

DISCOVERY AND CONTROL OF INVASIVE AUSTRALIAN COCKROACH (*PERIPLANETA AUSTRALASIAE*) IN MADRID

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Abstract In April 2018, the Vector Control Department of Health Madrid received a communication from a pest control company about an Australian cockroach (*Periplaneta australasiae*) infestation in a building. After an initial inspection of the affected area, the presence of two foci was detected and entomological identification of specimens was performed. Before this case there was no written record or suspicion of the presence of this exotic cockroach in the region. It was determined that the location of the primary focus was an underground technical facility room, whereas the secondary one was in an underground parking immediately above. The infestation concentrated especially in the water and sanitation network, coexisting with *Blatta orientalis* in the parking (prevalent cockroach in Madrid for these habitats). The focus was considered “settled” due to the presence of numerous oothecae and nymphs, as well as the testimony of maintenance workers. Because *Periplaneta australasiae* is an exotic species with the potential to spread in the city, a special surveillance and control protocol was immediately activated. The objectives were to identify the extent of the pest infestation, establish protection measures in the surrounding environment of the affected area and achieve eradication of the focus. The protocol was carried out from May to September 2018. As a result of the thorough monitoring carried out, in public areas of municipal ownership, an adult female was captured in a sewer manhole. Underground sewer system was visited and multiple environmental variables were recorded. Concluding that the conditions were not optimal for network colonization. In order to achieve eradication, private owners were formally required to perform pest control duties. This new experience in the Pest Control Service of the city of Madrid highlighted the importance of public-private collaboration in the management of these type of invasive species.

Key words Exotic species, entomological identification, monitoring, sewer system, public-private collaboration