

**WARBY RANGE
PROTECTION SOCIETY
1974A**

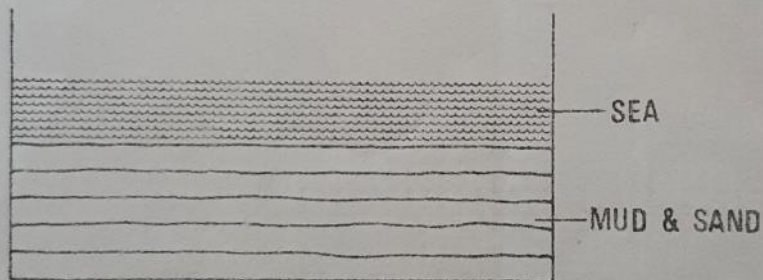
2. THE ENVIRONMENT OF THE WARBY RANGE

2.1 GEOLOGY

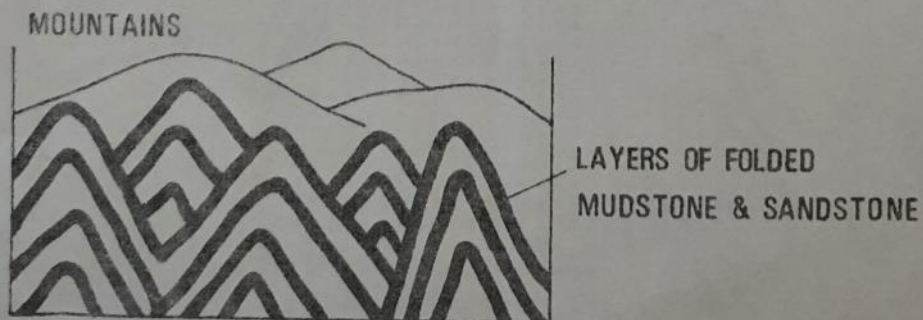
2.1.1 Geological History

The history of the rocks in the district is set out as a series of events. It is likely that other events have taken place for which no evidence has been found. The terms in brackets are those used in the key to the Geological Map (Fig 2.1).

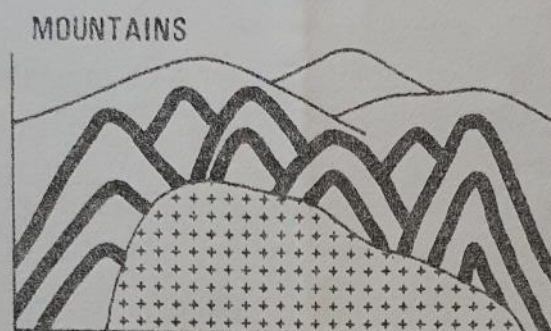
- (a) Mud and sand built up on the bottom of a sea about 570 million years ago (Ordovician Marine Sediments).



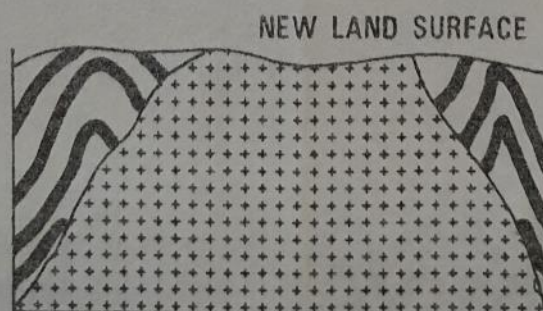
- (b) The mud and sand was packed down to form mudstones and sandstones. Shortly after, these rocks were pushed up and folded into a mountain range.



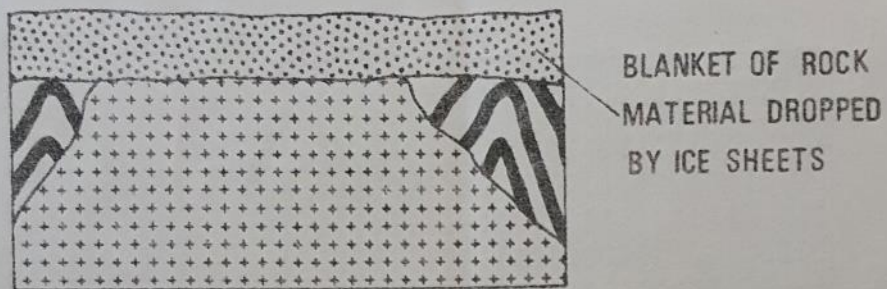
- (c) About 400 million years ago molten rock from deep in the crust of the earth moved up into the folded rocks. This molten rock slowly cooled down to form granite (Devonian Granite).



