



NZ Farm Forestry Association (Inc)

Siting Eucalypts



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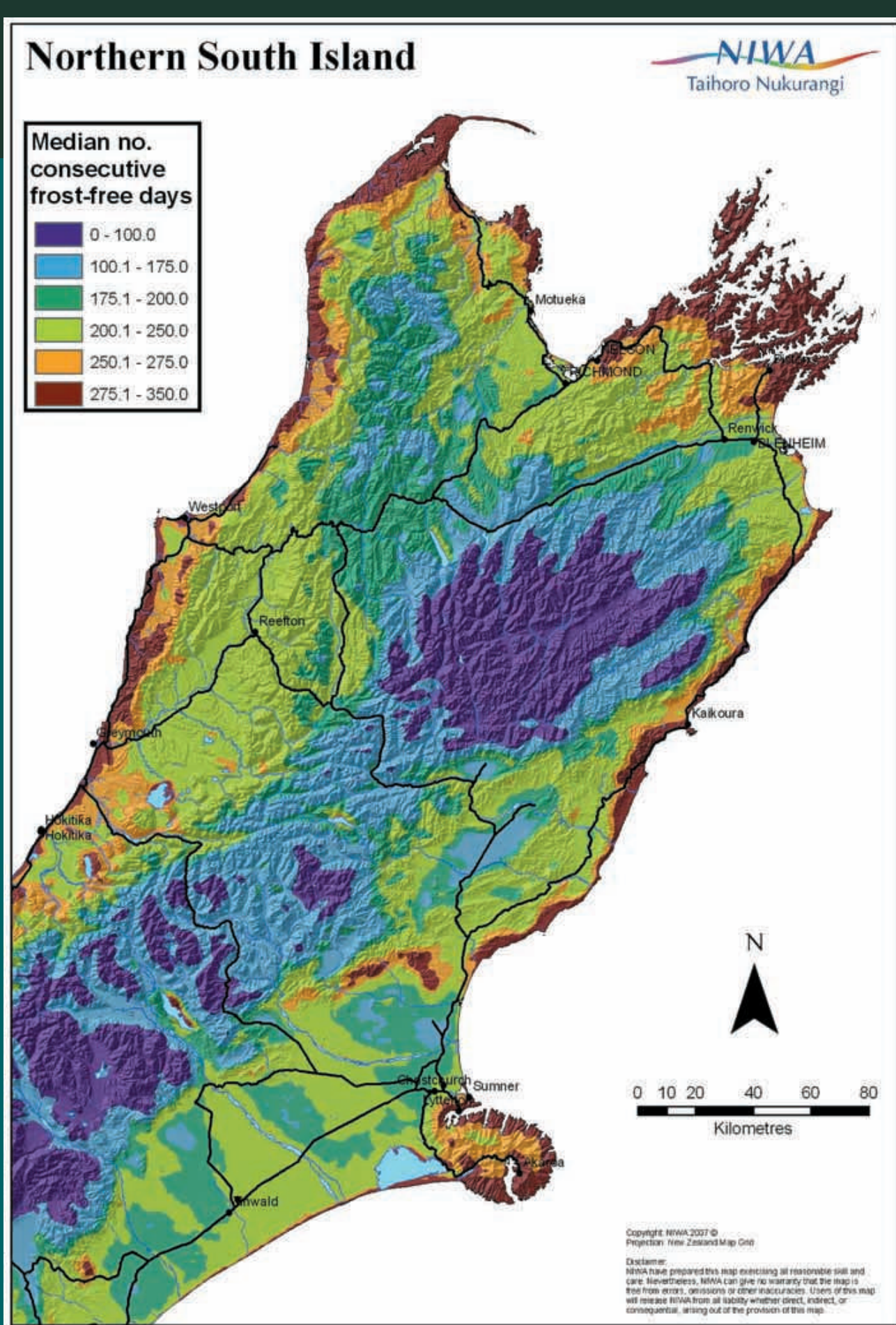
Location of Test Sites

OBJECTIVES: To test siting of selected eucalypt species across New Zealand

Through support from the Ministry of Agriculture and Forestry (MAF) Sustainable Farming Fund (SFF Project L03/007) the Eucalypt Action Group of the New Zealand Farm Forestry Association conducted a project to test siting of eucalypt species with an emphasis on durable timber eucalypts.

