

## LIST OF CRICONEMATIDS RECORDED IN SOUTH INDIA

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During survey of horticultural and agricultural crops in Tamil Nadu and neighbouring states, several criconematid species were encountered in soil. Several of these were found to be new records and therefore, list of the recorded species together with their body measurements, hosts and localities is furnished. The nematodes were recovered through wet sieving and centrifugal sugar floatation method and processed by Seinhorst's (1959) glycerol-ethanol method for permanent mounts.

*HEMICRICONEMOIDES BRACHYURUS* (LOOS, 1949) CHITWOOD & BIRCHFIELD, 1957

## Dimensions :

2 ♀♀ (Tamil Nadu) L : 0.32 — 0.35mm; a = 12.5 — 12.6; b = 3.9 — 4.0; c = 20.0 — 30.0; V = 93.6 — 94.2; VL/VB = 1.0 — 1.3; VL/St = 0.3 — 0.4; St% L : 15.0 — 16.0; St% Oes = 62.2 — 63.1; R = 104 — 105; Rst = 15 — 16; Roes = 24 — 25; Rex = 27; Rv = 8 — 10; Ran = 6 — 7; Rvan = 1 — 2; Stylet = 48  $\mu$ m.

7 ♀♀ (Kerala) L = 0.34 — 0.42mm; a = 8.0 — 12.9; b = 3.2 — 5.0; c = 20.3 — 36.2; V = 92.6 — 95.9; VL/VB = 0.7 — 1.2; VL/St = 0.3 — 0.7; St% L = 10.3 — 16.3; St% Oes = 52.5 — 66.0; R = 87 — 104; Rst = 10 — 15; Roes = 19 — 23; Rex = 21 — 27; Rv = 6 — 7; Ran = 3 — 6; Rvan = 1 — 4; Stylet = 52 — 59  $\mu$ m.

3 ♀♀ (Andhra Pradesh) L = 0.35 — 0.39 mm; a = 13.0 — 15.2; b = 3.5 — 4.7; c = 17.1 — 27.9; V = 80.5 — 92.9; VL/VB = 1.0 — 2.0; VL/St = 0.3 — 0.5;

St% L = 13.5 — 19.4; St% Oes = 62.9 — 69.5; R = 99 — 108; Rst = 16 — 18; Roes = 24 — 26; Rex = 28; Rv = 9; Ran = 5 — 7; Rvan = 1 — 3; Stylet = 50 — 55  $\mu$ m.

*Habitat and locality* : Collected from soil around roots of mango, *Mangifera indica* L. from Agricultural Research Station, Bhavanisagar, in Periyar district, Tamil Nadu; banana, *Musa sapientum* L. and pineapple, *Ananas sativus* Schult. from State Horticultural Research Station, Mavelikera, Kerala State; coconut palm, *Cocos nucifera* L., from the farm of Agricultural College, Bapatla, Andhra Pradesh.

*HEMICRICONEMOIDES COCOPHILUS* (LOOS, 1949) CHITWOOD & BIRCHFIELD, 1957

## Dimensions :

6 ♀♀ (Tamil Nadu) L = 0.38 — 0.49 mm., a = 12.3 — 16.3; b = 4.3 — 5.3; c = 15.9 — 29.7; V = 89.6 — 94.3; VL/VB = 1.0 — 1.7; VL/St = 0.3 — 1.0; St% L = 8.6 — 15.2; St% Oes = 46.5 — 65.9; R = 95 — 103; Rst = 13 — 16; Roes = 20 — 23; Rex = 26 — 31; Rv = 8 — 10; Ran = 6 — 8; Rvan = 1 — 2; Stylet = 50 — 55  $\mu$ m.

6 ♀♀ (Orissa) L = 0.36 — 0.42 mm; a = 12.6 — 16.8; b = 4.3 — 4.7; c = 15.5 — 22.2; V = 89.6 — 93.1; VL/VB = 1.3 — 1.9; VL/St = 0.4 — 0.7; St% L = 13.9 — 15.5; St% Oes = 64.3 — 67.4; R = 99 — 108; Rst = 15 — 19; Roes = 23 — 27; Rv = 8 — 11; Ran = 5 — 8; Rvan = 1 — 3; Stylet = 52 — 55  $\mu$ m.