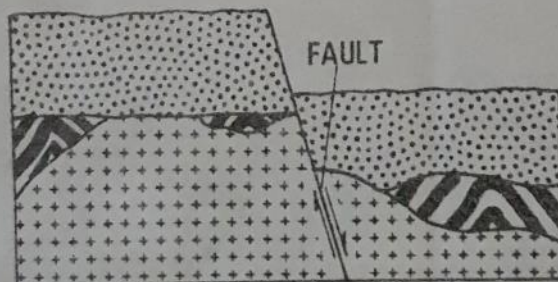
- (d) A long period of erosion slowly wore down the mountains and uncovered the granite beneath them.



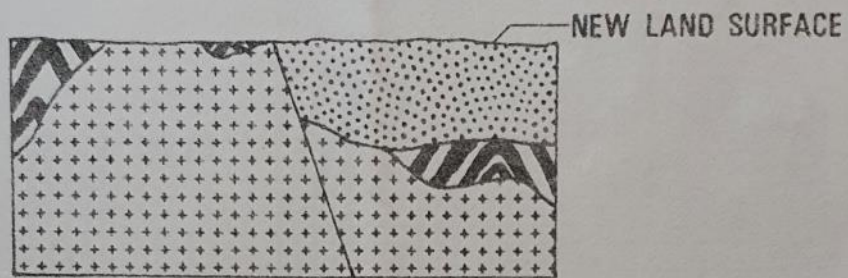
- (e) During very cold times, about 260 million years ago, glaciers covered the land. When they melted they left a blanket over the area of ground-up rock, pebbles and boulders.



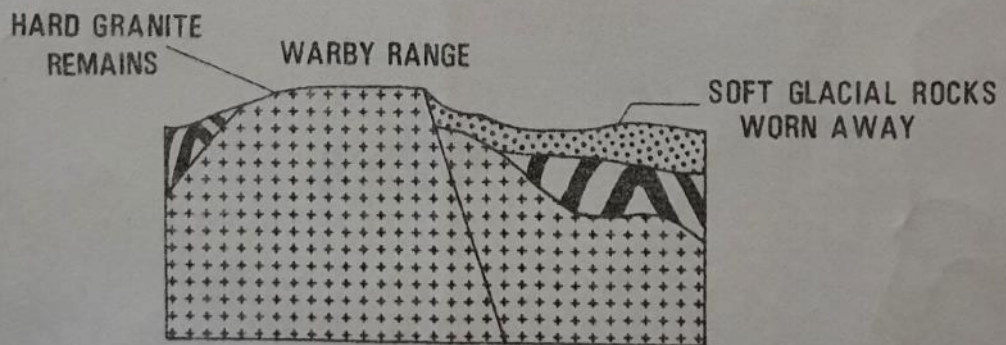
- (f) A fault developed and the land to the west of the fault was lifted up.



- (g) Erosion followed and levelled the land surface. The granite to the west of the fault was exposed but on the eastern side it was still hidden.



- (h) The whole area was lifted up and, again, erosion took place. The soft glacial rocks to the east of the fault were easily worn away to form the Owens Valley. The hard granite to the west of the fault resisted erosion and was left as a range of hills, the Warby Range.



- (i) Over the last million years rivers and streams deposited sands, silt and clay over much of the land around the range. These sediments have been mapped as three units - the older sediments (Pleistocene Alluvial Sediments), the younger slope wash (Recent Colluvial Sediments), and the younger river flats (Recent Alluvial Sediments).

