

Tylenchida

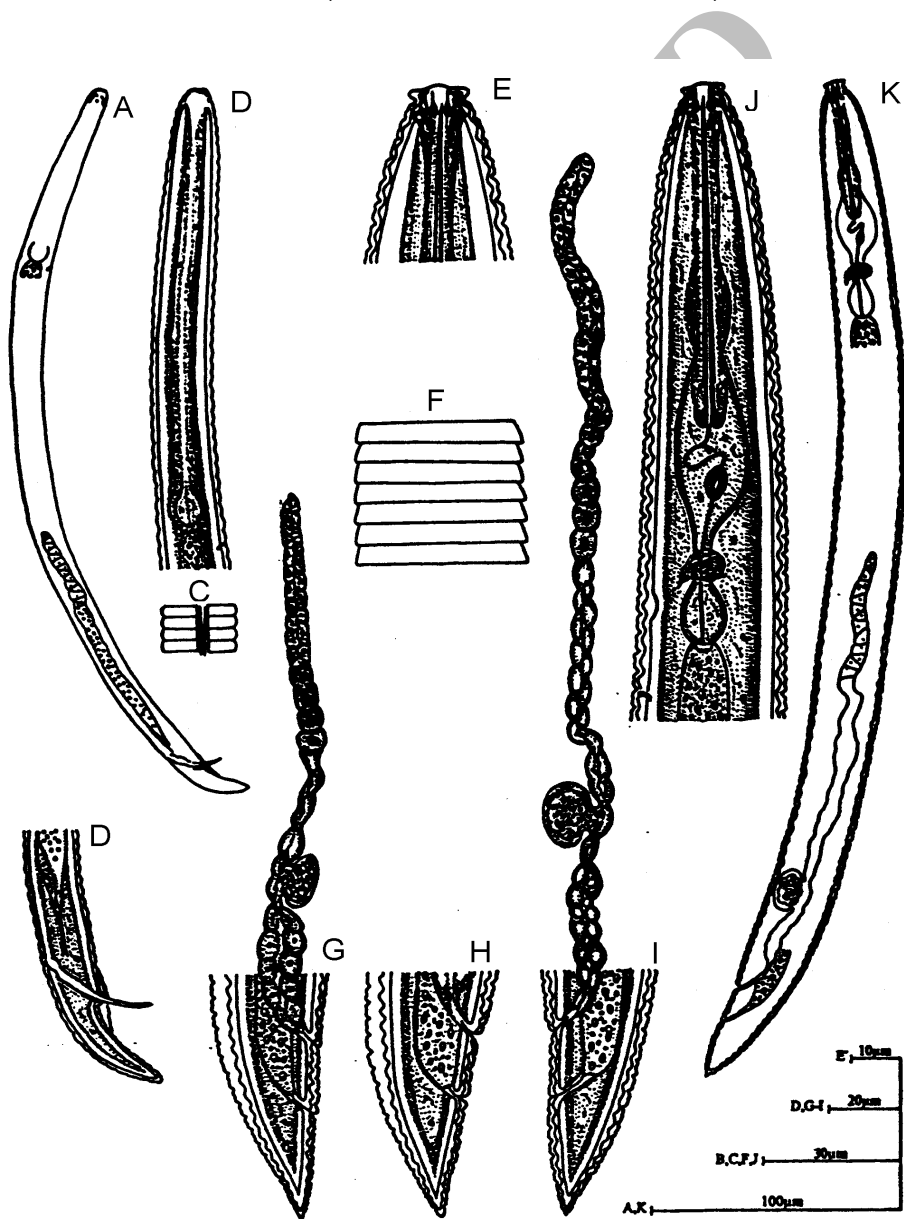
()