*Habitat and locality* : Soil around roots of sugarcane *Saccharum officinarum*

L., at the Agricultural Research Station of the Tamil Nadu Agricultural University, Bhavanisagar, Periyar district, Pothanur, Salem district and Panruti, South Arcot district; banana, *Musa sapientum* L., at the Agricultural College Coimbatore, in Tamil Nadu; guava, *Psidium guajava* L., Ber, *Zizyphus jujuba* Lam.; mulberry, *Morus alba* L. and papaya, *Carica papaya* L., in the farm area of the Central Rice Research Institute, Cuttack, Orissa State.

**HEMICRICONEMOIDES MANGIFERA**  
RAE SIDDIQI, 1961

*Dimensions :*

6 ♀♀ (Tamil Nadu) L = 0.35 - 0.56; a = 15.0 - 17.6; b = 3.9 - 4.6; c = 14.8 - 24.6; V = 89.7 - 93.5; VL/VB = 1.4 - 2.1; VL/St = 0.5 - 1.7; St% L = 15.2 - 17.4; St% Oes = 69.2 - 74.7; R = 135 - 141; Rst = 21 - 25; Roes = 30 - 36; Rex = 32 - 37; Rv = 11 - 15; Ran = 8 - 11; Rvan = 2 - 4; Stylet = 71 - 80  $\mu$ m.

4 ♀♀ (Orissa) L = 0.39 - 0.46 mm; a = 12.6 - 16.0; b = 4.1 - 5.6; c = 15.6 - 20.6; V = 90.8 - 93.2; VL/VB = 1.1 - 1.8; VL/St = 0.4 - 0.6; St% L = 14.9 - 16.4; St% Oes = 66.3 - 75.8; R = 129 - 135; Rst = 17 - 23; Roes = 29 - 30; Rex = 32 - 34; Rv = 11 - 13; Ran = 7 - 8; Rvan = 2 - 4; Stylet = 67 - 71  $\mu$ m.

*Habitat and locality :* Collected near the rhizosphere of mango, *Mangifera indica* L., at the Agricultural Research Station of the Tamil Nadu Agricultural University, Bhavanisagar, Periyar district; arecanut, *Areca catechu* L., Mettupalayam, Coimbatore district and sapota, *Achras sapota* L., Agricultural College Orchard, Coimbatore, in Tamil Nadu; karamanga, *Averrhoa carambola* L., in the farm area of Central Rice Research Institute, Cuttack, Orissa State.

**HEMICRICONEMOIDES GADDI**  
(LOOS, 1949) CHITWOOD &  
BIRCHFIELD, 1957

*Dimensions :*

6 ♀♀ (Tamil Nadu) L = 0.39 - 0.59 mm; a = 12.6 - 19.4; b = 3.3 - 4.7; c = 14.2 - 20.6; V = 82.9 - 91.2; VL/VB = 1.6 - 2.8; VL/St = 0.4 - 0.7; St% L = 14.2 - 19.2; St% Oes = 63.7 - 71.0; R = 116 - 130; Rst = 21 - 29; Roes = 30 - 40; Rex = 33 - 41; Rv = 12 - 13; Ran = 7 - 9; Rvan 3 - 5; Stylet = 75 - 80  $\mu$ m.

*Habitat and locality :* Collected from soil around roots of sweet orange, *Citrus sinensis* Osbeck., at the Horticultural Research Station of the Tamil Nadu Agricultural University, Yercaud, Salem district and Horticultural Farm, Thadiyankudisai, Madurai district.

**HEMICRICONEMOIDES MEHDI**  
SURYAWANSHI, 1971

*Dimensions :*

3 ♀♀ (Tamil Nadu) L = 0.40 - 43 mm; a = 15.0 - 19.8; b = 4.7 - 5.2; c = 18.8 - 19.8; V = 91.2 - 92.8; VL/VB = 1.4 - 1.9; VL/St = 0.5 - 0.9; St% L = 8.8 - 14.2; St% Oes = 44.4 - 66.6; R = 120 - 137; Rst = 13 - 16; Roes = 23 - 25; Rex = 28; Rv = 12; Ran = 7 - 9; Rvan = 2 - 4; Stylet = 50 - 52  $\mu$ m.

