# PHARYNX ABSENT, or so obscure as easily to escape notice\* New Genera

## Oesophagus with median or posterior bulb or swelling, or both

### Amphids none, so far as known; or difficult to see and therefore easily overlooked

Lateral wings to cuticle present; naked; striae fine; spinneret none; pharynx obscure

Mouth depr.; faint apophyses in pharyngeal bulb; -f-; excretory pore behind neck. Hyalaimus 13

Mouth not depr.; pharynx obscure, not apophysate; oesophagus faintly cephaloboid

Head with papillae, minute lat. markings (amphids?); exert. pore front of nerve ring . Litonema 12

Head without papillae or lateral markings; excretory pore behind the nerve ring .... Choronema 14

Lateral wings to the cuticle none

Spinneret abs.; naked; oesoph. faintly cephaloboid; striae very fine; faint wings .. (Choronema) 14

Spinneret present; cephalic setae present

Amphids invisible, known only as outlets of secretion; striae coarse; setae long. (Lepton,mella) 21

Amphids tiny, tubular, labial, forward-pointing, easily overlooked; striae plain

Striae fine; male postanal tuliular organs submedian; pharyngeal swelling present. (Catanema) 56

Striae coarse; pharyngeal swelling none; cephalic setae 4 or more; head nonstriate

.Mouth cavity present, very small; males without supp. organs; nema 10mm ... (Laxonema) 20

Mouth cavity none; vent. row acornshaped organs toward head; setae numerous. (Stilbonema) 19

### Amphids present

Form of the amphids more or less irregular, symmetrical to at least one line

The amphids linear; cephalic setae 12 + 6 small; striae coarse; si;>inneret present. (Leptonemella) 21

The amphids not linear; no spinneret; naked; labial region with papillae only

Winged; 'f; striae rather coarse; amphids semi-ellipses; oesoph.faintly cephaloboid.lotalaimua 15

Wings none; striae very fine; amphids with large internal connections ............ Bolbinium 16

Form of the amphids spiral, circular, or elliptiral; spinneret present

Shape of the amphids distinctly spiral; striae fine, resolvable

Pharynx devoid of teeth; head expanded; cephalic setae 4; body setose .......... Bolbonema 49

Pharynx with 3 minute teeth; setae in longitudinal rows ...................... (Alaimonema) 10 7

Shape of the amphids circular; sometimes small, well forward on the head, and obscure

Lateral wings present; cephalic setae 4; amphids large

Striae coarse, altered on the lateral fields; lateral wing distinct .................. AntomicTOn 17

Striae fine, not altered on the lateral fields; lateral wing faint .................. Cyartonema 18

Lateral wings none or faint

External amphid circular, at least apparently, well developed; head set off

Body setose; amphids really spiral, on the head; striae rather fine, resolvable .... (Bolbonema) 49

Body naked; amphid circular

Position of amphid, on head; striae fine; contour not crenate; wings faint .... (Cyartonema) 18

Position of amphid, behind head; striae coarse; contour crenate .... .......... Cinctonema 22

External amphid minute, on the front of the head, tubular, easily overlooked; neck 2-5%

Striae fine; male postanal tubular organs submedian; pharyn. swelling present .. (Catanema) 56

Striae coarse, plain; cephalic setae 4 or more; head without striae

Mouth cavity very small; nema 10mm; males without supplementary organs .. (Laxonema) 2 0

Mouth cavity none; cephalic setae in 3 or more circlets; males without caudal supplements

Supplementary organs of acorn shape, found in a ventral row near the head .. (Stilbonema) 19

Supplementary organs none, but with special pre- and postanal submed. setae. (Stilbonema) 19

## Oesophagus plain, i.e. without median or posterior bulb or swelling of palpable size

### Amphids none so far as known, or difficult to see and easily overlooked

Wings 10-12; spinneret present; f=; striae fine, plain; ceph. setae 6, subceph. 4 .... Porocoma 11

Wings 2, if any, lateral only, in any case faint

Spinneret abs.; oesoph. faintly cephaloboid; striae very fine; no setae; faint wings .. (Choronema) 14

Spinneret present; amphids minute if any, unclosed

Female organ single, -f; 6 cephalic papillae only; spinneret doubtful; nema 0.28 mm .. Litotes 1

Female organs double, 'f'; striae fine, plain; cephalic setae 4; 2 huge somatic glands .. (Ionema) 9

### Amphids present

Form of the amphids more or less irregular, often symmetrical to at least one line

Contour of the amphids linear, i.e. long and narrow

Lateral wings none; cephalic setae 6, subcephalic 4; 'f' .......................... Tycnodora 3

Lateral wings present; head naked or its setae irregular; spinneret present

Wings prominent; striae coarse; 'f'; inconspicuous pharynx (?) ................ (Actinonema) 117

Wings faint; striae fine; -f-; mouth oblique ................................... . Campylaimus 5

