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1998 Western Washington Pheromone-Trap Delimiting Survey for *Clepsis spectrana* (Treitschke), the Straw-colored Tortrix Moth

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BACKGROUND

Clepsis spectrana (Treitschke, 1830)(CSP) is an exotic defoliator moth pest, first documented in North America in 1996 when it was identified by Agriculture Canada as a new economic pest of currants in British Columbia, Canada. Subsequently, a CSP specimen collected in B.C. in 1950 was also identified in the Canadian National Collection, which represents the first North American collection (Dang et.al., 1996).

CSP was first found in the United States in 1997, when it was found in three northwestern Washington counties as a non-target catch in a WSDA pheromone trap survey for *Pandemis heparana* (Denis & Schiff.).

Native to Europe and Central Asia, CSP larvae feed on a very wide range of plants, including fruit trees, berry crops, grapes, hops, ferns, and many ornamental plants and forest trees, including conifers such as spruce and cedar. It is considered a major or minor pest of many commercial crops in its native range (Hill, 1987 and Alford, 1991), and was characterized by the Canadian government (Dang et.al., 1996) as "a prime candidate to become a serious pest in North America because its larvae are highly polyphagous" (i.e. feed on a wide range of host plants).

1998 SURVEY OBJECTIVE

- Delimit the distribution of CSP in Western Washington using a CSP-specific pheromone lure.

METHODS

Pheromone lure baited traps were placed in all counties along the I-5 corridor, from near the Canadian border south to the Oregon border in western Washington. Traps were hung in roadside or residential yard fruit trees, primarily apple and cherry, and inspected approximately every two weeks from early June until late August.

Pherocon 2® type traps were used, baited with pheromone lures provided by the USDA APHIS Otis Methods Development Center. The CSP pheromone lures were changed every two weeks and consisted of gray rubber septa, with each lure containing; 0.75 mg Z,11-Tetradecenyl Acetate, and 0.25 mg Z,9-Tetradecenyl Acetate.

RESULTS

Trap numbers and moth capture statistics from this survey are presented in Table 1.

Table 1. 1998 CSP Pheromone-Trap Delimiting Survey, Trap Placement and Moth Catch Data.

County	Total Number of Sites Surveyed	Number of CSP Catch Sites	% of Traps Positive	Total CSP Caught	Average Number of CSP Caught at Positive Sites
Whatcom	49	29	59.18%	185	6.4
Skagit	52	9	17.31%	100	11.1
Snohomish	24	1	4.17%	3	3.0
King	26	0	-	-	-
Pierce	50	0	-	-	-
Thurston	26	0	-	-	-
Lewis	28	0	-	-	-
Cowlitz	26	0	-	-	-
Clark	28	0	-	-	-
Totals / Ave.	304	39	12.83%	288	7.4

