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SGTSG Field Excursion Guide: Kosciusko Summit Walks

by
Lesley Wyborn

RECORD 1994/6

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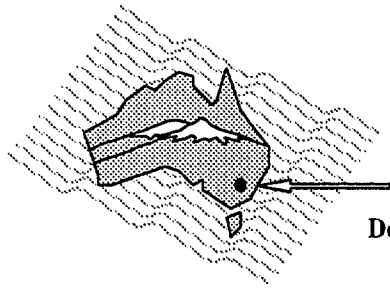

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FIELD EXCURSION GUIDE

KOSCIUSKO SUMMIT WALKS

by

L.A.I. Wyborn

Record 1994/6
Australian Geological Survey Organisation

DEPARTMENT OF PRIMARY INDUSTRIES AND ENERGY

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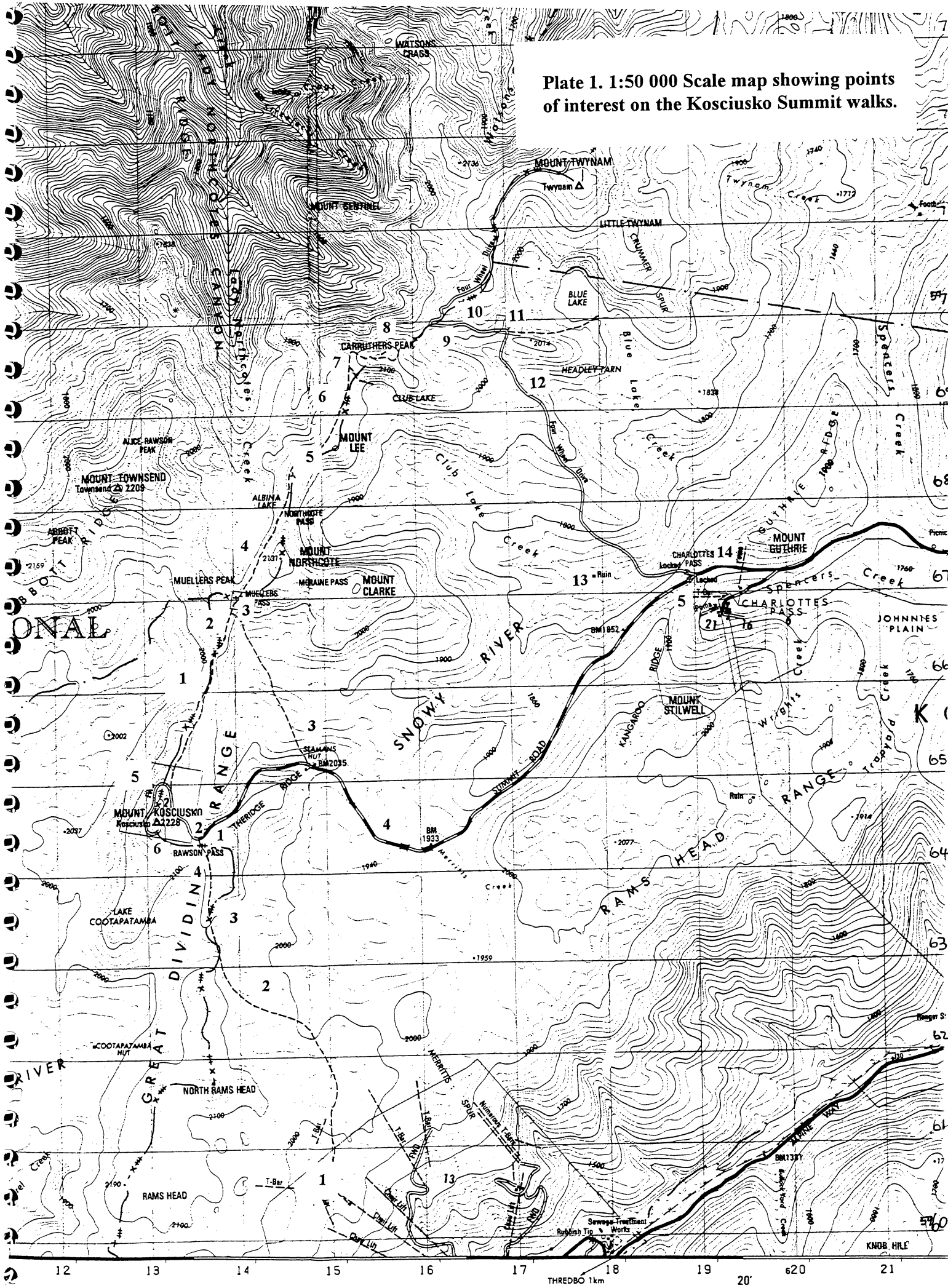
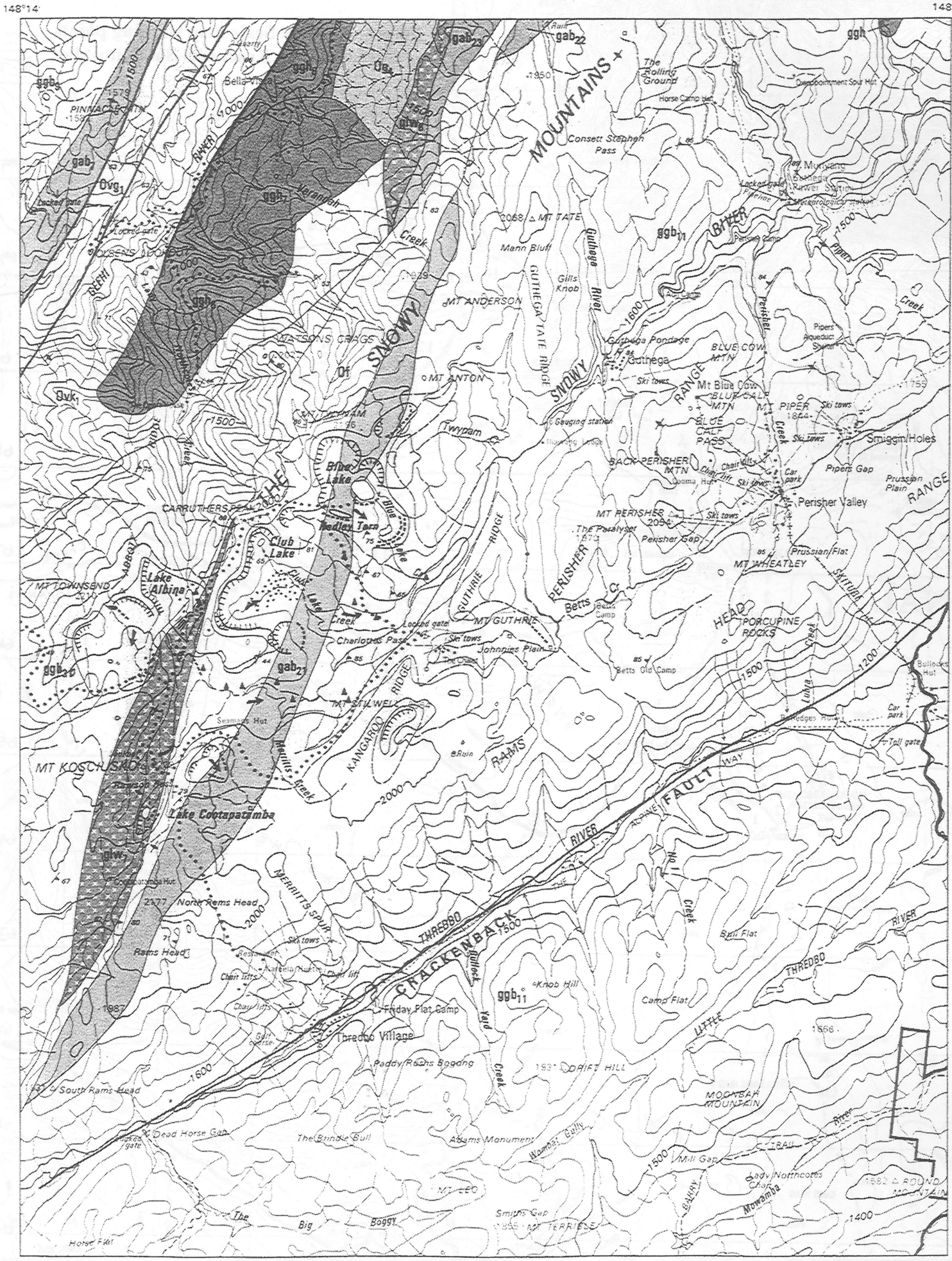