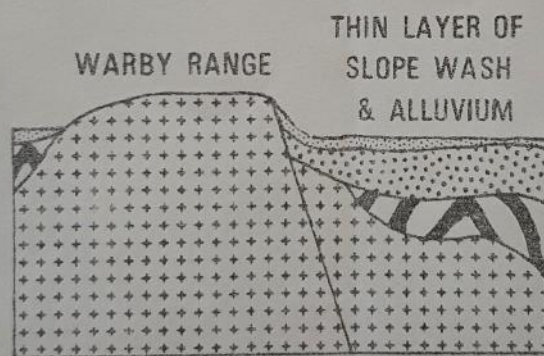
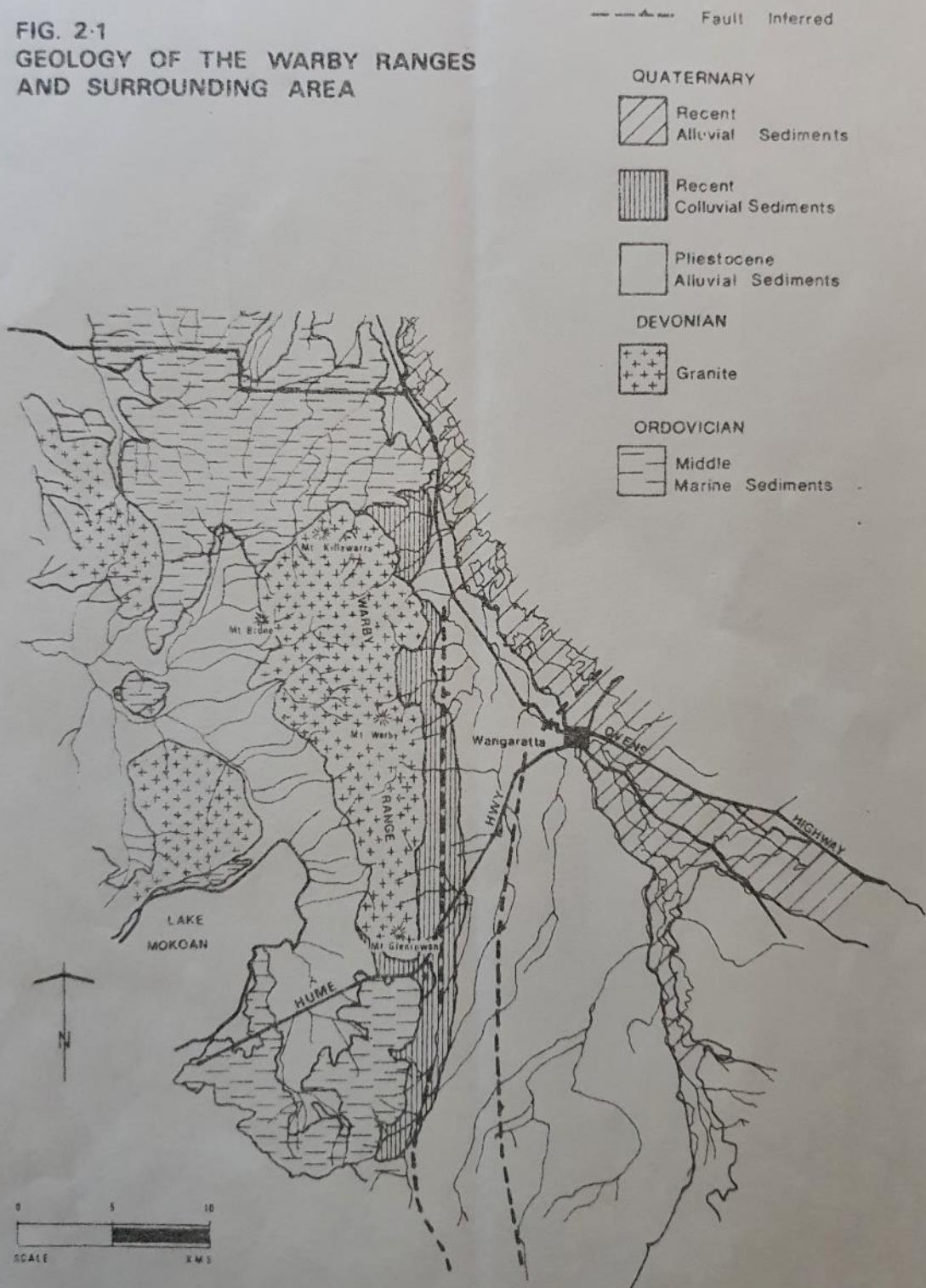


FIG. 2-1
GEOLOGY OF THE WARBY RANGES
AND SURROUNDING AREA



2.1.2 Notes on the rocks on and around the Warby Range

Old Sedimentary Rocks (Ordovician Marine Sediments): These rocks are the result of sand and mud building up on the seafloor more than 400 million years ago. Pressure has changed the sand and mud into sandstones, mudstones and shale. The shale which is black where it is fresh, may contain graptolite fossils. All these rocks have been folded so that the once flat lying beds of sandstone, mudstone and shale are now tilted up. In most places the beds dip to the east and north-east. At the north end of the Warby Range there are two places where the dip is to the south-west.

Granite (Devonian Granite): The granite rock which forms the Warby Range can be divided into three groups. There is a range of colour from red through to grey in all these rocks. The most common type is coarse grained. The grain size in this type varies from 4 to 20 millimetres but is commonly about 8 millimetres. Orthoclase felspar and quartz are the minerals that make up most of this rock. Plagioclase felspar and biotite (black mica) fill up the gaps. This type of granite forms large rounded tors where it is not covered by soil.

A second type of granite has smaller grains which range in size from 1 to 4 millimetres and average 2 millimetres. Where this type of rock is not covered by soil it forms rounded boulders which are smaller than the large tors of the coarse grained granite. This medium grained granite has been quarried for both building stone and for crushed rock.

The other type of granite found on the Warby Range has a very small grain size, less than 1 millimetre. This rock forms dykes,

sills and other bodies which intrude both the coarse grained granite and the sandstones, mudstones and shales. Quartz veins also occur and fluospar is found in these veins. There may be enough of this fluorine ore to mine.