Tylenchida

<i>Aphelenchoides asterocaudatus</i>	<i>Filenchus facultativus</i>	<i>Hoplolaimus seinhorsti</i>
<i>Aphelenchoides bicaudatus</i>	<i>Filenchus misellus</i>	<i>Irantylenchus vicinus</i>
<i>Aphelenchoides limberi</i>	<i>Filenchus polyhypnus</i>	<i>Paratylenchus coronatus</i>
<i>Aphelenchoides spicomucronatus</i>	<i>Filenchus vulgaris</i>	<i>Pratylenchus neglectus</i>
<i>Aphelenchoides subtenuis</i>	<i>Geocenamus alboranensis</i>	<i>Pratylenchus thornei</i>
<i>Aphelenchus avenae</i>	<i>Geocenamus brevidens</i>	<i>Psilenchus hilarulus</i>
<i>Basiria berylla</i>	<i>Geocenamus rugosus</i>	<i>Psilenchus hilarus</i>
<i>Basiria tumida</i>	<i>Helicotylenchus multincinctus</i>	<i>Seinura demani</i>
<i>Boleodorus thylactus</i>	<i>Helicotylenchus pseudorobustus</i>	<i>Tylenchorhynchus mashhoodi</i>
<i>Criconemella xenoplax</i>	<i>Hemicriconemoides chitwoodi</i>	<i>Tylenchulus semipenetrans</i>
<i>Ditylenchus myceliophagus</i>	<i>Hirschmanneilla gracilis</i>	
<i>Filenchus andrassy</i>	<i>Hoplolaimus indicus</i>	
<i>Hirschmanneilla</i>	<i>Hemicriconemoides chitwoodi</i>	
	<i>Paratylenchus coronatus</i>	<i>Hoplolaimus seinhorsti</i>
		<i>gracilis</i>
		<i>Filenchus polyhypnus</i>

Hoplolaimus ***Hirschmanneilla*** ***Hemicriconemoides***:

Filenchus ***Paratylenchus***



(E-K) : D : C : B : A (A-D) : *Hemicriconemoides chitwoodi*
 : K : J : H : I G : F : E

() *Hemicriconemoides chitwoodi*

Dasgupta *et al.*, 1969

	\pm / ()	\pm ()	n
	/ \pm / (/ /)	/ \pm / (/ /)	L
	/ \pm / (/)	/ \pm / (/)	c
		/ \pm / ()	V or T
		/ \pm / ()	V'
		\pm / ()	St
		\pm / ()	Oes
		\pm / ()	R
		\pm / ()	Rex
		\pm / ()	Rvan
	\pm / ()	\pm / ()	Tail
	/ \pm / ()		Sp
	/ \pm / ()		Gub

()
Camellia japonica (Dasgupta *et al.*,
Hemicriconemoides 1969)
chitwoodi

()
Hirschmanniella gracilis (de Man, 1880) Luc ()
 and Goodey, 1964 (R = R =)
 () ()

H. gaddi

(Thorne cells)

/

()

()

(m = /)

/

(Progection)

(O = /)

