

The Relationship Between Climate and the Incidence of Red Band Needle Blight in the East Anglia Forest District, Britain

Sarah ARCHIBALD* – Anna BROWN

Forest Research Agency, Farnham, Surrey, UK

Abstract – Since the late 1990's there has been a dramatic increase in the extent and severity of red band needle blight (*Dothistroma septosporum*) in Britain, particularly in the East Anglia Forest District. In Britain the main infection period for *Dothistroma septosporum* is thought to be between May and September. Meteorological data from East Anglia suggests that since the late 1990's the climatic conditions appear to have been favourable to the disease, with mean annual maximum temperature and rainfall having increased since 1998 by 0.9°C and 0.3 mm respectively. In addition, as was found by Woods (2005) in British Columbia, the frequency of prolonged periods of precipitation and temperatures of 18 – 20°C during summer months has increased during this period

These factors are likely to have influenced the rate of colonisation of *D. septosporum*. The increase in temperature over the past eight years supports the prediction of Broadmeadow and Ray (2005) that mean annual temperature will increase by between 3 - 6°C by 2080. The increase in temperature observed in this study, if it continues as experts predict, is likely to benefit the spread and severity of RBNB.

* Corresponding author: sarah.archibald@forestry.gsi.gov.uk; Alice Holt Lodge, Farnham, Surrey, GU10 4LH, UK