5 ♀♀ (Andhra Pradesh) L = 0.39 - 0.52; a = 14.4 - 16.9; b = 4.3 - 5.8; c = 16.8 - 23.9; V = 91.9 - 93.7; VL/VB = 1.3 - 1.9; VL/St = 0.4 - 0.7; St% L = 10.9 - 15.1; St% Oes = 61.8 - 66.6; R = 121 - 133; Rst = 16 - 20; Roes = 25 - 31; Rex = 30 - 36; Rv = 10 - 11; Ran = 8 - 9; Rvan = 1 - 3; Stylet = 58 - 59  $\mu$ m.

*Habitat and locality :* Soil around roots of turmeric, *Curcuma longa* L., in the orchard, Agricultural College, Coim-

batore; sugarcane, *Saccharum officinarum* L., Panruti, South Arcot district in Tamil Nadu; acid lime, *Citrus aurantifolia* L., Sangamjagarlamudi, Guntur district, Andhra Pradesh.

*HEMICYCLIOPHORA LABIATA*  
COLBRAN, 1960

*Dimensions :*

12 ♀♀ (Tamil Nadu) L = 0.60 - 0.74 mm; a = 17.7 - 23.9; b = 5.4 - 8.5; c = 8.3 - 20.2; V = 80.6 - 87.8; VL/VB = 2.0 - 4.0; VL/St = 1.0 - 2.3; St% L = 7.6 - 15.0; St% Oes = 44.9 - 63.7; R = 165 - 195; Rst = 11 - 16; Roes = 23 - 38; Rex = 31 - 36; Rv = 25 - 38; Ran = 15 - 21; Rvan = 15 - 21; Rvan = 8 - 15; Stylet = 52 - 62  $\mu$ m.

*Habitat and locality :* Soils of coconut palm, *Cocos nucifera* L., in Chenglepet, Chenglepet district, mango, *Mangifera indica* L., and rose, *Rosa* sp., orchard at the Agricultural College, Coimbatore, Tamil Nadu.

*AULOSPHERA PENETRANS*  
(THORNE, 1955) SIDDIQI, 1980

*Dimensions :*

5 ♀♀ (Tamil Nadu) L = 0.91 - 1.08 mm; a = 22.1 - 32.5; b = 6.9 - 8.2; c = 4.6 - 5.3; V = 72.0 - 75.9; VL/VB = 6.9 - 8.8; VL/St = 3.0 - 4.0; St% L = 6.0 - 8.2; St% Oes = 49.2 - 57.9; R = 296 - 309; Rst = 23 - 25; Roes = 38 - 48; Rex = 40 - 50; Rv = 65 - 83; Ran = 50 - 68; Rvan = 15 - 22; Stylet = 71 - 87  $\mu$ m.

*Habitat and locality :* Collected from soil near the rhizosphere of strawberry, *Fragaria vesca* L., at Udagamandalam, Nilgiris district, Tamil Nadu.

*LOOFIA* SP.

*Dimensions :*

10 ♀♀ (Tamil Nadu) L = 0.65 - 0.80

mm; a = 19.3 - 22.8; b = 4.3 - 5.3; c = 9.9 - 15.0; V = 87.9 - 89.8; VL/VB = 2.4 - 3.1, VL/St = 0.7 - 1.2; St% L = 10.8 - 13.4; St% Oes = 57.4 - 63.3; R = 203 - 220; Rst = 23 - 26; Roes = 34 - 43; Rex = 40 - 47; Rv = 22 - 26; Ran = 16 - 20; Rvan = 3 - 10; Stylet = 78 = 92  $\mu$ m.

*Habitat and locality :* Soil around roots of cherry, *Prunus avium* L., Horticultural Research Station of the Tamil Nadu Agricultural University at Kodaikanal, Madurai District.

*CALOOSIA PARALONGICAUDATA*  
(SIDDIQI, 1962) SIDDIQI &  
GOODEY, 1963

*Dimensions :*

7 ♀♀ (Tamil Nadu) L = 0.94 - 1.16 mm; a = 30.0 - 30.8; b = 6.4 - 7.6; c = 4.6 - 5.5; V = 70.0 - 77.2; VL/VB = 8.2 - 9.2; VL/St = 3.1 - 5.5; St% L = 6.9 - 8.2; St% Oes = 50.0 - 55.6; R = 177 - 197; Rst = 17 - 20; Roes = 30 - 35; Rex = 33 - 37; Rv = 147 - 166; Ran = 163 - 183; Rvan = 15 - 18; Stylet = 69 - 80  $\mu$ m.

5 ♂♂ L = 0.83 - 0.98 mm; a = 39.5 - 51.1; c = 7.2 - 11.8; Spicule = 34 - 41  $\mu$ m; Gubernaculum = 9 - 11  $\mu$ m.

