

FIRST RECORD OF THE POTATO CYST NEMATODE (*GLOBODERA ROSTOCHIENSIS*) IN YUGOSLAVIA

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Summary. Specimens of *Globodera rostochiensis* (Wollen., 1923) Behrens, 1975 were found in potato roots at Jagodnja (Krupanj) and Ponikve (Užice), in soil at Aljinovići (Prjepolje) and in storehouse potato debris at Kušići. This is the first record of the potato golden cyst nematode in Yugoslavia.

Investigations carried out in more than thirty years in the former territory of Yugoslavia failed to provide evidence that the potato cyst nematodes, either *Globodera rostochiensis* or *Globodera pallida* occur (Krnjaić and Krnjaić, 1991).

Klindic (1965) reported some round cyst from Fojnice (Bosnia-Herzegovina) which he identified as *Heterodera*

rostochiensis and that was later described as *Heterodera acibillae* (Golden and Klindić, 1972), now *Globodera acibillae* (Golden et Klindić, 1972) Behrens, 1975. Therefore, the record of *Globodera rostochiensis* in Yugoslavia on the EPPO Bulletin, 1991, must be considered erroneous until 2000 when Krnjaić *et al.*, stated that there were no known localities in which the nema-

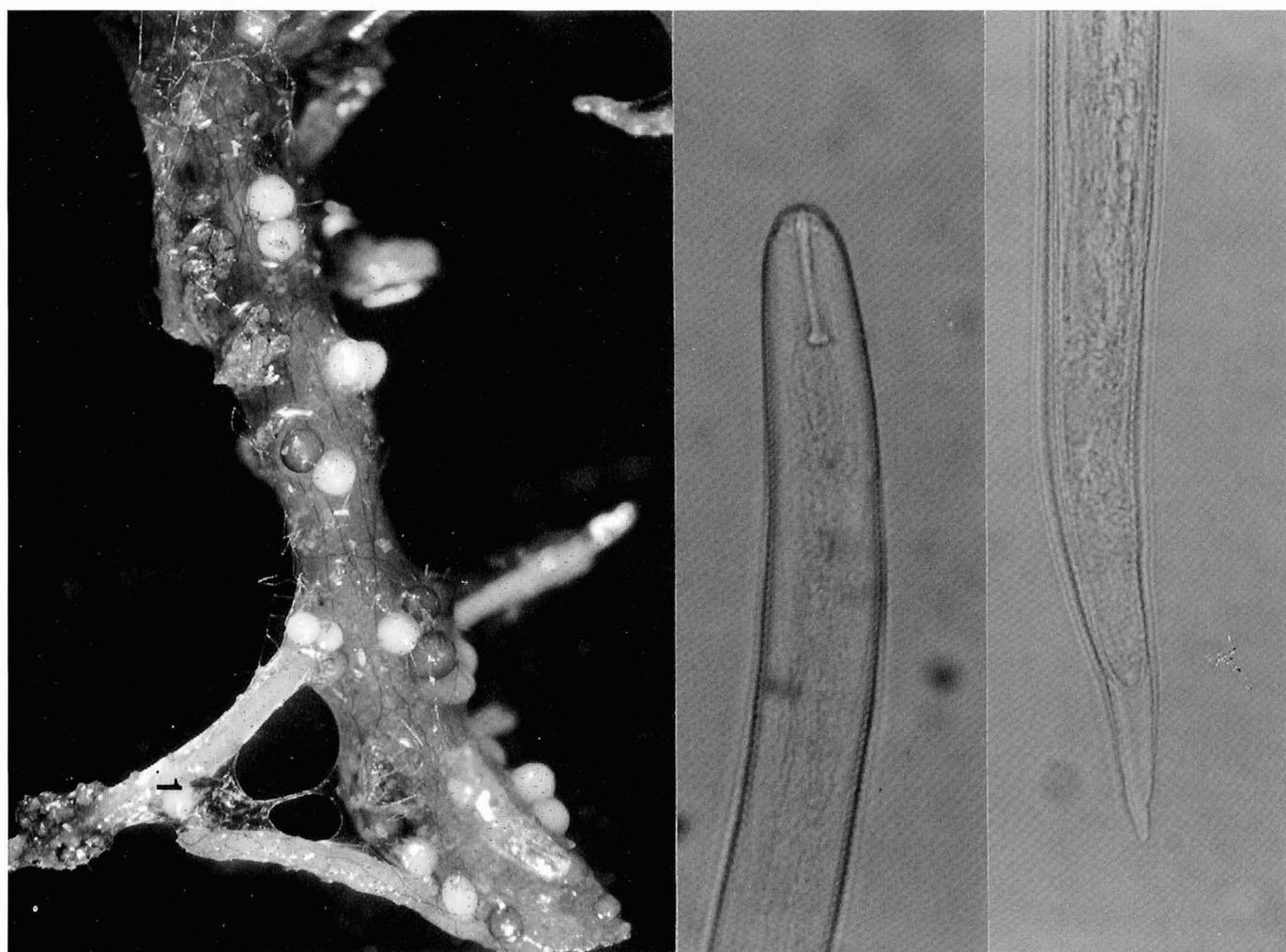


Fig. 1. *Globodera rostochiensis* from Serbia: females and cysts on potato root (left); second stage juveniles anterior (center) and posterior (right) region.

tode had been clearly identified.

However, the examination of samples collected in recent years revealed the presence of *Globodera rostochiensis* (Wollen., 1923) Behrens, 1975 on potato (*Solanum tuberosum* L.) roots (Fig. 1) at Jagodnja (Krupanj) and Ponivke (Užice), in soil at Aljinovići (Prijepolje) and in debris of a potato tuber storehouse at Kušići, in western Serbia.

Cyst were extracted by flotation; eggs and second stage juveniles (Fig. 1) by crushing cysts and females and males by dissecting roots. Eggs, juveniles and cysts were measured in distilled water; males and vulval cones were studied in glycerin mounts.

Measurements were as following:

eggs (n = 30): length = 104 ± 3.5 (94-107) μm ; width = 44 ± 2.4 (41-47) μm ; L/W ratio = 2.4;
 second stage juveniles (n = 25): body length 470 ± 30 (434-510) μm ; stylet length = 22 ± 0.4 (19.5-23) μm ; dorsal oesophageal gland orifice = 5.4 ± 0.4 (4.9-6.6) μm behind the stylet base; tail length = 54 ± 1.9 (49-61) μm ; hyaline portion of the tail = 27.3 ± 2.3 (24.6-29.5) μm ;
 cysts (n = 50): length (without neck) 567 ± 85 (471-697) μm ; width = 524 ± 62 (460-634) μm ; L/W ratio = 0.9 ± 0.04 (0.9-1); mean number of eggs per cyst = 388; neck length = 98.5 ± 18.4 (66-125) μm ;
 males (n = 20): body length = 1.049 ± 0.080 (0.971-1.135) mm; stylet length = 25 ± 1.2 (23-27) μm ; outlet of the dorsal oesophageal gland = 5.5 ± 0.45 (4.9-6.7) μm behind the stylet base; spicules length = 37 ± 1.2 (32-39.4) μm ; tail length = 5 ± 1 (3.2-6.6) μm .

These morphometrics were compared with those of *Globodera rostochiensis* (Stone, 1973a) and *Globodera pallida* (Stone, 1973b) and fitted well with *Globodera rostochiensis*.

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