

Plant Parasitic Nematodes in New Jersey¹

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Plant parasitic nematodes from New Jersey were documented before 1965 in several publications (1,2,4), but as genera and

species were described, redescribed, or re-named, obsolete and often mistaken identifications were not corrected. In a recent publication, many of these early errors were repeated (3). Reidentification of many nematodes preserved during these early surveys, in addition to diagnostic work, research, and teaching conducted over two decades, resulted in a check list of plant parasitic nematodes from New Jersey (Table 1). All nematodes not found in this

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TABLE 1. Check list of plant parasitic nematodes in New Jersey.

Anguinidae	<i>Meloidogyne hapla</i> Chitwood, 1949
<i>Subanguina radicola</i> (Greef, 1872) Paramonov, 1967	<i>M. incognita</i> (Kofoid & White, 1919) Chitwood, 1949
Criconeematidae	Paratylenchidae
<i>Bakernema inaequale</i> (Taylor, 1936) Mehta & Raski, 1971	<i>Gracilacus acicula</i> (Brown, 1959) Raski, 1962
<i>Criconema mutabile</i> (Taylor, 1936) Raski & Luc, 1984	<i>G. elegans</i> Raski, 1962
<i>Criconemella axestis</i> (Fassuliotis & Williamson, 1959) Luc & Raski, 1981	<i>G. straeleni</i> (de Coninck, 1931) Raski, 1976
<i>C. curvata</i> (Raski, 1952) Luc & Raski, 1981	<i>Paratylenchus dianthus</i> Jenkins & Taylor, 1956
<i>C. macrodora</i> (Taylor, 1936) Luc & Raski, 1981	<i>P. elachistus</i> Steiner, 1949
<i>C. reedi</i> (Diab & Jenkins, 1966) Luc & Raski, 1981	<i>P. hamatus</i> Thorne & Allen, 1950
<i>C. rusium</i> (Khan, Chawla & Saha, 1976) Luc & Raski, 1981	<i>P. nanus</i> Cobb, 1923
<i>C. xenoplax</i> (Raski, 1952) Luc & Raski, 1981	<i>P. neoamblycephalus</i> Geraert, 1965
<i>Crossonema fimbriatum</i> (Cobb, in Taylor, 1936) Mehta & Raski, 1971	<i>P. projectus</i> Jenkins, 1956
<i>C. menzeli</i> (Stefanski, 1924) Mehta & Raski, 1971	<i>P. tenuicaudatus</i> Wu, 1961
<i>C. seymouri</i> (Wu, 1965) Mehta & Raski, 1971	Pratylenchidae
<i>Hemicriconemoides chitwoodi</i> Esser, 1960	<i>Hirschmanniella gracilis</i> (de Man, 1880) Luc & Good-ey, 1963
<i>Ogma octangulare</i> (Cobb, 1914) Schuurmans Stekhoven & Teunissen, 1938	<i>Hoplotyulus silvaticus</i> Bernard & Niblack, 1982
Belonolaimidae	<i>Pratylenchus crenatus</i> Loof, 1960
<i>Belonolaimus longicaudatus</i> Rau, 1958	<i>P. neglectus</i> (Rensch, 1924) Filipjev & Schuurmans, Stekhoven, 1941
Dolichodoridae	<i>P. penetrans</i> (Cobb, 1917) Filipjev & Schuurmans, Stekhoven, 1941
<i>Dolichodorus heterocephalus</i> Cobb, 1914	<i>P. scribneri</i> Steiner, in Sherbakoff & Stanley, 1943
<i>D. marylandicus</i> Lewis & Golden, 1981	<i>P. vulnus</i> Allen & Jensen, 1951
Hemicyclophoridae	Tylenchidae
<i>Hemicyclophora gigas</i> Thorne, 1955	<i>Ditylenchus dipsaci</i> (Kühn, 1857) Filipjev, 1936
<i>H. gracilis</i> Thorne, 1955	<i>D. myceliophagus</i> Goodey, 1958