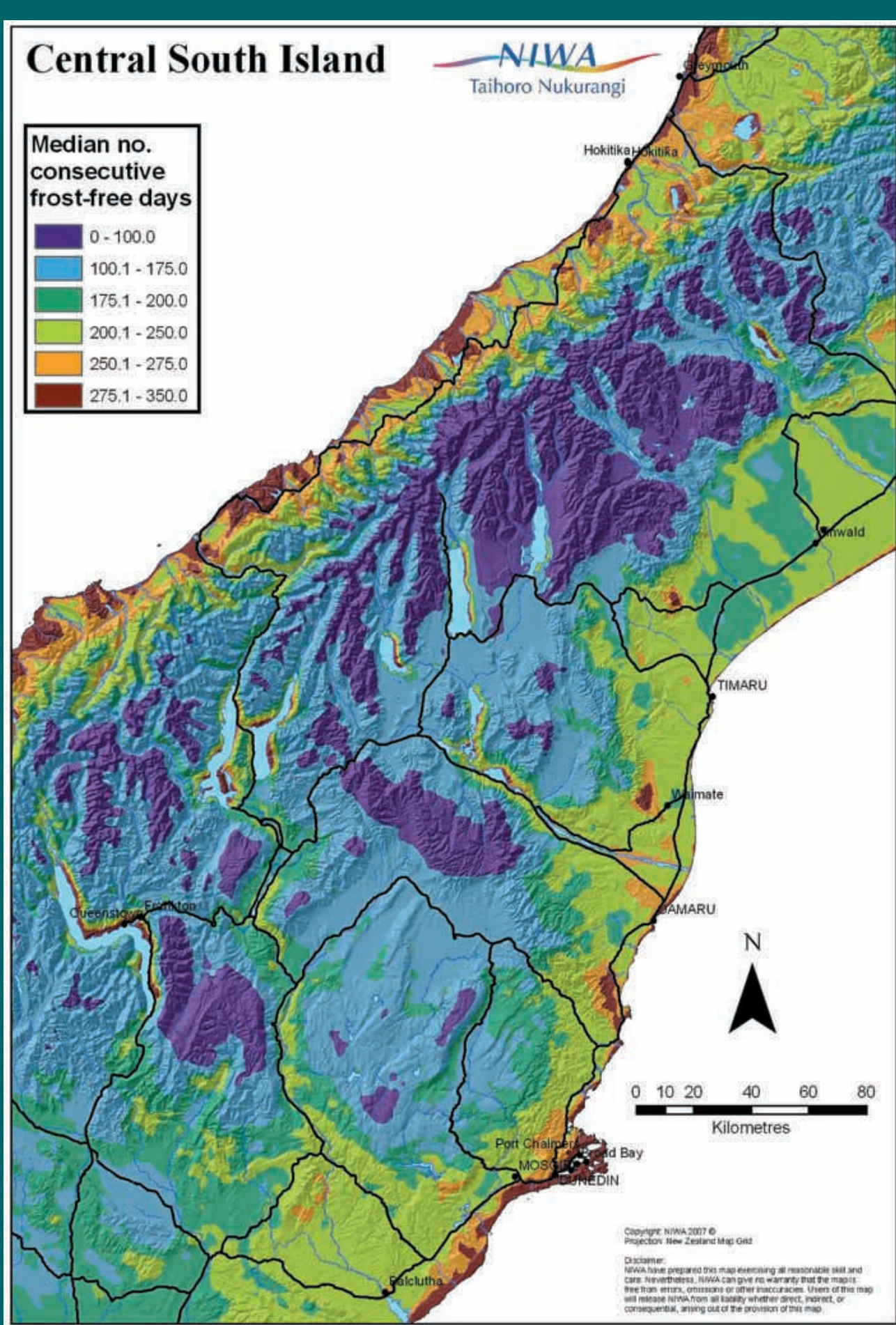
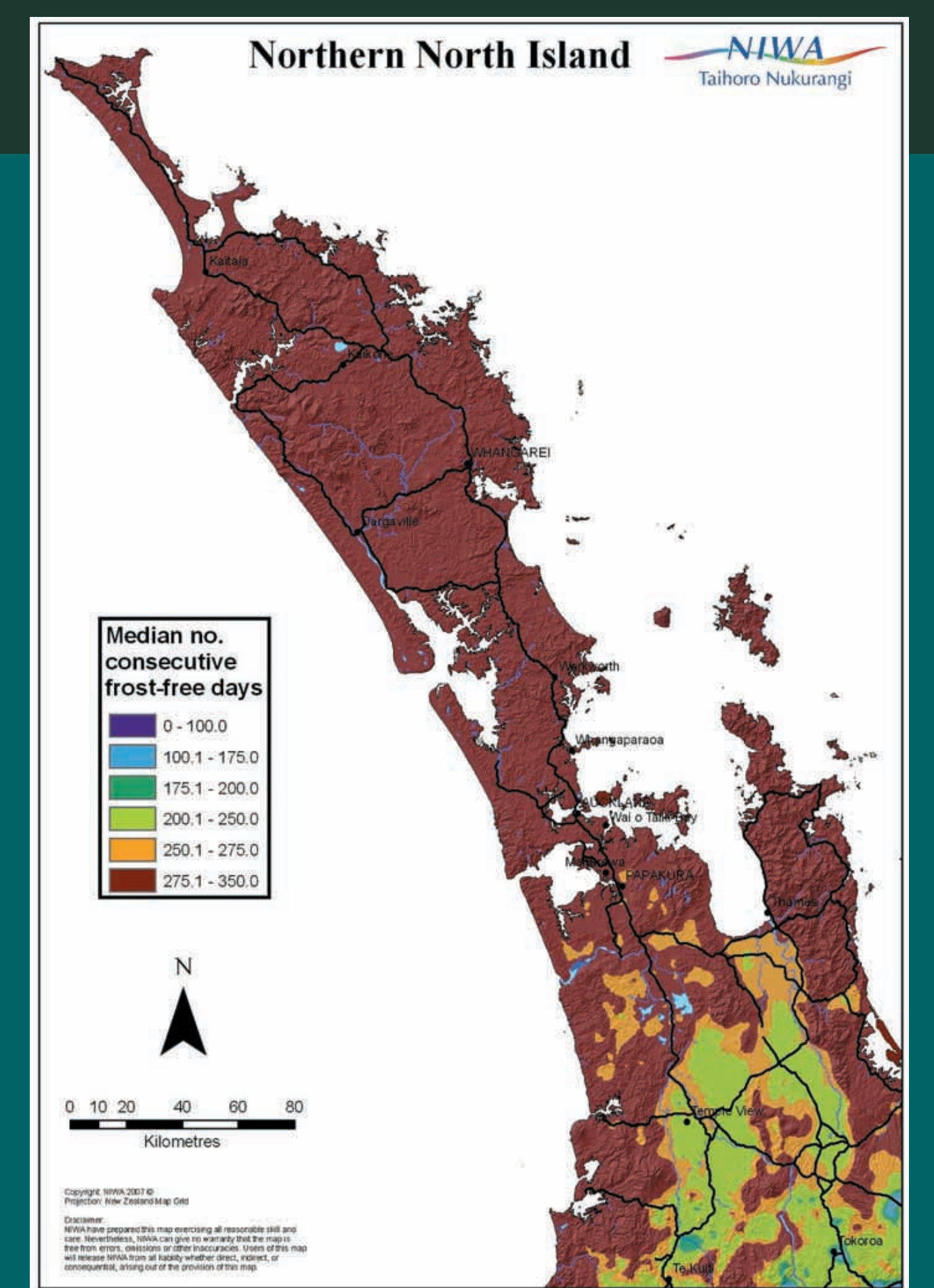
Eucalypt research packs, comprising 15 trees of 16 species, were planted by farm foresters on 55 sites throughout New Zealand in 2004 and 2005.

