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A NEW RECORD OF LEAF GALL NEMATODE *SUBANGUINA* SP. INFECTING *SERRATULA LATIFOLIA* IN IRAN

by

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Summary: *Subanguina* sp. is reported from galled leaves of *Serratula latifolia* in Iran.

Serratula latifolia Boiss (Compositae) is a weed commonly found in the foot hills and mountains of Khorasan province, north-eastern Iran, as well as other parts of the country during the month of April with the onset of rains. It is a fast growing weed that persists for a month or so.

During a survey of plant diseases in 1997-98, some plants were observed with galls on the lower surface of the leaves (Fig. 1). The galls were mostly distributed near the margin but were also on the petiole, and in the vicinity of the midrib and minor veins. Leaves with numerous galls were slightly deformed and rolled inward. Initially the galls were violet in colour but turned yellow to rusty brown as the plants matured. The galls ranged between 1 to 3 mm. A thorn-like structure, comprising plant tissues, protruded from the centre of the gall. From 1-13 galls were observed on each leaf. The violet galls, when dissected and examined under the microscope, revealed a cavity in the mesophyll-tic tissues in which second-stage juveniles, few adults, and eggs of nematodes were found. In yellow galls (n=35), 3-72 adults and 89-830 eggs were observed in each gall and the sex ratio was four females to one male. In rusty brown



Fig. 1 Leaves of *Serratula latifolia* with galls induced by *Subanguina* sp.

galls, 2-505 second-stage juveniles, lying in coiled state, 1-36 adults, and 21-486 eggs were seen. Coiled second-stage juveniles became straight after 20-30 min of hydration and after 5 h these juveniles became active. Few females and no males were active. It was interesting to note that the second-stage juveniles remained alive even after storage in Petri plates containing water for four months at 5° C

Morphological characters of the adult nematodes indicate that they are species of *Subanguina* (Brzeski, 1981; Siddiqi, 1986; Fortuner and Maggenti, 1987). Mature females when killed are either open C or spiral in shape; may or may not be swollen. Median oesophageal bulb muscular with refractive thickening and

not overlapping the intestine. Isthmus continuous with basal bulb. Ovary outstretched or with one flexure. Oocytes arranged in one/two rows. Crustaformeria with four rows, each with more than 12 cells. Testes usually not reflexed. Bursa subterminal. The occurrence of the nematode on *S. latifolia* is reported for the first time.

Literature cited

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