

THE GRANITE BELT NATURALIST.

Monthly Newsletter of the Stanthorpe Field Naturalist Club.

No. 30

August 1972

P.O. Box 154, Stanthorpe.

Officers and Committee 1972 - 1973.

President	Mrs.R. Harslett	Ph. Amiens 5U.
Vice Presidents	Mr. W. Cathcart and Mr. F. Wilkinson.	
Secretary	Mr. E. Walker.	
Treasurer	Mrs.R. Leisemann	
Editors	Mr. I. Jackson, Mrs. T. Chapman	Ph. 232
Newsletter Sub-Committee	Mrs.B. Krautz and Mrs. W. Cathcart.	
Librarian	Mrs.R. Tremear	
Publicity Officer	Mr. T. Chapman	
Bushwalking Officer	Mr. R. McCosker	
Geology	Mr. P. Higgins.	
Flora	Mrs.W. McCosker	
Fauna	Miss J. Westcott	
Youth	Mr. G. Marsden	

Activities.

Meetings	4th Wednesday of each month
	C.W.A. Rooms 8 p.m.
Field Outings	Sunday preceeding 4th Wednesday.

Annual Subscriptions.

Single \$1.50	Family \$2.00
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Programme.Field Outings:

<u>Place</u>	<u>Date</u>	<u>Leader;</u>
Harsletts' Area	20th August	Mr. J. Harslett.

Meetings:

<u>Subject</u>	<u>Date</u>	<u>Speaker.</u>
Programme to be arranged	23rd August	
"Remember Last Year"	27th September	Film Night.

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The Programme listed in previous Newsletters for the night of 23rd August 1972 has been postponed due to the number of members who will be absent during the School Holidays, and have expressed their interest in this programme.

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Did you know: A sunrise is a sunset played backwards?

THE GRANITE BELT NATURALIST.Minutes of the Annual Meeting held 27th July, 1972.

Forty two members were present with apologies being recieved from six.

Minutes of Previous Meeting: The Minutes of the previous Annual Meeting were moved by Mr.E.Walker seconded by Mrs.R.Harslett. Carried.

Treasurer's Report: Moved Miss J.Westcott seconded Mr.D.Orr that the following statement of the Club's Financial affairs be accepted. Carried.

INCOME AND EXPENDITURE FOR YEAR ENDED 15th JULY, 1972.

<u>INCOME</u>	\$	<u>EXPENDITURE:</u>	\$
Magazine Subscriptions	99.00	Donations - Pioneers Dinner	5.00
Membership Subscriptions	30.00	Rent - C.W.A.Rooms	3.00
Donations	3.50	Rent - P.O. Box	4.00
Bank Interest	1.50	Presentation Photo	10.00
		Group Membership Y.H.A.	2.00
		Magazine - Stationery	44.58
		" - Duplication	22.50
		" - Postage	19.63
	134.00		110.71
		Balance 1st July 1971	Dr. 1.98
		" 15th July 1972	Cr. 21.31
	<u>\$134.00</u>		<u>\$134.00</u>

President's Report:

Mr.W.Cathcart presented his report of Club activities for the past 12 months during which he presided as President.

Election of Officers: Following is the result of the election of Officers for the forthcoming year:

President	Mrs.R. Harslett
Vice Presidents	Mr. F. Wilkinson and Mr. W. Cathcart
Secretary	Mr. E. Walker
Treasurer	Mrs.R. Leisemann
Newsletter Sub-Committee	Mrs.B. Krautz and Mrs. W. Cathcart.
Librarian	Mrs.R. Tremere
Editors	Mr. I. Jackson, Mrs.D. Orr, Mrs.T.Chapman
Publicity Officer	Mr. T. Chapman
Flora Representative	Mrs.W. McCosker
Fauna	MissJ. Westcott
Geology	Mr. P. Higgins
Youth	Mr. G. Marsden
Bushwalking	Mr. R. McCosker

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Minutes of General Meeting held 27th July, 1972:

This meeting followed the Annual Meeting with forty two members present and six apologies being received.

Minutes of Previous Meeting: Moved Mrs.R.Tremere, seconded Mrs.R.Marsden that the minutes of the June Meeting be confirmed. Carried.

Inward Correspondence: (i) Newsletters from other Nats Clubs.
(ii) Letter from Ranger of Gibraltar Range National Park requesting a guide in the Spring on the Granite Belt.
(iii) Press releases from D.P.I.
(IV) Questionnaires from Adult Education to be answered by Club Members.

