THE GRANITE BELT NATURALIST

Monthly Newsletter of the Stanthorpe Field Naturalist Club

Registered by Australia Post – Publication No. QBH 1824

PRICE 10c

THE GRANITE BELT NATURALIST

MONTHLY NEWSLETTER OF THE

STANTHORPE FIELD NATURALIST CLUB

P.O. Box 154,
Stanthorpe, Q.,4380.

OFFICERS AND COMMITTEE 1986 - 1987

PRESIDENT	JEAN HARSLETT B.E.M.(833 185
VICE-PRESIDENTS	ROBIN M^{c}COSKER RAY MARSDEN
SECRETARY	DOT ARCHER (811 754)
TREASURER	JOAN STEVENSON
NEWSLETTER EDITOR	MILLIE MARSDEN
NEWSLETTER SUB COMMITTEE	DORE M^{c}COSKER JOAN STEVENSON BRUCE GIBSON
PUBLICITY OFFICER	TOM ARCHER
LIBRARIAN	JANET HOCKINGS
FLORA & FAUNA OFFICER	BRIAN M^{c}DONAGH
GEOLOGY OFFICER	COL HOCKINGS
YOUTH OFFICER	RAY ROLLAND
BUSHWALKING OFFICER	RAY MARSDEN
COMMITTEE -	Frank Wilkinson
	Don Lighfoot
	Roy Werner
	Esme & Bob Lacey
	Ailsa Wilkinson
	Lyle Thompson
HON. AUDITOR	JOAN FERRIS

MEETINGS 4th WEDNESDAY of each month at the C.W.A.Rooms at 8 p.m.

OUTINGS - The SUNDAY PRECEDING the 4th Wednesday of the month.

ANNUAL SUBSCRIPTIONS

Single - $6.00 Family $10.00

AIMS OF THE CLUB

1. To study all branches of natural history.
2. Preservation of the Flora and Fauna of Queensland.
3. Encouragement of a spirit of protection towards native birds, animals and plants.
4. To assist where possible in scientific research.
5. To publish a monthly newsletter.

Minutes of the General Meeting held on Wednesday October 22nd, 1986

OPENING. President Jean opened the meeting and welcomed all present in particular our visiting Guest Speaker Stewart Watt.

MINUTES. Moved by Ray Marsden and seconded by Mary Walters that the minutes circulated in the October Newsletter be taken as read and confirmed. Carried.

CORRESPONDENCE. Inward received from 1. Mrs. Marion Carney of Warwick requesting information re our club. Newsletters and Journals from Q'LD Naturalist Club, Darling Downs Naturalists Club Toowoomba, Richmond Valley Naturalist Club Lismore, National Parks Assn., of Q'ld. Government in Focus. Outward forwarded to - Bruce Tullock and Stan Heath thanking them for permission to cross their property on Sept. 21st outing. 4QS re Meeting and Outing notices. Mrs. Carney enclosing a copy of our October Newsletter and outing write-up from Border Post.
Moved by Esmé Lacey and seconded by Lyn Boggen that the inward correspondence be received and the outward endorsed Carried.

TREASURER'S REPORT.

Balance as at 24/9/86			$153.48 Cr.
Receipts	Subscriptions $38.00		
	Room Rent Collection $5.60		43.60
			197.08 Cr.
Payments	Room Rent	$6.00	
	Magazine Duplication	$6.00	
	Magazine Postage	$ 15.00	
	Carbon Copy Book	$5.75	32.75
Balance as at 22/10/86			$164.33 Cr

Moved by Treasurer Joan that her report be received and the accounts of $6 Room Rent, Magazine Postage $15 and Magazine Duplication $6 be passed for payment. Seconded by Millie Marsden. Carried.

PRE-OUTING REPORT. Meeting at Weeroona Park at 9.30am and meeting the leader at Dalveen Post Office at 10am. Leading from there along Old Warwick Road and ending the outing at Pozieres around 4.30pm.

NEXT OUTING. Camp-out to Gibraltar National Park - leader Ray Marsden. 22nd and 23rd November, more details in November Newsletter.

NEXT MEETING. Jean Harslett will be the Guest Speaker and her subject will be "Pleasures of Field Naturalist Interests".

GENERAL BUS. The secretary would be pleased to receive petty cash.

As there was no further business the meeting closed at 8.20

PROGRAMME. Tom Archer introduced the Guest Speaker Stewart Watt who gave an interesting talk on Geology or Earth Science as it is now called in the schools. Stewart showed maps with areas in our own district marked with the various rock formations and then told us how this occured. All present joined in a vote of thanks to Stewart at the conclusion of the evening.