Contour of the amphids not linear

Striae interrupted on the lateral fields by wings, plain

Spinneret absent; oeosphagus faintly cephaloboid; 'f' ....... . . . . . . . . . . . . . . . . . . (Iotalaimus) 15

Spinneret present; oesophagus narrow, one to two-fifths as wide as neck

Anterior extremity mitriform, very distinctly set off; wings to the cuticle 6-8 .... Xennella 6

Ant. extremity not mitriform; coarse cuticular elements in rows like tiles;' f' .. (Ceramonema) 48

Striae uninterrupted, fine, plain; spinnPret present; slender nemas, up to 1.2%

Head without setae; amphids relatively large and deep; not ocellate ............ Schistodera 4

Head with 4 cephalic setae; amphids small with obvious internal elements; ocellate. Nemella 10

Form of the amphids spiral, circular, or elliptical (doubtful in Litotes)

Shape of the amphids spiral; striae resolvable, not altered on the lateral fields

Spmneret absent; striae coarse; probably f' (?); contour crenate ................ (Alaimella) 7

Spinneret present; striae rather coarse; amphids large

Head expanded; lip-region elevated, not papillate; ceph. setae 6 plus 10; 'f' ... (Nannolaimus) 36

Head not expanded; lips 6, papillate; cephalic setae 4; f' (?) ...................... Alaimella 7

Shape of the amphids circular or elliptical; spinneret present except perhaps in Litotes

Lateral wings perhaps pres.; f'; striae plain; hpless; pharynx very minute, conoid .. Nemanema 2

Lateral wings none (or very faint); head rounded; striae none, or very fine

Cephalic setae ten or more, in two circlets

Contour of amphids unclosed behind; setae 12, 4 subcephalic; mouth a mere pore. Litinium 8

Contour of amphids closed; setae 10, no subcephalic; pharynx minute, conoid. (Linhomoella) 35

Cephalic setae none, or small ( 4 or 6)

Setae 4, small; ocellate; amphids small, labial, unclosed; body contains huge glands. Ionema 9

Setae none; nemas of very simple structure; wings none or doubtful

Papillae representing 6 setae; amphid (?) minute; -f; nema 0.28 mm; width 5% .. Litotes 1

Papillae none; a114Phidsfairly developed, closed; f'; nema 2.5 mm; width 1.4%. (Nemanema) 2

# PHARYNX PRESENT

## Wall of the pharynx unarmed (for alternative see page 221, midway)

Cavity of the pharynx conoid, or irregular

Oeosphagus with median or posterior swelling or both

Amphids none, or obscure; striae plain, not altered on the lateral fields

Spjnneret none; head subtruncate, naked; contour almost imperceptibly crenate. Cephalobellus 23

Spinneret present

Striae coarse; pharynx minute (none?) without swelling; head non-striated .... (Leptonemella) 21

Striae fine; pharynx narrow, enclosed in a swelling; amphids minute labial tubes. (Catanema) 56

The amphids linear; pharynx (?) ; striae coarse, plain; no wings; setae, 3 circlets .. Leptonemella 21

The amphids spiral, circular, or elliptical; when tubular, surface contour circular

Amphids present

Form of the amphids a distinct spiral; spinneret present

Striae coarse; oesophagus :::1::: oxyuroid; wings 8; cephalic setae 6, subcephalic 4 ... . Dasynema 34

Striae fine, plain

Lateral wings only on tail of male; 'f'; pharynx somewhat zigzag; setae minute .. (Zalonema) 7

Lateral wings absent

Head with numerous scattered setae; pharynx small, narrow; onchi vestigial. (Alaimonema) 107

Head not with numerous setae; pharynx fairly well developed; teeth unobvious; 'f'

Cheeks thickly cutinized; cuticle thick ......................................... Zalonema 51

Cheeks, if thick, not heavily cutinized; lips 2, large, lateral. ................ Pseudonchus 58

Form of the amphids a circle or ellipse; striae unaltered laterally

Spinneret absent; striae fine

Intestinal cells with crystals; 6 lips, appendiculate; -f; cephalic setae 10 ... (Crystallonema) 61

Intestinal cells not with crystals; lips none; -f-; cephalic setae papilloid .. ... Anticyathus 24

Spinneret present

Head swollen, unstriated; no pharyngeal swelling; striae coarse, plain

Cephalic setae 4; lips none; no labial papillae; amphids a single circle ...... (Cinctonema) 22

Cephalic setae none; lips 6, unipapillate; amphids two concentric circles ... . Micromicron 104

Head not swollen or set off; pharyngeal swelling anon present; striae fine, plain

Pharynx narrow; amphids minute; male postanal organs tubular; setae 4 + 6. (Catanema) 56

Pharynx capacious; amphids well developed, opposite the pharynx or behind it

Lips 2, lateral; pharyngeal ridges simulate teeth; • f'; cephalic setae 4 ...... (Pseudonchus) 58

Lips 6, each with a digitate appendage; cephalic setae 10 .................. (Crystallonema) 61

