Salmonella is known to be one of the important human bacterial pathogens in both developed and developing countries. Human salmonellosis was found in 0.6 to 7% of the total human diarrhea cases in Southeast Asian countries such as Laos, Myanmar, and Vietnam [3]. Wild geckos were commonly found in the residential areas of these countries [12] and are widely distributed and seen in close contact with humans. Recently, some researchers indicated that geckos could harbor Salmonella at a relatively high rate in Southeast Asian countries [1, 5]. Humans could be infected with Salmonella via contact with reptiles, and reptiles were considered to be a reservoir for Salmonella and a source of human salmonellosis [4, 7, 9–11, 14, 15]. However, no report has been published on quantification and survival analysis of Salmonella in gecko feces. These results indicate that the wild gecko seems to play an important role as a reservoir for Salmonella and a source of Salmonella infection in humans in Southeast Asian countries.

In this study, a total of 201 wild geckos (138 Hemidactylus frenatus and 63 Hemidactylus platyurus) were captured in the Mekong Delta region, located in the South of Vietnam. Of 201 gecko fecal samples, 101 were examined for the number of Salmonella in their feces. Therefore, this study was carried out to determine the number and persistence of Salmonella in gecko feces.

Of 101 gecko samples, 24 (23.8%) were Salmonella positive. Among these positive samples, 14 geckos excreted Salmonella in their feces in a range of 1 to 8.6 log CFU/g with a mean of 4.5 ± 3.2 log CFU/g. Among the Salmonella serovars, Salmonella Weltevreden was the most predominant serovar (37.5%). Moreover, Salmonella could survive for 6 weeks in gecko feces at room temperature in Vietnam. These results indicate that the wild gecko seems to play an important role as a reservoir for Salmonella and a source of Salmonella infection in humans in Southeast Asian countries.
Of 201 gecko fecal samples, 101 were used for quantification analysis of *Salmonella* in gecko feces and 100 were divided into 2 groups. Fecal samples in each group were mixed and put into sterilized Erlenmeyer flasks (300 ml). These fecal mixtures were kept at the room temperature (25–30°C) of Vietnam for 10 weeks. About 1 g of fecal sample was taken from each mixture once a week for 10 weeks after storage. Isolation and identification of *Salmonella* from fecal samples were also done following the same methods as described above. In this experiment, *Salmonella* was isolated from fecal mixtures of both groups for 6 weeks after storage. However, no *Salmonella* was detected from fecal samples after 7 weeks. These results indicate that *Salmonella* can survive for a long time in gecko feces in normal environmental conditions in Vietnam. However, the mechanism involved in the survival of *Salmonella* for a long time in gecko feces in the environment is still unclear.

The present study indicated that the wild gecko seems to play an important role as a reservoir for *Salmonella* and a source of *Salmonella* infection in humans in Southeast Asian countries. Further research needs to be performed to evaluate the epidemiology of *Salmonella* in wild geckos of this region.

CONFLICTS OF INTEREST. No conflict of interest was declared.

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