

Density of *Eospalax baileyi* Pallas and Effects of Compound Poison Bait with D-type Kreotoxin Poisoning *Eospalax baileyi* Pallas

Kong Yang^{1*}, Wei Liu² and Xiling Deng³

^{*1} Institute of Qinghai-Tibetan Plateau, Southwest Minzu University

² College of Life Science and Technology, Southwest Minzu University

³ Institute of Qinghai-Tibetan Plateau, Southwest Minzu University

Abstract

In order to examine the density of population of *Eospalax baileyi* Pallas and improve the effects of D-type kreotoxin on *E. baileyi* Pallas, the population density of *E. baileyi* Pallas was investigated from 2013 to 2014, and different kinds of compound poison baits effects on *E. baileyi* Pallas were tested in 2014. The block-open method was used to survey the population density with three repeat grids. Rapeseed oil and peanut oil was used as attractant to make compound poison, and then determine the compound poison bait effects on *E. baileyi* Pallas. The density was 39.7 individuals/hm² in 2013 and 42.14 individuals/hm² in 2014, respectively. The results showed that the average feeding rate of rapeseed oil was 72.2%, which was significantly higher than that of peanut oil with 60% ($P < 0.01$). The average killing rate of poison bait without attractant was 77.6%, which was significantly lower than the rate of poison bait with attractant (89.7%, $P < 0.01$). The average density of *E. baileyi* Pallas in Hongyuan county was 40.92 individuals/hm² which indicated that the pest was highly harmful to the grassland. The effect of D-type kreotoxin poisoning *E. baileyi* Pallas could be significantly improved with the attractant.

Keywords: Hongyuan county, *Myospalax baileyi* Pallas, D-type kreotoxin, Attractant

***Corresponding Author:** lx-yk@163.com