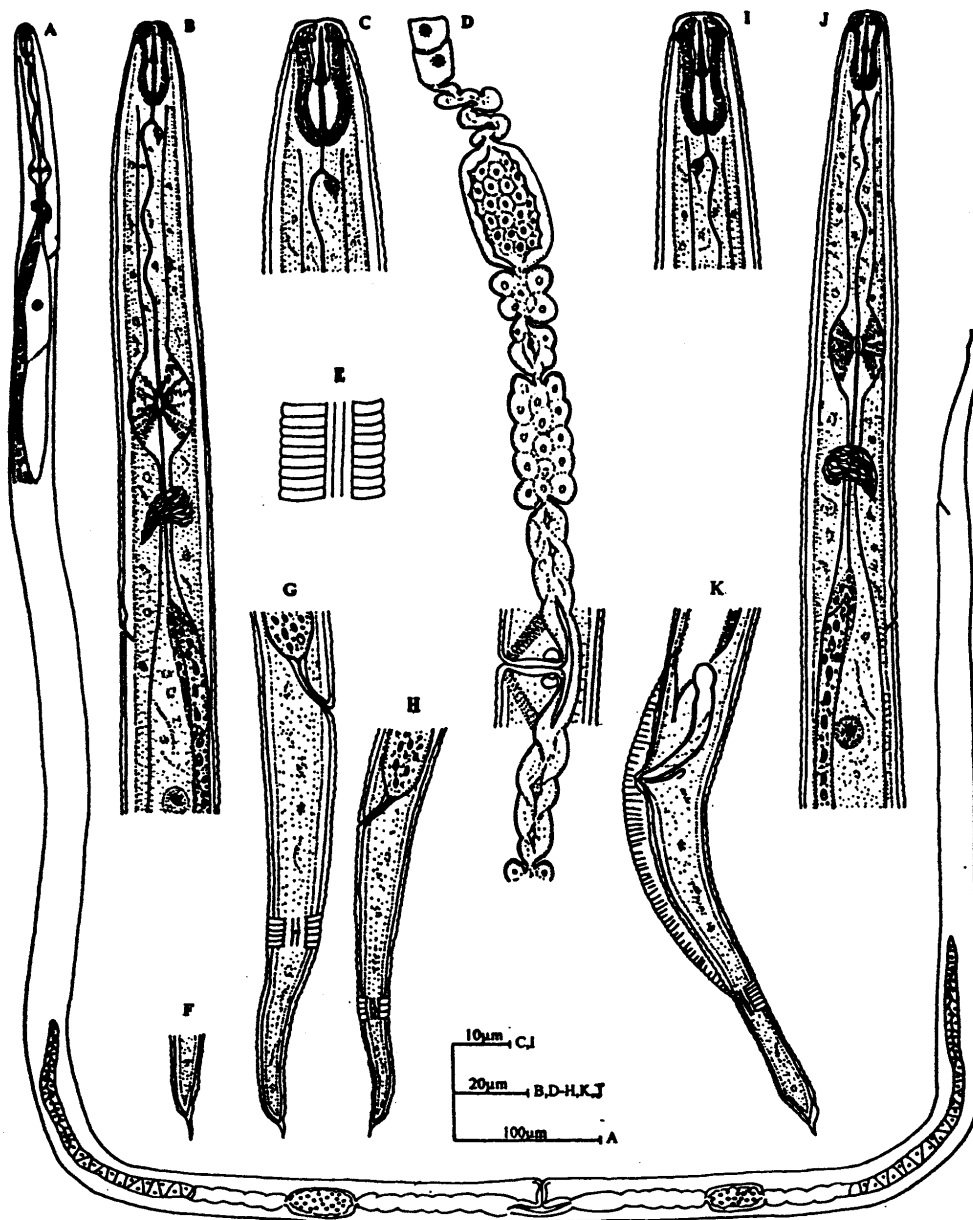
(V = /)

()

Hirschmanniella gracilis

Sher, 1968

()	()	()	()	n
()	()	(/ /)	/ (/)	L
/ ()	/ ()	/ (/)	/ (/ /)	a
/ (/ /)	/ (/ /)	/ (/ /)	/ (/)	b
	()	/ (/ /)	/ (/ /)	b'
()	()	/ ()	/ (/ /)	V or T
()	()	()	/ (/)	St
		()	()	m
		()	()	Oes
		()	()	Ovl
		/ ()	()	Tail
()		/ ()		SP
()		/ ()		Gub



:E :D :C :B :A (A-H) *Hirschmanneilla gracilis*
 :K :J :I (I-K) :F H

H. belli

H. anchoryzae *H. oryzae* *H. spinicaudata*

H. belli

()

Hirschmanneilla

()

(Ebsary and Anderson, 1982)

()