Oesophagus plain, i.e. without median or posterior bulb or swelling

Amphids irregular

Spmneret none; striae unaltered laterally; -f-; spiral amphid placed on a deltoid part. Didelta 33

Spinneret preRent

Striae altered laterally; • f'; head naked, set off; cuticle thick; pharynx armed( ?). ( Actinonema) 117

Striae not altered on the lateral fields

Cephalic setae 12 + 6, in two circlets; -f; amphid inconspicuous ............ Leptogastrella 28

Cephalic setae 6, in one circlet; amphid ¼ the width of the head; spinneret(?) . . Rhabdocoma 32

Amphids spiral, circular, or elliptical

The amphids in the form of a spiral; striae not altered on the lateral fields

Spinneret none (?); amphid ½ the width of the head; naked; wings two .......... Neurella 25

Spinneret present

Buccal cavity with cutinous frame, and 3 apophyses with small apical teeth .. (Trogolaimus) 75

Buccal cavity without distinct framework and without teeth of any kind; striae fine

Ovaries 'f'; striae resolvable; amphid of 4 winds; cephalic setae 6 + 10 ...... Nannolaimu• 36

Ovaries -f-; striae plain; amphids simulating a circle

Mouth cavity large and obvious; cephalic setae unknown, in any case few ... . Margonema 27

Mouth cavity small; head rounded; cephalic setae large, 4 (special) plus 6 .... Linhomoella 35

The amphids in the form of circles or ellipses

Striae altered on the lateral fields by wings: spinneret present

Head set off by a groove, its appendages varied; striae coarse; wings numerous .. Xenolaimus 30

Head not strongly set off, though usually well developed

Ovaries reflexed, f'; naked; striae fine, plain; pharynx small, obsolescent .... (Nemanema) 2

Ovaries outstretched; pharynx well developed, but not large; cephalic setae present

Striae fine, plain; cephalic setae 6, segmented; -f-........................ (Cytolaimium) 31

Striae coarse; -f

Cuticle rough from subdivided wings; setae many; lips 3, mandibulate (?) .... (Xyala) 72

Cuticle normal; lips 6, papillate, appearing somewhat fimbriate; striae plain. Daptonema 66

Striae not altered on the lateral fields

Spinneret absent; striae fine, plain; female organs outstretched, except Rhabdocoma

Ovaries two, -!-

Cephalic setae 6, plainly segmented; lips three, papillate .................. Cytolaimium 31

Cephalic setae 4, not segmented; lip-region punctate, amalgamated ............ Didelta 33

Ovary one, subcephalic setae 4

Cephalic setae 6; f'; lips 3, flattish, not digitate ............................ Rhabdocoma 32

Cephalic setae 10; -f; lips 6, small, digitate

Cells of intestine with cryst11ls; amphids not raised; excretory pore labial. Crystallonema 67

Cells of intestine without crystals; amphids raised; tail with spicate setae ...... Zanema 68

Spinneret present

Pharynx obscure

Lips in two sets, outer large, low; inner soft extensions of the oesophagus .. Zygonemella 26

Lips not in 2 sets, amalgamated; ceph. setae 4, 3-jointed; phar. prismoid cup. (Rhadinema) 37

Pharynx more or less obvious; striae plain

Female organs reflexed, f'; striae fine; head naked; pharynx small .......... (Nemanema) 2

Female organs outstretched

Ovaries two; striae fine

Mouth cavity small, inconspicuous; cephalic setae 4 (special) plus 6 .... (Linhomoella) 35

Mouth cavity moderate, in a swelling; ceph. setae 6, plainly segmented; -f-. Cytolaimium 31

Ovary one, -f; striae coarse; setae 12; lips 6, striate

Lips conoid, striated, large, tipped with setae, and with a seta near base . . Da.ctylaimus 29

Lips flat, papillate, appearing fimbriate, three-ribbed ........., ......... (Dapton.ema) 66

Cavity of the pharynx more or less prismoid or cylindroid (not conoid or very irre1?ular)

Oesophagus with median or posterior bulb or swelling, or both

Amphids none so far as known, or difl.icult to see and easily overlooked

Lateral wings present; spinneret absent

New Genera

Striae none; wings 2; naked; pharynx like oesophagus lumen .................. (Litonema) 12

Striae fine; wing 1; seta-like papillae 6; pharynx contains glottoid organ ...... Cephalobium 54

Lateral wings absent; striae plain

Spinneret present

Striae very coarse; phar. cupshaped; nema 10mm; male, no supplement. organs. (Laxonema) 20

Striae fine; phar. small, enclosed in bulb; male postanal tub. organs submedian .. (Catanema) 56

Spinneret absent; setae none

Phar. very long, nar., ending in cylindroid bulb; 'f'; nema 1mm; lips conoid .... Myctolaimus 61

Pharynx very short; cardiac bulb oblate or spherical; f"

,??ema 3.3mm; width 9%; pharyngeal apophyses present; oesophagus clavate. Blattophila 55

Nema 6mm; width 3%; pharyngeal apophyses absent; oesophagus cylindrical. Protrellus 38

Amphids present.