Plate 1. 1:50 000 Scale map showing points of interest on the Kosciusko Summit walks.

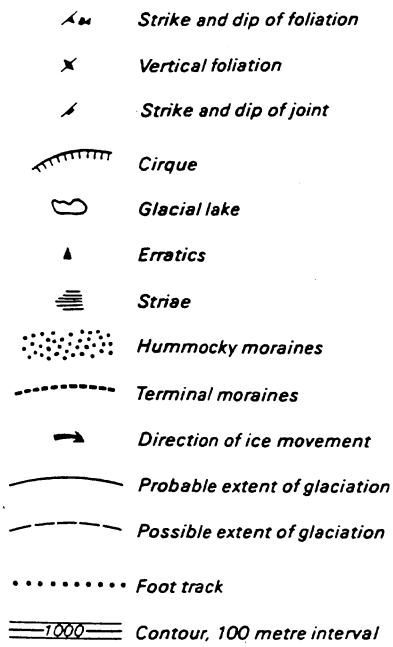
Plate 2. GEOLOGICAL AND GLACIAL FEATURES OF THE KOSCIUSKO SUMMIT



In Australia the changes of climate associated with the ice age brought spectacular changes to sea level, rivers and lakes, sand dunes and vegetation. In other continents massive glaciers created new landscapes, but actual glaciers were very insignificant in mainland Australia. Ice probably covered a total area of 25–40 km², and the Lakes Walk around Mt Kosciusko enables all the main glacial landforms to be seen in an easy day's walk.

The most obvious glacial landform is the cirque, an armchair-shaped hollow created when a pre-existing valley head is deepened by accumulating ice at the start of a glacier. Most well-defined cirques are occupied by lakes, such as Blue Lake, Club Lake, Lake Albina and Lake Cootapatamba. The debris carried by a glacier is dumped as moraine, a mixture of boulders and clay, in ridges at the glacier sides and terminus. A good example is the terminal moraine that holds up Hedley Tarn.

Although records show that there have been many Quaternary glaciations over the past two million years in other countries, in the Kosciusko area only the last glaciation is evident. Glaciation was probably established by about 25 000 years ago, and by 15 000 years ago ice had almost totally disappeared.



Base map supplied by the Australian Surveying and Land Information Group, Department of Administrative Services

BUREAU OF MINERAL RESOURCES GEOLOGY AND GEOPHYSICS AUSTRALIA

GEOLOGY OF THE KOSCIUSKO NATIONAL PARK

FIRST EDITION 1990

Legend For Geological Units

Granites

gab_7	Grass Flat Adamellite
gab_{21}	Etheridge Adamellite
gab_{22}	Dicky Cooper Adamellite
gab_{23}	Happy Jacks Adamellite
ggb_9	Green Hills Granodiorite
ggb_{11}	Mowamba Granodiorite
ggb_{30}	Lady Northcotes Canyon Granodiorite
ggh	unnamed granodiorite
ggh_6	Twins Creek Granodiorite
ggh_7	Three Rocks Tonalite
glw_7	Rawsons Pass Adamellite
glw_8	Leaning Rock Adamellite

Ordovician Units

Of	unnamed quartz-rich flysch sequence
Og_4	Windy Creek Diorite
Ovg_1	Gooandra Volcanics
Ovk_1	Kiandra Group

Introduction.

