

## Appendix B – Structural Mapping Methodology

### **Canopy Density**

The upper strata canopy cover for each polygon was recorded, five classes were used to assign canopy cover, Canopy cover is a measure of the area covered by a vertical projection of the periphery of the crowns recorded as a percentage of the polygon area.

**Table 1 Upper strata canopy cover classes**

Class	Upper strata CCP
1	<10%
2	10-20%
3	20-50%
4	50-80%
5	>80%

### **Canopy forest age class**

In 1999 an air photo interpretation project (CRAFTI) was undertaken as part of the comprehensive regional assessment. The CRAFTI project developed standardised upper strata age classes. These CRAFTI classes have been used in this study. An undisturbed forest contains a mixture of regrowth mature and senescent trees with the proportions of each being related to the expected time span the trees will be at each age stage. Although this varies between species, trees generally are mature and senescent for most of their life span so an undisturbed forest would be expected to contain a low proportion of regrowth trees and a high proportion of mature and senescent trees.

The characteristics of trees in each of the three growth stages has been documented by Jacobs 1955, and these definitions were adopted for this project.

Although different disturbance regimes produce different forest structures it is considered that a relatively undisturbed forest would be dominated by mature and senescent trees with very few regrowth trees. In a moderately disturbed forest the proportion of regrowth trees would be higher but mature and senescent trees would still be present. In a highly disturbed forest the proportion of regrowth trees would be very high and mature and senescent trees would be uncommon or absent.

The canopy age class was recorded for each polygon. The proportion of regrowth and senescent trees were recorded for each polygon. The relative proportions of regrowth and senescent trees in the canopy are indicative of the past disturbance. An undisturbed forest contains a mixture of regrowth mature and senescent trees with the proportions of each being related to the expected time span the trees will be at each age stage. Although this varies between species trees generally are mature and senescent for most of their life span so an undisturbed forest would be expected to contain a low proportion of regrowth trees and a high proportion of mature and senescent trees. Although different disturbance regimes produce different forest structures it is generally considered (Pers obs) that in a moderately disturbed forest the proportion of regrowth trees would be higher but mature and senescent trees would still be present. In a highly disturbed forest the proportion of regrowth trees would be very high and mature and senescent trees would be low or absent.

**Table 2: Upper strata age class (CRAFTI 1999)**

Upper strata age class	Upper strata proportion
t	Regrowth trees comprise <10% of the upper strata
s	Regrowth trees comprise 11 to 30% of the upper strata
e	Regrowth trees comprise >31% of the upper strata
A	Senescent trees comprise >31% of the upper strata
B	Senescent trees comprise 11 to 30% of the upper strata
C	Senescent trees comprise <10% of the upper strata

**Mid strata type**

A generalised mid strata type was recorded for each polygon. Mid strata type can be indicative of habitat type and quality. The mid strata classes used in this project are listed in Table 3.

**Table 3: Mid strata type**

Mid strata – lower strata type		
g	grassy	Grasses native or introduced but not cultivated
h	heath	Epacridaceae, protaceae etc
m	mesic	Rainforest species not continuous canopy
d	shrubby dry	Dry shrubs
r	rock	Rock
s	sedge	Sedges & rushes
a	absent	Lower strata absent
w	weed	Dominated by introduced species
p	pasture	Cultivated pasture
r	rainforest	Continuous canopy Rf species

**Disturbance intensity**

The disturbance attribute was assigned to indicate relative disturbance, it is assigned according to the amount of visible disturbance and is generally subjective. It was intended to provide only a general indication of disturbance levels within a polygon.

**Table 4: Disturbance Intensity**

Disturbance Intensity		
0	Negligible	Disturbance not visible or confined to very small isolated points, the polygon structure appears undisturbed.
1	Low	Some disturbance is visible but covers only small portion of the polygon
2	Moderate	Disturbance is widespread but natural vegetation retains some structural and floristic integrity
3	High	Disturbance severe natural vegetation significantly denuded both structurally and floristically
4	Very high	Disturbance severe natural vegetation absent