Henslow's Sparrow Studies at Great River Bluffs State Park During the 2005-2006 Field Seasons through 30 June 2006

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INTRODUCTION

This report covers field activities conducted at Great River Bluffs State Park during the 2005-2006 field seasons through 30 June 2006. Although the contract covered only 1 July 2005 through 30 June 2006, the entire 2005 field season results for censusing and banding are reported for completeness. Visits to the park began on 20 April 2005 with formal censusing for Henslow's sparrows beginning on 2 May 2005 and continuing until 22 August 2005. In 2006, visits to the park began on 24 March 2006 with formal censusing beginning on 10 May 2006, ending on 30 June 2006.

All techniques used followed those used in previous years. The following gives a brief summary of what was done and the results.

METHODS

Briefly, censusing was done by walking slowly through the field, stopping every 100m, listening for calls for at least 30 sec, then playing a tape of Henslow's sparrow calls previously recorded at the park. Following playing of the tape, I listened for at least 1 min (often longer) for responses.

Banding was done by mist-netting. Birds in active territories were observed closely to determine flight patterns between perches. Then the net was erected in the flight path used most often. If patient waiting failed to produce flight, a

taped call was used to elicit flight. If both of these procedures failed, then the Fore-Flusher was used to push birds into flight. This is a 12-foot wide aluminum pole with a 12-foot long handle. The device is pushed over the vegetation, creating a sound that forces birds into the air. Care was taken when erecting the net to ensure that the net was pocketed, helping to ensure capture of birds entering the net. Despite this, problems were encountered with capturing birds.

RESULTS AND DISCUSSION

2005

Censusing revealed the presence of 28 singing males, the highest number ever documented at Great River Bluffs State Park (Figure 1). Eighteen of these were found in the Headquarters field, 9 were found in the Contact Station field, and 1 was in field "C". The latter field has rarely held Henslow's sparrows in the past. Among these territories, all except one (CS-09) were persistent with birds being detected on at least two occasions over a 1-week period (Table 1). CS-09 was detected on only one occasion. While the numbers of birds and their persistence was remarkably high in 2005, it was accompanied by the highest number of reports of Henslow's sparrows at other locations in Minnesota that the author can remember. The reasons for this high occurrence are not entirely clear, but could be due to increasing success of management efforts or possibly due to an influx of birds from other areas further south and west where significant drought conditions could have driven birds out of the area into more suitable habitat.