*Habitat and locality :* Soil around roots of sugarcane, *Saccharum officinarum* L., at Panruti and Cuddalore, South Arcot district, Tamil Nadu.

Siddiqi (1962) described this species as *Hemicyclophora longicaudata* from the soil samples forwarded by the Entomologist, Agricultural College and Research Institute, Coimbatore and indicated Coimbatore as the type locality. In fact soil samples received from Cuddalore area were forwarded to him and hence the type locality of the species is Cuddalore. This species is not prevalent in Coimbatore whereas it is common in sugarcane soils of Cuddalore region.

**CRICONEMA BREVICAUDATUM**  
SIDDIQI, 1961**Dimensions :**

6 ♀♀ (Tamil Nadu) L = 0.30 – 0.48 mm; a = 4.9 – 10.6; b = 3.7 – 11.3; c = 34.4 – 59.2; V = 91.0 – 93.2; VL/VB = 0.6 – 1.2; VL/St = 0.3 – 0.7; St% L = 9.8 – 20.6; St% Oes 50.6 – 64.7; R = 41 – 46; Rst = 7 – 9; Roes = 11 – 14; Rex = 14 – 16; Rv = 3 – 5; Ran = 1 – 3; Rvan = 1; Stylet = 52 – 59  $\mu$ m.

**Habitat and locality :** Soil around roots of sugarcane, *Saccharum officinarum* L., at the Sugarcane Research Station of the Tamil Nadu Agricultural University, Cuddalore, South Arcot District.

Siddiqi (1961) described this species from a single specimen recovered from sugarcane soil of Cuddalore forwarded by the Entomologist, Agricultural College & Research Institute, Coimbatore. As in the previous case, the type locality of this species is also Cuddalore.

**CRICONEMA LAMELLATUM** (RASKI & GOLDEN, 1965) RASKI & LUC, 1984**Dimensions :**

10 ♀♀ (Tamil Nadu) L = 0.25 – 0.40 mm; a = 7.6 – 10.4; b = 2.7 – 3.9; c = 39.3 – 110.6; V = 92.0 – 95.7; VL/VB = 0.5 – 0.9; VL/St = 0.1 – 0.4; St% L = 16.6 – 20.7; St% Oes = 60.6 – 66.6; R = 50 – 56; Rst = 9 – 12; Roes = 15 – 18; Rex = 17 – 22; Rv = 3 – 5; Ran = 1 – 2; Rvan = 1 – 2; Stylet = 57 – 73  $\mu$ m.

2 ♀♀ (Andhra Pradesh) L = 0.27 – 0.41; a = 10.2 – 11.3; b = 3.3 – 4.1; c = 40.0 – 53.0; V = 91.8 – 92.5; VL/VB = 1.0; VL/Vst = 0.4 – 0.5; St% L = 14.1 – 16.9; St% Oes = 56.2 – 58.2; R = 56; Rst = 9 – 11; Roes = 14 – 19; Rex = 17 – 23; Rv = 4;

Ran = 1 – 2; Rvan = 1 – 2; Stylet = 57  $\mu$ m.

**Habitat and locality :** Collected from soil around roots of jasmine, *Jasminum sambac* Ait., at Porto-nova, South Arcot district and rose, *Rosa* sp. at the Horticultural Research Station of the Tamil Nadu Agricultural University, at Kodaikanal, Madurai district; acid lime, *Citrus aurantifolia* L., at Sangamjagarlamudi, Guntur district, Andhra Pradesh.

The presence of *C. lamellatum* is recorded for the first time in South India. The specimens of these regions are comparatively small in body length with shorter stylet length.

**CRICONEMA MUTABILE** (TAYLOR, 1936) RASKI & LUC, 1984**Dimensions :**

13 ♀♀ (Tamil Nadu) L = 0.32 – 0.45 mm; a = 12.1 – 15.4; b = 3.6 – 4.6; c = 13.2 – 63.0; V = 87.6 – 94.1; VL/VB = 1.2 – 2.1; VL/St = 0.3 – 0.9; St% L = 11.5 – 17.1; St% Oes = 54.7 – 68.1; R = 105 – 113; Rst = 15 – 20; Roes = 22 – 30; Rex = 29 – 33; Rv = 8 – 12; Ran = 3 – 7; Rvan = 1 – 5; Stylet = 50 – 74  $\mu$ m.