The Kosciusko Summit area is part of the Snowy Mountains Region which is here defined as the area coincident with the Yarrangobilly, Kosciusko and Jacobs River 1:100 000 Sheet areas (between latitude 35°30' and 37°00' South and longitude 148°00' and 148°30'). Although narrow, the region contains a diverse range of lithological types including Ordovician flysch and mafic volcanics, as well as Silurian to Devonian clastic sediments, felsic and mafic volcanics and limestones (Fig. 1). Parts of the region were metamorphosed to upper amphibolite grade during the late-Ordovician to early Silurian and the area was subsequently intruded by Silurian to Devonian S-and I-type granites . The region is dominated by major structures and contains a number of stratotectonic units of the Lachlan Fold Belt (Wagga Metamorphic Belt, Tumut Block, Tantangara Block and the Buchan-Indi Rift Zone) (Fig. 2). Major northeast or northwest trending structures (Long Plain-Indi, Tumut Ponds and Gilmore Fault Zones) dominate the map (Fig. 2)

Brief Geological History.

During the Ordovician, a composite north east trending belt of mafic volcanics (Kiandra Volcanic Field) separated two sedimentary flysch basins, the Wagga Trough to the west and the Monaro Trough to the east. The Kiandra Volcanic Field, part of the Molong Volcanic Arc, comprises several major stratigraphic units including the Nine Mile Volcanics, an unusual belt of shoshonitic volcanics.

Deposition had ceased in these areas by the earliest Silurian, and the main regional metamorphism occurred soon after (Fig 3). Locally the metamorphosed trough sequences became known as the Wagga Metamorphic Belt and Tantangara Block (Fig. 2). The metamorphic facies was low pressure-high temperature and the P-T-t path direction was anticlockwise. The maximum pressure and temperature conditions ranged from 2.5 to 4 kb and 600 to 750°C (Wyborn, 1977). Metamorphosed flysch assemblages are characterised by the presence of andalusite, sillimanite and/or cordierite - typical phases that are found throughout the Wagga Metamorphic Belt. In contrast, in the mafic volcanic rocks and associated volcaniclastics, phases such as staurolite, cordierite, hornblende, actinolite, cummingtonite, garnet and clinopyroxene are present. These phases are not commonly developed in the Wagga Metamorphic Belt.

During the Silurian, major strike-slip fault systems developed along the site of the Ordovician mafic volcanic belt and led to the formation of basins and intervening shelves. The Tumut Basin and Canberra Yass Shelf formed to the north, and the Buchan-Indi Rift formed in the south.

Major granite emplacement also occurred during the Silurian and Devonian. In the Snowy Mountains Region these are dominated by restite-rich S-type granites of the Kosciusko and Corryong Batholiths. The granites were emplaced after the main metamorphic event, as they do not show any evidence of a high grade metamorphic imprint. None the granites were derived from Ordovician or Silurian stratigraphic unit or combination of units. Rather, they have been sourced from Pre-Ordovician sediments which are not exposed in the region (Wyborn, 1977).

Intrusion of the Silurian granites appears to have been influenced by movement along these major regional strike-slip structures. Granites emplaced near the Long Plain-Indi Fault Zone and the Tumut Ponds Fault Zone are extremely elongate and run parallel to these structures (Fig. 1). Those granites intruded near the summit of Mount Kosciusko and their adjacent sedimentary screens have elongate tails to them (Plate 2) and are shaped like 'tension gashes'. It is possible that they have been emplaced within Reidal shears during active strike slip faulting (Wyborn, 1977).

Nearly all granites (particularly the S-types) in the Snowy Mountains Region are foliated. This is a secondary foliation, marked by the preferred orientation of micas and xenoliths, as well as the elongation and fracturing of quartz and feldspar. Quartz is often tinted blue (although this blue colour is more noticeable in samples from the Snowy Mountains tunnels - it seems to disappear rapidly with exposure to weathering). This foliation parallels the dominant cleavage in the adjacent sediments which is axial plane to the isoclinal folds developed in both the Ordovician

and Silurian strata. In places a lineation is present in the foliation plane. Den Tex (1953) showed that orientations of these lineation varied systematically and mapped out a folded surface indicating that the granites have been affected by an earlier deformation event. Thus the lineation is most probably the intersection of two metamorphic foliations rather than the intersection of the later metamorphic foliation with a primary igneous foliation.

During the Devonian sedimentation continued in localised areas and more clastic sediments, felsic and mafic volcanics and limestones were deposited, mainly in the north and the south of the Snowy Mountains Region Minor I-type granites were intruded during the early Devonian and in contrast to the Silurian granites, most of the Devonian plutons are circular or elliptical in shape and do not show any relationship to tectonic features.

The next geological activity was during the Tertiary when basalts were erupted from volcanic centres such as Tabletop and Round Mountain.

The final event was the glaciation during the Quaternary when ice covered an maximum area of 25 to 40 km^2. Glaciation was probably established about 25,000 years ago and by 15,000 ice had almost totally disappeared. Evidence of this glaciation is seen in the five glacial lakes (Lake Albina, Blue Lake, Club Lake, Lake Cootapatamba and Hedleys Tarn), the cirques on the highest parts of the main range and the moraines.