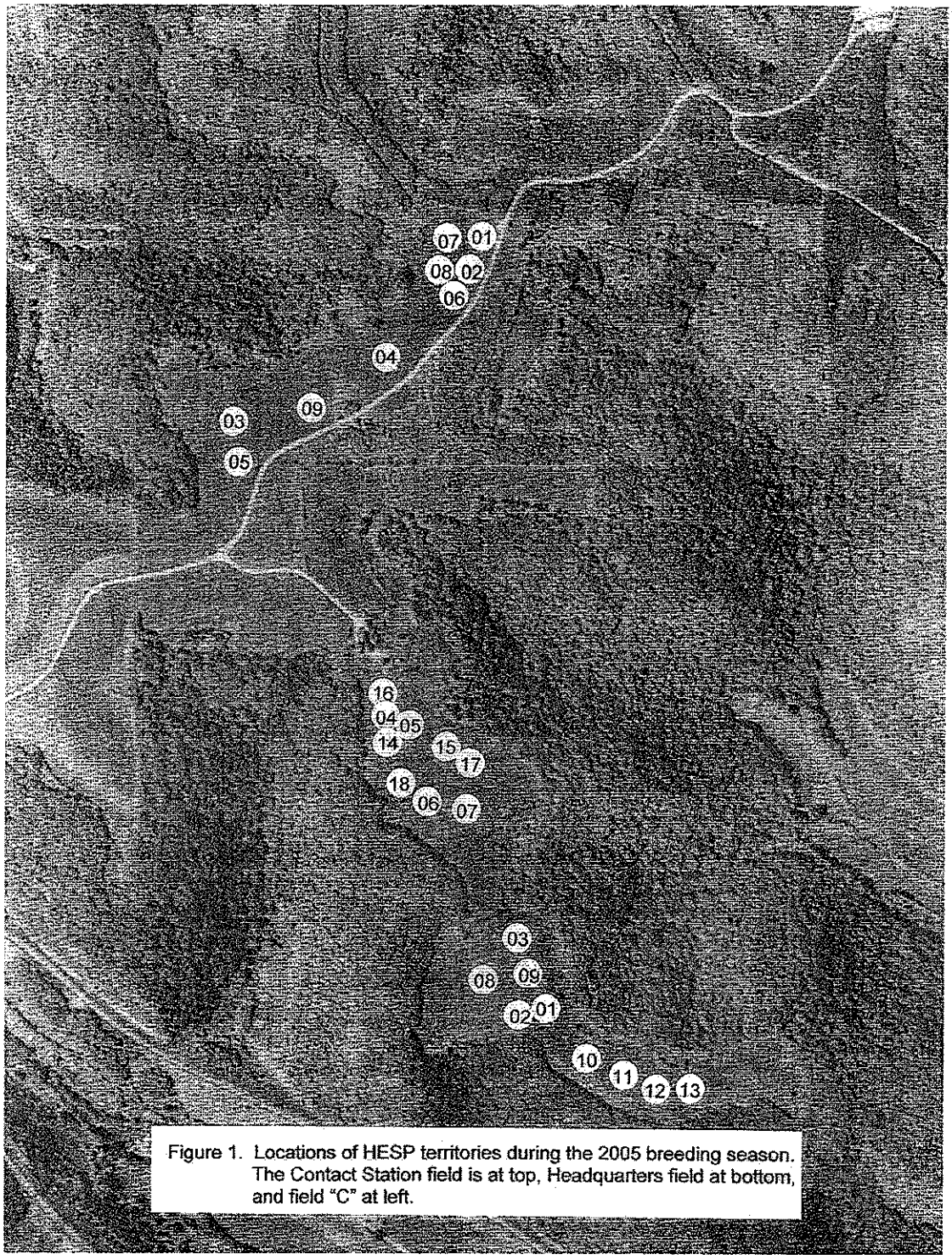

Figure 1. Locations of HESP territories during the 2005 breeding season. The Contact Station field is at top, Headquarters field at bottom, and field "C" at left.

Table1. Dates of first and last observations of territorial males, 2 May 2005 through 22 August 2005.

Bird number*	Date first observed	Date last observed	N times observed
CS-01	11 May	27 July	27
CS-02	15 May	26 June	22
CS-03	17 May	27 July	8
CS-04	18 May	30 June	9
CS-05	19 May	27 July	10
CS-06	23 May	22 Aug	18
CS-07	23 May	4 Aug	20
CS-08	16 June	20 July	6
CS-09	15 July	15 July	1
HQ-01	2 May	27 July	12
HQ-02	13 May	27 July	12
HQ-03	13 May	14 July	13
HQ-04	13 May	22 Aug	23
HQ-05	16 May	22 Aug	22
HQ-06	16 May	27 July	18
HQ-07	16 May	22 Aug	16
HQ-08	16 May	27 July	13
HQ-09	16 May	29 June	11
HQ-10	16 May	4 Aug	9
HQ-11	16 May	24 June	7
HQ-12	16 May	27 July	6
HQ-13	16 May	27 July	4
HQ-14	19 May	10 Aug	4
HQ-15	19 May	19 July	3
HQ-16	27 May	15 Sep	12
HQ-17	27 May	5 Aug	11
HQ-18	27 June	5 Aug	8
C-01	14 July	28 July	2

* CS=Contact Station field, HQ=Headquarters field, C=field "C"

Mist-netting was conducted on 19 days, but only resulted in 3 birds banded in 2005 (Table 2). It was very frustrating because the techniques used were very productive, with birds frequently flying toward the net, only to result in failure of capture because of birds flying over or around the net, bouncing off the net, or even escaping the net after having been caught. My field notes contain this sentence: "This bird is the Devil's spawn!". This came after it eluded capture after having flown to the net several times. Future efforts at capture can be made more productive by ensuring that the net is deeply pocketed, avoiding netting on days with windy conditions (minimizing visibility of the net), and by approaching the net after capture opposite the side the bird flew into the net. The best part of the banding effort came on September 15, when the net was placed for the benefit of an Ornithology class in a territory where the bird had ceased singing but had been seen still using the territory. Class members got the unique opportunity to not only experience the banding process firsthand and the elation of a successful capture, but to see a Henslow's sparrow in hand. It may be the only Ornithology class that has ever done so. Despite the difficulty, banding still presents the only currently available technology to follow Henslow's sparrows to wintering locations and to future breeding locations.

