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## A Brief History of Northeast Regional Project NE-118 in the USA

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The Northeast Regional Project entitled Black Fly Damage Thresholds, Biology and Control — or NE-118 as it was both officially and informally christened — was North America's all-time, premiere vehicle for facilitating research, collaboration, and information exchange on the Simuliidae. The project grew out of the First Inter-Regional Conference on North American Black Flies, which was organized and hosted by John F. Burger at Dixville Notch, New Hampshire, from 31 January to 2 February 1977. The conference at Dixville was inspired by the informal gatherings that the Canadian workers held during the 1950s and 1960s. Following the Dixville conference, Edward Piper organized a meeting held on 14 April 1977 in Boston, Massachusetts, during which Jeffrey Granett presented a draft outline of the potential project to the dozen northeastern scientists in attendance. Working from this draft, J. F.

Burger, E. W. Cupp, J. D. Edman, R. W. Merritt, and J. Granett formulated the project's formal proposal. The project officially began on 1 October 1977 and expired on 30 September 1996.

Cooperative Regional Projects, such as NE-118, are supported by allotments of research funds under the United States Hatch Act (as amended 11 August 1955). Under this federal legislation, funds are allocated annually to each state for cooperative research in which two or more state agricultural experiment stations cooperate to solve problems that concern the agriculture of more than one state.

The objectives of NE-118, as originally written, were to 1) establish nuisance, economic and pathogenic threshold levels for black flies in relation to human health, human activity, agricultural animals, and wildlife; 2) analyze the population dynamics of pest black flies and factors contributing to their distribution and abundance; 3) initiate the development of safe, efficacious methods to manage pest black fly populations. Through three subsequent project renewals, each providing five additional years beyond the original five-year run, the objectives changed to emphasize systematics, larval and adult behavior, and the improvement of *Bacillus thuringiensis israelensis* (*Bti*) as a biological control agent for black flies.

NE-118 originally consisted of six participating states: Delaware, Maine, Massachusetts, Michigan, New Hampshire, and New York. Pennsylvania, Rhode Island, and West Virginia joined in 1978 and Maryland came aboard in 1979. Most states participated for the remainder of the project, although the institutions or agencies (and their representatives) sometimes changed, while a few states such as Rhode Island and Delaware left the project in the early 1980s. The representative(s) of each participating state were referred to collectively as the Technical Committee. NE-118 rapidly grew into an international forum, with participants informally, but routinely, joining the group from countries such as Canada and England. By the late 1980s, the project officially had expanded beyond the bounds of the northeastern United States to include Technical Committee representation from the participating states of Arizona, California, Florida (1985 only), Nebraska, and South Carolina. Quebec and Ontario became official participants during the final five-year renewal in 1991. The project was served by five administrative advisors: E. H. Piper (1977-1979), D. E. Leonard (1980-1983), W. C. Dunham (1984-1988), D. L. McLean (1989-1990),

and R. G. Helgesen (1991-1996). Robert C. Riley served as the Cooperative State Research Service - United States Department of Agriculture (CSRS-USDA)<sup>1</sup> representative for the project's entire duration.

The project required an annual meeting (Table 1) and a yearly progress report from each official participant that would be used to prepare a comprehensive annual report for the CSRS office in Washington, DC. The annual meeting lasted 2-3 days, attracted an average of about 30 attendees, and typically involved 20 or more presentations. Progress reports were given by each member of the Technical Committee (alphabetically by state), followed by presentations from other attendees, a final discussion, and a business meeting to elect officers (Chair, Vice Chair, and Secretary) for a one-year term and establish the specifics for the subsequent year's meeting. In 1988, the meeting format was modified to integrate presentations by Technical Committee members with those of other attendees under the three objectives at that time (systematics, biology, and control). Meetings were run by the elected Chair of the Technical Committee. The Secretary recorded the minutes, which later were distributed to members of the Technical Committee and to the Directors of the Agricultural Experiment Stations of the participating state universities. The format of the meetings was formal, but the milieu was informal. The meetings fostered collaborations and introduced many graduate students to the community of simuliid workers.

