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OCCURRENCE OF PASTEURIA SPP. ATTACKING VARIOUS NEMATODES IN PASTURES OF BINGOL, TURKEY.

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In spring 2011, a survey of plant-parasitic nematodes in pastures was conducted in Bingol Province, a highly mountainous and temperate area in Eastern Anatolia. The province relies on pastures to support its livestock industry, which is the most important driving force of the economy. A total of 24 samples were collected from four districts (Bingol, Genc, Karliova and Solhan) in the province. Nematodes were extracted and fixed in TAF, mounted on permanent slides, and identified to species. In three samples (8%), Helicotylenchus platyurus, Pratylenchus thornei and Tylenchorhynchus brassicae were found heavily attacked by Pasteuria endospores; endospore density ranged between 3-15 per individual nematode. The mean diameter of the endospores measured 4.5 micrometers with a standard deviation of 0.74 micometers. Photomicrographs were taken with a digital camera attached to a compound microscope. This study represents the first report of Pasteuria spp. from an uncultivated habitat in Turkey and the first report for the presence of Pasteuria in the Eastern Anatolia region. Pasteuria may be a potential biological control agent of plant-parasitic nematodes in pastoral areas where no control practices are applied; however, further research on its spatial distribution is needed to evaluate its potential.