**Habitat and locality :** Soil around roots of rose, *Rosa* sp., apple, *Malus sylvestris* Mitt., and strawberry, *Fragaria vesca* L., at the Horticultural Research Station of the Tamil Nadu Agricultural University, Kodaikanal, Madurai district; chincona, *Chinchona officinalis* Hk., at Udagamandalam, Nilgiris district and rough lemon, *Citrus jambheri*., at the Fruit Research Station of the Department of Agriculture, Kallar, Coimbatore district in Tamil Nadu.

**CRICONEMELLA BASILI** (JAIRAJ-PURI, 1964) LUC & RASKI, 1981**Dimensions :**

7 ♀♀ (Tamil Nadu) L = 0.32 – 0.55

mm; a = 9.8 - 12.3; b = 2.9 - 4.9; c = 76.0 - 106.0; V = 92.8 - 96.3; VL/VB = 0.6 - 0.9; VL/St = 0.2 - 0.5; St% L = 12.3 - 18.1; St% Oes = 48.9 - 64.1; R = 65 - 76; Rst = 11 - 16; Roes = 15 - 25; Rex = 18 - 26; Rv = 3 - 5; Ran = 1 - 2; Rvan = 1 - 4; Stylet = 52 - 75  $\mu$ m.

*Habitat and locality*: Collected from soil around roots of sugarcane, *Saccharum officinarum* L., at Panruti, South Arcot district; morning glory, *Ipomea purpurea* Roth.; michaelmas daisy, *Aster amelus* L.; sacred basil, *Ocimum sanctum* L., lawn grass, *Stenotaphrum dimidiatum* Brogm., and zinnia at the Agricultural University College campus, Coimbatore; amla, *Phyllanthus emblica* L., Forest Research Station of the Tamil Nadu Agricultural University at Mettupalayam, Coimbatore district; banana, *Musa sapientum* L., and arecanut, *Areca catechu* L., at the State Horticultural Research Station, Mavelikera, Kerala State.

**CRICONEMELLA CURVATA (RASKI, 1952) LUC & RASKI, 1981**

*Dimensions*:

4 ♀♀ (Tamil Nadu) L = 0.35 - 0.49 mm; a = 10.9 - 13.2; b = 3.7 - 4.9; c = 24.5 - 35.6; V = 90.9 - 94.2; VL/VB = 0.9 - 1.1; VL/St = 0.4; St% L = 13.0 - 14.3; St% Oes = 53.2 - 55.3; R = 78 - 80; Rst = 12 - 14; Roes = 21 - 24; Rex = 23 - 27; Rv = 5 - 6; Ran = 3; Rvan = 1 - 2; Stylet = 50 - 59  $\mu$ m.

*Habitat and locality*: Soil around roots of cauliflower, *Brassica oleracea* var. *botrytis* L., and cabbage, *Brassica oleracea* var. *capitata* L., at Udagamandalam, Nilgiris district.

**CRICONEMELLA GOODEYI (DE GUIRAN, 1963) DE GRISSE & LOOF, 1965**

*Dimensions*:

11 ♀♀ (Tamil Nadu) L = 0.19 - 0.24;

mm; a = 9.4 - 16.5; b = 3.2 - 3.8; C = 27.7 - 43.0; V = 92.1 - 95.7; VL/VB = 0.7 - 1.2; VL/St = 0.3 - 0.5; St% L = 13.5 - 20.0; St% Oes = 47.3 - 64.4; R = 115 - 132; Rst = 22 - 28; Roes = 36 - 39; Rex = 40 - 44; Rv = 7 - 10; Ran = 3 - 7; Rvan = 1 - 5; Stylet = 36 - 46  $\mu$ m.

*Habitat and locality*: Soil around roots of plum, *Prunus domestica* at the State Horticultural Station, Yercaud, Salem district.

**CRICONEMELLA IRREGULARIS (DE GRISSE, 1964) LUC & RASKI, 1981**

*Dimensions*:

12 ♀♀ (Tamil Nadu) L = 0.31 - 0.45 mm; a = 9.3 - 16.0; b = 3.7 - 4.9; c = 22.7 - 47.0; V = 90.0 - 94.8; VL/St = 0.4 - 0.8; VL/VB = 0.9 - 1.5; St% L = 10.7 - 18.9; St% Oes = 51.2 - 62.2; R = 79 - 89; Rst = 12 - 14; Roes = 21 - 23; Rex = 23 - 25; Rv = 6 - 8; Ran = 3 - 4; Rvan = 1 - 4; Stylet = 46 - 55  $\mu$ m.