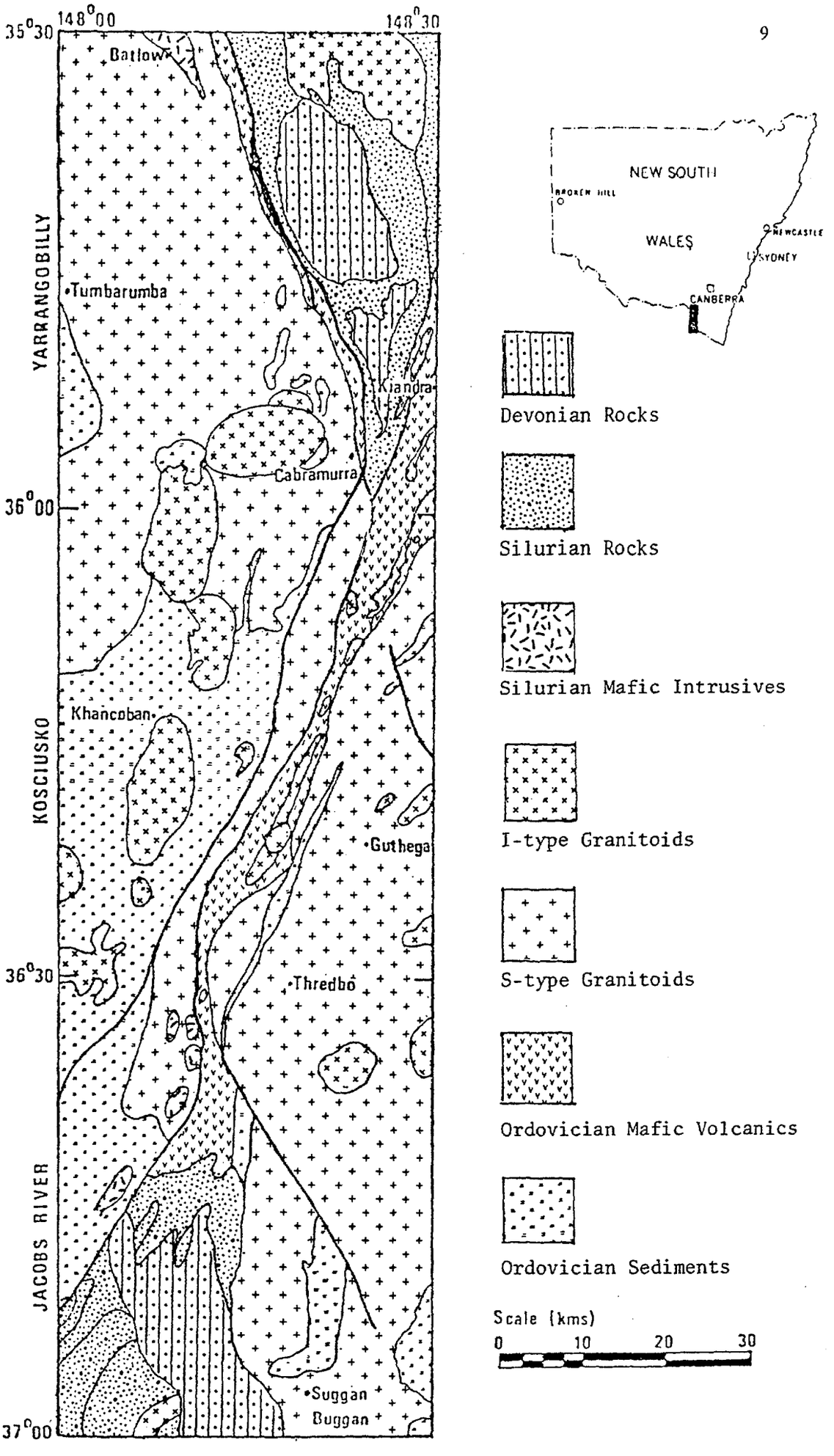


Figure 1. Generalised Geology of the Snowy Mountains Region (from Wyborn, 1977)