Colluvium (Recent Colluvial Sediments): This is the slope wash which surrounds most of the hills. Near to the Warby Range this material has a lot of sand and gravel in it. Further out from the range there is a change in the slope of the land surface. The colluvium then becomes richer in clay. The change of slope is marked by a line of springs such as the one at Stop 5. The water from the springs is caught in dams and is used to water stock and irrigate grape vines and orchards.

Alluvium (Pleistocene and Recent Alluvial Sediments): This is sediment which has been dropped by streams. It consists of clay and silt with lesser amounts of sand and gravel. The clay and silt have settled out of the water which has spread out over the plain when the rivers have flooded. The sand and gravel is the floor of old stream channels. Sand and gravel for many uses have been taken from along the rivers. Good water can be pumped up from the old channels buried deep beneath the plain.

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2.2 CLIMATE

The Warby Range is higher than the land about it, but the climate is similar. Weather patterns for the Warby Range area have been recorded for many years at Wangaratta. On the range there will be a little more rain and it could be cooler. The major change in climate through the district is the lower rainfall to the north and west. Wangaratta's rainfall is about 640 mm per year. Boweya and Peechelba have about 550 mm of rain per year.

In an average year the season will follow this pattern:

Summer: The summers are hot. The average maximum temperature for January is about 31⁰C. Although 19 per cent of the year's rain falls in summer, most falls occur as scattered heavy thunderstorms. As a result of the heat and the lack of steady rain, there is little moisture in the soil and therefore, little or no plant growth in summer.

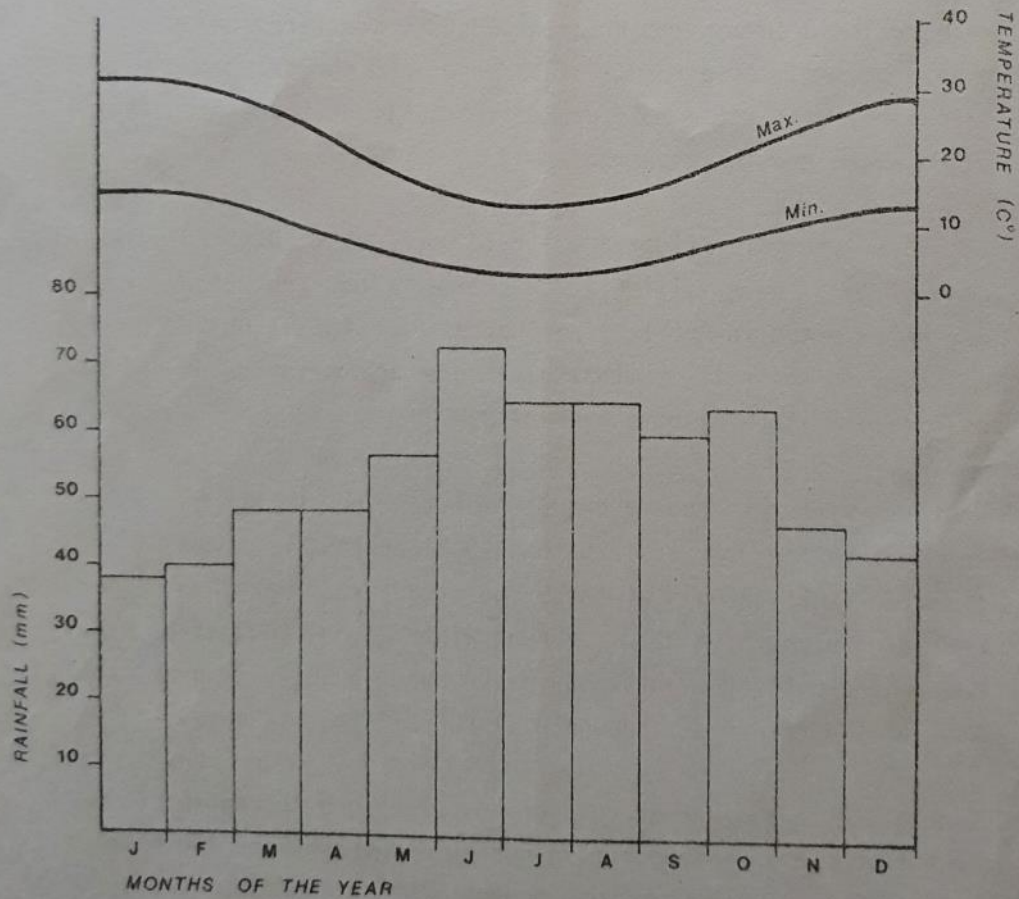
Autumn: Autumn is mild and a little more moist, with 24 per cent of the year's rain falling at this time. The first light frost may be expected in April. The increasing rainfall builds up the moisture in the soil, so that plant growth starts in late April and reaches its best rate by late May.