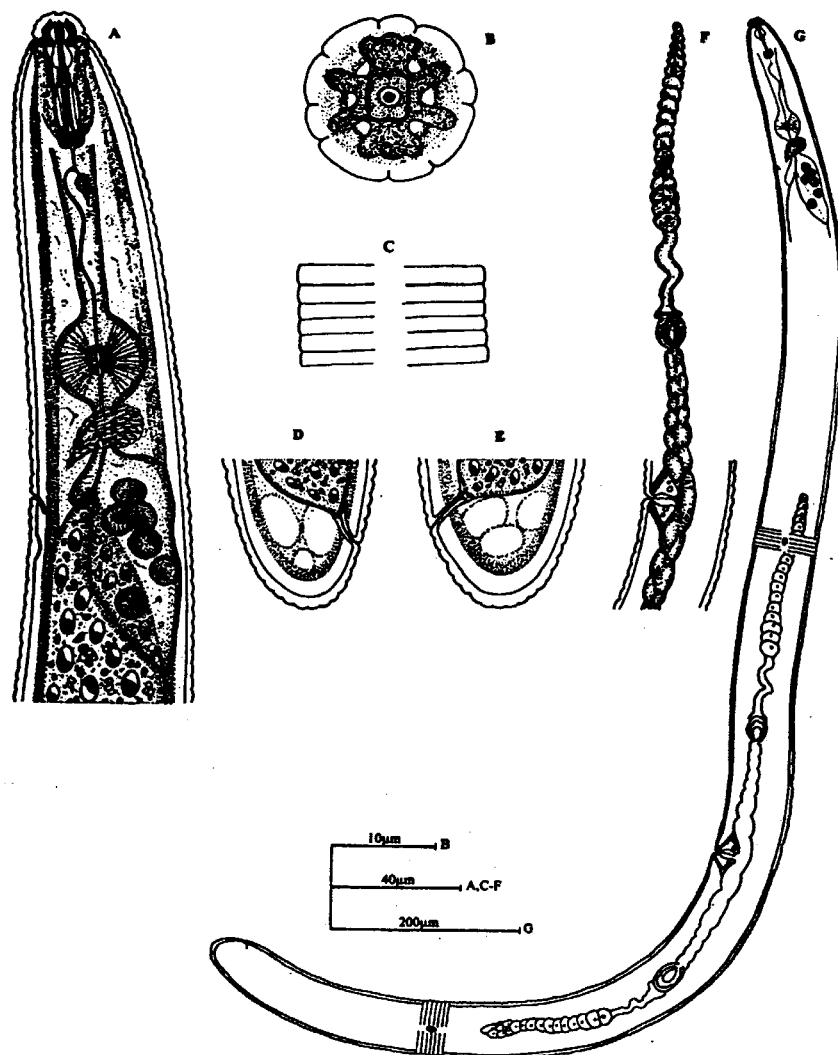
Hirschmanniella gracilis

()

(/ /) *H. spinicaudata*)
 (Allgen, 1925; 1934) (Sher, 1968) *H. oryzae*
 (Rhm, 1924) (Micoletzky, 1917) *anchoryzae*
 (Franz, 1942; Franz and Beir, 1942) *H. oryzae*

(Sher, 1968) (/ /)
 () (b = / / b = / /)
 ()
H. anchoryzae

Hoplolaimus seinhorsti Luc, 1958



:E D :C :B :A (A-H) :Hoplolaimus seinhorsti
 :G :F

() *Hoplolaimus seinhorsti*

Sher (1963) Van Den Berg & Kirby (1979) Zeidan and Geraert (1989)

	()	()	± ()	n	
	(/ /)	()	/ ± / (/ /)	L	
/ /	/ (/ /)	(/)	/ ± / (/ /)	a	
/		/ (/ /)	/ ± / (/ /)	b	
	/ (/ /)	()	/ ± / (/ /)	b'	
	()	()	/ ± / (/ /)	c	
	/ (/ /)	()	/ ± / (/ /)	V	
	()	()	± / ()	St	
	/ (/ /)	()	± / ()	Oes	
	()	()	± / ()	E-pore	
	/ (/ /)	()	/ ± / ()	Tail	
	()	()	/ ± / (/)	Ant. scutella	
	()	()	± / ()	Post. scutella	

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(Sher , 1963) *Hoplolaimus*

Anderson,) (Handoo and Golden, 1992)

..... :

..... / / *Hoplolaimus* (1983
seinhorsti
 ()
 (Van Den Berg and Kirby, 1979)
 (m = / /) ()

