

### Analysis for Rodent Surveillance in Taichung Port, 2017–2020

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#### Abstract

According to the results of rodent surveillance from 2017 to 2020 in Taichung port, 94 rodents were captured, with a capture rate of 8.1%. *Rattus norvegicus* was the dominant species (62.8%) captured, followed by *Suncus murinus* (35.1%). The first season (March) had the highest positive rate of rat flea index, parasite and rat flea. The positive rates of murine typhus and hantavirus were 16% and 14.9%, respectively. Furthermore, the positive rates of these two pathogens were the highest in *Rattus norvegicus*. Besides, in the rats with longer body lengths and heavier body weights, the hantavirus positive rate was higher. Two high-risk locations that revealed high rat flea index and murine typhus positive rate were necessary to pay close attention and monitoring. We recommend that rodent control measures should be enhanced during the first season, especially in high-risk locations with high rat flea index and pathogen positive rates. At the same time, anti-flea measures should be taken when rodent control measures are implemented to reduce the risk of spreading rat-transmitted diseases.

**Keywords:** Taichung Port, rodent surveillance, *Rattus norvegicus*

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