<i>H. metleri</i> Jenkins & Reed, 1964	Tylenchorhynchidae
<i>H. ritteri</i> Brizuela, 1963	<i>Merlinius joctus</i> (Thorne, 1949) Sher, 1973
<i>H. thienemanni</i> (Schneider, 1925) Loos, 1948	<i>Quimisulcius capitatus</i> (Allen, 1955) Siddiqi, 1971
<i>H. uniformis</i> Thorne, 1955	<i>Tylenchorhynchus claytoni</i> Steiner, 1937
<i>H. vaccinium</i> Reed & Jenkins, 1963	<i>T. dubius</i> (Bütschli, 1837) Filipjev, 1936
<i>H. vidua</i> Raski, 1958	<i>T. nudus</i> Allen, 1955
Heteroderidae	<i>T. maximus</i> Allen, 1955
<i>C. weissii</i> (Steiner, 1949) Krall & Krall, 1978	<i>T. parvus</i> Allen, 1955
<i>Heterodera glycines</i> Ichinohe, 1952	<i>T. striatus</i> Allen, 1955
<i>H. trifolii</i> Goffart, 1932	Longidoridae
<i>Punctodera punctata</i> (Thorne, 1928) Mulvey & Stone, 1976	<i>Longidorus breviannulatus</i> Norton & Hoffmann, 1975
Hoplolaimidae	<i>Xiphinema americanum</i> Cobb, 1913
<i>Helicotylenchus digonicus</i> Perry, in Perry, Darling & Thorne, 1959	<i>X. chambersi</i> Thorne, 1939
<i>H. dihystra</i> (Cobb, 1893) Sher, 1961	<i>X. rivesi</i> Dalmasso, 1969
<i>H. erythrinae</i> (Zimmermann, 1904) Golden, 1956	Trichodoridae
<i>H. hydrophilus</i> Sher, 1966	<i>Paratrichodorus minor</i> (Colbran, 1956) Siddiqi, 1974
<i>H. labiodiscimus</i> Sher, 1966	<i>P. pachydermus</i> (Seinhorst, 1954) Siddiqi, 1974
<i>H. multicinctus</i> (Cobb, 1893) Golden, 1956	<i>P. porosus</i> (Allen, 1957) Siddiqi, 1974
<i>H. platyurus</i> Perry, in Perry, Darling & Thorne, 1959	<i>Trichodorus aequalis</i> Allen, 1957
<i>Hoplolaimus galeatus</i> (Cobb, 1913) Thorne, 1935	<i>T. obscurus</i> Allen, 1957
<i>H. stephanus</i> Sher, 1963	<i>T. primitivus</i> (de Man, 1880) Micoletzky, 1922
<i>Rotylenchus buxophilus</i> Golden, 1956	Aphelenchidae
<i>R. robustus</i> (de Man, 1876) Filipjev, 1936	<i>Aphlenchus avenae</i> Bastian, 1865
<i>Scutellonema brachyurum</i> (Steiner, 1938) Andrassy, 1958	Aphelenchoididae
Meloidogynidae	<i>Aphlenchoides fragariae</i> (Ritzema Bos, 1890) Christie, 1932
<i>Meloidodera floridensis</i> Chitwood, Hannon & Esser, 1956	<i>A. parietinus</i> (Bastian, 1865) Steiner, 1932
	<i>A. ritzemabosi</i> (Schwartz, 1911) Steiner & Bührer, 1932
	<i>Bursaphelenchus xylophilus</i> (Steiner & Bührer, 1934) Nickle, 1970

check list but previously cited should be considered as questionably occurring in New Jersey.

Some nematodes that are neither native to New Jersey nor naturalized but were reported present (1,2) are reviewed here. *Meloidogyne arenaria* (Neal, 1889) Chitwood, 1949 and *Meloidogyne javanica* (Treub, 1885) Chitwood, 1949, although repeatedly introduced, cannot survive New Jersey's outdoor winter temperatures. *Xiphinema diversicaudatum* (Micoletzky, 1927) Thorne, 1939 was found only in greenhouse soil on roses. *Cactodera cacti* (Filipjev & Schuurmanns Stekhoven, 1941) Krall & Krall, 1978 was isolated from or-

namental cactus brought in from other geographical areas.

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