Scientific Note

Additional Records of Native Insects Associated with Purple Loosestrife, *Lythrum salicaria* L., in Southern Manitoba

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Lythrum salicaria has been implicated by several authors (*e.g.* Thompson *et al.* 1977, Malecki and Rawinski 1979) as putatively causing widespread ecological disruption of wetlands. Diehl *et al.* (1997) conducted an extensive survey of native insects associated with purple loosestrife, *Lythrum salicaria* L. (Lythraceae), in southern Manitoba. Several species of insects not reported in the aforementioned paper have since been collected from this plant. At two sites in southern Manitoba (Winnipeg (49° 53' N, 97° 09' W) and Netley-Libau Marsh (50° 12' N, 96° 43' W)), adult insects that were observed feeding directly on *L. salicaria* were collected. Immatures that were observed feeding directly on *L. salicaria* were also collected and reared to maturity in the laboratory on *L. salicaria* foliage. At Netley-Libau Marsh, where *L. salicaria* is well established, ten *L. salicaria* rootstocks were carefully excavated, bagged, and returned to the laboratory where they were dissected and examined for evidence of external and internal insect feeding damage.

Several species of Lepidoptera were reared from *L. salicaria* foliage in 1997. All belonged to the family Tortricidae and all are previously unrecorded host associations with *L. salicaria*:

Archips purpurana (Clemens). A small number of *L. salicaria* plants had the terminal leaves tied together, each containing one larva. At Winnipeg, several larvae were collected from *L. salicaria* on 13 June, 1997. According to Freeman (1958), *A. purpurana* is recorded from such diverse host plant genera as *Sassafras*, *Rhus*, *Ribes*, *Vaccinium*, *Rubus*, *Salix*, *Prunus*, *Solidago*, *Viola*, *Geranium* and *Fragaria*.

Archips argyrospila (Walker). At Netley-Libau Marsh, a single larva was collected from *L. salicaria* in June, 1997. *Archips argyrospila* is polyphagous, especially on trees but also on forbs (Powell 1964).

Olethreutes bipartitana (Clemens). A single larva was collected from *L. salicaria* at Winnipeg on 13 June, 1997. Miller (1987) cited *Spermolepis* as a host of *O. bipartitana*.

There are few published records of Tortricidae feeding on *L. salicaria*. Blossey (1995) collected a single larva of *Acleris lorquiniana* (Duponchel) from *L. salicaria* at one site in central Germany. Larvae of the first generation feed in *L. salicaria* shoot tips, while those of the second generation feed in the inflorescence. This species was not common and neither were the species collected in southern Manitoba. Specimens have been deposited in the Mississippi Entomological Museum, Mississippi State University.

A single specimen of the pale-striped flea beetle, *Systena blanda* Melshiemer (Coleoptera: Chrysomelidae), was found feeding on *L. salicaria* at Netley-Libau Marsh in June, 1997. Feeding on *L. salicaria* continued for several weeks in the laboratory. This species feeds on a wide variety of cultivated plants, including sugarbeets, alfalfa, potatoes, tomatoes, and beans (Capinera 1978). *Lythrum salicaria* is not recorded as a host plant for this species. This specimen has been deposited in the J.B. Wallis Museum of Entomology, University of Manitoba.

High densities (>1,000/plant) of *Myzus lythri* (Schrank) (Homoptera: Aphididae) were observed on *L. salicaria* plants at Netley-Libau Marsh during August, 1998. Diehl *et al.* (1997) collected *M. lythri* in small numbers from *L. salicaria* in southern Manitoba. Halbert and Voegtlin (1994) reported that by midsummer, *L. salicaria* became heavily infested with *M. lythri*. We observed no obvious negative effect of large aphid populations on *L. salicaria* plants at Netley-Libau Marsh in 1998. None of the above species were expected to have any long-term negative effects on *L. salicaria*.

Examination of *L. salicaria* rootstocks did not yield any evidence of external or internal feeding damage. Hight (1990) also excavated mature *L. salicaria* rootstocks, dissected, and examined them for damage from native North American insects and found no evidence of natural enemies feeding on or damaging *L. salicaria* rootstocks. Batra *et al.* (1986) listed several species of insects associated with *L. salicaria* rootstocks in Europe, including *Hylobius transversovittatus* (Coleoptera: Curculionidae), which has been introduced to North America for biological control of *L. salicaria*.

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Scientific Programme for the Joint Meeting of the Entomological Society of Manitoba and the Entomological Society of Canada

Winnipeg, Manitoba

5-9 October, 2002

Insects and Humans: Confrontation and Coexistence

Saturday, October 5

09:00-17:00 ESC Governing Board Meeting

Sunday, October 6, Session 1

09:30-13:00 Registration

13:30 Opening Ceremonies and Welcome

14:00 ESC Awards, Gold Medal Address

14:30 - 15:00 Refreshments

Art Show (On display until Wednesday)

Plenary Session

15:00 Dave W SCHINDLER The biogeochemistry of persistent organic pollutants in a subalpine lake.

16:00 Mark D RAUSHER Resistance management: lessons from coevolution.

Sunday Evening

19:00 - 20:00 **Students Meet the Board**

20:00 - 22:30 ESC-ESM 2002 Mixer

Monday, October 7, Session 2

Symposium: Human impacts on forests: consequences for insect populations.

Organized by Bob Lamb and Richard Westwood

08:30 Introduction. Richard Westwood

08:40 Jesse A LOGAN, J Régnière, JA Powell. Assessing the impacts of global climate change on forest insects.

09:20 Jens ROLAND, S Lele, B van Hezewijk Forest structure alters forest tent caterpillar population dynamics.

10:00 - 10:30 Refreshments

10:30 René I ALFARO, J King. Deployment of Sitka spruce with genetic resistance to the