Two non-stringybark species, *Eucalyptus fastigata* (non durable) and *E. maidenii*, were included as controls



Species and number of sites planted in 2004 and 2005

Species	Sites	Year established
<i>E. baxteri</i>	13	2004
<i>E. blaxlandii</i>	9	2005
<i>E. cameronii</i>	4	2005
<i>E. fastigata</i>	46	2004
<i>E. globoidea</i>	41	2004
<i>E. maidenii</i>	44	2004
<i>E. laevopinea</i>	44	2004
<i>E. longifolia</i>	16	2005
<i>E. macrorhyncha</i>	41	2004
<i>E. microcorys</i>	35	2004
<i>E. muelleriana</i>	33	2004
<i>E. obliqua</i>	15	2005
<i>E. pilularis</i>	35	2004
<i>E. tereticornis</i>	4	2005
<i>E. youmanii</i>	44	2004
<i>C. maculata</i>	21	2004

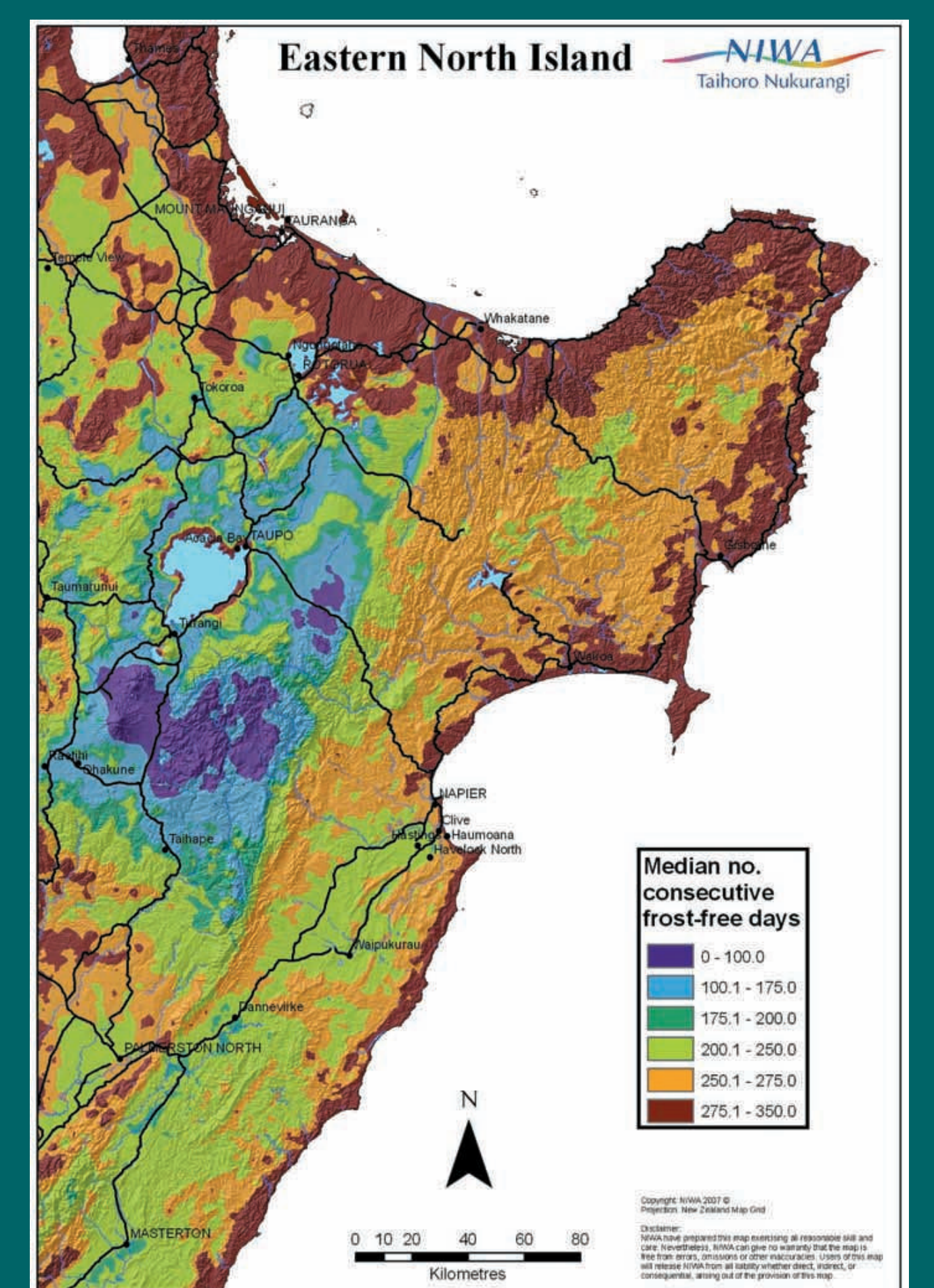


Mild Sites (275.1 - 350 frost free days)

Group 1: *C. maculata*, *E. microcorys*, *E. pilularis*, *E. tereticornis*

These species were the most tender, only performing in warm, benign climates. This confirms the view that *C. maculata* and *E. microcorys* do not cope well with frosts and prefer very mild sites, and that *E. pilularis* is only slightly more cold-tolerant.