Winter: Winter is cool and quite moist. The average maximum temperature for July is 12⁰C to 13⁰C. Severe frosts can be expected right through winter. The steady rain makes up 31 per cent of the year's total. Through winter, cool conditions slow down the growth of plants. By mid June, the soil is so wet that most of the rain from then on will run off into streams.

Spring: With the warmer conditions, plant growth becomes abundant from early September. In spring 26 per cent of the year's rain will fall. In November, though, the soil begins to dry out and plant growth tapers off. Some light frosts are expected until late September.

The pattern of the climate is summarised by the climate graph (Figure 2.2). This graph shows the rainfall pattern for the year at Wangaratta. The average daily maximum and average daily minimum temperatures for each month of the year are shown also.

Fig. 2.2 Climatic Graph for Wangaratta



2.3 VEGETATION

The Warby Range still has most of its native vegetation. On the cleared land sloping away from the Range, enough trees remain to give an idea of what it used to look like. There are three main vegetation groups:

- 2.3.1 Red Box-Red Gum Woodlands. This community is found on the granite hills of the Range. Here the soils are dry in summer but very wet in winter. The woodland, or low open forest, is dominated by red box. Red stringybark is found with the box in moist places. Long-leafed box occurs with the red box on the high ridge tops. Gentle slopes carry a mixture of species, and Blakely's red gum is common. On the plateau or along stream lines this red gum is the most common tree. In moist valleys tall silver wattles are found. Other wattles and drooping sheoaks occur on rocky spurs. Austral grass trees are present in most sandy places. Shrubs are found in rocky dry sites while moist places carry grass and herbs.

Ferns and mosses are found in wet rocky areas. The granite hills have many lovely wildflowers, except where there has been heavy grazing.

- 2.3.2 Grey Box-Red Gum Woodlands. The gently sloping land and the plains carry what is left of a woodland. The trees are grey box and red gum with some yellow box, white box and apple box. The red gum occurs all over the plains. Along stream lines and in swamps, river red gum is found in pure stands. Grey box and white box mainly occupy the rises. Yellow box is found on the lower slopes. Some apple box occurs with the grey box. The woodlands have mostly been cleared for grazing. Where they are partly cleared, grass is all that is left of the lower layer of vegetation.

- 2.3. Grey Box-Ironbark Forest. The hills of marine sedimentary rock carry a low open forest. Grey and white box are common with red ironbark found on ridges and slopes facing north or west. Red

Stringybark and long-leafed box also occur on this type of rock. Smaller trees and shrubs are scattered but golden wattle is common. The ground-cover is open and includes many small and interesting plants such as orchids. Most of this forest has regrown after being cut in the early days of settlement.

2.3.4 Features of the Vegetation. There are many interesting plants found on the Warby Range. This is the only place in Victoria where two species of wattle (*Acacia triptera* and *A. decora*) can be found. The northern sandalwood (*Santalum lanceolatum*) does not occur elsewhere in this State. These plants are more common in central New South Wales. Of these rare plants the spur-wing wattle (*A. triptera*) can be found with the least effort. During late spring its bright yellow flower spikes stand out if you look for them in the north part of the range. As well as the rare plants, some superb grass trees (*Xanthorrhoea australis*) grow on the range. Some of these grow to 3-5 metres in height. In spring the many shrubs and herbs fill the woodland with colour. Over 30 species of orchid have been found on the Range.

2.4 SOIL

The type of soil at any one place depends on various factors. In the study area two major factors are the position of the soil in the landscape, and the parent material from which the soil is formed.

The most common types of soil in the district in and around the Warby Range are as follows:

- 2.4.1 Soils in which there is little or no change in texture with depth (Uniform Soils). There are two types. The first is a sandy loam or coarse sandy loam found on the slopes and ridges of the granite country. The second is a dark clay found on the plains and swamps near Lake Mokoan.
- 2.4.2 Soils in which the texture slowly changes with depth (Gradational Soils). There are three types of these soils. One is found on the young hillwash material just below the scarp of the Range. The soil is a coarse sandy loam with an increase in clay content with depth. The second soil is a grey brown soil found on the flats near creeks and rivers. The third of these soils is a shallow stony loam. This is found on rocky ridges in the old sedimentary rock country.
- 2.4.3 Soils in which there is a sharp change in texture between the topsoil and subsoil (Duplex Soils). There are four types of these soils. The first has a coarse sandy loam topsoil and a red clay subsoil. This soil is found on the flatter areas up on the Warby Range. Its parent material is the granite. The second soil has a loam or sandy loam topsoil and a yellow clay-rich subsoil. The third soil has a similar texture but the subsoil is red. Both these soils occur on Pleistocene Alluvial Sediments (see geology map Fig. 2.1). The last of these soils is found on the old sedimentary rocks. It has a gravelly loam topsoil and a red or yellow clay subsoil.