The amphids are somewhat irregular, symmetrical to one line; striae fine, plain; wingless

Form of amphids not lin.; no spinneret; naked; lips 6; phar. tub.; amphids 1arge. Colpurella 39

Form of amphids linear

Ovary one, 'f; spinneret absent; cephalic setae 6 plus 4; pharynx tubular .... (Myolaimus) 60

Ovaries two, -f-; spinneret present; ceph. setae 4; ventral(?) onchus near mouth. Pseudolella 53

The amphids are spiral, circular, or elliptical

Shape of the amphids a distinct spiral

Striae coarse; oesoph.=oxyuroid; wings 8; ceph. setae 6, subceph. 4; head unstr .. (Dasynema) 34

Striae fine

Lateral wings present; striae plain; spinneret present; head thick-walled .... Pycnolaimus 40

Lateral wings absent

Spinneret none; -f-; cephalic setae 10, subcephalic 4; pharynx obscure . ...... Laimella 44

Spinneret present

Phar. armed in front with 3 obscure equal teeth; setae numerous on head .. (Alaimonema) 107

Pharynx without teeth; head rounded

Lips 2, lateral; 'f'; striae plain; pharyngeal ridges simulating teeth ......... ( P.seudonchus) 58

Lips none, or very indistinct

Ce.phalic setae 10. subcephalic 4; pharynx obscure, has minute onchus ...... LaimElla 44

Ceph. setae four? ( or none); lips set off; phar. 2-chamb., 3d tapering .... (Polylaimium) 59

Shape of the amp hid circular or elliptical ( anon tubular); striae unaltered laterally

Spinneret absent; striae plain, fine

Ovary one, -f; ccph. setae 10, subceph. 6; amphids circular; pharynx broad. (Crystallonema) 67

Ovaries two

Cuticle naked; spear(?) minute; ceph. setae 0, 6 pap.; amphids ellip.; 'f' .. (Triplonchinml 80

Cuticle not naked; without spear; ceph. setae present; amphids circular; -f-. Anticyathu.?? 24

Spinneret present

Buccal cavity very small and easily overlooked; cephalic setae present; striae plain

Striae coarse; phar. minute, cupshaped; males without supplementary organs. Laxonema 20

Striae fine; phar. narrow, bulbed; males with postanal rows of tubular organs. Catanema 56

Buccal cavity very long; 1 f'; striae fine; cephalic setae small or none

Cephalic setae four(?) or none; amphids large, deep; pharynx 2-chambered ... Polylaimium 59

Cephalic setae 10, short; amphids small; ocellate; pharynx very long ...... (Catalaimus) 89

Oesophagus plain, i.e. without median or posterior bulb or swelling

Amphids none so far as known, or difficult to see and easily overlooked

Wings present; spinneret present; striae fine; ovaries two, f=; phar. vestigial.. (Porocoma) 11

Wings absent; striae fine

Ceph. setae 10, long, segmented; lips 6, thin, each with seta; amphid minute slit .. (Trilepta) 92

Cephalic setae none, or not long or obviously segmented; lips without setae, or lipless

Buccal cavity tubular; spinneret absent; 'f'; lipless; papillae depressed .... (Jsolaimium) 41

Buccal cavity not long and tubular; spinneret present

Ceph. setae 10; lips 6, obvious; dorsal phar. element bent in at lips; 'f' (?) .. (Asymmetrella) 70

Cephalic setae 6, papilloid; lipless; -f ............................................ (Litotes) 1

Amphids present

Structure of the amphids more or less irregular, usually sy??metrical to at least one line

Contour of the amphids linear; striae not altered on the lateral fields

Ceph. setae long, segmented; lips 6, thin, each with seta; amphid minute slit .. (Trilepta) 92

Cephalic setae none, or not long and not obviously segmented

Spinneret absent; 'f'; striae fine; phar. tub.; lips c011fl.uent; papillae depressed .. Isolai"mium 41

Spinneret present; female sexual organs double; striae fine

Bue. cavity tub.; amphids long; striae resolve; onchus ventral(?), obscure .. (Pseudolella) 53

Buccal cavity not tubular; amphids more or less stirrup form; striae not resolvable

Ocellate; cephalic setae none; lips faint; amphids distinct, though small ...... (lllium) 45

Ocelli 0; setae 10; cutinized dorsal pharyn. element bent inward at lips .. (Asymmetrella) 70

Contour of the amphids not linear

Striae altered on the lateral fields; ovaries two, reflexed; spinneret present

Lateral wings present; striae coarse, like rows of tiles; pharynx narrow ...... Ceramonema 48

Lateral wings none; striae fine, plain; onchia vestigial; six cervicalglands. (Anoncholaimus) 93

Striae not altered on the lateral fields, fine

Spinneret none

Cephalic setae 4, forward-pointing; amphids more or less deltoid ............. (Didelta) 33

Cephalic setae O; amphids more or less reniform ............................ Colpurella 39