Dorothy Archer.
Hon. Sec.

Outing report - Our last outing on Sunday the 26th of October was organised to follow the general meeting on the previous Wednesday. At this meeting Stuart Watt, Teacher of Earth Science at the Warwick High School gave a most interesting talk on the Geological History of this area. The outing was organised to see first hand most of the different types of rocks mentioned between here and Warwick. We had not realised before what a varied and turbulent history this district had gone through. The following Stuart's notes of the talk he gave us.

"As far as the length of the local history goes it is not particularly long by Australian standards - only about 400 million years, (More than half of Australia has a recorded history of at least 1000 million years) but that time has allowed a number of episodes of activity and produced a fairly complicated area, particularly just north of Stanthorpe.

The first recorded activity was in the Devonian Period (about 400 M years ago), when violent eruptions of volcanoes producing tuff (fine volcanic ash welded together) and agglomerate (coarse volcanic ash) are recorded. Things then quietened down for a bit and fine sediments (mainly shale) were deposited. These rocks (the volcanics and the sediments) are found mainly around Risdon Stud and amount to nearly 2 km thickness. After this a second dose of the same came along for about 1.5 km thickness of the Connolly Volcanics (found around Connolly Dam) and later a more extended quiet period when just over one km of mainly marine sediments were deposited. (Rosenthal Creek formation) Thus, in the 15 or so million years from 400 m years ago the area was volcanically active producing tuff, agglomerate and also quite a lot of marine sediments. Unfortunately, active erosion in the area has removed all but a small area of these sediments while subsequent earth movements (mostly from the intrusion of some granites which I guess you know a little about already) has left a very complicated outcrop.

Since most of the sediments are related to the volcanic rocks, it seems that the area was its own source of sediment, and some limestones in the Connolly Volcanics and Rosenthal Creek Formation contain coral fossils - it would appear that the area was a group of volcanic islands with no near landmass - probably stretching in a NW - SE direction.

After a short break, new sediments were laid (possibly on top) but certainly over the west of the area. These were an enormous thickness of Sandstone, Mudstone, Conglomerate and Limestone with a little volcanics thrown in for good measure. These are called the Texas Beds (and locally referred to as trap rock). One interesting rock is an intraformational conglomerate, where large blocks of partly formed rock are jostled and broken and the cracks filled with another sediment. This indicates considerable earth movement during sedimentation - not usual. No obvious source of the sediment or its direction of movement can be guessed at, but corals in some of the limestones suggest shallow marine conditions.

Another break was followed by the deposition of a series of now seemingly unconnected and confused sediments - firstly the Eurydesma Beds, Eight Mile Creek Beds and rocks near Maryland, Pikedale and Alum Rock have limestone conglomerate, sandstone and siltstone mixed with a little Volcanics - the Rhyolite Range Beds with the same sediments but considerably more volcanics, and lastly the Condamine Beds with a return to the original mixture. These sediments contain bivalve shells (the Eurydesma Beds at "Rokeby" are so packed with one variety that its name comes from it), lampshells (particularly the Eight Mile Creek Beds), sea fans and corals and the area seems to be fluctuating between shallow marine, coastline and land. As can be seen though these rocks are now only present in small areas, separated completely from one another. This separation is hardly surprising though when the other activity already going on in the area is considered - the intrusion of various parts of the New England Batholith. The granites of this part of it are not all the same and were formed at widely different times. The first

was the Dundee Adamellite Porphyrite. (Don't get the idea that the names are some sort of Magic - Porphyrite or Porplyry just means 2 distinct sizes of crystals and Adamellite is very close in makeup to granite - just a bit greyer usually). Anyway the Dundee Adamellite Porphrite, (locally called 'Blue Granite') is the earliest of the New England mass im this area (dated at 242 m years ago which puts it about the same age as the Rhyolite Range Beds). In the various places around the area, this molten rock got to the surface as volcanic rocks. These are mostly the Drake Volcanics with some darkish rholites and ardesites but mostly tuff and volcano-derived sedimentary rocks. Fossils from near Rivertree and crinoids (sea lillies) from west of Drake suggest activity over a long period. Then followed a fairly quick series of intrusive rocks - firstly the Maryland Granite (a blue-grey granite), then a pink, large-crystal adamellite (Bungalla Adamellite in the south and Undercliffe Falls Adamellite in the north - both dated at 225 m years - they're probably the same rock), then the most extensive rock in the area, the Stanthorpe Adamellite (grey with large crystals) dated also at 225 m years, then the grey, medium grained Herries Adamellite to the north, and the Ruby Creek Granite (pink, fine grained and dated at 225 m years). Finally, a series of dykes (in our area mainly a quickly cooled granite or aplite) were squirted into weaknesses in the rocks.