2006

As of 30 June 2006, 15 Henslow's sparrow territories were located in the fields. Ten of these were in the Headquarters field and 5 were in the Contact Station field (Figure 2). None of the 5 territories in the Contact Station field were located

Table 2. Banding results.

Date	Bird # captured	Band number	Weight (g)
2 June 2005	CS-02	1360-36511	13
10 Aug 2005	HQ-14	1360-36512	14
15 Sep 2005	HQ-16	1360-36513	12
9 June 2006	CS-02	1360-36514	14

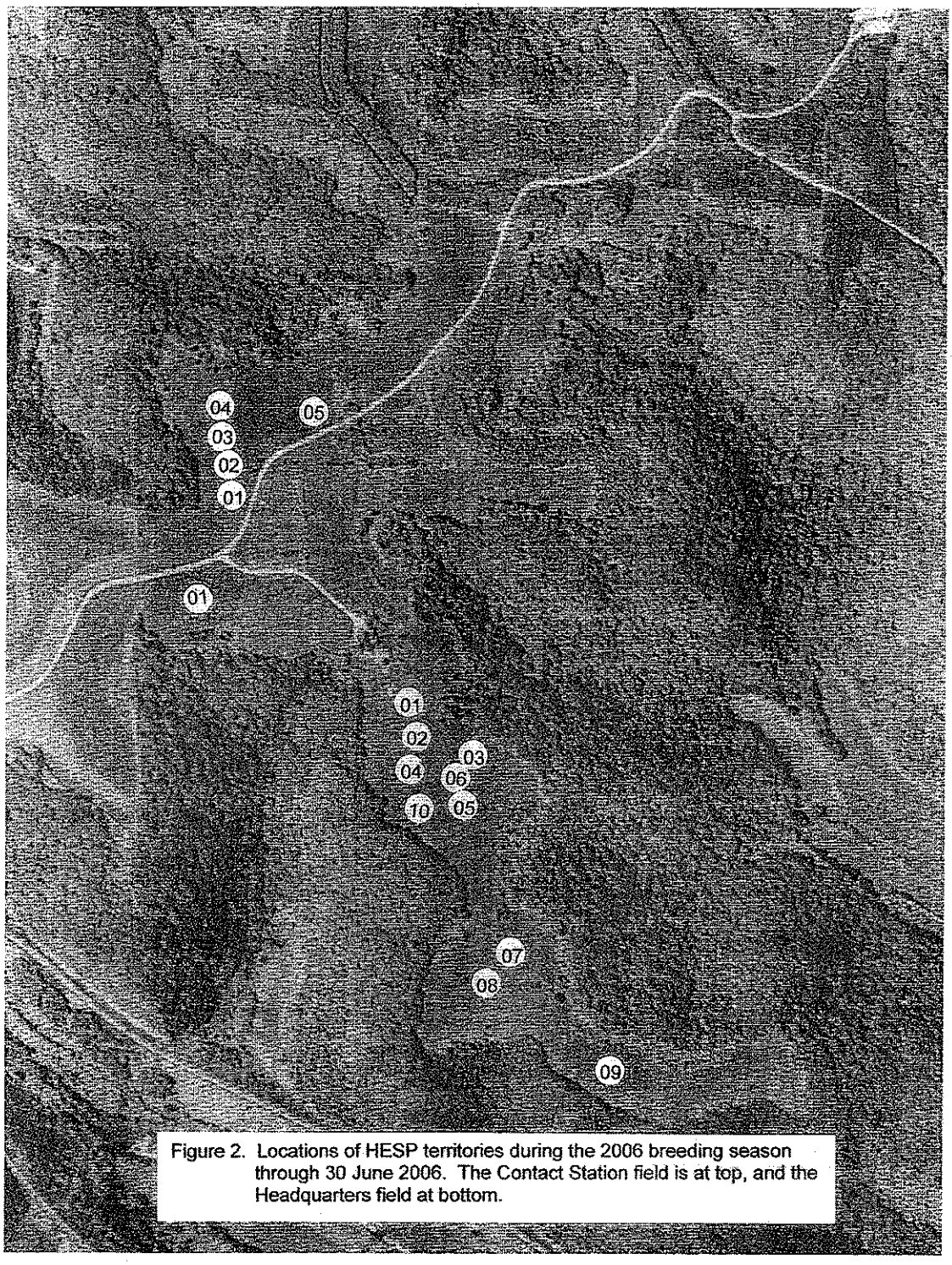

Figure 2. Locations of HESP territories during the 2006 breeding season through 30 June 2006. The Contact Station field is at top, and the Headquarters field at bottom.

near the King's Bluff parking lot. This has been the most persistent location for Henslow's sparrow territories in the past. However, this area was burned in August 2005 in order to rejuvenate the vegetation. Henslow's sparrows rarely use a field that has been burned in the previous year. But usage commonly returns in the following year and it was an encouraging sign when the brome grass not only began growing vigorously this year, but also began producing seed in mid-June. This is the first time the author has seen substantial seeding in this part of the field. Among these 15 territories, 13 were persistent with birds observed at least twice over more than one week (Table 3). Interestingly, both of the territories that were not persistent had birds that called very vigorously.

Mist-netting was conducted on 5 days in 2006. One bird was captured (Table 2). After banding, this bird was taken to the Headquarters building for photographs and unfortunately escaped into the Headquarters field (it was captured in the Contact Station field). Even though displaced from its territory, it was later observed in the same territory. This points to experience with mist-netting and banding operations: the birds do not seem to be affected by it. In most cases, birds that have been captured and banded are seen back in the territory singing by the next day. Problems with mist-netting continued in 2006. Another bird was trapped in the net and managed to escape.

Table3. Dates of first and last observations of territorial males, 10 May 2006 through 30 June 2006.