Spinneret present

Cheeks thickly cutinized; head conoid; small forward-pointing onchia (?). (Isonemella) 109

Cheeks not thickly cut.in.; head not prom. conoid; no small onchia exc. in Anoncholaimus

Ovaries outstretched, -f-; ocellate; phar. tubular; nearly lipless; ceph.s etae 4. (Coinonema) 42

Ovaries reflexed, 'f'; striae fine, plain; pharynx not tubular; head truncate

Cephalic setae none; ocellate; lips faint; amphids distinct, though small ....... . Illium 45

Cephalic setae 10; ocelli none; amphids indistinct

Dorsal cutinized element of the pharynx bent inward at the lips ...... (A??ymmetrella) 70

Dorsal wall of the pharynx not differentiated; onchia minute ....... ,. (Anoncholaimus) 93

Structure of.the amphids spiral, circular, or elliptical

KEY AND CHARACTERS 221

New Genera

Fo??m of the amphids a distinct spiral; spinneret present

W??nged; 'f'; striae coarse, plain; spinneret heavily cutinized; cephalic setae 4 ...... Cynura 46

Wings none; female sexual organs double; striae fine, plain

-Ovaries reflexed; no lips; pharynx none or nearly obsolete; oe!ellate ............... (Ionema) 9

Ov??ries outst??etched, -f-;\_ cephalic setae 4; pharynx tubular, narrow

Spiral amph1d of one wind, somewhat hook-form; ocellate; pharynx obscure . . Coinonema 42

Spiral amphid of several winds; not ocellate; pharynx well developed . ......... . Xinema 47

Form of the amphids circular or elliptical

Striae interrupted on the latera] fields; laterq,l wings present; spinneret present

Female organs single, -f; amphids 2 concentric circles; setae in groups of 3.. . . (Omicronema) 50

Female organs double,'£'; amphids not 2 concentric circles; setae not in groups

Spinneret heavily cutinized; cephalic setae 4; amphids really spiral. ............. (Cynura) 46

Spinneret simple, normal; cephalic setae 10; amphids small, elliptical. ... (Anoncholaimus) 93

Striae not interrupted on the lateral fields

Spinneret none; striae fine, plain

Ovaries 2, -f-; setae 4; amphids more or less deltoid; phar. irregularly napiform .. (Di<lelta) 33

Ovary 1, outstretched; amphids not deltoid

Amphids very small; ceph. setae in 3 circlets of 6; f-; cuticle reticulated .... Halanonchus 51

Amphids large; setae 10, with 6 subcephalic; -f; lips with digitate processes

Intestinal cells with crystals; caudal setae none; amphids not raised ...... (Crystallonema) 61

.Intest. cells without crystals; amphids raised; about 10 thorn-like caudal setae. (Zanema) 68

Spinneret present

Ceph. setae in 3s; coarse, transverse striae resolvable into elongated elements .. Omicronema 50

Cephalic setae not in groups; striae, if resolvable, not into elongated elements

Buccal cavity more or less obscure, easily overlooked; wings none

Ceph. setae 4, 3-jointed; lips confluent; amphid ½ wide as trunc. head, closed. Rhadinema 37

Cephalic setae 6 or mor??, minute or papilloid

Lips none; amphid (?) unclosed behind, minute; head rounded; -f .......... (Litotes) 1

Lips soft and rather obscure; amphid fairly well developed, closed ...... (Zygonemella) 26

Buccal cavity obvious; setae only in Halinema long, then twice as long as head is wide

Ocelli present; ceph. cutirle thick; head distinctly conoid; minute onchia (?). Isonemella 109

Ocelli none; cephalic cuticle not thickened; head not distinctly conoid; no onchia

Ovaries two, 'f'; Rtriae fine, plain; onchia vestigial; 6 cervical glands ..... Anoncholaimus 93

Ovary one, -f; striae usually rather coarse; pharynx quite unarmed

Head end diminished to form a sort of beak; pharynx tubular ......... . Rhynchonema 43

Head end not diminished to form a beak; pharynx not tubular

Setae and amphids large; phar. shorter than head is wide; caudal setae pres .. Halinema 52

SP;tae and amphids medium size; lips conoid, tips with minute" claws". (Dactylaimus) 29

## Wall of the pharynx armed with teeth or onchia

### Armature spear-like; caudal glands and spinneret typically (usually) absent

Spear with a bulbous base; striae fine, plain

Oesophagus plain, faintly cephaloboid; -f; cuticle with wings .................. Aphelenchulus 81

Oeosphagus with a posterior bulb or swelling; cuticle without wings

Amphids ellip., well devel. internally; 'f'; spear faint; lips 6, faint, unipapillate. Triplonchium 80

Amphids linear, transverse; oesophagus dorylaimoid; f'; no labial papillae ...... Doryllium 84

Spear plain, i.e., without bulbous base; striae fine, nearly always plain

Oesophagus plain, i.e. without median or posterior swelling; spinneret present

Amphids 0; -f; cephalic setae O; head truncate; lip-region set off; spear small" prod" . IotoncMum 82