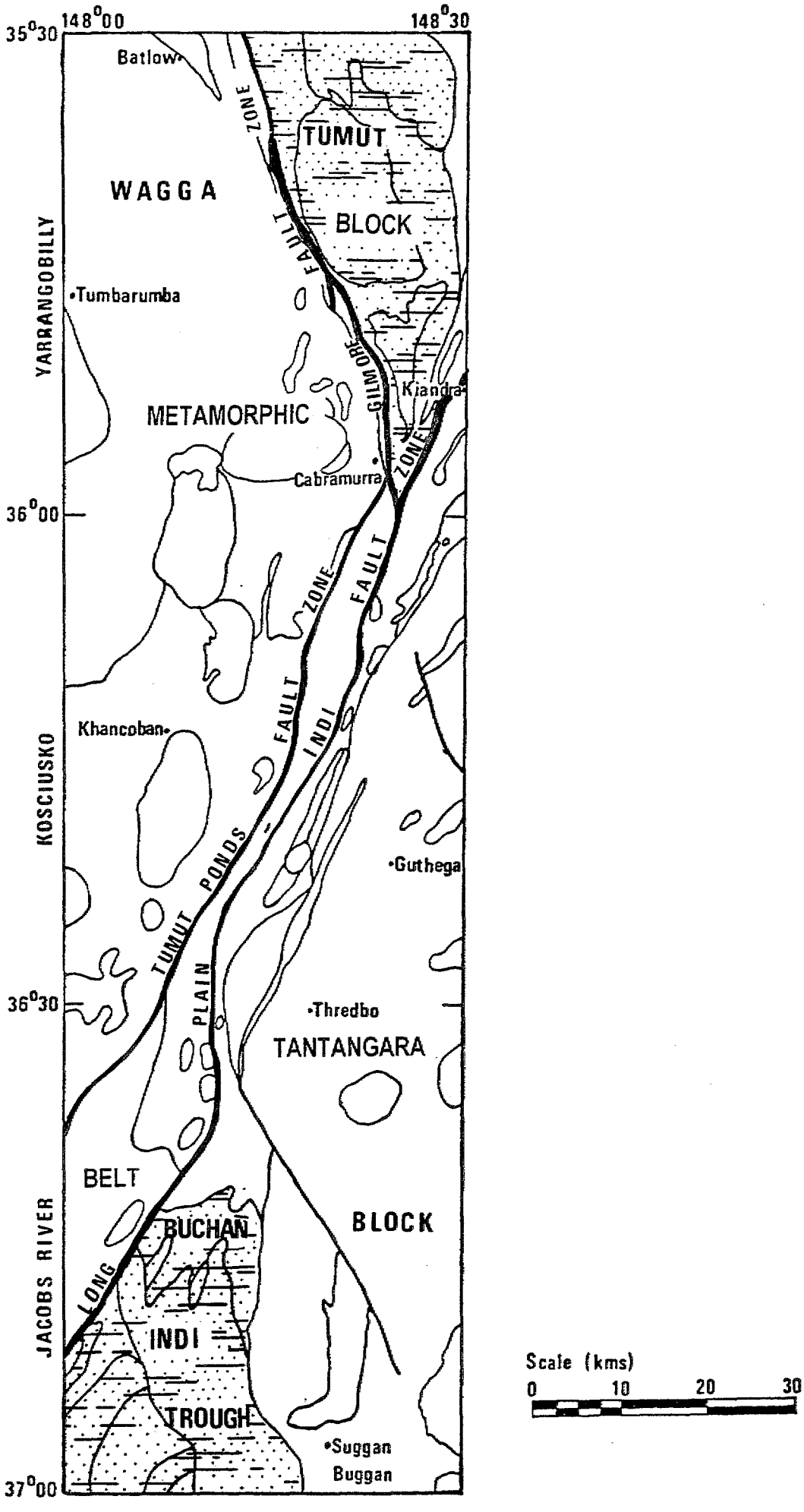


Figure 2. Major Structural Elements of the Snowy Mountains Region (from Wyborn, 1977)

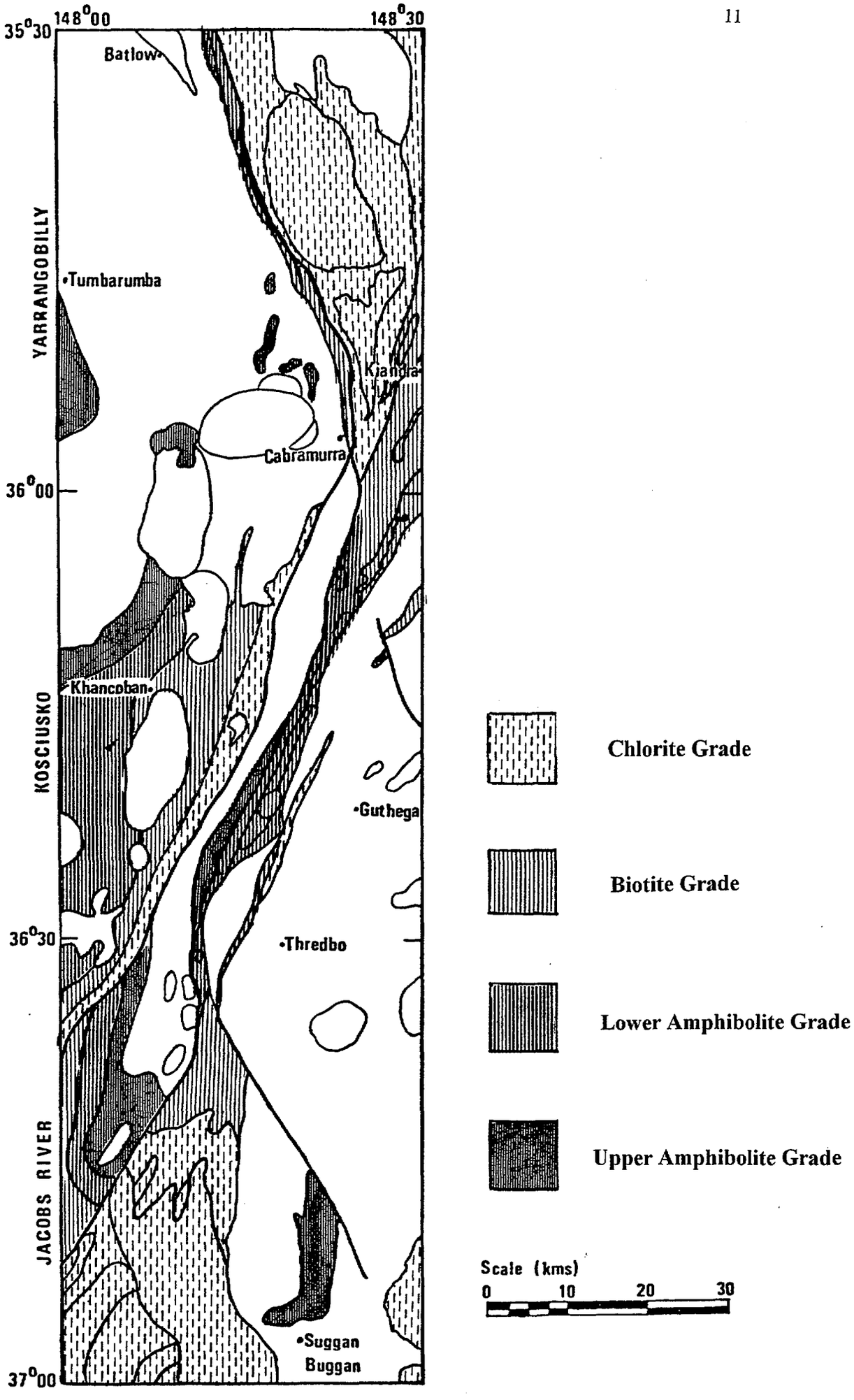


Figure 3. Metamorphic Zones of the Snowy Mountains Region (from Wyborn, 1977)

Walk commentaries.

Part 1. The walk from Thredbo to the summit of Mount Kosciusko - 6 kms.

The walk from Thredbo crosses over the Mowamba Granodiorite, Etheridge Adamellite, Ordovician metasediments and the Rawsons Pass Adamellite. Please refer to the 1:50 000 topographic map (Plate 1) and the geological map (Plate 2) provided.

Point of interest 1 - outcrops near top station on the Chairlift.

