

Mosquito survey - Greenwoods Conservancy

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INTRODUCTION

A survey for anthropophilic mosquitos was conducted in two previously unstudied area of the Greenwoods Conservancy. A series of seven sampling sites (High Ridge) was established along the Ridge Trail east of Cranberry Bog. The first site was located in the woods about 100 yards north of the storage shelter and the last at the point where the trail turns sharply downhill toward the upper dam. A second series (Low Ridge-Mill Brook) had the first three sites in the lower (south) segment of the Ridge Trail and the remaining four on the yellow trail along Mill Brook and terminating near the beaver pond below Snipe Hill.

MATERIALS AND METHODS

Collections were made by inverting small killing vials over mosquitos alighting on an exposed forearm or on adjacent clothed body areas during an exposed time of twenty minutes per site. Sampling series were conducted, generally in sets of two, in early morning and late afternoon-evening hours. Some were done on the morning and evening of the same day and others on an evening and the following morning. In several instances when the latter pattern was followed, one or two CDC Miniature Light Traps were also employed, but use was limited due to malfunction. Dates and times of sampling and numbers of mosquitos collected per site are listed in Table 1. Mosquitos species with dates and sites of collection are listed in Table 2.

RESULTS AND CONCLUSION

Results indicate that large mosquito populations are not characteristic of the area and that all but one of the species collected exhibit the "Northern *Aedes*" type life cycle which is univoltine with the egg overwintering. The lone species collected which develops in permanent water (*Coquillettia perturbans* (Walker)) overwinters as submerged larvae attached to aquatic plants.

These findings are consistent with those of previous surveys on other segments of the Greenwoods Conservancy (Butts 1994, 1995, 1996). The absence of tree-hole breeding species is of interest, since the High Ridge series is in a wooded area; however, the age and species distribution of the stand is such that the number of available breeding sites may be somewhat limited.

Table 1. Dates and times of sampling series with Mosquitoes / site. The sequence of sites visited is listed parenthetically with each series. Number of mosquitoes per site is listed parenthetically.

Series designations: HR = High Ridge LR = Low Ridge-Mill Brook.

<u>Series (sequence)</u>	<u>Time</u>	<u>Date</u>	<u>Site (mosquitoes)</u>
LR (1-7)	5:20-8:05 PM	JUN 4	NONE
HR (1-7)	* 7:20-10:00 AM	JUN 5	3(1)
HR (1-7)	5:20-8:00 PM	JUN 11	5(1)
LR (1-7)	6:10-9:05 AM	JUN 12	1(1); 5(1)
LR (4-1; 3-1)	6:40-9:35 AM	JUN 18	1(1); 3(2); 4(1)
HR (1-7)	4:55-7:35 PM	JUL 2	5(1)
LR (1-5 RAIN)	5:30- PM	JUL 8	2(3)
HR (1-3 RAIN)	5:50- AM	JUL 9	2(1)
LR (4-7; 3-1)	6:31-9:23 AM	JUL 16	NONE
HR (7-1)	4:30-8:00 PM	JUL 16	5(2); 3(2); 2(1); 1(1)
LR (1-7)	4:10-7:30 PM	JUL 24	4(1); 5(1)
HR (1-7)	6:00-8:37 AM	JUL 25	NONE
LR (1-7)	*7:25-10:06 AM	JUL 30	NONE
HR (7-1)	5:05-7:52 PM	JUL 30	1(2)
HR (1-7)	*7:50-10:34 AM	AUG 6	NONE
LR (1-7)	5:05-7:48 PM	AUG 6	1(2)
HR (4-7; 3-1)	4:50-7:45 PM	AUG 13	NONE
LR (4-7; 1-3)	6:20-9:15 AM	AUG 14	NONE
LR (7-1)	5:20-8:10 PM	AUG 19	NONE
HR (1-7)	6:45-9:20 AM	AUG 20	NONE
HR (1-7)	5:12-8:05 PM	AUG 25	1(1)
LR (1-7)	*7-12-10:30 AM	AUG 26	NONE

* Delayed starting time due to temperatures below 50 degrees F.

Table 2. Mosquitoes collected with date and site of collection. Number of specimens collected noted parenthetically. LT = Light Trap collection.

Low Ridge-Mill Brook

<u>Species</u>	<u>Date</u>	<u>Site</u>
<i>Aedes canadensis</i> (Theobald)	JUN 12; JUL 8	5(1); 2(2)
<i>Aedes punctor</i> (Kirby)	JUN 12; JUN 18	1(1); 3(1), 4(1)
<i>Aedes provocans</i> (Walker)	JUN 18	1(1)
<i>Coquillettidia perturbans</i> (Walker)	JUL 8; JUL 9 JUL 24; JUL 25 AUG 6	2(1); 2(1) LT 4(1), 5(1); 7(1) LT 1(1), 4(1)

High Ridge

<u>Species</u>	<u>Date</u>	<u>Site</u>
<i>Aedes canadensis</i> (Theobald)	JUL 16	3(2)
<i>Aedes punctor</i> (Kirby)	JUN 5; JUN 11 JUL 2; JUL 16	4(1); 5(1) 5(1); 1(1)
<i>Coquillettidia perturbans</i> (Walker)	JUL 9; JUL 16 JUL 30; AUG 25	2(1); 2(1), 5(2) 1(2); 1(1)

REFERENCES

- Butts, W.L. 1993. Anthropophilic Mosquitos-Diptera; Culicidae-preliminary survey-Greenwoods and Weaver Lake. *In* 26th Ann. Rept., SUNY Oneonta Bio. Fld. Sta., SUNY Oneonta, N.Y. pp. 18-21.
- Butts, W.L. 1994. Mosquito Studies-Greenwoods; Survey of area adjacent to Cranberry Bog. *In* 27th Ann. Rept., SUNY Oneonta Bio. Fld. Sta., SUNY Oneonta, N.Y. pp. 34-36.
- Butts, W.L. 1995. Mosquito Studies Greenwoods. *In* 28th Ann. Rept., SUNY Oneonta Bio. Fld. Sta., SUNY Oneonta, N.Y. pp. 64-67.
- Butts, W.L. 1996. Mosquito Studies-Survey of upland sites-Greenwoods. *In* 29th Ann. Rept., SUNY Oneonta Bio. Fld. Sta., SUNY Oneonta, N.Y. pp. 72-75.