During its 20-year life, NE-118 was one of the most productive Regional Projects in the history of the CSRS. Nearly 20 theses were produced by graduate students who were supported, at least in part, by funds allocated to state universities through the project. More than 100 papers on simuliids were published by personnel of the official participating institutions. The project also spawned an annotated list of black flies in the northeastern United States (Cupp & Gordon 1983), the International Conference on Ecology and Population Management of Black Flies (1985), and an edited volume on black flies (Kim & Merritt 1988) that involved 48 contributors from around the world. In 1981, at the fourth annual meeting of NE-118, an ad hoc subcommittee was established to report on the progress of *Bti* and to recommend standardized laboratory and field protocols for its use against black flies; the result was an edited publication (Molloy 1982).

By the mid 1990s, due partly to the success of *Bti*, the status of black flies as major pests had diminished among the powers that be, and administrative support for a fourth renewal was not forthcoming. One might say that the success of NE-118, in part, ultimately spelled the project's demise. In 1998, NE-118 was replaced with a new five-year project entitled Black Fly Biology, Economic Problems, and Management, or SERA-IEG-29, authored by P. H. Adler and J. W. McCreadie. This project operates in an official, but less formal, configuration under the auspices of the Southern Extension and Research Activities Information Exchange Group (SERA-IEG) of the Southern Association of Agricultural Experiment Station Directors. The Group holds annual meetings, typically in Florida, that generally attract more than 30 attendees from around the world.

<sup>1</sup> Precursor of the Cooperative State Research, Education, and Extension Service - USDA.

### References

- Cupp, E. W. & A. E. Gordon (eds.). 1983. Notes on the systematics, distribution, and bionomics of black flies (Diptera: Simuliidae) in the northeastern United States. Search: Agriculture. Cornell University Agricultural Experiment Station 25: 1-75.
- Kim, K. C. & R. W. Merritt (eds.). 1988 ["1987"]. Black flies: ecology, population management, and annotated world list. Pennsylvania State University, University Park, Pennsylvania. 528 pp.
- Molloy, D. (ed.) 1982. Biological control of black flies (Diptera: Simuliidae) with *Bacillus thuringiensis* var. *israelensis* (serotype 14): a review with recommendations for laboratory and field protocol. Miscellaneous Publications of the Entomological Society of America 12(4): 1-30.

**Table 1.** Annual meetings of NE-118, including locations, chairs, dates, and numbers of attendees.

Date	Location	Chair	Attendees
5-6 January 1978	University of Massachusetts, Amherst, MA	J. Granett	14
4-5 January 1979	University of Massachusetts, Amherst, MA	J. Granett	12
6-7 February 1980	Michigan State University, East Lansing, MI	J. D. Edman	28
10-11 February 1981	Thruway House Hotel, Albany, NY	R. W. Merritt	36
27-28 April 1982	Ramada Inn, Bangor, ME	J. F. Burger	32
26-27 April 1983	Honey in the Rock Motel, Beckley, WV	J. W. Amrine	41

13-14 February 1984	Holiday Inn, Portsmouth, NH	K. C. Kim	32
28-31 May 1985*	Pennsylvania State University, State College, PA	D. P. Molloy	98
14-16 February 1986	Michigan State University, East Lansing, MI	I. N. McDaniel	29
17-18 February 1987	National Museum of Natural History, Washington, DC	J. D. Edman	27
9-11 February 1988	Balsams Hotel, Dixville Notch, NH	J. W. Amrine	37
14-15 February 1989	Loews Le Concorde Hotel, Quebec City, Quebec	J. F. Burger	31
12-13 April 1990	Sheraton Hotel, Charleston, SC	R. W. Merritt	32
14-15 April 1991	California Department of Health, Berkeley, CA	K. E. Gibbs	19
1-3 March 1992	University of Massachusetts, Amherst, MA	P. H. Adler	29
28 February - 2 March 1993	Manoir du Lac Delange, Quebec City, Quebec	K. P. Pruess	32
28 February - 1 March 1994	Archbold Biological Station, Lake Placid, FL	J. F. Burger	27
23-25 February 1995	Rancho de la Osa, Sasabe, AZ	R. W. Merritt	28
23-24 February 1996	Flamingo Lodge, Everglades National Park, FL	F. F. Hunter	29

\* The International Conference on Ecology and Population Management of Black Flies was held in lieu of the annual meeting, although the Technical Committee met briefly before the Conference.