Amphids present; lip-region not set off

Amphids symmetrical to one line only; setae 10; pharynx long; spear toothlike. (Catalaimu.s) 89

Amphids spiral, sometimes faint; 'f'; striae unaltered laterally; cephalic setae 4

Ocellate; amphids labial; "spear" slender in nar. phar.; lips and papillae none. Onchulella 87

Ocelli none; lips 3, papillate; "spear" toothlike, in an open cavity . . . . . . . . . . (Digitonchus) 95

Oesophagus with posterior swelling which sometimes occupies ½ the neck

Spinneret present; amphids spiral (?); eyes present; ceph. setae 4; lipless ............. Onchium 83

Spinneret none; striae fine

Amphids 0; -f; no ceph. setae; head truncate; lip-region set off; spear a small prod. Iotonchium 82

Amphids present

The amphids elliptical; spear-tip bent; 'f; lips 6, bipapillate ................. . Campydora 88

The amphids symmetrical to one line only; lips set off by constriction

Female organs double, f'; spear long and very slender; pre-rectum very long .. . Leptonchus 85

Female organ single, f'; spear short, not slender; pre-rectum short

Posterior oesophageal swelling short, not set off by constriction in front .... (Doryllium) 84

Posterior oesophageal swelling long, set off by constriction from previous part. A xonchium 86

### Armature of one or more teeth

#### Tooth one (for alternative see top Page 223: "Teeth two-"

##### Oesophagus with a median or posterior bulb or swelling, or both (for alternative see Page 222)

###### Amphids none or unknown, or so inconspicuous or faint as to be difficult to see

Striae fine, plain; spinneret none; 'f; naked; lips 6, bipapillate; spear bent at apex. Campydora 88

Striae altered on the lateral fields

Wingless; spinneret present; onchulus with large dorsal muscle; setae small .... (Iotadorus) 115

Wings present

Spinneret present; striae coarse, resolvable; • f'; lips retractile; setae 4 ..... (Ptycholaimellus) 116

Spinneret absent; striae fine, plain; 'f; lips not retractile, naked; spear bent .. (Campydora) 88

###### Amphids present

Structure of amphids more or less irreg., often symmetrical to one line (for alternative see Page 222)

*Contour of the amphids not linear; spinneret present*

Striae altered laterally; onchus small, well forward; setae obscure; lips 12 ..... . Iotadorus 115

Striae unaltered laterally; •t·

Setae fasciculate; cuticle thick; lips faint .................................... Xamhodora 98

Setae not fasciculate; cuticle notthick ......................................... . Bolbella 90

Contour of the amphids linear; appearing as transverse slits opposite the pharynx

Striae altered laterally; spinneret present; 'f'; striae coarse, resolvable

Lip-region retractile; cephalic setae 4, rather obviously segmented ........ Ptycholaimellus

Lip-region non-retractile; cephalic setae 10, not obviously segmented .............. Rhips

Striae not altered latera!ly, or very little; cephalic setae 10

Lips thin and flap-like; cephalic setae long and obviously segmented .......... Trilepta

Lips not thin or flap-like; cephalic setae shorter, not obviously segmented; • f'

Striae resolvable; pharynx not subdivided; onchus not spear-like; no cervical setae.Rhips

Striae plain; pharynx in distinct chambers; onchus spear-like; cerv. setae long. (Bolbella)

Structure of the amphids spiral, circular, or elliptical

Form of the amphids more or less distinctlr spiral; spinneret present, doubtful in Laimella

Striae altered on the lateral fields; cephalic setae 4

Wings present; striae fine, resolvable; lips 6, confluent, bipapillate; -f-...... Pepsonema

Wingless; tooth with apophysis faintly y-shaped; striae coarse; amphids labial.. Ypsilon

Striae not altered on the lateral fields

Onchus one, with its apophysis somewhat y-shaped; striae coarse; setae 4 ...... Ypsilon

Onchus not y-shaped, often with small companions

Amphids distinctly spiral

Setae O; body striated (exc. head); pharyn. bulb faint, cardiac napiform .. Amphispira

Setae, cephalic 10, subcephalic 4; non-striated; -f-; onchus spear-like ...... (Laimella)

Amphids appearing circular

Lips 12-fold; onchus somewhat spear-like; cephalic setae small, 6 plus 10-12 .. Mesodorus

Lips faint, not over 6; onchus not spear-like

Ovaries -f-; phar. bulbous; amphids circular (?); setae 6 + 6; striae fine. (Bolbolaimus)

Ovaries reflexed, • f'

Striae fine, plain; onchuli minute; lips faint, 6; papillae conical; setae 4 .. (Polysigma)

Striae coarse; head not striated; cuticle thick; cephalic setae fasciculate .. Xanthod<Yra

Form of the amphids circular or elliptical

*Striae altered on the lateral fields; spinneret present*

Wingless; labial amphids elliptic; striae resolvable; pharyngeal bulb one-sided. Iotad<Yrus