2.5 LAND USE

2.5.1 Agriculture. This is the dominant form of land use around the Range. Of three kinds of farming in the area, each needs a certain type of land.

2.5.1.1 Grazing. Grazing of sheep and cattle is the most common form of farming. Sheep grazing tends to be confined to the flatter cleared land. Cattle grazing is spread over nearly all types of land, including the steep bushland on the Warby Range.

2.5.1.2 Cropping. The growing of crops is confined to the gently sloping land. Most of the crops are cereals, with wheat being the most common. Crops are also grown for fodder and oilseeds.

2.5.1.3 Horticulture. Citrus trees are grown on the deep sandy soils on the lower slopes of the Warby Range. Some grapes are also grown in this area. On the deep soils on the plateau of the Range, stone fruits are grown.

2.5.1.4 Apiculture. The Warby Range is important for keeping bees. Nectar comes from yellow box around the Range plus all the nectar bearing plants on the Range. These provide a supply of honey the whole year round.

2.5.2 Housing. Housing is a major land use in two areas. Wangaratta is situated on the flat land to the east of the Warby Range. On the steeper land on the flanks of the Range, low-density subdivision attracts people who want to live in a country setting, but not far from the town. This type of housing settlement can present an erosion risk if care is not taken.

2.5.3 Extractive Industries. The most widespread of these industries is the stripping of the deep sandy soils of the Range. The sand is used for making roads. Some granite rock has been quarried from the Warby Range also.

2.5.4 Recreation. The bushland of the Warby Range is the main resource for recreation. In the Range, driving for pleasure, walking in the bush, orienteering, going for a picnic, nature study and taking photos are all popular. Lake Mokoan, used for water sports, is to the south and west of the Range.

2.5.5 Conservation and Protection Forest. This form of land use is also confined to the bushland of the Range. The Warby Range is significant for conservation as it has many interesting and rare plants and animals. Part of the Range is a State Park and another part is a State Forest.

BIRDS OF WARBY RANGES/LAKE MOKOAN AREA

Compiled by: Roy Wheeler, 1972

Total: 176 species

STUBBLE QUAIL	ROYAL SPOONBILL
BROWN QUAIL	YELLOW-BILLED SPOONBILL
PAINTED QUAIL	LITTLE EGRET
PEACEFUL DOVE	PLUMED EGRET
COMMON BRONZEWING	WHITE EGRET
BRUSH BRONZEWING	WHITE-FACED HERON
CRESTED PIGEON	WHITE-NECKED HERON
BANDED LANDRAIL	NANKEEN HERON
MARSH CRAKE	BROWN BITTERN
BLACK-TAILED NATIVE HEN	MANED GOOSE
	BLACK SWAN
DUSKY MOORHEN	MOUNTAIN DUCK
EASTERN SWAMPHEN	BLACK DUCK
COOT	GREY TEAL
GREAT CRESTED GREBE	CHESTNUT TEAL
LITTLE GREBE	
HOARY-HEADED GREBE	BLUE-WINGED SHOVELER
BLACK CORMORANT	HARDHEAD
LITTLE BLACK CORMORANT	MUSK DUCK
PIED CORMORANT	SPOTTED HARRIER
LITTLE PIED CORMORANT	SWAMP HARRIER
	BROWN GOSHAWK
AUSTRALIAN DARTER	COLLARED SPARROWHAWK
AUSTRALIAN PELICAN	WEDGE-TAILED EAGLE
MARSH TERN	WHITE-BREASTED SEA-EAGLE
CASPIAN TERN	WHISTLING EAGLE
SILVER GULL	
RED-KNEED DOTTEREL	AUSTRALIAN LITTLE EAGLE
BLACK-FRONTED DOTTEREL	BLACK-SHOULDERED KITE
SPURWINGED PLOVER	LITTLE FALCON
WHITE-HEADED STILT	PEREGRINE FALCON
	BROWN FALCON
RED-NECKED AVOCET	NANKEEN KESTREL
JAPANESE SNIPE	BOOBOOK OWL
SOUTHERN STONE CURLEW	BARN OWL
WHITE IBIS	RAINBOW LORIKEET
STRAW-NECKED IBIS	MUSK LORIKEET
RED-BACKED PARROT	BLACK-FACED CUCKOO-SHRIKE
TURQUOISE PARROT	WHITE-WINGED TRILLER
SWIFT PARROT	SPOTTED QUAIL THRUSH
BUDGERYGAH	GREY-CROWNED BABBLER

