



Note No. 13

Northern Forest Research Centre

Edmonton, Alberta

1982 FOREST TENT CATERPILLAR INFESTATION FORECAST FOR THE PRAIRIE PROVINCES

Aspen defoliators continue to be significant pests across the prairie provinces. The forest tent caterpillar, *Malacosoma disstria* Hbn., was the primary cause of extensive trembling aspen defoliation in 1981 (Fig. 1), although the large aspen tortrix, *Choristoneura conflictana* (Wlk.), was again an important contributor to the damage in northern Alberta. Trembling aspen is the preferred host of *M. disstria*, but other deciduous tree species are susceptible to defoliation as well, particularly when populations are high.

The current forest tent caterpillar outbreak in the region began in 1971. The Manitoba portion of the infestation virtually collapsed in 1979 after involving an estimated 119 000 km² at its peak in 1977. The 1981 defoliated area was less than 1000 km² in western Manitoba. In Alberta a maximum infestation level of 121 000 km² occurred in 1981. The Saskatchewan outbreak declined in 1981 to 82 000 km² from a peak of 128 000 km² in 1980.

In order to forecast infestation levels that might occur in 1982, the Canadian Forestry Service in cooperation with the Manitoba Department of Natural Resources and the cities of Saskatoon and Prince Albert conducted

M. disstria egg-band surveys across the prairie provinces in late 1981.

Forest tent caterpillar infestations in Alberta and Saskatchewan in 1982 are expected to be similar in intensity and distribution to those experienced in 1981. Caterpillar populations may be on the increase again in western and northern Manitoba.

These are maximum, general forecasts based on egg counts only and are contingent upon normal weather conditions and larval development. Natural control factors such as adverse weather, parasites, and diseases could reduce overwintering populations. Post-hatch population assessments should be made in the spring to determine whether major control programs are required.

G.N. Still

Forest Insect and Disease Survey

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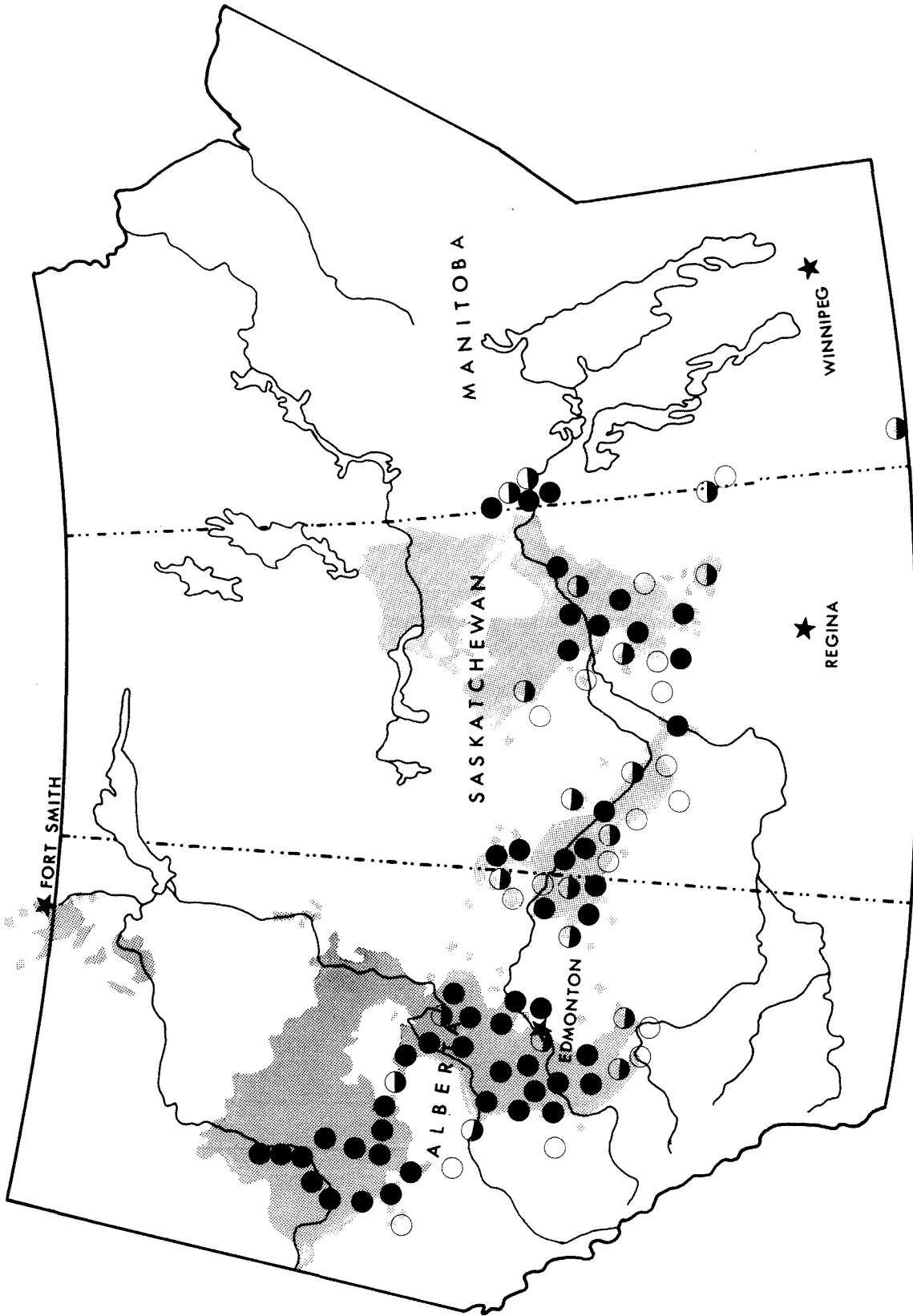


Figure 1. Forest tent caterpillar defoliation levels forecast for the prairie provinces in 1982: Shaded areas indicate moderate-to-severe defoliation of trembling aspen in 1981. ● = Severe, ◐ = Moderate, ○ = Light.

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