Wings present; striae coarse

Female sexual organs single, -f; cephalic setae 4, labial setae 6; wings numerous .. Nudora

Female sexual organs double, 'f'

Head expanded, naked; striae not retrorse; tooth small; lips minute, obscure. Xenonema

Head not expanded, its setae 4; lips obvious; striae appar. retrorse throughout. Rhinema

Striae not altered on the lateral fields

Cephalic setae none

Head hemispher., expanded; lips 6, conoid; spinneret pres.; onchus obscure. (Micromicron)

Head not expanded; lips set off, confluent; no spinneret; 'f; "spear" bent .. (Campydora)

Cephalic setae and spinneret present

Onchus spear-like; amphids resemble concentric circles; set!le in 2-3 rows .... (Mesod<Yrus)

Onchus not spear-like; amphids not concentric circles; setae, if numerous, fascicled

Female sexual organs outstretched

Ovaries two; cephalic set!le 6+6; submedian onchia present ............. (Bolbolaimus)

Ovary single; ceph. setae 4; submed. onchia none or vestigial. ............. Synonema

Female sexual organs reflexed, 'f'; amphids really spiral

Submedian onchi present; labial papillae conical; setae 4; striae fine ...... (Polysigma)

Submedian onchi abs.; setae in fascicles; head non-striated; cuticle thick. (X anthod<Yra)

##### Oesophagus plain, i.e. without median or posterior bulb or swelling; amphids present

###### Form of the amPhids more or less irregular, usually symmetrical to at least one line

The amphids hnear; spinneret present; 'f'; striae coarse, altered laterally

Striae plain; head·naked, set off by constriction; wing 1, prom.; cuticle thick .. Actinonema

Striae resolvable into rods; ceph. setae 10; wingless; amphid 5-6 times as wide as long . Rhips

The amphids not linear; striae not altered on the lateral fields

Head conoid; cheeks thick; ocellate; onchus minute; phar. narrow; setae 10 ..... (Isonemella)

Head not conoid; cuticle of the cheeks not thick; 'f'; striae fine, plain

Spinneret absent; lips 6, unipapillate; cephalic setae 6; amphid behind pharynx. Onchulus

Spinneret present

Buccal cavity extending beyond the nerve-ring; onchus spear-like; ocellate. Catalaimus

Bue. cavity not unusually long, its dors. element bent at lips; not ocellate. Asymmetrella

###### Form of the amphids spiral, circular, or elliptical

The shape of the amphids a more or less distinct spiral; spinneret present; 'f' or -f

Striae altered laterally, fine, resolvable; wings present; cephalic setae 10; 'f' .. Acanthonchus

Striae not altered on the lateral fields, coarse, plain

Spinneret unknown, abs. (?)t-f; setae 10; onchi submedian; contour crenate .. (Gonionchus)

Spinneret present; 'f'

Lips three; setae 6; amphids labial; onchus digitate ........................ Digitonchus

Lips more than 3; setae num., scattered; amphids not lab.; onchi more than 1. (Croconema)

The shape of the amphids circular or elliptical

Striae altered laterally; wings numerous with retrorse bristles; cephalic setae 4 .. Rhinema

Striae not altered on the lateral fields

Head conoid; cephalic setae 10; spinneret present

Ocelli none; 'f'; rear portion of oesoph. succession of bulbs; striae fine, plain. (Bolbella)

Ocelli present; no succession of bulbs in the posterior part of the oesophagus

Cheeks thick; onchus appressed, minute; pharynx rather long and narrrow. (Isonemella)

Cheeks not thick; onchus digitate, well developed ;pharynx not narrow, short. Cophonchus

Head not conoid; not ocellate; pharynx -not long and narrow

Spinneret unknown; amphids spiral; -f; setae 10; onchisubmed.; contourcren. (Gonionchus)

Spinneret present

Onchi 3, clustered; phar. unobv.; setae scattered; cuticle thick; contour rren .. (Croconema)

Onchus single, dorsal; -f; cuticle thin

Setae 4; pharynx small, closed; diameter of amphid A the width of the head .. Synonema

Setae in 2s and 3s; phar. obv., open; diam. of amphid about½ width of head. Anticyclus

#### Teeth two or more

##### The teeth more or less equal in size, and usually mobile

###### Oesophagus with median or posterior bulb or swelling, or both,

Onchi or teeth have an outward throw; amphids circular; spinneret present; -f.. Aponchium 79

Onchi or teeth have an inward throw

Amphids none, or so obscure as easily to escape notice; f-; teeth (?) 12 ........ (Synodontium) 65

Amphids present

The amphids horse-shoe shaped, faint; striae fine, unaltered laterally; f-.... Synodontium 65

The amphids spiral, circular, or elliptical; striae fine, plain

Shape of amphids spiral; winged; spinneret pres.; naked; head expanded .. (Pycnolaimus) 40

Shape of amphids round or elliptical

Terminus hamate; amphid minute, ,'o the width of the head; winged .... Chambersiella 64