TAWNY FROGMOUTH
OWLET NIGHTJAR
DOLLAR BIRD
AZURE KINGFISHER
LAUGHING KOOKABURRA
SACRED KINGFISHER

RAINBOW BIRD
SPINE-TAILED SWIFT
FORK-TAILED SWIFT
PALLID CUCKOO
FAN-TAILED CUCKOO
BLACK-EARED CUCKOO
HORSFIELD BRONZE-CUCKOO
GOLDEN CUCKOO
WELCOME SWALLOW
TREE MARTIN

FAIRY MARTIN
GREY FANTAIL
WILLIE WAGTAIL
LEADEN FLYCATCHER
RESTLESS FLYCATCHER
JACKY WINTER
SCARLET ROBIN
FLAME ROBIN
RED-CAPPED ROBIN
HOODED ROBIN

YELLOW ROBIN
GOLDEN WHISTLER
RUFIOUS WHISTLER
GREY THRUSH

MAGPIE LARK
EASTERN SHRIKE TIT
LITTLE CUCKOO-SHRIKE

BROWN-HEADED HONEYEATER
EASTERN SPINEBILL
FUSCOUS HONEYEATER
REGENT HONEYEATER
YELLOW-FACED HONEYEATER
WHITE-EARED HONEYEATER
YELLOW-TUFTED HONEYEATER
WHITE-PLUMED HONEYEATER
BLUE-FACED HONEYEATER

WHITE-BROWED BABBLER
BLACKBIRD
MOUNTAIN THRUSH
WHITE-FRONTED CHAT
WHITE-BREASTED WARBLER
WESTERN WARBLER
BROWN WEEBILL
SOUTHERN WHITEFACE
STRIATED THORNBILL

LITTLE THORNBILL
BROWN THORNBILL
CHESTNUT-TAILED THORNBILL
BUFF-TAILED THORNBILL
YELLOW-TAILED THORNBILL
WHITE-BROWED SCRUBWREN
SPECKLED WARBLER
BROWN SONGLARK
RUFIOUS SONGLARK
LITTLE GRASSBIRD

REED WARBLER
GOLDEN-HEADED FANTAILED-WARBLER
SUPERB BLUEWREN
WHITE-BREASTED WOOD-SWALLOW
MASKED WOOD-SWALLOW
WHITE-BROWED WOOD-SWALLOW
DUSKY WOOD-SWALLOW
ORANGE-WINGED SITELLA
BROWN TREE-CREEPER

MISTLETOE BIRD
SPOTTED PARDALOTE
STRIATED PARDALOTE
EASTERN SILVEREYE
WHITE-NAPED HONEYEATER

SATIN BOWER-BIRD
DIAMOND FIRETAIL
ZERRA FINCH
RED-BROWED FINCH
HOME SPARROW
GOLDFINCH
OLIVE-BACKED ORIOLE
STARLING
AUSTRALIAN RAVEN
LITTLE RAVEN

NOISY MINER

RED WATTLEBIRD

NOISY FRIARBIRD

LITTLE FRIARBIRD

PIPIT

SKYLARK

WHITE-WINGED COUGH

PIED CURRAWONG

GREY CURRAWONG

GREY BUTCHERBIRD

WHITE-BACKED MAGPIE

BLACK-BACKED MAGPIE

WARBY RANGE

Some of the Fauna of the Range

Grey Kangaroo

Black Wallaby

Echidna

Glider Possum

Brush-tailed Possum

Ring-tailed Possum

Tuans

Water Rats

Carpet Snakes (northern of Range)

Goannas

Blue Tongued Lizards

Skinks

Gecko

List compiled by Miss. D. Nason of Wangaratta, April, 1964).

WARBY RANGE

FLORA

1. General List of Native Plants

Ferns:

Hypolepis muelleri
Adiantum aethiopicum
Cheilanthes tenuifolia
Cheilanthes distans
Pleurosorus rutifolius
Asplenium flabellifolium
Blechnum nudum

Orchids:

Microtis unifolia
Microtis parviflora
Calochilus robertsonii
Thelymitra pauciflora
Thelymitra aristata
Thelymitra rubra
Corybas dilatatus
Acianthus exsertus
Eriochilus culcullatus
Glossodia major
Caladenia dilatata
Caladenia caerulea
Caladenia deformis
Caladenia praecox
Caladenia cucullata
Caladenia carnea
Diuris longifolia
Diuris sulphurea
Diuris punctata
Orthoceras strictum
Pterostylis revoluta
Pterostylis vittata
Pterostylis nutans
Pterostylis curta
Pterostylis mutica
Pterostylis rufa

Other Plants:

(a) General

Stellaria pungens
Swainsonia procumbens
Hardenbergia violacea
Kennedyia prostrata
Glycine clandestina
Geranium pilosum

