

## A list of Tylenchida associated with poppy crops (*Papaver somniferum* L.) in Afyon Region, Turkey

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There are only a few papers on plant parasitic nematodes of poppies in the world. Schmitt and Lipscomb (1975) listed nematodes reported on poppy, describing also the diseases caused by fungi, bacteria and viruses. *Hoplolaimus* spp. (under the genus name *Basirolaimus*, a junior synonym of *Hoplolaimus*) were found in the rhizosphere of *Papaver somniferum* L. by Shamsi (1979). Tobar *et al.* (1995) studied the effect of different cultivars on the population densities of *Pratylenchus thornei* Sher & Allen, 1953 and *Merlinius brevidens* (Allen, 1955) Siddiqi, 1970 in dry soil in Spain; poppy was non-host for both the species in pot experiments. Rakesh *et al.* (1999) identified *Meloidogyne incognita* (Kofoed & White, 1919) Chitwood, 1949 on poppy, and under field conditions, 10-12% of nematode infected poppy plants had chlorotic and stunted growth, bearing smaller and fewer leaves and undeveloped capsules.

The main material of the study consisted of plant parasitic nematode species of the order Tylenchida from soil and root samples taken from poppy crops in the Afyon region, Turkey (Fig. 1). A survey of poppy crops in this region, from July to August 1984, examined 54 samples taken from 16 fields of cultivated poppies grown in rotation with sugar beet.

Active nematodes were extracted from soil by Cobb's (1918) sieve method developed by Christie and Perry (1951) and Baermann's (1917) sieve and funnel method. Permanent mounts were prepared after fixation by the method given by Seinhorst (1959) and developed by De Grisse (1969). Measurements were done according to the formula cited by Siddiqi (1986).

In all, 12 species of the order Tylenchida were identified, their frequencies varying from 1 to 41% (Table 1). *Tylenchorhynchus striatus* and *Pratylenchus coffeae* are recorded for the first time in nematode fauna of Turkey.

**Table 1.** Frequency of occurrence of nematode species associated with poppy (*Papaver somniferum* L.) in 54 samples from 16 fields in the Afyon region, Turkey.

Species	Habitat	Frequency (%)
<i>Boleodorus thylactus</i> Thorne, 1941	Soil	2
<i>Ditylenchus anchiliosomus</i> (Tarjan, 1958) Fortuner, 1982	Soil	6
<i>Ditylenchus dipsaci</i> (Kühn, 1857) Filipjev, 1936	Soil	6
<i>Filenchus filiformis</i> (Bütschli, 1873) Meyl, 1961	Soil	11
<i>Helicotylenchus digonicus</i> Perry in Perry, Darling & Thorne, 1959	Soil	4
<i>Pratylenchoides alkani</i> Yüksel, 1977	Soil	16
<i>Pratylenchoides conincki</i> Ökten, 1989	Soil	1
<i>Pratylenchus coffeae</i> (Zimmermann, 1898) Filipjev & Schuurmans Stekhoven, 1941	Plant	2
<i>Pratylenchus pratensis</i> (de Man, 1880) Filipjev, 1936	Plant	8
<i>Tylenchorhynchus latus</i> Allen, 1955	Soil	41
<i>Tylenchorhynchus striatus</i> Allen, 1955	Soil	1
<i>Zygotylenchus guevarai</i> (Tobar Jiménez, 1963) Braun & Loof, 1966	Soil	2

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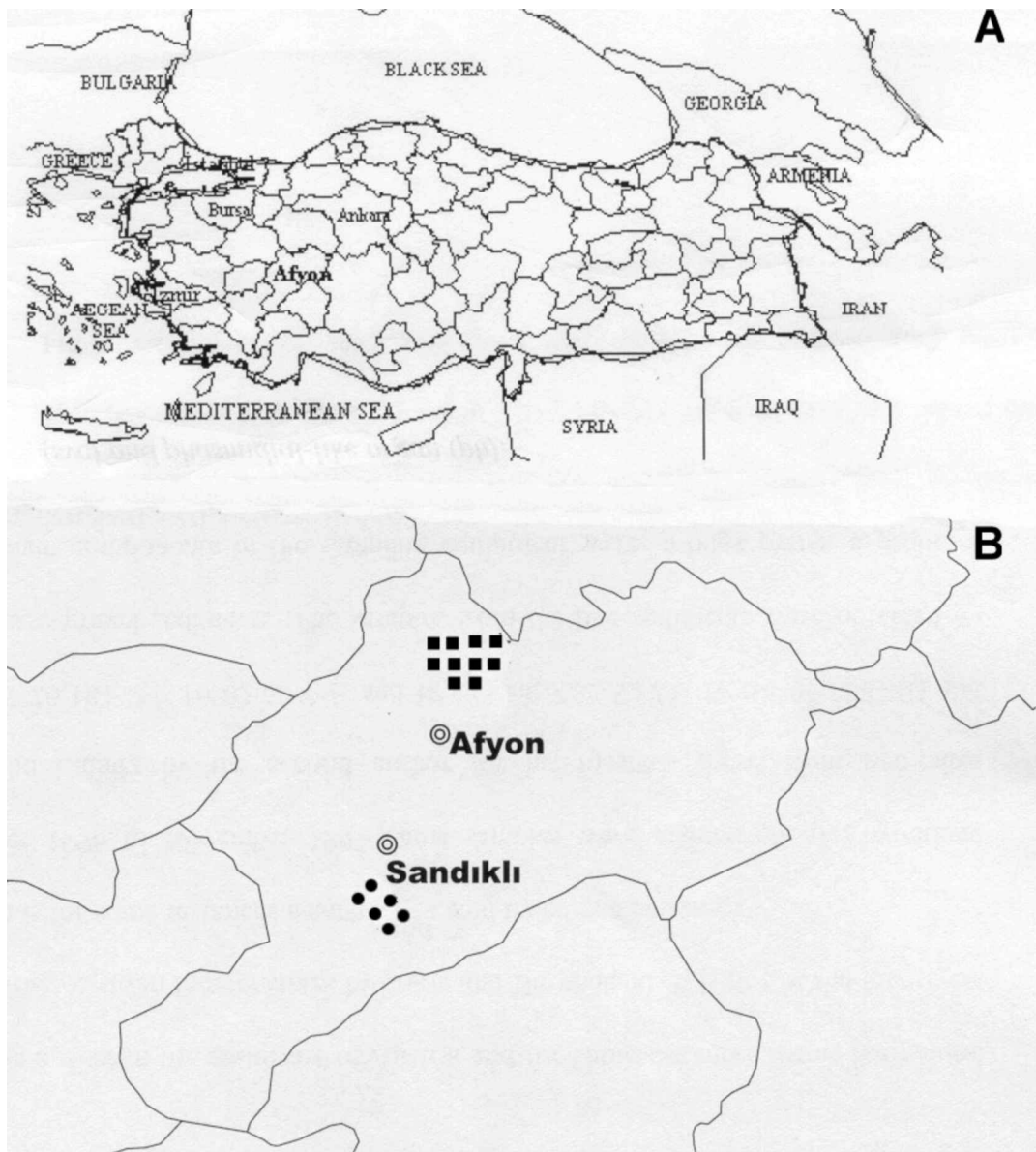
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**Fig. 1.** A: Map of Turkey; B: Map of Afyon region, showing sampling sites around Sandıklı town (●) and central Afyon (■).

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