids are inconspicuous, cup-shaped, when not active, mouth cavity closed, but a tooth is visible, body spiral-shaped after heat-fixation	Tripylidae
65	Amphids are circular and conspicuous, and mouth cavity without teeth	Diplopel tidae
66	Mouth cavity with some movable teeth	Ironidae
66	Mouth cavity without movable teeth	67
67	Tail shorter than two anal body widths	Bathydontus
67	Tail long, body slender, a head region very skinny: only amphids are visible	Alaimidae
68	Terminal bulb clearly with a valvular apparatus	69
68	Terminal bulb, when present, without valvular · apparatus	79
69	Wing-like outgrowths in the neck region	Plectidae
69	No wing-like outgrowths in the neck region	70
70	The valvular apparatus is divided into two parts by a cross-groove	Desmodoridae
70	Valvular apparatus without cross-groove	71
71	Tail with caudal glands and spinneret	72
71	Spinneret and caudal glands absent	73
72	Setae absent, amphids inconspicuous, mouth cavity without cross-edges	Rhabdolaimidae
72	Setae on head and body, amphids circular, mouth cavity with three cross-edges	Linhomoeidae
73	Lips with fringed or forked ornaments	Cephalobidae
73	Lips without ornaments	74
74	Esophagus corpus cylindric	Panagrolaimidae
74	Esophagus corpus swollen	75
75	The esophagus corpus gradually broadened	Alloionematidae
75	Corpus cylindric or spool-shaped	76
76	One spicula is shorter than the other	Plectonchus
76	Spicula equal in length	77
77	Metastom with small teeth	Panagrolaimidae
77	Metastom without teeth	78
78	Gubernaculum triangular with caudal outgrowth	Panagrobelus
78	Gubernaculum slender, without caudal outgrowth	Cephalobidae
79	Head offset	80
79	Head not offset	81
80	Mouth cavity minute, inconspicuous, amphids cross-oval	Osstellidae

80	The mouth cavity is a large, egg-shaped, amphid circular	Sphaerolaimidae
81	Amphids circular	82
81	Amphids inconspicuous	84
82	Cuticle smooth	Monhys teridae
82	Cuticle annulation fine	83
83	Body more than 1 mm	Xyalidae
83	Body less than 1 mm	Domorganus
84	Mouth cavity large, with teeth, right spiculum degenerated	Odonthopharynchi dae
84	Mouth cavity minute or absent, both spicula of equal size	85
85	Body and head conspicuously slender, (ratio a > 6 0), amphid slit or pore-like, at several body widths from anterior	Alaimidae
85	Body not conspicuously slender, amphid not visible in lateral view	Sphaeronema or Paratylenchidae
86	Body with anteriorly a conspicuous sucker-shaped lip disc	Discolaimidae
86	Lip region not sucker-shaped	87
87	Anterior to the spear, there is a large mouth cavity bearing four large basal teeth, and on its walls, numerous small teeth and 24 longitudinal ridges	Actinolaimidae
87	Mouth cavity with teeth absent	88
88	Spear and remaining body content hardly visible: covered by a large number of grains, cuticle often hangs loosely around the body, spear structure complex	Diphtherophoridae
88	Body content visible	89
89	Tail long , ratio c < 1 5 and ratio c ' > 2	90
89	Tail short , ratio c > 15 and ratio c ' < 2	95
90	The basal region of the esophagus is surrounded by muscle-sheath	Oxydirus
90	The esophagus is not surrounded by a muscle-sheath	91
91	Nine or more supplements	92
91	Eight or fewer supplements	93
92	Tail conical, four anal body widths long	Eudorylaimus
92	Tail thread- like extended	Prodorylaimus
93	Spear extension curved and surrounded by swollen esophageal tissue	Dorylaimoides
93	Spear extension not surrounded by swollen esophageal tissue	94
94	Cuticle in mouth cavity swollen barrel-shaped, ratio c > 9	Chrys onemo ides
94	Cuticle in mouth cavity not swollen barrel-shaped ratio c < 9.	Prodorylaimium
95	Spear and spear extension grows together to a curved " spear " before the anus is three supplements. In the esophageal region, there are some ventral papillae, sometimes bursa present	Trichodoridae

95	Spear straight, no ventral papillae in esophageal region	96
96	Spear longer than 70 um	Longidoridae
96	Spear shorter than 70 um	97
97	Body longer than 3 mm	98
97	Body shorter than 3 mm	101
98	Spear dorsally grooved and basally outgrown, implanted on ventral mouth cavity wall	Sectonema
98	Spear axial	99
99	Cuticle with longitudinal grooves, 35 - 45 supplements	Dorylaimus
99	Cuticle without longitudinal grooves, less than 20 supplements	100
100	Spicula longer than 80 um, spear aperture 30% of spear length, the base of esophagus constricted and surrounded by a muscle-sheath	Axonchium
100	Spicula shorter than 70 um, spear aperture 50%, base of esophagus not surrounded by a muscle-sheath	Aporcelaimus
101	Spear extension with knob-shaped outgrowths	Leptonchidae
101	Spear extension without knobs	102
102	Spear sickle-shaped bent, anterior body part conspicuously narrowed, body width at the base of Esophagus 4 . 5 times head width, guiding tube membranous, folded , 20 supplements visible, one stands apart	Paraxonchium
102	Body not conspicuously narrowed	103
103	Spear extension pear-shaped flanged.	Enchodelus
103	Spear extension not flanged	104
104	Six membranes cover the mouth cavity	Torumanawa
104	Membranes do not cover the mouth cavity	105
105	Spear implanted to the right of sub ventral mouth cavity wall base of esophagus surrounded by a muscle-sheath, supplements weakly developed	Nygolaimidae
105	Spear axial	106
106	Supplements, gubernaculum and lateral guiding pieces absent	Thornia
106	Supplements present	107
107	Spear extension curved, esophageal tissue behind spear swollen	Dorylaimoides
107	Spear extension not curved, esophagus distally not swollen	108
108	Guiding tube membranous, spear aperture not larger than 50%, gubernaculum absent, three separate cuticle layers visible on tail	Aporcelaimidae
108	Guiding tube not membranous, spear aperture not more significant than 50%, no separate cuticle layers visible on tail	109
109	Tail conical, rounded or sharp, never broadly rounded	Qudsianematidae
109	Tail bluntly rounded	110

110	Mouth cavity covered by six shields, 19 -24 supplements in close succession, body over 2 mm long	Labronema
110	Mouth cavity without shields	111
111	Tail with several cuticle grains, lip region not offset, guiding tube consists of a muscular collar	Thonus
111	Tail without grains	Thornematidae