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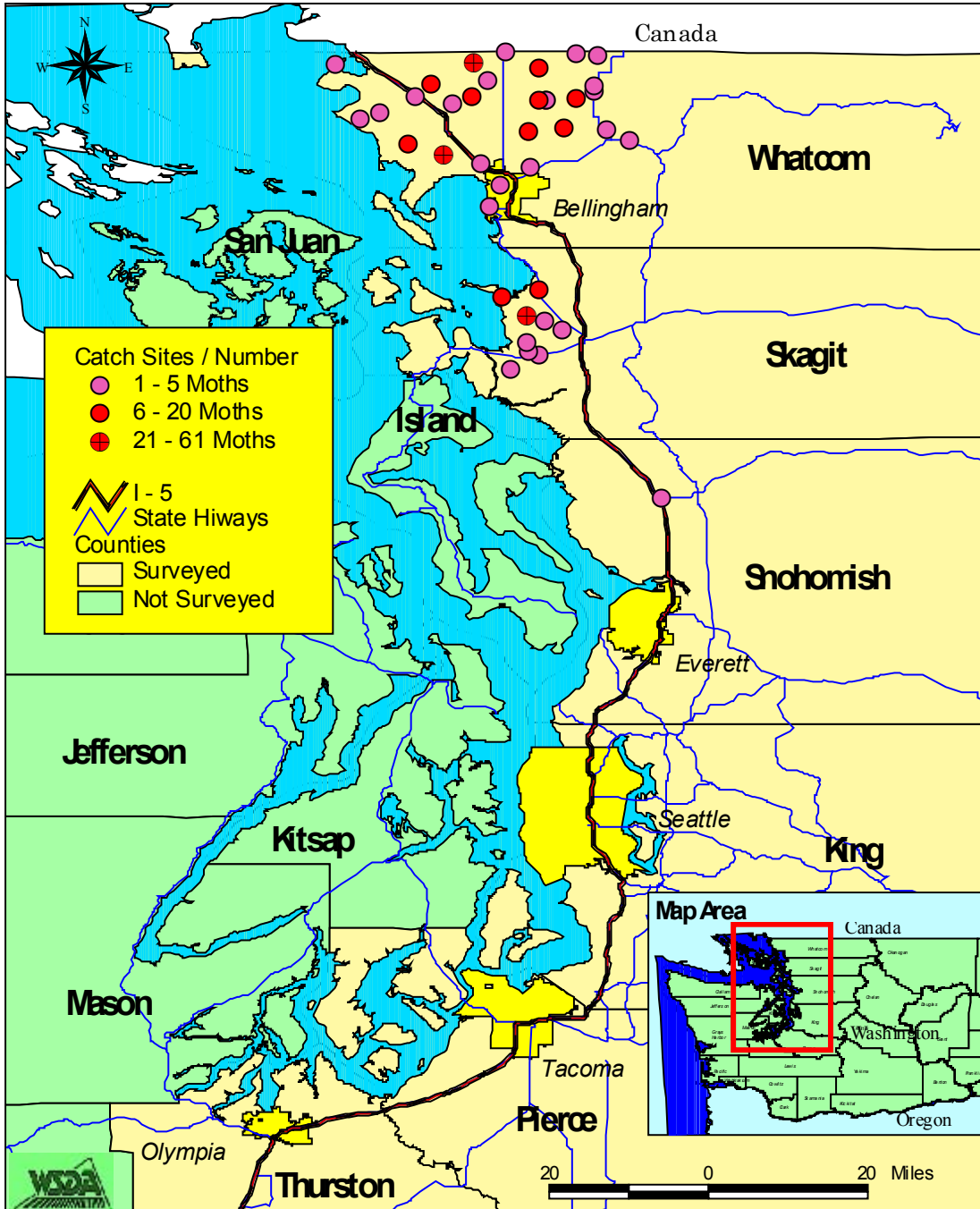
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DISCUSSION

CNT was captured in only the northernmost Western Washington counties surveyed and at a decreasing number of sites (e.g. decreasing percentage of Traps Positive) within those counties as the distance from the Canadian border increases. These results indicate CSP distribution is currently limited to the northern contiguous counties, and that the distribution is the result of natural spread from north to south.

The contiguous nature of the Western Washington CSP population, characteristic of natural spread, is best illustrated in Figure 1, a map of 1998 catch sites.

Figure 1. 1998 *Clepsis spectrana* (CSP) Pheromone-Trap Collection Sites in Western Washington.



Pertinent Literature

Alford, D.V. 1991. *A Color Atlas of Pests of Ornamental Trees, Shrubs and Flowers*. Wolfe Publishing Ltd., London.

Dang, P., Duncan, R., and Fitzpatrick, S. 1996. Occurrence of two palearctic species of *Clepsis* Guenée, *C. spectrana* Trietschke and *C. consimilana* (Hübner) (Tortricidae), in British Columbia, Canada. *Journal of the Lepidopterists' Society* 50(4):321-328.

Hill, D. 1987. *Agricultural Insect Pests of Temperate Regions and Their Control*. Cambridge University Press, New York.

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