Terminus not hamate; amph\d ¼ the width of the head; wingless; -f ........ (Aponchium) 79

###### Oesophagus plain, i.e. without median or posterior bulb or swelling

Onchi or teeth have an outward throw; amphids present; spinneret present

Form of amphids symmetrical to one line only; striae fine, plain; pharynx bulbous

Ovaries two, 'f'; onchi 3, duplex; cephalic setae 6 plus 6; head not set off ....... . Ironella 63

Ovary single, f'; lip-region set off; lips 6, bi:papillate; spinneret ventral. ..... Trissonchulus 78

Form of the amphids spiral, circular, or elliptical

The amphids spiral; winged; 'f' (or -f-); lips bipapillate; cephalic setae 4 ..... . Mesonchium 76

The amphids elliptical; striae fine, resolvable, unaltered laterally; setae 4 .... Apodontium 62

Onchi or teeth have an inward throw

Amphids 0 or unknown; onchi small, apophysate, lips 12, appendiculate ....... Gammanema 74

Amphids present; spinneret present (questionable in Crysiallonema)

Contour of the amphids circular

Wings many; 3 mandibulate lips; setae in 3 circlets; cuticle rough ............... . Xyala 72

Wing one or none; striae not altered on the lateral fields

Cephalic setae none; armature of three biting plates or hooks; wingless .. .... Tripylium 71

Cephalic setae ten

Armature, 18 duplex radiating refractive ribs; winged; -f.. ................. M onhystrium 69

Armature, 6 talon-like or digitate labial elements; -f. ................... (Crystallonema) 67

Contour of the amphids spiral; striae resolvable

Winged; ovaries reflexed or outstretched; cephalic setae 4; pharynx cylindroid. }, Jesonchium 76

Wings absent; the 3 onchia enclosed in a bulb

Onchi small, with heavy apophyses;, encl.in swelling; amphid of 2½-3½ winds. Trooolaimus 75

Onchi large, without apophyses; phar. bulb spheroidal, amphid of 1½ winds .. Synonchium 73

##### The teeth usually, unequal in size, not mobile

###### Oesophagus plain, i.e. without median or posterior bulb or swelling

Amphids none, or obscure and escaping notice; pharynx with many denticles; 'f'. (Thoonchus) 91

Amphids present

The amphids irregular, usually symmetrical to one line; spinneret present; 'f'

Form of the amphids not linear; striae fine, plain; pharynx denticulate ........ Thoonchus 91

Form of the amphids linear; striae coarse, resolvable; cephalic setae 10 ............ (Rhips) 118

The amphids spiral, circular, or elliptical

Form of the amphids spiral; striae coarse, plain, unaltered; spinneret present

Pharynx and onchi minute, obsc.; lips not thin; setae scattered; amph1ds small. Croconema 112

Pharynx obv.; onchi plate-like, submedian; lips thin; setae 10; amphids large. Gonionchus 97

Form of amphids circular or elliptical; spinneret present (unknown in Gonionchus)

Winged; amphids large, faint; lips appendiculate; striae coarse, resolvable . . Anaxonchium 99

Wings none; cephalic setae 10; striae plain; lips thin

Ovaries 'f'; striae fine; phar. with many denticles; amphids obscure, ellip ... (Thoonchus) 91

Ovary -f; striae coarse, contour cren.; onchi plate-like; amphids spiral. ... . . (Gonionchus) 97

###### Oesophagus with median or posterior bulb or swelling, or both

Amphids none or unknown; pharynx bulbous; striae fine, resolvable ........ (Bolbolaimus) 100

Amphids present

Form of the amphids linear; wingless; ovaries reflexed

Spinneret present; 'f'; striae coarse, resolvable; cephalic setae 10 ................. . Rhips 118

Spinneret absent; 'f; striae fine, plain; cephalic setae 6 plus 4 .................. Myolaimus 60

Form of the amphids spiral, circular, or elliptical

Shape of the amphids circular; striae fine, unaltered laterally; spinneret present

Ovaries reflexed, 'f; lips bipapil.; setae 4; submed. onchi minute; striae plain. (Polysigma) 106

Ovaries outstretched

Pharynx with distinct spherical bulb; striae resolvable; setae 6 + 6 + 4 . . Bolbolaimus 100

Pharyngeal bull, a faint swelling; striae plain; cephalic setae 4 .............. (Aponchium) 79

Shape of the amphids a distinct spiral; cuticle wingless; spinneret present

Onchus spear-like; lips minute, 12; cephalic setae 6 + 12 + 6; striae fine, plain. Mesodorus 105

Onchus very small, not spear-like; lips none or obscure

Lips bipapillate, papillae conical; 'f'; amphids labial; cephalic setae 4 ....... . Polysigma 106

Lips non-papillate

Setae in 6 longitudinal rows; amphids opp. pharynx, ½ the width of the head. Alaimonema 107

Setae none; amphids not opposite the pharynx,! the width of the head .... Amphispira 103