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Brett C. Ratcliffe

University of Nebraska-Lincoln, bratcliffe1@unl.edu

Robert J. Luedtke

University of Nebraska - Lincoln

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**A Comparison of Silphids Taken From
Covered and Uncovered Carrion
(Coleoptera: Silphidae)¹**

BRETT C. RATCLIFFE² AND ROBERT J. LUEDTKE

DEPARTMENT OF ENTOMOLOGY
UNIVERSITY OF NEBRASKA
LINCOLN, NEBRASKA 68503

INTRODUCTION

As an extension of the silphid research by the senior author, an experiment was conducted to ascertain the differences, if any, in silphid species that would be attracted by placing covered and uncovered animal carcasses in the field. A review of the literature indicated that nothing has been published in this regard.

In eastern Nebraska silphids are very active in the spring, their numbers being greater at this time of year than at any other. University of Nebraska Entomology Museum records show that 14 species have been taken in Lancaster County.

Two tests were conducted at Steven's Creek, three miles east of Lincoln, Lancaster Co., Nebraska. This area was selected because silphids were frequently found there in 1968. The habitat of the vicinity consists of gently rolling farm land with small wooded areas and windbreaks throughout the area; trees are found along the streams. The weather during the study period was warm and sunny with a few night showers.

METHODS

In the first test four freshly killed piglets were placed in pairs, 30 yards apart, near a gravel road. One pair was covered with a large piece of tree bark whereas the other was left uncovered. In the second test two freshly killed adult raccoons were placed 15 yards apart. One carcass was covered with tree bark as in test one, and the other was left uncovered. The carcasses were observed daily for adult silphids during the next 20 and 11 days, respectively. Beetles were collected when present.

RESULTS AND DISCUSSION

In our experiments *Nicrophorus orbicollis* Say was found only on covered carrion even though uncovered carrion was near (Table I). *N. orbicollis* are

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²Curator, Department of Entomology, University of Nebraska, Lincoln, Nebraska 68503

³Student, Department of Entomology, University of Nebraska, Lincoln, Nebraska 68503.

Table 1. Silphids taken from piglet carcasses. Number of each species taken are shown in brackets.

Day	Covered	Uncovered
April 28	0	0
29	0	0
30	0	<i>S. inaequalis</i> (7) <i>S. lapponica</i> (1) <i>S. truncata</i> (1)
May 1	<i>N. orbicollis</i> (2)	<i>S. inaequalis</i> (2)
2	<i>N. orbicollis</i> (3) <i>N. pustulatus</i> (1)	0
3	0	0
4	<i>N. orbicollis</i> (2)	<i>S. inaequalis</i> (7) <i>S. lapponica</i> (2) <i>S. noveboracensis</i> (2) <i>S. truncata</i> (23)
5	<i>N. orbicollis</i> (1)	0
6-8	0	0
9	0	<i>S. inaequalis</i> (1) <i>S. noveboracensis</i> (1) <i>S. truncata</i> (5)
10-17	0	0

Table 2. Silphids taken from racoon carcasses. Numbers of each species taken are shown in brackets.

Day	Covered	Uncovered
May 12	0	0
13	0	<i>N. surinamensis</i> (7) <i>S. truncata</i> (2)
14	0	0
15	0	0
16	<i>N. surinamensis</i> (13)	<i>S. noveboracensis</i> (1) <i>S. truncata</i> (1)
17	<i>S. inaequalis</i> (1)	<i>S. noveboracensis</i> (2) <i>S. truncata</i> (2)
18-19	0	0
20	<i>S. truncata</i> (1)	0
21	0	0
22	0	0
23-24	0	<i>S. noveboracensis</i> (1) 0

Table 3. Total number of each species taken from both tests.

Species	Covered	Uncovered
<i>N. orbicollis</i>	8	0
<i>N. pustulatus</i>	1	0
<i>S. inaequalis</i>	1	17
<i>S. truncata</i>	1	34
<i>S. lapponica</i>	0	3
<i>S. noveboracensis</i>	0	7
<i>N. surinamensis</i>	13	7
7 species	<u>24</u>	<u>68</u>

commonly found on uncovered carrion under normal conditions. They were not found on either carcass in the second test because of probable seasonal termination of the first generation adults.

Except for two instances *Silpha inaequalis* Fab. and *S. truncata* Say were found only on uncovered carrion (Table 2). *S. noveboracensis* Forst. and *S. lapponica* Hbst. were found only on uncovered carrion. *Necrodes surinamensis* Fab. was found beneath both covered and uncovered carcasses in test two. *N. pustulatus* Hers. was found one time on covered carrion (Table 1).

A total of eight *N. orbicollis*, one *N. pustulatus*, one *S. inaequalis*, one *S. truncata* and 13 *N. surinamensis* were taken from covered carrion. Three *S. lapponica*, seven *S. noveboracensis*, 17 *S. inaequalis*, 34 *S. truncata* and 7 *N. surinamensis* were taken from the uncovered carcasses. These data indicate that there may be a significant difference in the attractiveness of covered and uncovered carrion.

Erratum

J. E. Lloyd. Coll. Bull. 1969, 23 (2) : p. 37, 3rd. paragraph, 2nd. line—not "a synonym", but "synonyms".