

Some observations on Mormon Crickets (*Anabrus simplex*)

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Samenvatting: Enkele waarnemingen aan "Mormon Crickets"

Langs de toegangsweg naar Dinosaur N.M. in de V.S. kwamen op 19 juli 1997 massaal "Mormon Crickets" (*Anabrus simplex*) voor. De dieren zaten ook op de weg, waar ze doodgereden soortgenoten opaten. Als ze verstoord werden sprongen ze met een serie sprongen weg terwijl ze alarm-tsjirpen uitzonden, waardoor ook dieren in de omgeving begonnen te springen. Deze sabelsprinkhanen bleken gepredeerd te worden door een soort marmot ("geelbuik marmot").

Résumé: Quelques observations concernant les "Mormon Crickets"

Autour du chemin d'accès du monument national "Dinosaur" aux Etats-Unis, le "Mormon Cricket" (*Anabrus simplex*) est extrêmement abondant le 19 juillet 1997. Les animaux de cette espèce de sauterelle se trouvaient également sur la route, en train de manger les restes de leur congénères tués par le trafic. Lorsqu'ils étaient dérangés, ils se sauvaient par quelques grands sauts en stridulant quelques notes d'alarme, faisant fuir d'autres animaux se trouvant tout près. Comme prédateur de ces sauterelles figurait un espèce de marmote (à ventre jaune).



Photo 1: Mormon crickets on the road with in the middle a car track marked by cricket fat. Photo J.J. Wieringa.

On 19 July 1997, while on our way to the central part of the "Dinosaur National Monument" (U.S.A.), we came into an area of probably over 2 km² where the Mormon Cricket (*Anabrus simplex* Haldeman) occurred in very large numbers. This species is well known for such population explosions (Rentz & Birchim, 1968; Vickery & Kevan, 1983). The sight of such massive numbers of bush-crickets running over the road astonished us. Since it does not occur in any European species, we stopped to study these crickets.

We encountered the bush-crickets driving on the access road from Dinosaur to the central part of Dinosaur N.M. This road runs about on the border of Utah and Colorado. At 40°23.5'N, 109°00.0'W we suddenly saw a few large bush-crickets crossing the road. Only a few hundred metres further down the road we saw hundreds of individuals crossing. Many others had been killed by passing traffic; dark lines of cricket fat marked the track followed by most cars (photo 1). We stopped at a junction with a small track (40°24.9'N 108°59.8'W).

In the low shrub vegetation along the roadside the density of Mormon Crickets was about 10 per m². Several females were depositing eggs in the soil (photo 2). Many animals sat on the road eating from the carcasses of crickets that were



Photo 2: Mormon Cricket (*Anabrus simplex*) ♀ depositing eggs. Photo J.J. Wieringa.

killed by passing cars (photo 1 & 3). When a car turned up some were ran over by it. Others were missed and started jumping away while producing loud chirps. These chirps warned other crickets on the road ahead which induced them to start jumping away. The same thing happens when you walk towards the crickets or try to catch one: they start jumping and

chirping, rendering all crickets in the neighbourhood to start jumping as well.

After a while we discovered that a cattle grid (situated where the small track went through the fence along the main road) housed a family of Yellow-bellied Marmots (*Marmota flaviventris*). They had been scared by our



Photo 3: Mormon Crickets eating from carcasses of Mormon Crickets killed by cars. Photo J.J. Wieringa.



Photo 4: Yellow-bellied Marmot with a Mormon Cricket between its teeth. Photo M.I.D. Janzen.

presence, but when we sat still they came out. To our surprise we discovered that these marmots started hunting for the crickets. They proved to be very skilful in catching them. The marmots apparently evaded to be bitten by the crickets by grabbing them with their teeth, carefully placing the bite behind the cricket's head (photo 4). During our observations, several tens of crickets were caught this way by the marmots. Mormon Crickets have several natural enemies: Vickery & Kevan (1983: 456) mention bears, wolves, hogs, birds of prey and humans (in historic times Indians ate these crickets as a staple food, in modern times cars and pesticides have taken over). Marmots, however, have so far never been reported as a predator. They were probably also never suspected as such, because

they were considered to be primarily vegetarians (Barash, 1989: 38).

References

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