The Crackenback chairlift runs within the **Mowamba Granodiorite** (White *et al.*, 1977). (Its map symbol on the Berridale 1:100 000 Geological Sheet is Smo, so when tourists come up from Thredbo, they cross the 'Snow line', whilst geologists cross the 'Smo line'). The granodiorite, one of the largest and more mafic plutons from the Kosciusko Batholith, is a coarse-grained, foliated, mafic S-type pluton with abundant metasedimentary inclusions. The granite intrudes chlorite to biotite grade metamorphic rocks, and is intruded by the Etheridge Adamellite. In thin section the quartz crystals show undulose extinction and consist of either composite grains 4 mm long or microcrystalline aggregates. Plagioclase crystals are twinned and zoned (An_{5-28}) and are usually fractured or bent. Microcline-microperthite forms small grains (up to 1 mm) whilst muscovite occurs either as plates (up to 1 mm) or as small grains interleaved with fine biotite grains. Foxy red brown biotite is present as large, commonly kinked plates (up to 4 mm). Cordierite can be abundant in this pluton (e.g., near Charlotte's Pass) and accessories include apatite, tourmaline, chlorite, zircon, opaques, monazite and zircon.

Point of interest 2 - A few hundred metres after crossing the headwaters of the Snowy River.

After crossing the Snowy River, the track climbs up to the saddle between North Ramshead and the Etheridge Range. A poorly exposed boundary between the Mowamba Granodiorite and the **Etheridge Adamellite** (Wyborn *et al.*, 1990) is crossed a few hundred metres passed the river at around Kosciusko GR 614500E 5962500N. The Etheridge Adamellite is a felsic sill-like pluton, approximately 1 km wide, which runs north east from the Ramshead (Kosciusko GR 612800E 5960700N) to just north of Schlink Pass (Kosciusko GR 624100E 5986000N). The adamellite is coarse-grained and strongly foliated in places, especially near its western margin. A sharp intrusive contact into the Mowamba Granodiorite has been observed at Blue Lake (Kosciusko GR 617600E 5970300N) and east of Mount Clarke (Kosciusko GR 616800E 5967000N). The Etheridge Adamellite has far fewer metasedimentary inclusions than the Mowamba Granodiorite, and contains some inclusions of Mowamba Granodiorite itself. It is possible that some parts included within the Etheridge Adamellite are actually more felsic marginal phases on the western edge of the Mowamba Granodiorite, but this is difficult to establish because of incomplete exposure. In thin section, quartz grains are strained and mostly form large composite grains (4-8 mm) with some aggregates of smaller grains being present. Microcline forms anhedral grains (6 mm long) with abundant microperthitic lamellae. Plagioclase is zoned and twinned and ranges for An_{12} - An_{28}: most cores are altered to clay and muscovite. Biotite varies from green to yellow brown. Muscovite forms coarse bladed crystals and accessories include zircon, chlorite, apatite and sphene.

Point of interest 3 - Saddle between North Ramshead and the Etheridge Range.

Lake Cootapatamba, a glacial lake, is visible from the saddle (Kosciusko GR 613700E 5963500N) and is situated at the head waters of the Swampy Plain River. The cirque was located on the western to south western side of the lake and there are moraine ridges on the eastern side. You may also see a small red hut situated about 1.5 km below the lake - this is one of many similar huts built during the 1950's throughout the Snowy Mountains as emergency shelters for workers of the Snowy Mountains Hydro-electric Authority, who were carrying out stream gauging work.

Point of interest 4 - Ordovician metasediments at Rawsons Pass.

A few hundred metres before reaching Rawsons Pass, the northeast-trending belt of Ordovician slates is crossed. The metasediments include quartzite, siltstone

and some rare black carbonaceous shale. The metamorphic grade is higher on the north western side of the belt (Fig. 3) and at Rawson's Pass the dominant assemblage is biotite + quartz + muscovite. Approaching the Kiandra Volcanic Field to the west, the sediments become more iron rich: actinolite-bearing schists occur near Lake Albina and small almandine garnets are present in metasediments in the old quarry at Rawsons Pass. Both these minerals are not common elsewhere in the metamorphosed Ordovician flysch sequences. Bedding/cleavage intersections of graded beds indicate downward facing folds in these sediments on the old Kosciusko Road 300m north east of Rawsons Pass and east of Mount Northcote (Kosciusko GR 615500E 5967500N).

Point of interest 5 - Climbing Mount Kosciusko.
Commencing the climb up to Mount Kosciusko, the unexposed contact between the metasediments and another leucogranite, the **Rawsons Pass Adamellite** (Wyborn *et al.*, 1990) is crossed. The Rawsons Pass Adamellite is an elongate foliated leucogranite which extends from 4 km south west of Lake Cootapatamba (Kosciusko GR 612400E 5962800N) for 5 km to Lake Albina (Kosciusko GR 614200E 5969800N). A narrow extremity extends to the north from the main pluton for at least 2 km and a similar one extends for 1.5 km to the south. At its maximum width the pluton is 1 km wide. The Rawsons Pass Adamellite is intensely foliated and the more altered samples are albitised. In thin section K-feldspar occurs as microperthite grains 0.5 mm long in which albite crystals have formed. Plagioclase is An_{2-20} and most grains are bent or fractured. Biotite (red brown to green) occurs as grains 2 mm long clustering in aggregates, whilst muscovite is present as coarse cross-cutting blades. Epidote is present in the more albitised samples.

Point of interest 6 - The summit of Mount Kosciusko
Congratulations. You have now climbed Mount Kosciusko which, at 2228 m, is the highest point in Australia. Kosciusko was supposedly first climbed by Paul Edmund Strezlecki on February 15, 1840 who came up from the Geehi Valley to the northwest. Controversy has raged ever since as to whether he did actually make the first ascent or whether he really climbed Mount Townsend just over 3 km to the north instead. Certainly for the next 50 years the local stockmen regarded Mount Townsend as the highest point in Australia.

Part 2 - The Lakes Walk - 12 kms.

The Lakes Walk is mainly though structurally complex Ordovician metasediments. The track also initially passes through the Rawsons Pass Adamellite, and at the end of the walk the Etheridge Adamellite and Mowamba Granodiorite.