Pelargonium australe
Stackhousia monogyna
Hypericum gramineum
Hypericum japonicum
Erynigium rostratum
Sebaea ovata
Centaurium pulchellum
Utricularia dichotoma
Linum marginale
Myosotis suaveolens
Cynoglossum suaveolens
Ajuga australis
Isotoma axillaris
Isotoma fluviatilis
Wahlenbergia consimilis
(a very large and beautiful form)
Galium gaudichaudiana
Brunonia australis
Velleia paradoxa
Goodenia ovata
Goodenia geniculata
Goodenia humilis
Stylidium despectum
Stylidium graminifolium
Vittandinia trilcha
Brachycome goniocarpa
Gnaphalodes uliginosum
Craspedia uniflora
Podolepis acuminata
Helichrysum apiculatum
Helichrysum bracteatum
Bulbine bulbosa
Bulbine Barbata
Dichopogon strictus
Anthropodium milleflorum
Thysanotus tuberosus
Thysanotus patersonii
Caesia vittata
Stypandra glauca
Dianella revoluta
Anguillaria dibica
Burchardia umbellata

(a) General (cont.)

Tricoryne elatior
Lomandra filiformis
Ranunculus lappaceus
Drosera auriculata
Drosera peltata
Drosera planchonii
Hypoxis glabella
Microseris lanceolata

(b) Acacias

Acacia aspera
Acacia acineacea
Acacia armata
Acacia buxifolia
Acacia difformis
Acacia diffusa
Acacia dealbata
Acacia implexa
Acacia melanoxylon
Acacia pycnantha
Acacia rubida
Acacia rotundifolia
Acacia triptera
(only known Victorian habitat)
Acacia verniciflua

(c) Eucalypts

Eucalyptus albens
Eucalyptus bridgesiana
Eucalyptus camaldulensis
Eucalyptus elaeophora
Eucalyptus melliodora
Eucalyptus hemiphloia
Eucalyptus polyanthemus
Eucalyptus tereticornis
Eucalyptus ovata
Eucalyptus maerorrhyncha
Eucalyptus sideroxylon

(d) Other Trees and Shrubs

Casuarina stricta
Callistris glauca
Exocarpus cupressiformis
Santalum lanceolatum
(not previously found in Victoria)
Sandalwood
Grevillea alpina
Bursaria spinosa

Humea ozothamnoides
Leucopogon virgatus
Leucopogon rufus
Daviesia ulicifolia
Daviesia latifolia
Daviesia mimosoides
Dillwynia cinerascens
Dillwynia floribunda
Dillwynia juniperina
Dillwynia glaberrima
Pultanaea largiflorens
Pultanaea foliolosa
Pultanaea laxiflora
Pultanaea daphnoides
Platylobium formosum
Hovea heterophylla
Indigofera australis
Correa reflexa
Viminaria juncea
Dodonaea attenuata
Spyridium parvifolium
Hibbertia linearis
Hibbertia sericea
Pimelea lineifolia
Pimelea glauca
Pimelea spathulata
Leptospermum juniperinum
Calytrix tetragona
Melichrus urceolatus
Brachyloma daphnoides
Lissanthe strigosa
Prostanthera decussata
Veronica perfoliata
Cassinia longifolia
Xanthorrhoea australis
(some species attaining 15 feet)

SELECTED GENERAL REFERENCES USEFUL FOR FIELD STUDIES ON AND AROUND THE
WARBY RANGE

Vegetation:

- COSTERMANS, L.F. Trees of Victoria. 3rd Edn., 1973.
- RODGERS, F.J.C. A Field Guide to Victorian Wattles. Field Naturalists Club of Victoria. 1978. This booklet enables ready identification of even the rare Victorian wattles.
- WILLIS, J.H. A Handbook to Plants in Victoria, Vol. 1. Ferns, Conifers and Monocotyledons. 1970. A Handbook to Plants in Victoria, Vol. 2. Dicotyledons. 1972. Melbourne University Press. These two books contain keys for all known Victorian plants but they are expensive and very technical.

Birds:

- SLATER, P. A Field Guide to Australian Birds. Book 1 - Non-Passerines. 1970. A Field Guide to Australian Birds. Book 2 - Passerines. 1974. Rigby. These two books are excellent for bird identification in the field.

Soils:

- ANDREWS, W.A. A Guide to the Study of Soil Ecology. Prentice-Hall of Canada. 1973.
- CORBETT, J.R. The Living Soil. Martindale Press. 1969.

Landform:

- TWIDALE, C.R. Geomorphology. Thomas Nelson Ltd. 1968. A standard Australian text on geomorphology, it contains a good account of granitic landforms and weathering.
- TWIDALE, C.R. Structural Landforms: An introduction to systematic geomorphology, Volume Five. Australian National University Press. 1971. An excellent Australian account of granite landforms and weathering.

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David Lloyd,
Executive Officer,
Environment Studies Association
of Victoria