Supplementary Information

During the survey described in the main text, we obtained seven responses from cities that locate within Tokyo prefecture, but outside the 23 wards. In order to clarify the situation in cities outside the 23 wards of Tokyo, the same Japanese questionnaire was converted to a Google Form and was distributed throughout Japan by the Japan Pest Control Association (JPCA) on February 5, 2021. Given that this second survey was performed under the second declaration of a state of emergency, the questionnaire additionally asked the respondents to answer the date of the first declaration of a state of emergency in order to remind them about the target period. In addition, the target period was explicitly indicated in all questions. Specifically, we added the words "during one month after the stay-at-home order or lockdown" at the end of each question.

We obtained 85 responses in the second survey. However, because some respondents did not provide the date, or answer the date of the second declaration of a state of emergency, 57 responses were excluded, leaving us with 35 valid responses from cities outside Tokyo.

In addition to the analyses described in the main text, the proportion of rodent species in other cities were analyzed in order to clarify which rodents were predominant in Japan. The respondents who did not answer the proportion were excluded from the analysis (before social distancing measures: $n = 6$, after social distancing measures: $n = 7$). Fisher's exact test revealed that the relative proportions of rodent species differed between Tokyo and the other cities, both before ($P < 0.01$) and after ($P < 0.01$) social distancing measures (Tables S1 and S2). In both periods, one notable point was that the proportion of house mice was high in other cities. Nonetheless, roof rats were still the predominant rodents in other cities.

Table S1. Proportions of rodent species in Japan

	Before social distancing measures		After social distancing measures	
	Tokyo	Other cities	Tokyo	Other cities
Brown rats	20.5 ± 1.7%	22.8 ± 4.8%	21.5 ± 2.0%	23.0 ± 4.9%
Roof rats	78.7 ± 1.8%	56.4 ± 6.8%	77.7 ± 2.0%	56.4 ± 7.2%
House mice	0.9 ± 0.4%	21.1 ± 5.1%	0.9 ± 0.3%	21.0 ± 5.4%

Data are expressed as the mean ± standard error of the mean

Table S2. Results of statistical analyses

	df	χ^2 value	*P* value
Before social distancing measures			
Tokyo (77) vs. Other cities (29)	2	22.3	3.48×10^{-6}
After social distancing measures			
Tokyo (77) vs. Other cities (28)	2	21.8	4.28×10^{-6}

The numbers of samples are shown in parentheses.

Data were analyzed by Fisher's exact test

df: degree of freedom.

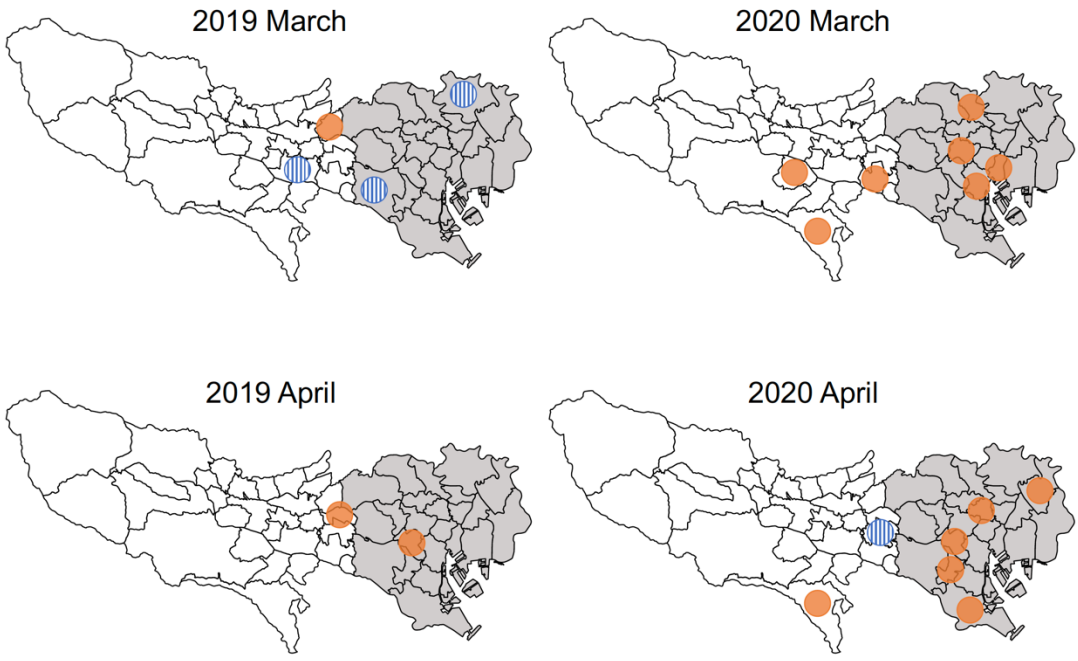

Fig. S1 Schematic diagrams showing the locations where the number of calls to Tokyo Pest Control Association increased (solid orange circle) or decreased (striped blue circle) compared to the previous three years in March and April of 2019 and 2020.

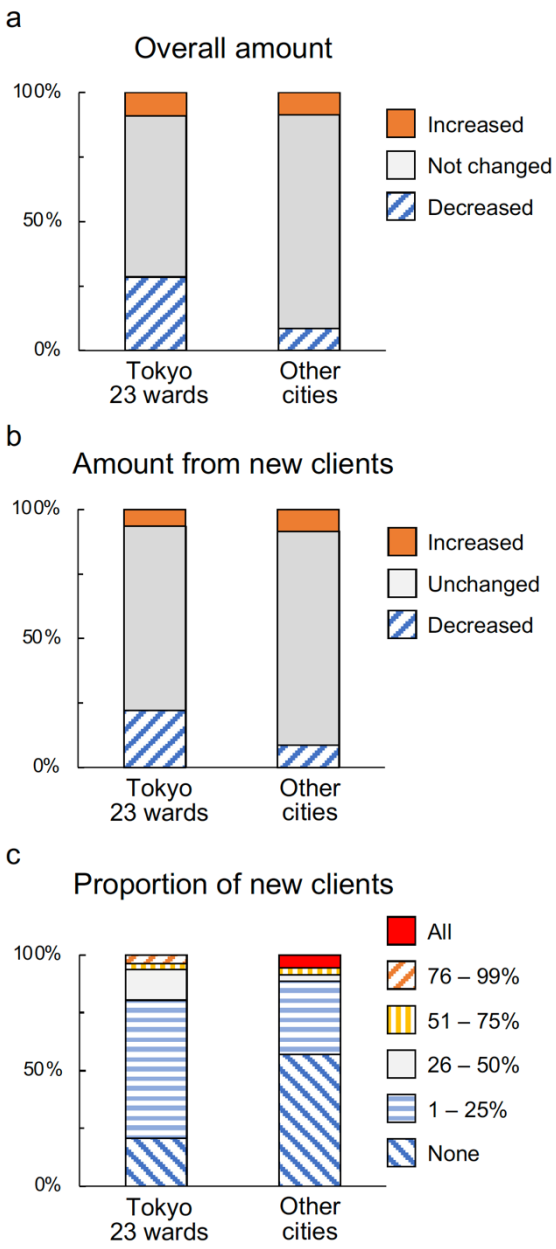

Fig. S2 Responses from pest management professionals in the 23 Tokyo wards and other cities. The effects of social distancing on (a) overall amount of rat-related business in the subject city, (b) the amount of rat-related business from new clients in the subject city, and (c) the approximate proportion of the amount of rat-related business from new clients in the subject city during the month after the declaration of a state of emergency.