Rawin Anurakpongsathorn 2010: Habitat Relations to Abundance of 4 Burrowing Frogs (*Kaloula pulchra, K. mediolineata, Calluella guttulata, Glyphoglossus molossus*) in Sakaerat Environmental Research Station, Nakhon Ratchasima Province. Master of Scienc (Forestry) Major Field: Forest Biology, Department of Forest Biology. Thesis Advisor: Assistant Professor Ronglarp Sukmasuang, Ph.D. 83 pages.

The four burrowing frogs of this study, painted burrowing frog (*Kaloula pulchra*), median-striped burrowing frog (*K. mediolineata*), striped burrowing frog (*Calluella guttulata*) and truncate-snouted burrowing frog (*Glyphoglossus molossus*) are favorite Thai bush meat in early rainy season, especially local people who live in the northeast part of Thailand. This study was conducted around the area of Sakaerat Environmental Research Station, Nakhon Ratchasima Province, along trails in the dry evergreen forest, the dry dipterocarp forest and disturbance area. The result from digging method in 2007 found that burrowing frogs were mostly found in March and also found in pool in April. Whereas, during early raining season in 2009 burrowing frogs were mostly found in March. The study from 12 pit-fall traps found only median-striped burrowing frogs in the disturbance area. This method also found striped burrowing frog in the dry evergreen forest. In the case of abundance, median-striped burrowing frog was common species and the other 2 species, painted burrowing frogs and truncate-snouted burrowing frogs were rare species studied by this method. The result gained from working on the transect line after heavy rain, median-striped burrowing frogs were found with very high abundance in the dry dipterocarp forest but not found in the dry evergreen forest. The 3 other borrowing frog species were also found in the dry evergreen and the dry dipterocarp forests but with common abundance. Analyzed by combined data showed the highest diversity and evenness indices in the dry dipterocarp forest. The result also found that all of four species were found in the dry diptrocarp forest. Median-striped burrowing frogs were not found in the dry evergreen forest but great numbers of painted burrowing frog were found in this area. In the case of present, only median-striped burrowing frog had negatively correlate with rainfall, maximum temperature and humidity averagely and only painted burrowing frog had positively correlate with average minimum temperature.

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