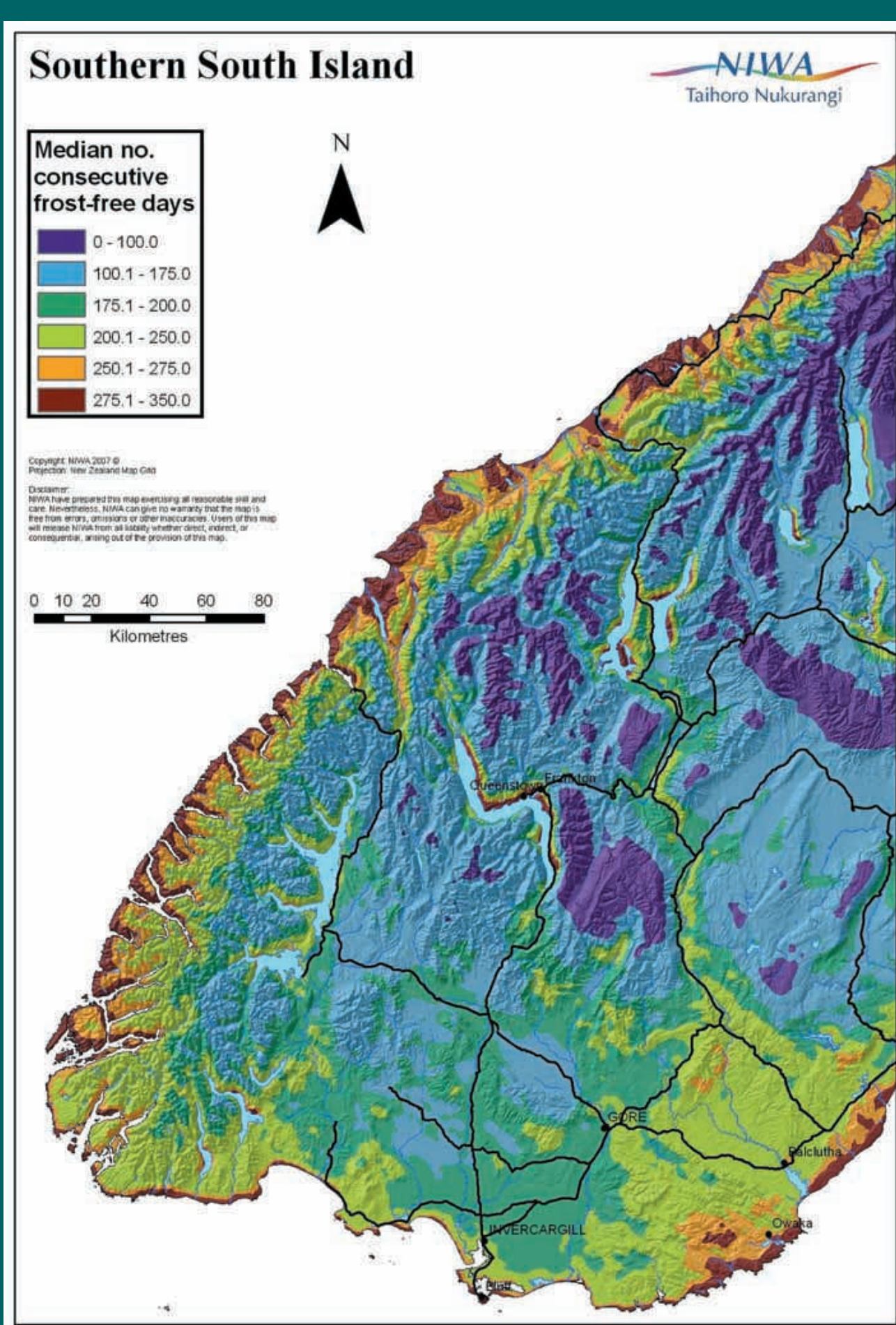
While *E. tereticornis* was provisionally included in this group, few conclusions can be drawn about its climatic tolerances as it was planted at four sites only.



Cool sites (200.1 - 275 frost free days)

Group 2: *E. baxteri*, *E. cameronii*, *E. globoidea*, *E. laevopinea*, *E. longifolia*, *E. macrorhyncha*, *E. muelleriana*

This group had superior performance over a larger range of sites than Group 1. The species range sometimes exceeded 500 m asl, though survival was higher at the lowest altitudes and in benign climates. Inclusion of *E. muelleriana* in this group is surprising as it is reputedly very frost sensitive. Its observed performance may be due to trial sites having adequate air drainage, or the seedlot used providing some frost resistance. Few conclusions can be drawn about climatic tolerances of *E. cameronii* as it was planted at four sites only.



Cold sites (100 - 200 frost free days)

Group 3: *E. blaxlandii*, *E. fastigata*, *E. maidenii*, *E. obliqua*, *E. youmanii*

These species were the hardiest tested. They had good survival up to 700 m altitude, and some performed well at 900 m on one Central North Island site. The best survival was at the lowest altitudes in benign climates. Few conclusions can be drawn about climatic tolerances of *E. blaxlandii* as it was planted at nine sites only.

Conclusions

- Durable timber eucalypts can be planted throughout New Zealand, but species must be matched to the climatic conditions.
- Excellent air drainage helps establish trees where sites may not be optimum because of frost levels.
- Some sites are too severe for timber producing eucalypts therefore consider planting other species.