*Habitat and locality*: Soil around roots of chillies, *Capsicum annum* L., at Meppur, Chenglepet district.

**CRICONEMELLA OACHIRAI (KHAN, SESHADRI, WEISCHER & MATHUR, 1971) N. COMB.**

*Dimensions*:

4 ♀♀ (Kerala) L = 0.29 - 0.34 mm; a = 7.1 - 8.5; b = 3.4 - 4.2; c = 28.8 - 74.5; V = 90.2 - 94.3; VL/VB = 0.6 - 0.9; VL/St = 0.4 - 0.5; St% L = 14.0 - 18.4; St% Oes = 53.0 - 73.6; R = 47 - 49; Rst = 7 - 9; Roes = 13 - 14; Rv = 3 - 6; Ran = 1 - 3; Rvan = 1 - 2; Stylet = 43 - 62  $\mu$ m.

*Habitat and locality*: Collected from soil around roots of wild jack, *Artocarpus hirsutus* Lam.; mangosteen, *Diospyros kakil* L.; cashew, *Anacardium occidentale* L., and cocoa, *Theobroma*

*cacao* L., at Kayankulam and Mavelikera in Kerala State.

*CRICONEMELLA ONOENSIS* (LUC, 1959) LUC & RASKI, 1981

*Dimensions :*

2 ♀♀ (Tamil Nadu) L = 0.41 – 0.51 mm; a = 12.5 – 16.0; b = 3.4 – 3.9; c = ?; V = 92.2 – 93.9; VL/VB = 1.2; VL/St = 0.4 – 0.6; St% L = 11.6 – 13.9; St% Oes = 47.5 – 54.6; R = 124 – 125; Rst = 12 – 16; Roes = 24 – 29; Rv = 9; Ran = ?; Rvan = ?; Stylet = 50 – 52  $\mu$ m.

*Habitat and locality :* Soil around roots of bamboo, *Bambusa* sp., at Anai-katti, Coimbatore district, Tamil Nadu.

*CRICONEMELLA ORNATA* (RASKI, 1958) LUC & RASKI, 1981

*Dimensions :*

15 ♀♀ (Tamil Nadu) L = 0.33 – 0.48 mm; a = 9.9 – 17.2; b = 3.5 – 4.5; c = 27.2 – 69.9; V = 91.8 – 96.0; VL/VB = 0.5 – 1.2; VL/St = 0.3 – 0.6; St% L = 11.5 – 16.3; St% Oes = 51.0 – 61.3; R = 83 – 92; Rst = 12 – 15; Roes = 20 – 25; Rex = 24 – 30; Rv = 6 – 7; Ran = 2 – 4; Rvan = 1 – 4; Stylet = 50 – 59  $\mu$ m.

1 ♀ (Kerala) L = 0.36 mm; a = 10.6; b = 3.8; c = 38.3; V = 94.7; VL/VB = 0.8; VL/St = 0.4; St% L = 12.3; St% Oes = 47.5; R = 80; Rst = 12; Roes = 21; Rex = 22; Rv = 7; Ran = 2; Stylet = 50  $\mu$ m.

*Habitat and locality :* Soil around roots of sugarcane, *Saccharum officinarum* L. at Cuddalore, South Arcot district; brinjal, *Solanum melongena* L., at Pongalur, Coimbatore district; mandarin orange, *Citrus reticulata* Blavs., at the Horticultural Research Station of the Tamil Nadu Agricultural University, Yercaud, Salem district in Tamil Nadu

and in the soil of wild jack, *Artocarpus heteroides* Lam., at Kayankulam, Quilan district, Kerala State.

*CRICONEMELLA PARVULA* (SIDDIQI, 1961) DE GRITSE & LOOF, 1965

*Dimensions :*

8 ♀♀ (Tamil Nadu) L = 0.21 – 0.27 mm; a = 7.8 – 14.8; b = 3.0 – 5.6; c = ?; V = 93.3 – 95.7; VL/VB = 0.7 – 1.1; VL/St = 0.3 – 0.7; St% L = 8.1 – 14.4; St% Oes = 39.0 – 50.7; R = 141 – 167; Rst = 19 – 23; Roes = 41 – 52; Rv = 10 – 13; Stylet = 27 – 35  $\mu$ m.