Bird number*	Date first observed	Date last observed	N times observed
CS-01	16 May	8 June	6
CS-02	16 May	27 June	8
CS-03	26 May	8 June	2
CS-04	26 May	26 May	1
CS-05	31 May	1 June	2
HQ-01	10 May	8 June	3
HQ-02	10 May	30 June	8
HQ-03	10 May	30 June	5
HQ-04	10 May	29 June	10
HQ-05	10 May	30 June	9
HQ-06	16 May	30 June	5
HQ-07	16 May	30 June	5
HQ-08	7 June	30 June	3
HQ-09	19 June	19 June	1
HQ-10	30 June	30 June	1

* CS=Contact Station field, HQ=Headquarters field, C=field "C"

RECOMMENDATIONS

1. Continue monitoring of Henslow's sparrow territories. Management decisions need to be made on the basis of solid scientific data.

2. Remove crown vetch from the fields. Crown vetch has exploded in the fields in 2006. Henslow's sparrows seem to completely avoid it, probably because it creates such a tight vegetation mat that movement within it is impossible. This is very important to Henslow's sparrows as they spend much time on the ground moving through the vegetation. It has been present in parts of the fields in the past, but now is rapidly spreading to new areas. It is particularly bad in the part of the Headquarters field nearest the headquarters buildings—an area that receives extensive use by Henslow's. It is also very widespread in field "C", that is, the field just to the west of the road leading to the headquarters.

3. Burn the portion of the Headquarters field most distant from the headquarters building. Its vegetation is very poor and seldom attracts Henslow's sparrows to stay throughout the season. The late-season burn done last year in the Contact Station field resulted in vigorous growth and seeding of brome grass in 2006.

4. Fertilize areas of the fields that have not been fertilized in the past. This includes most of the Headquarters field (especially the most distant portion) and the east half of the Contact Station field.

5. Continue control of sumac. Efforts expended over the past couple of years have held it in check, but it will continue to be a problem.

6. Consider use of radiotransmitters as a means of documenting nesting. Technological advancements have produced transmitters now small enough to be used on this species. They could allow us to locate nests, if any exist.