It consists of a belt of snowgrass and scrub separating two forest types, mountain beech above and cedar below, the latter at 3,800ft, an altitude approaching the upper limit of cedar and rather above that of red beech but near the lower limit of both snowgrass and mountain beech. It thus lies close to the limits of several dominants. The slope is steep (about 30°); the eastern end is in continuous snowgrass tussock, the western mainly in scrub which runs out, on its downhill side, on to bare shingle slopes approaching scree. Where soil persists it is 2–3ft deep with charred timber appearing frequently 12in below the surface. This matches the sub-surface charcoal found to the south across the Waikamaka valley on the prominent tussock spur that runs off the Mokai Patea, and thus links it with the legendary Tahuarongotea fire. In the opposite direction the tussock crest of Puketaramea may have had the same history, and the curious scrub face which carries the name Otukota (p. 18).

The open slope of Piringa is much favoured by deer, which may be presumed to have reached their peak of population in this part of the range about 25 years ago and to have modified it considerably by browsing and trampling on the steep slope.

The crest of the ridge and its upper slope is occupied by mountain-beech forest with a high proportion of pole timber and indication of a vigorous spread downwards on to the bald until a comparatively recent period when, to judge by sapling gaps, it has been checked, apparently by the arrival of deer.

The cedar belt on the lower edge of the bald is composed of conical trees, rather widely spaced, of an estimated age of 200–300 years, and in that respect unlike the commonly overmature cedar timber line in the Western Ruahine. The beech forest below is for some distance largely composed of mountain beech with an even canopy and appears to be a succession, presumably following fire, towards the red-beech forest of adjacent slopes.

On the bald the snowgrass cover is close, and as there is no seed source within at least a mile it is conceivable that tussock antedates the Tahuarongotea fire. Some *Chionochloa conspicua* is associated with it on its extreme margin; otherwise it is a practically pure stand.

The scrub is mainly but not entirely of a subalpine character. Leatherwood species are absent, though *Olearia colensoi* occurs rarely in forest in the vicinity. On the other hand manuka is frequent, unexpectedly at this altitude and 3–4 miles from the nearest known seed source. *Coprosma rugosa*, a characteristic divaricating shrub on river flats, is another unusual component, and *Olearia nummularifolia* is recorded 10 miles south of its previously known limit.

There is thus evidence that the Piringa bald originated mainly or entirely from an extensive pre-European fire spreading across the Waikamaka valley from the Mokai Patea plateau.

From the apparent age of the cedar it would have been at least 200 years ago, and from the depth of charcoal, not only on the slope, where it would have been partly buried by soil creep, but also on level ground on the spur of the Mokai Patea, the fire would have been appreciably earlier than this.

The mountain beech appears to have occupied the crest of the ridge more recently, perhaps 100 years ago, and the area of beech below the cedar appears to be of comparable age.

Daphne Burn. In the south (Map. 4) where the Daphne Ridge burn has run into the Oroua valley it has largely obliterated the *Dacrydium*–mountain beech ecotone. On its margins there are traces of the characteristic *Dacrydium*