

## ADDITIONAL FUNGI AND A GALL DISEASE OF DWARF MISTLETOE SWELLINGS IN WESTERN HEMLOCK

A. Funk and J.A. Baranyay<sup>1</sup>

### Résumé

Les Champignons qui habitent les chancres sur les renflements causés par le Faux-gui (*Arceuthobium tsugense* (Rosendahl) G.-N. Jones) sur la Pruche de l'Ouest (*Tsuga heterophylla* (Raf.) Sarg.) furent d'abord étudiés par Baranyay (1966) dans une zone restreinte près de Vancouver, C.B. Durant les années 1969-1971, les auteurs conduisirent un relevé de l'aire totale de répartition des Faux-guis de la Pruche sur la Pruche de l'Ouest en Colombie Britannique, ce qui permit d'identifier sept autres espèces de Champignons et une Galle affectant les renflements. Le Champignon le plus important du groupe, *Nectria fockeliana* Booth var. *macrospora* (Wr.) Booth, fut déjà signalé par Funk et al. (1973).

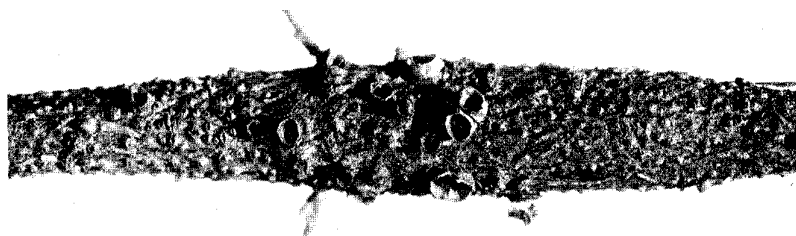


Figure 1. *Botryosphaeria tsugae* on hemlock dwarf mistletoe swelling. X2

Fungi associated with cankers of dwarf mistletoe (*Arceuthobium tsugense* (Rosendahl) G. N. Jones) swellings on western hemlock (*Tsuga heterophylla* (Raf.) Sarg.) were first studied in a restricted area around Vancouver, B.C. by Baranyay (1966). A survey of the whole range of hemlock dwarf mistletoe on western hemlock in British Columbia during the years 1969-1971 has identified seven more species of fungi and a gall disease affecting the swellings; the most important of these, *Nectria fockeliana* Booth var. *macrospora* (Wr.) Booth, has been reported elsewhere (Funk et al. 1973).

1. *Xenomeris abietis* Barr. Can. J. Botany 46:842, 1968. Rare in south coastal area.
2. *Phomopsis lokoyae* Hahn. Mycologia 25:372, 1933. Perfect state: *Diaporthe lokoyae* Funk. Can. J. Botany 46:601, 1968. Rare in south coastal area.
3. *Botryosphaeria tsugae* Funk. Can. J. Botany 42:770, 1964. Conidial state: *Macrophoma*. Common in the Cowichan Valley, south Vancouver Island.
4. *Discocainia treleasei* (Sacc.) J. Reid & Funk. Mycologia 58:432, 1966. Common in N. -Vancouver Island, rare in south coastal area.
5. *Coccomyces heterophyllae* Funk. Can. J. Botany 45:2263, 1967. Rare on Vancouver Island.
6. *Ascoconidium tsugae* Funk. Can. J. Botany 44:219, 1966. Occasional throughout range.
7. *Hemlock Gall Disease*. Forest Chron. 26:308, 1950. Rare in North Vancouver Island.

Dwarf mistletoe swellings are susceptible to invasion by a wide variety of parasites and facultative parasites, some of which may kill the branch and thus, indirectly prevent spread of the mistletoe. These fungi are of particular interest because they exert some natural control. With the 11 fungi reported by Baranyay (1966), this report brings to 18 the number of fungi and diseases found associated with hemlock dwarf mistletoe in British Columbia.

### Literature cited

1. Baranyay, J. A. 1966. Fungi from dwarf mistletoe infections in Western hemlock. Can. J. Bot. 44:597-604.
2. Funk, A., R. B. Smith, and J. A. Baranyay. 1973. Canker of dwarf mistletoe swellings on western hemlock caused by *Nectria fockeliana* var. *macrospora*. Can. J. Forest Research 3: 71-74.

<sup>1</sup> Department of the Environment, Canadian Forestry Service, Pacific Forest Research Centre, Victoria, British Columbia V8Z 1M5.