Being in Stanthorpe I suppose I would be remiss if I didn't mention tin and the first striking feature is the correspondence of tin areas and Ruby Creek Granite. All the tin around Stanthorpe has been found im streams draining areas of this rock. By comparisom the lode tim in the Sundowm area is in Ruby Creek Granites or in veins close to it. This fits nicely in that cossiterite (tin oxide), the ore mineral, has a large size and would probably be left out of earlier rocks because it wouldn't fit into the crystals. This effectively concentrates it into the last granite (here the Ruby Creek Granite). I might point out that this process wouldn't be limited to tin and it is interesting that the gold at Karangi and Rise-n-Shine, the copper at Kilminster and Sundown, the silver-lead at Pikedale and Silver Queen, the arsenic at Jibbinbar and Sundowm and scattered occurences of molybdenam and wolfram <u>all</u> are in or close to outcrops of Ruby Creek Granite.

After this, things settled down for awhile and about 160 m years ago a quieter type of deposition started. The shallow marine and river flood plain sediments of the Marburg Sandstone were produced with much evidence of granite close and much plant material (particularly petrified wood). About 400 m years of this variable rock (mainly sandstone with much crossbedding shales and conglomerates) exists im the area. Following immediately, the coastline seems to drift to the east and the area contains flood plaim, lake and tidal margin deposits of the Walloom Coal Measures (fine sandstones, shale and coal).

The last phase of activity was the basalt volcanic activity about 25 m years ago which formed the Main Range, the Lamington Ranges and Richmond Range.

Putting it all together, the result is somewhat awe-inspiring."

We do appreciate very much Stuart coming to give us this talk and them being our leader on the Sunday after to show us some of these wonders.

Many thanks indeed.

AFRICAN BOX THORN.

Every so often, as we drive along country roads, a clump of trees or a flowering shrub, obviously foreign to the surrounding bushland, catches our attention. We may ponder why it was planted there and by whom. Usually it is all that remains to mark a long abandoned home site.

Near our morning tea stop at Eight Mile Creek, as well as the trees and shrubs, there were the skeketal remains of a butcher's slaughter yard. It was an interesting peep into the not too distant past. The facilities, acceptable at the time, would certainly be frowned on by today's health inspectors.

Hardy shade trees planted around were the ubiquitous pepperinas. No one was able to identify the equally hardy thorny shrub bearing small mauve flowers with a purple centre.

A knowledgeable friend assured me that anyone from Victoria would have recognised the African Box Thorn. It is a declared noxious weed in that state. At home in South Africa it was planted by the natives in hedges around their Kraals(villages) as protection against wild animals.

It was probably brought to Australia for a similar reason, but, like the gorse from Scotland, blackberries, prickly pear and the rest, it got out of control in this country.

Dore McCosker.

The Camp Out to Gibraltar National Park will be a "do your own thing" until Saturday lunchtime. Several people have indicated that they will travel down on Friday and set up camp at Mulligan's Hut. Camping spots are clearly defined and there are toilets and cold showers. The park is Approx. 1200 meters above sea level on the eastern highlands of the New England Tableland. To reach the park you will travel south from Tenterfield along the New England Highway, turnleft at approx 125ks at turnoff from Dundee across to the Gwydir Highway(about 12ks across) turn left on to highway and continue to turn off to Gibraltar National Park . We understand that there is no resident ranger. Mulligan's camp is some distance in from the turnoff , from memory about 6ks.

Excellent walking tracks radiate from the camping area through vegetation ranginf from heathland to open forest to rain forest. Granite tors are a feature and one would hope that we will be able to see waratahs in bloom. Both species of lyre bird are known to be there and birdlife is abundant. Native flowers are also prolific and it is hoped that we will be well rewarded in this line.

It is planned that a walk will leave the camp at 1pm on the Saturday afternoon and again at 8 am on the Sunday.

P.S. Don't forget the areoguard, the last time we were there we were nearly eaten alive by flies - but don't let that deter you. There are so many things to see and do.

There is a natural swimming hole close to camp so bring your bathers also. See you there!

Ray.