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Survey of *Ornithodoros* spp. in western and southern islands of the republic of Korea

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Tick-borne diseases have been thought to be important in Medical and Veterinary Medicine. The genus *Ornithodoros* spp., which is included in Family Argasidae, is usually associated with wild animals including seabirds and it was difficult to investigate because of the location of seabirds' nests are inaccessible. However, *Ornithodoros* spp. has been known for the vector of many diseases including African swine fever virus. In this study, nest, soil and litter of seabirds were collected from 10 islands in western and southern part of the Republic of Korea from July to August in 2017, known for breeding places of migratory birds, to investigate *Ornithodoros* species. Each time a survey was conducted, less than 10 nest, soil and litter of seabirds was collected from one island for the conservation of islands environment. Ticks were collected from nest, soil and litter of seabirds using Tullgren funnel. In total, 28 *Ornithodoros* spp. ticks from 70 seabird's (black-tailed gull, *Larus crassirostris*; and band-rumped storm petrel, *Oceanodroma castro*) nesting soil and litter in 4 islands (Chilsan-island, Chilbal-island, Gugul-island and Nan-island) were collected. To identify the species of *Ornithodoros* spp. ticks, the sequence of *Ornithodoros* spp. from our study showed 95% identity to *Ornithodoros sawaii* (KT372790) and *Ornithodoros capensis* (AB076080) based on 16S rRNA and 99% identity to *Ornithodoros capensis* (KR907243) based on 18S rRNA. Previous studies have found *Ornithodoros* sp. only in Chilsan Island, this study found *Ornithodoros* spp., in four uninhabited islands that are breeding places of migratory birds in western and southern islands of the Republic of Korea.

Biography

Joon-Seok Chae has completed his DVM, MS, PhD from Chonbuk National University and Post-doctoral studies from Texas A&M University and University of California-Davis. He is the Professor of College of Veterinary Medicine, Seoul National University. He has published more than 170 papers in reputed journals and serving as an Editorial Board Member of repute. His recent interesting research areas are tick-borne zoonotic pathogens (*Anaplasma*, *Ehrlichia*, *Rickettsia*, *Bartonella*, *Borrelia*, tick-borne encephalitis and severe fever with thrombocytopenia syndrome virus, etc.).

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