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## THE OCCURRENCE OF *GLOBODERA ROSTOCHIENSIS* AND *G. PALLIDA* IN PORTUGAL

by

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Potato cyst-nematodes were first detected in Portugal in 1956 (Macara, 1962) and subsequently some other infestations were found (Macara, 1963, 1963a; Louro and Raposo, 1975; Louro, 1978). All records are of *Globodera rostochiensis* (Woll.) Behrens. Pereira (1979) mentioned that one Portuguese sample tested in The Netherlands contained *G. pallida* (Stone) Behrens. Since 1979 there has been no further report. Morphological features and morphometrics for the identification of *G. rostochiensis* have been studied in only one of the populations (Maçara, 1962, 1963a).

In 1983 Abreu and Martins (personal communication) started a project which included proposals to survey all potato growing areas in Trás-os-Montes, north Portugal. Until now over 1,000 soil samples have been collected and the cysts have been extracted using the Fenwick can. The objective of our work was to identify the species and contribute to the knowledge of the distribution of these nematodes in Portugal.

So far a total of thirty-five samples have been studied. Specific identification was made on the basis of second-stage juvenile and cyst characters (Stone, 1975, personal communication, 1983). Twenty cysts were examined from each population and 10-20 juveniles from each cyst. Studies based on morphological and morphometrical data revealed the occurrence of both *G. rostochiensis* and *G. pallida*. The two species were found together in fourteen samples. To date twenty-one unmixed populations have been found; only one was identified as *G. pallida*, the other twenty being *G. rostochiensis*.

This is the first official record of *G. pallida* in Portugal.

Further field and laboratory work is in progress to get information on geographical distribution, pathotypes of the nematodes and assessment of the damage caused to potatoes.

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