Point of interest 1 - Saddle between Rawsons Pass and Muellers Peak.
Here, two different sorts of matting are being tested for durability. Along the Lakes Walk, erosion is becoming a serious problem and these mats are being evaluated as a possible cheaper alternative to the more expensive steel walkway which was installed on the Thredbo-Kosciusko walk. Low down on the ridge to the east, the site of the old Rawsons Pass hut is visible as a patch of exotic grasses at the end of a track. The hut was built for the Snowy Mountains Hydro-electric Authority gauging station program. There was a proposal at one stage to capture waters draining the western and southern sides of Mount Kosciusko with an aqueduct and then pass the water in an east trending tunnel under the saddle you are standing on to the proposed Kosciusko Reservoir which was to be built at Spencers Creek, below Charlottes Pass. These proposals were abandoned, partly in the interest of conservation, but also because as the Snowy Mountains Scheme developed the emphasis became on fewer, larger dams and power stations rather than many smaller dams, power stations and aqueducts.

Point of interest 2 - Just past the saddle between Rawsons Pass and Muellers Peak.
Here there are some blasted exposures of white, foliated Rawsons Pass Adamellite. Look down the valley to the east where large erratics of this white granite are exposed sitting on top of the main sedimentary band.

Point of interest 3 - Muellers Pass.
The contact with the Ordovician sediments is crossed near Muellers Pass, but the contact is not exposed.

From Muellers Pass there is a view of Lake Albina, another glacial lake. The cirque was located on the eastern slopes of Mount Townsend and glacial striae are exposed on the pavement outcrops on the south western edge of the lake. Lake Albina is only about 3m deep at its southern end and is heavily silted. The lake is dammed by a terminal moraine and there are many moraine humps around the lake. The lake drains northwards into the prominent north trending Lady Northcotes Canyon. Several other major creeks or rivers in the granite-dominated Main Range areas trend northwards (e.g. Guthega River, Spencers Creek) and follow dominant joint directions in the granites.

The wooden poles running westerly along the saddle were placed by the Snowy Mountains Hydro-electric Authority for aerial surveillance of the snow depth. Using the observed depth, estimates could be made of the volume of water likely to go into the Lady Northcotes Canyon aqueduct. The other set of poles heads towards the former Albina Hut which was built by the Ski Tourers Association to utilise the excellent steep slopes of Townsend Spur. The original vision was for a series of lodges along the main range; however, as part of a new management plan the hut was dismantled in 1983. The former site can be seen from further along the track

Point of interest 4 - Cliff-like exposures of the Ordovician metasediments.
Stop and have a closer look at the cliff-like exposure of Ordovician metasediments on the track at about 0.5 km south west of Lake Albina at Kosciusko GR 614300E 5967500N. The sediments are multiply deformed, with some garnet present in rare pelitic layers at these outcrops. The garnets are small and are usually only visible in thin section. Overturned graded beds with upright cleavage indicate downward facing folds on the dominant F_2 structure.

Looking to the southwest at the saddle between Muellers Peak and Mount Townsend, the contact between the western sedimentary belt and the Rawsons Pass Adamellite is exposed. Northwards from this saddle, the Rawsons Pass Adamellite narrows rapidly and within 1 km becomes a dyke-like feature 30 m wide.

The granite further to the west of Muellers Peak is the **Lady Northcotes Canyon Granodiorite** (Wyborn *et al.*, 1990) which is well exposed on Mount Townsend, Alice Rawson Peak and Townsend Spur. The Lady Northcotes Canyon Granodiorite is a separate intrusion from the Rawsons Pass Adamellite, and is more mafic and biotite rich . (This granodiorite also has a long narrow tail to the north and south and where is crosses the Alpine Way it is only 300 m wide). The two sediment belts that crop out along the Main Range are thus 'screens' between separate and compositionally distinct plutons and **not** roof pendants within larger granite plutons.

Point of interest 5 - glacial cirque of the Kunama Valley
Just before Mount Lee, looking eastward from the ridge top there is the steep glacial cirque of the Kunama Valley. An avalanche from these steep slopes in 1956 destroyed the Kunama Lodge which also belonged to the Ski Tourers Association (one person was killed). The lodge foundations can be seen some 270 m below on the southern curve of the valley at the base of the spur between Mount Clarke and Mount Northcote.

Point of Interest 6 - Saddle between Mount Lee and Mount Carruthers.
Look east down to Club Lake (or Jurassic Park Lake as my children call it !). Club Lake is very shallow (maximum depth is 2 metres) and is the smallest of the five glacial lakes on the Main Range. On the southern edge of Club Lake is a well exposed terminal moraine which trends north-south. Turn around and look west to some steep slopes on Alice Rawson Peak on the other side of Lake Albina. These slopes were called 'Little Austria' and used to be an attraction to down hill skiers before oversnow transport was banned on the main range. The old fence line exposed along this ridge is a remnant of the days when grazing was permitted on the main range.

Point of interest 7 - view of the Rawsons Pass Adamellite 'tail'.
At Kosciusko GR 615300 E 5969500N track turns east to start the steepish climb to the top of Mount Carruthers. As an excuse for a rest, look back to the south west and compare the width of the Rawson's Pass Granite at Muellers Peak with the narrow width

of the granite immediately to the west below. The narrow white/pink ridge is now the exposure of the Rawsons Pass Adamellite.

Point of interest 8 - Summit of Mount Carruthers.
Stop on top of Mount Carruthers and have a breather. To the southwest there is a view of Mount Kosciusko and the route that we have taken. Turn to the north and look towards the Sentinel (first ridge) and Watsons Crags (second ridge). The main sedimentary screen is well exposed on these ridges. The Rawsons Pass Adamellite does not extend onto these, and the granite on these ridges to the west of the sediments is the Lady Northcotes Canyon Granodiorite. Another sedimentary screen is also visible on the west of this granite, fairly low down on the Watsons Crags ridge. These sediments are volcaniclastics of the Kiandra Volcanic Field and have been metamorphosed to lower amphibolite grade and contain staurolite and garnet. This locality on Watsons Crags is one of the few localities of staurolite in the Wagga Metamorphic Belt. Its occurrence is controlled by the presence of iron-rich lithologies at these localities (these staurolite localities are not higher pressure regions in the Wagga Metamorphic Belt). In contrast, the sediments to the east of the Lady Northcotes Canyon Granodiorite are typical Ordovician flysch sediments and have only been metamorphosed to biotite grade. The metamorphism predates the emplacement of the granite. Also to the north on the skyline is Mount Jagungal which consists of high titanium tholeiitic pillow lavas and is the oldest part of the Ordovician stratigraphy exposed.