*Habitat and locality :* Soil around roots of betelvine, *Piper betle* L. at Anthiyur, Periyar district.

*CRICONEMELLA RUSTICA* (MICOLETZKY, 1915) LUC & RASKI, 1981

*Dimensions :*

11 ♀♀ (Tamil Nadu) L = 0.31 – 0.43 mm; a = 9.8 – 13.0; b = 3.3 – 5.1; c = 27.0 – 54.0; V = 91.4 – 94.2; VL/VB = 0.7 – 1.2; VL/St = 0.3 – 0.7; St% L = 11.4 – 15.7; St% Oes = 49.3 – 63.7; R = 81 – 90; Rst = 12 – 16; Roes = 22 – 28; Rex = 23 – 29; Rv = 6 – 8; Ran = 3 – 5; Rvan = 1 – 3; Stylet = 48 – 57  $\mu$ m.

*Habitat and locality :* Soil around roots of brinjal, *Solanum melongena* L., at Agarmel, Chenglepet district and sugarcane, *Saccharum officinarum* L., Sugarcane Research Station of the Tamil Nadu Agricultural University, Cuddalore, South Arcot district.

*CRICONEMELLA SPHAEROCEPHALA* (TAYLOR, 1936) LUC & RASKI, 1981

*Dimensions :*

9 ♀♀ (Tamil Nadu) = L 0.27 – 0.35

mm; a = 7.3 — 9.5; b = 2.8 — 3.9; c = 37.7 — 75.5; V = 91.3 — 95.4; VL/VB = 0.5 — 0.8; VL/St = 0.2 — 0.6; St% L = 14.0 — 20.1; St% Oes = 44.3 — 62.7; R = 59 — 73; Rst = 10 — 15; Roes = 16 — 26; Rex = 19 — 27; Rv = 3 — 6; Ran = 1 — 3; Rvan = 1 — 3; Stylet = 43 — 57  $\mu$ m.

1 ♀ (Karnataka) L = 0.36 mm; a = 11.4; b = 3.6; c = 44.1; V = 94.5; VL/VB = 0.8; VL/St = 0.3; St% L = 15.0; St% Oes = 54.0; R = 64; Rst = 11; Roes = 20; Rv = 4; Rvan = 1; Stylet = 55  $\mu$ m.

*Habitat and locality*: Soil around roots sugarcane, *Saccharum officinarum* L., Agricultural College, Coimbatore; cashew, *Anacardium occidentale* L., and turmeric, *Curcuma longa* L., at the Agricultural Research Station of the Tamil Nadu Agricultural University, Bhavani-sagar, Periyar district; amla, *Phyllanthus emblica* L., Forest Research Station of the Tamil Nadu Agricultural University, Mettupalayam, Coimbatore district; acid lime, *Citrus aurantifolia* Swingle., Thiruvai-kaval, Trichinapoly district in Tamil Nadu; mango, *Mangifera indica* L., Central Horticultural Experiment Station, Chethalli, Karnataka State.

**CRICONEMELLA XENOPLAX**  
(RASKI, 1952) LUC & RASKI, 1981

*Dimensions*:

10 ♀♀ (Tamil Nadu) L = 0.50 — 0.68 mm; a = 11.3 — 15.1; b = 4.0 — 5.8; c = 19.7 — 35.0; V = 91.3 — 96.9; VL/VB = 0.9 — 1.6; VL/St = 0.4 — 0.8; St% L = 11.6 — 14.6; St% Oes = 53.5 — 67.0; R = 87 — 100; Rst = 13 — 17; Roes = 21 — 24; Rex = 23 — 25; Rv = 6 — 8; Ran = 3 — 5; Rvan = 1 — 2; Stylet = 69 — 82  $\mu$ m.

*Habitat and locality*: Soil around roots of cherry, *Prunus avium* L., apple, *Malus sylvestris* Mitt., and peach, *Prunus persica* Benth & HK., at the Horticultural Research Station of the Tamil Nadu

Agricultural University, Kodaikanal, Madurai district and plum, *Prunus salicina* Lindl., at the State Horticultural Farm, Yercaud, Salem district, Tamil Nadu.