..... /

Criconematoid

..... a
 a = / /) a
 (a = a = / / a =
 ()
 / / *H. seinhorsti*

H. H. chambus H. indicus
H. indicus columbus

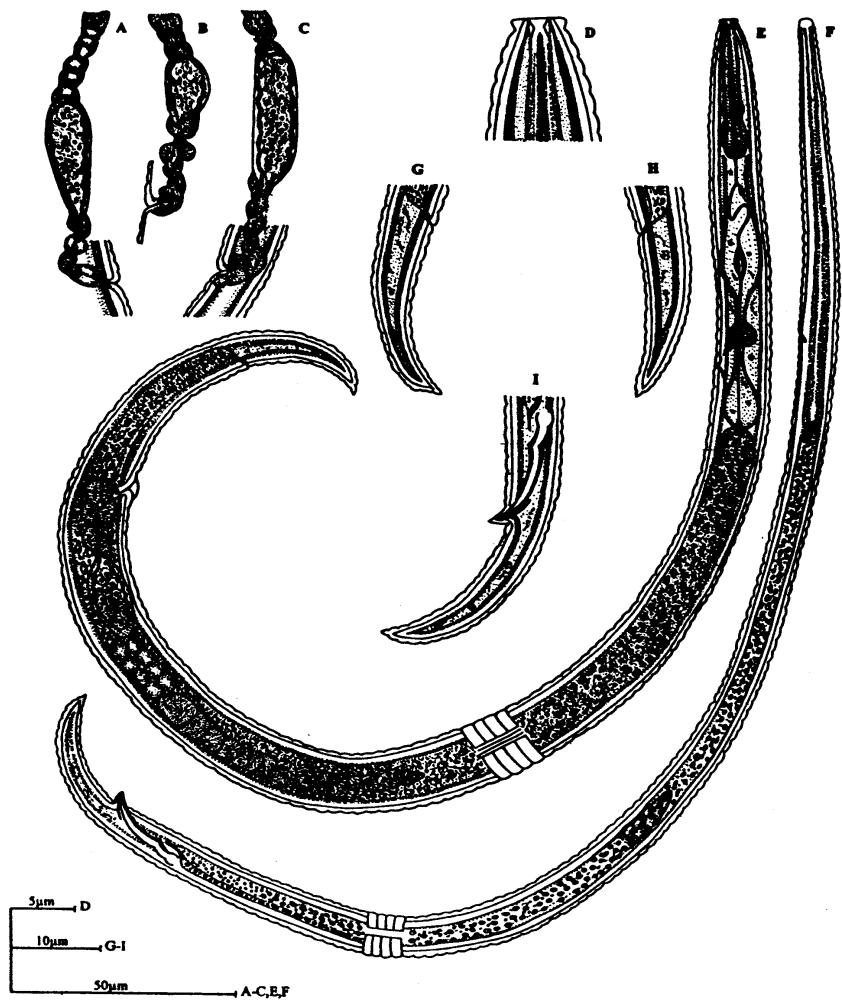
H. chambus
H. columbus

H.
pararobustus
 ()

(Zaidan and Geraert, *Ficus elastica*
 .1989)
 ()

Paratylenchus coronatus Colbran, 1965

C



G :E :D :A-C.(G-H A-E) :Paratylenchus coronatus
 () :I :F.(F-I) :H
 () *Paratylenchus coronatus*

Colbran (1965)	Van Den Berg (1977)		
		()	n
/ /	/	()	L
/ /	/	/ (/ /)	a
		/ (/)	c
		/ (/ /)	c'
	/ /	()	V
		(/)	G
	/ /	/ (/)	St
		/ (/ /)	Tial
/ /		/ ()	Sp
/		/ ()	Gub

....

:

P. morius

P. salubris

() ()

Paratylenchus

()

Paratylenchus coronatus

()

Paratylenchus coronatus

(Colbran, 1965)

()

)

P. arcuatus

(/ / /) a

(

()

)

c

(/

/

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/ /

(

Filenchus polyhypnus (Steiner and Albin,

1945) Meyl, 1961

(

/

()

Filenchus polyhypnus

Steiner and Albin, 1964

()

n

L

A

B

C

c'

