

Date: October 11, 1995

To: American Burying Beetle Working Group

From: Area Biologist - South Dakota

Subject: Status Report for South Dakota Refuges: American Burying Beetle Searches, 1995

Efforts were made at various locations throughout the State attempting to locate American Burying Beetles. Two techniques for locating burying beetles were used. These techniques consisted of either checking carcasses for beetles as they were encountered (kick and count), or establishing a standardized trapline using a series of baited pitfall traps. Surveys began during June and ended during September. In all, thirty two (32) collections were made totaling 56 specimens from 3 separate genus's. No American Burying Beetles were found during the course of the surveys.

Refuge staff participated in the surveys to varying degrees during the year. Staff at Lake Andes, Huron, Lacreek, and Waubay Refuges turned over animal carcasses during the summer with limited success in finding any burying beetle species. One of the weaknesses of the kick and count technique was the rapidity with which carcasses would disappear from the environment. Occasionally, AB Pelizza would place animal carcasses inside an enclosure to ensure that scavengers could not access the carcass, while still allowing free access by burying beetles. Very few specimens were located using the kick and count method of collecting burying beetles.

Staff at both Lacreek and Lake Andes participated in a more rigorous survey technique. During mid-August, a standardized trapline methodology, was implemented. This effort was based, in part by the collection of American Burying Beetles within close proximity to both Lacreek and the Carl Mundt refuges. This technique proved to be more productive, both in terms of the number of beetles captured and the amount of territory surveyed.

The trapline (30 pitfalls) run during mid-August at Lacreek proved to be extremely successful, with over 200 burying beetles being handled each day. Temperatures were well into the 90's and the beetles were extremely active. The trapline at Carl Mundt during September was less than productive. Few beetles were captured, with those appearing in the pitfalls only after approximately one week of being exposed. Trapping success was most likely affected by unseasonably cold weather.

To date, an estimated 100 staff hours were dedicated to the trapping, collecting and cataloguing burying beetle specimens by refuge staff. Specimens still require description to species and preparation for permanent collection.

Plans for 1996 involve a resurvey of the Carl Mundt refuge during July or August and a more systematic survey of refuges and wetland districts in the northern and eastern portions of the state. This will again be accomplished by refuge staff, as well as the addition to volunteers (Student Conservation Association).