**CRICONEMOIDES MORGENSIS**  
(HOFMANNER & MENZEL,  
1914) TAYLOR, 1936

*Dimensions*:

7 ♀♀ (Kerala) L = 0.31 — 0.37 mm; a = 9.1 — 12.5; b = 3.4 — 4.8; c = 19.6 — 37.5; V = 90.8 — 93.8; VL/VB = 0.8 — 1.2; VL/St = 0.3 — 0.7; St% L = 12.5 — 17.1; St% Oes = 51.7 — 61.6; R = 94 — 125; Rst = 16 — 20; Roes = 27 — 32; Rex = 31 — 33; Rv = 7 — 10; Ran = 4 — 6; Rvan = 2 — 4; Stylet = 46 — 55  $\mu$ m.

*Habitat and locality*: Collected from soil around roots of pineapple, *Ananas sativus* Schult., State Horticultural Farm, Mavelikera, Allepey district, Kerala.

**DISCOCRICONEMELLA LIMITANEA**  
(LUC, 1959) DE GRISSE &  
LUC, 1965

*Dimensions*:

9 ♀♀ (Karnataka) L = 0.22 — 0.27 mm; a = 7.1 — 8.9; b = 2.3 — 2.9; c = 22.2 — 44.6; V = 89.1 — 94.1; VL/VB = 0.6 — 1.2; VL/St = 0.2 — 0.4; St% L = 19.8 — 24.6; St% Oes = 54.0 — 66.2; R = 93 — 104; Rst = 20 — 24; Roes = 31 — 39; Rex = 33 — 39; Rv = 9 — 13; Ran = 4 — 7; Rvan = 3 — 5; Stylet = 52 — 57  $\mu$ m.

*Habitat and locality*: Soil near the roots of mandarin orange, *Citrus reticulata* Bland., at the Citrus Experiment Station, Gonikopal, Karnataka State.

**CROSSONEMA CIVELLAE** (STEINER, 1949) MEHTA & RASKI, 1971

*Dimensions*:

23 ♀♀ (Tamil Nadu) L = 0.34 — 0.64

mm; a = 7.2 - 11.4; b = 2.8 - 5.2; V = 88.6 - 94.0; VL/VB = 0.8 - 1.5; VL/St = 0.3 - 0.6; St% L = 13.9 - 26.1; St% Oes = 63.9 - 78.5; R = 41 - 46; Rst = 7 - 12; Roes = 10 - 16; Rv = 4 - 7; Stylet = 75 - 98  $\mu$ m.

*Habitat and locality*: Soil near the roots of strawberry, *Fragaria vesca* L., *Geranium* sp., pear, *Pyrus communis* L., at the Horticultural Research Station of the Tamil Nadu Agricultural University, Kodaikanal, Madurai district; clove, *Syzygium aromaticum* Thunb., and mandarin orange, *Citrus reticulata* Bland., at the Horticultural Research Station of the Tamil Nadu Agricultural University, Yercaud, Salem district.

**CROSSONEMA PALMATUM**  
(SIDDIQI & SOUTHEY, 1962)  
MEHTA & RASKI, 1971

*Dimensions*:

1 ♀ (Tamil Nadu) L = 0.39 mm; a = 8.4; b = 3.6; V = 92.9; VL/VB = 0.8; VL/St = 16.4; St% Oes = 60.3; R = 52; Rst = 10; Roes = 15; Rv = 5; Stylet = 75  $\mu$ m.

*Habitat and locality*: Soil around roots of *Geranium* sp. at the Horticultural Research Station of the Tamil Nadu Agricultural University, Kodaikanal, Madurai district.

**OGMA COFFEAE** (EDWARD *et al.*  
1970) ANDRASSY, 1979

*Dimensions*:

11 ♀♀ (Tamil Nadu) L = 0.25 - 0.38

mm; a = 7.3 - 11.7; b = 2.8 - 4.4; c = 10.6; V = 85.3 - 90.6; VL/VB = 1.3 - 1.8; VL/St = 0.5 - 1.0; St% L = 13.6 - 22.6; St% Oes = 58.3 - 70.3; R = 70 - 72; Rst = 11 - 17; Roes = 20 - 24; Rex = 21 - 26; Rv = 11 - 13; Ran = 6 - 11; Rvan = 2 - 5; Stylet = 57 - 69  $\mu$ m.

*Habitat and locality*: Soil around roots of sapota, *Achras sapota* L., at the Sugarcane Research Station of the Tamil Nadu Agricultural University, Cuddalore, South Arcot district.

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