V or T

St

MB

H-v

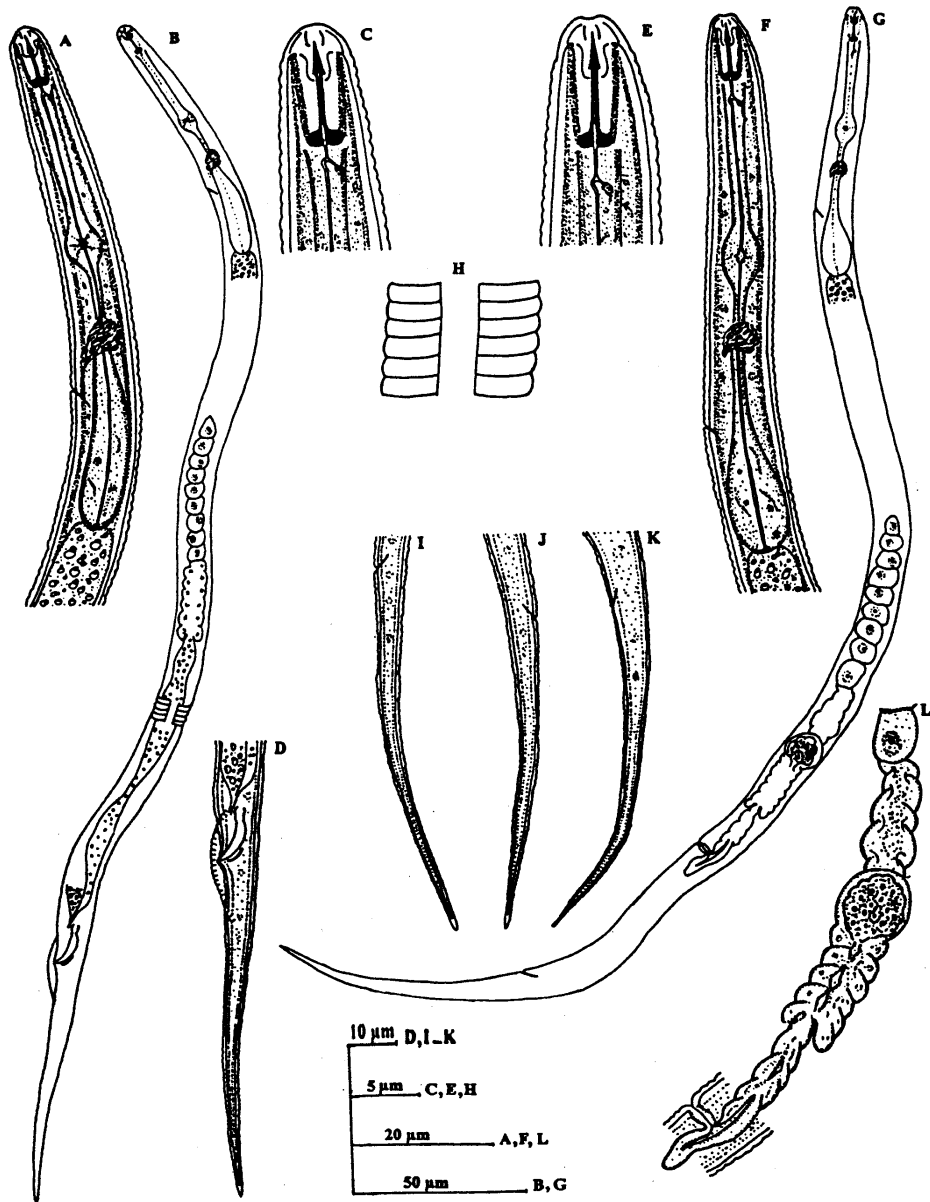
V-a

G1

Tail

Sp

Gub



:E.(E-L) :D :C :B :A.(A-D) :*Filenchus polyhypnus*
 :L :I-K :H :G :F

/ O :

(/ /)

()

V

.....
:
c
c
a
:

Aphelenchoides asterocaudatus
A. bicaudatus
A. limberi
A. spincomucronatus
A. subtenuis
Aphelenchus avenae
Basiria berylla
B. tumida
Boleodorus thylactus
Criconemella xenoplax
Ditylenchus myceliophagus
Filenchus andrassy
Filenchus facultativus
Filenchus misellus
Filenchus polyhypnus
Filenchus vulgaris
Geocenamus alboranensis
Geocenamus brevidens
Geocenamus rugosus
Helicotylenchus multicinctus
H. pseudorobustus
*Hemicriconemoides chitwoodi**
*Hirschmanneilla gracilis**
Hoplolaimus indicus
*H. seinhorsti**
Irantylenchus visinus
*Paratylenchus coronatus**
Pratylenchus neglectus
P. Thornei
Psilenchus hilarulus
Psilenchus hilarus
Seinura demani
Tylenchorhynchus mashhoodi
Tylenchulus semipenetrans

) c ((/ / / /) c' (/ / / /) () *Filenchus*
) *F. cabi* . *Tylenchus* ()
) (*F. polyhypnus*
 / / /) c (Steiner and)
F. facultativus . (/ *Tylenchus polyhypnus* (Albin, 1946
 (/ /) c' (/ /) c *Filenchus* ()
 () () .(Raski & Geraret, 1986)
 ()
 ()
F. facultativus *F. cabi* *F. terrestris*
) L *F. terrestris* :

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