Soil samples collected in Brazil yielded eleven species of Criconematidae; two of them are described as new species belonging to the genus *Criconemella* De Grisse & Loof, 1965. *Criconemella paralineolata* n. sp. is closely related to *C. lineolata* (Maas et al., 1971) Ebsary, 1982, distinguished by structure of head, shorter stylet, more body annuli, position of the excretory pore (Rex) and by the presence of cuticular punctations and sperm. *C. paradenoudeni* n. sp. very closely resembles *C. denoudeni* (De Grisse, 1967) Luc & Raski, 1982, but can be differentiated by slightly shorter stylet, smaller RV, Ran, shorter tail and larger RVan and the position of excretory pore. The other nine species reported are *Criconemella ferniae* (Luc, 1959) Luc & Raski, 1982; *C. parva* (Raski, 1952) De Grisse & Loof, 1965; *C. onoensis* (Luc, 1959) Luc & Raski, 1982; *Criconema brasiliense* (Raski & Pinochet, 1975) Raski & Luc, 1985; *Ogma octangulare* (Cobb, 1914) Schuurmans-Stekhoven & Teunissen, 1938; *Discocriconemella degrissei* Loof & Sharma, 1980; *D. limitanea* (Luc, 1959) De Grisse & Loof, 1965; *Hemicycliophora chilensis* Brzeski, 1974; *H. thienemanni* (Schneider, 1925) Loos, 1948. Species found for the first time since they were described are *C. brasiliense*, *D. degrissei* and *H. chilensis*.

An additional population of *C. parva* males is studied from the Netherlands and males of this species are described for the first time.

Keywords: soil nematodes, taxonomy, *Criconemella*, *Criconema*, *Ogma*, *Discocriconemella*, *Hemicycliophora*.

This paper deals with eleven species of Criconematidae belonging to the genera *Criconemella*, *Criconema*, *Ogma*, *Discocriconemella* and *Hemicycliophora*. Two new species are described within the genus *Criconemella*: *C. paralineolata* n. sp. and *C. paradenoudeni* n. sp. *H. chilensis*, *C. ferniae* and *C. parva* are reported for the first time from Brazil. *C. brasiliense*, *D. degrissei* and *H. chilensis* were found for the first time since originally described. Morphological variations are noted for *C. onoensis*, *C. brasiliense*, *H. chilensis* and *D. limitanea*. *H. chilensis* is a variable species like *H. thienemanni*, and most of the variations noted for this species have already been noted for *H. thienemanni*. The present study of *D. limitanea* from Brazil confirms the value of stylet length and number of annuli as still valid for species identification in the Criconematidae.

Soil samples were collected by R. D. Sharma during 1974-1976. The specimens studied were fixed in hot 5% formalin and then processed to pure glycerin by a modified Seinhorst method (De Grisse, 1969) and mounted on aluminium slides with double cover slips (Cobb, 1917). Wergin’s (1981) method was used for the preparation of nematodes for SEM observation. Nematodes were observed with a Philips 505 stereo electron microscope.
DESCRIPTIONS

*Criconemella paralineolata* n. sp.

(Fig. 1)

*Holotype* ♀: L = 0.33 mm; body width = 31.5 μm; a = 10.5; pharynx = 99 μm; b = 3.3; tail = 16 μm; c = 20.6; V = 90; stylet = 59 μm; prorhabdion = 25 μm; Rst = 17; Rex = 23; Roes = 25; RV = 7; RVan = 2; Ran = 5; R = 82; VL/VB = 1.2; St% L = 17; St% oes = 59.

*Paratypes* ♀♀ (n = 2): L = 0.40-0.41 mm; body width = 35-36 μm; a = 11.0-12.0; pharynx = 102-103 μm; b = 3.8; tail = 16-19 μm; c = 21.6-25.5; V = 89-90; stylet = 61-62.5 μm; prorhabdions = 36 μm; Rst = 16-19; Rex = 25-29; Roes = 24-27; RV = 8; RVan = 3; Ran = 5; R = 85-88; VL/VB = 1.2; St% L = 14-15; St% oes = 59-60.

*Females*. Body ventrally arcuate upon fixation; tapering slightly at both ends. No anastomoses. Body annuli rounded to retrorse, posterior margins finely crenate, with numerous fine longitudinal scratches and a single row of punctations per annulus in paratypes (Fig. 1G & H).

Head with large submedian lobes and three annuli; first annulus not retrorse, 9-10.5 μm wide, sometimes interrupted (Fig. 1B1); second annulus slightly narrower than the third, 13-15 μm wide, between second and third annulus a more or less distinct ‘collar’ present (Fig. 1B-B1). Third annulus 14.5-17.5 μm wide, smaller and narrower than the succeeding body annuli, presenting a bluntly rounded outline. ‘En-face’ view (Fig. 1C) shows oral aperture as a narrow slit. Labial disc conspicuous, elevated, surrounding oral aperture. Amphidial aperture appearing on lateral margins of labial disc. Four conspicuous submedian lobes with somewhat flattened anterior margins, extending behind labial disc and connected dorsally and ventrally. First annulus deeply notched dorsally and ventrally, slightly lobed. Stylet rigid, knobs 8.5-9.5 μm wide with pointed to rounded, inwardly directed processes. Orifice of dorsal pharyngeal gland about 2 μm from stylet base. Pharynx typical for family. Excretory pore two annuli anterior to or posterior from base of pharynx. Cardia distinct, elongated.

Ovary single, outstretched. Spermatheca small rounded, empty or filled with sperm. Vulva open, anterior lip overlapping (Fig. 1 K-K1), with two more or less pointed lobes in ventral view (Fig. 1F). Vagina sigmoid.

Tail conoid with an acute irregular or rounded terminal annulus (Fig. 1F & K-K1). Anus distinct; vulva-anus distance shorter than tail.

*Male*. Unknown.

*Juvenile*. Not found.

*Type habitat and locality*. Medium soil around the roots of *Theobroma cacao* L. cv. Comum, Ubaitaba, Faz. Deus é Pai, Bahia, Brazil.

*Type specimens*. Holotype ♀ in slide 761 in collection of the Museum voor Dierkunde, Instituut voor Dierkunde, Rijksuniversiteit Gent, Ledegan-