Finally, to the southeast there is a view of the ***killer*** climb awaiting you at the end of the Lakes walk from the Snowy River to Charlotte's Pass.

Point of interest 9 - 150m east of the Mount Twynam turn off.
Multiply deformed metasediments crop out 150m east of turn off to Mount Twynam, just 10m south of the track. At least 3 deformations are preserved, along with ptygmatic quartz veins.

Point of interest 10 - Creek crossing track 500 m east of Mount Twynam turn off.
At the creek crossing the track at Kosciusko GR 616600 E 5969900 N look upstream. The banks have been lined with fresh granite, possibly from one of the Snowy tunnels - note the intense blue colour of the quartz grains. Once exposed at the surface, the blue colour rapidly disappears. To the west-south west of the track a patch of exotic grasses marks the site of the old Soil Conservation Hut. The main range suffered considerable erosional damage from grazing of domestic stock which commenced in the mid-1800's and continued until it was finally banned in alpine areas in 1954. With the establishment of the Snowy Mountains Hydro-electric Authority in 1949 the need for revegetation and rehabilitation of the eroded areas was recognised, as it was feared that excessive erosion could lead to silting up of the new dams and aqueducts. The slopes of Mount Carruthers and Mount Twynam were amongst the more severely eroded areas. Initial stabilisation work commenced in 1959, and this hut was established as a base from which the Main Range rehabilitation work was carried out. Evidence of rehabilitation work can be seen all the way down from Mount Carruthers in the form of stone walls, wire netting, bitumen and metal pegs. The current favoured method of rehabilitation involves planting with exotic grasses that require a heavy fertiliser input, then gradually reducing the amount of fertiliser as the native grasses re-establish.

Point of Interest 11 - Blue Lake.
For those of you that still have energy, you can run the 500 m down to Blue Lake Lookout- it is well worth it. The eastern contact between the main sedimentary band and the Etheridge Adamellite is about 50m down the Blue Lake track from the turn off. The contact between Etheridge Adamellite and the Mowamba Granodiorite is exposed near the edge of at Blue Lake, 200 m north of the track at Kosciusko GR 617600E 5970300N. This is one of the few localities where a granite/granite contact is decently exposed.

Blue Lake itself is the largest and deepest of the glacial lakes in the main range. It is approximately 24 m deep and is formed in a rock basin.

Please let others know if you do this trip so that we do not lose you. Return to main track as soon as possible: do not attempt to walk out via Blue Lake Creek - the scrub and boulders are horrendous.

Point of interest 12 - Hedleys Tarn lookout
Hedleys Tarn is another glacial lake and is dammed by a series of horse shoe shaped terminal moraines. Look closely at the granite boulders near the track and you can see some dykes of white Etheridge Adamellite intruding the more mafic and xenolith rich Mowamba Granodiorite.

Point of interest 13 - Approaching the Snowy River Crossing
The chimney is the ruins of James Spencer's cottage located at the junction of the Snowy River and Club Lake Creek. This hut belonged to the summit run, and during summer, Spencer is reported to have grazed thousands of cattle on the main range during the short summer seasons (Geehi Bushwalking Club, 1991). The grazing was detrimental to alpine environment as over-grazing, compounded by an annual burning to promote new growth in spring, led to heavy loss of top soil and gully erosion. At the cessation of grazing in 1954 it was calculated that an excess of a million tonnes of alpine humus soil had been removed from the upper catchment of the Snowy River and its tributaries Carruthers Creek and Pounds Creek (Goode, 1991).

Point of interest 14 - Mowamba Granodiorite at Charlottes Pass
If you still have any enthusiasm left, or if you have arrived way ahead of everyone else, the granite exposed in the road cuts just down from the pass has cordierite in it. If you have more time to fill, it is also worth taking the Snow Gums Walk to the lookouts.

PART 3 - The old Summit Road from Rawsons Pass to Charlottes Pass - 8 kms.

The old summit road crosses the Ordovician metasediments, Etheridge Adamellite and Mowamba Granodiorite.

Point of interest 1 - The old Summit Road
This road was built in 1909 to enable tourists to get to the summit of Mount Kosciusko. It was only closed to motor vehicles during 1982. Major tourist coaches used to drive right up to the summit itself and Australia Post had a post box operating on the summit.

Point of interest 2 - Metamorphosed Ordovician sediments east of Rawsons Pass.
About 200 m east of Rawsons Pass are fresh outcrops of Ordovician sediments in which graded bedding and cleavage intersections indicate the sequence is downward facing. On this western edge, these sediments have been regionally metamorphosed to biotite grade (Fig. 3).

Point of interest 3 - Seamans Hut
Seamans Hut was built as a memorial to two skiers Laurie Seaman and Evan Hayes who perished while skiing down from the summit in 1928. The boundary between the Etheridge Adamellite and the sediments is close to the hut. Note that the eastern half of the sediment belt is in chlorite metamorphic grade and right at the contact between the adamellite and the chlorite grade metasediments some biotite is developed (Fig. 3).

Point of interest 4 - Contact between the Etheridge Adamellite and the Mowamba Granodiorite.
The contact between these two granite phases occurs just west of the Snowy River Bridge.

Point of interest 5 - Mowamba Granodiorite at Charlottes Pass
If you still have any enthusiasm left, or while you are waiting for others to complete the Lakes Walk, the granite exposed in the road cuts just down from the pass has cordierite in it. If you have more time to fill, it is also worth taking the Snow Gums Walk to the lookouts.

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