THE GRANITE BELT NATURALIST.Minutes of General Meeting held 27th July, 1972, Cont.:

Outward Correspondence: (i) Letter to Board of Adult Education with details of July meeting and outing for advertisement and monthly reutrnr.

(ii) Letter to National Parks Assn. advising that we are willing to swap monthly magazines with their Association.

Treasurer's Report: Credit Balance 15th July, 1972 \$21.31.

Business from Minutes: A request was made by the librarian for an extra copy of the Newsletter to be made available for filing as a club copy.

General Business: Mrs. R. Harslett volunteered to guide Mr. Roley Payne, the Gibraltar Nat. Park Ranger, on a wildflower tour in the Spring as requested by him. A letter is to be sent to Mr. Payne with these details.

The President reminded the meeting of the extra outing to Ten-terfield on the 6th August.

It was decided after discussion that out of pocket expenses by the magazine editors be reimbursed by account with the Treasurer.

The Secretary to obtain further supplies of paper for the Magazine.

A letter to be sent to the owner of the property on which the last outing was held thanking him for the use of same.

Outing Report: Mr. T. Chapman, the leader of the last outing to North Branch reported on that outing at which 30 people attended.

The Meeting was closed at 9 p.m. when Mr. T. Ryan lectured to the Club on National Parks.

A vote of thanks was extended by Mr. E. Walker.

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MY VISITORS:

While poking around in what the frost and sundry stray cattle had left of my garden, I found an old toy pistol. Leaving it on the grass, I went into my kitchen for meat scraps for my "pet" wild birds. I placed the meat just inside the door.

My regular guest, Butcher Bird and mate swooped at once, carrying off their prizes, much to the disgust of the less confident Kookaburras, perched on every fence post!

To my amusement "Jack" suddenly dove onto the toy pistol and was air-born before it dawned on him that he held nothing very tasty, (do Kookas need apeps? I have often seen them cannon into the wire-netting.)

I threw more meat on the floor and was amazed when one of the Kookas flew inside at last and stood there awhile sizing up the place, before taking off with a large morsel amid the envious looks of his more timorous mates.

M. FAUNTLEROY.

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CAR STICKER AND CLUB BADGE:

Subject to cost and club interest thought is being given to having a Stanthorpe Field Naturalist Club car sticker and a club badge. Before quotes can be obtained we need to decide an appropriate design. Our Nats. Magazine cover which is a combination of disigns submitted by members has proved very suitable and received favourable comment.

Now we want your suggestions for a Sticker and badge. Possibly something along the lines of the Magazine Cover for the sticker, but simpler and more symbolic for the badge. As we want to get an idea as to cost as soon as possible, bring or send your designs to the next meeting. Sit down now!!

August 1972.

THE GRANITE BELT NATURALIST.NATIONAL PARKS:

By the turn of this century, the only remaining areas of natural forest and unspoilt land will be National Parks and reserves. Since the beginning of settlement, our natural forests were looked upon as nothing more than an impediment to agriculture and many species of valuable timber trees, with perhaps an exception in Red Cedar, were cut down and burnt where they fell. Australia now faces a heavy import for timber.

Should not there be a lesson here? But will the lesson be learnt well enough to be applied to something less tangible and less obvious than timber? If future generations find the National Parks which we will be passing onto them, hopelessly inadequate for their needs, they will not be able to compromise by imports, nor will they be able to create more new parks.

Most of Qld's. parks are located near the coast and therefore near the highest concentration of settlement. Many of the Parks are small, some less than 100 acres. Regretfully, many were created for no more reason than to have a representation of a particular type of forest or habitat. Many of these Parks cannot be enlarged as the adjoining land has been altered by man's interference. In most instances it has been altered to such a degree that it is now entirely different from the unspoilt forest in the adjoining Park. The Nat. Park at Ravensbourne is a good example of this environmental change. This little park of 120 acres was declared a National Park many years ago to represent the Ravensbourne Rain Forest. That section of the Great Dividing Range was originally very dense rain forest with many unusual botanical aspects. The notable was the inclusion in the rain forest of many Eucalyptus Saligna (Sydney Blue Gum) and Eucalyptus pilularis (black butt) growing side by side with rain forest types.

In the early days of settlement, the dense rain forest was cleared for the establishment of dairy farms and the natural grasses were soon overtaken by the introduced Kikuya. In 1964, the then D.P.I. compared soil samples from the Nat.Park, with those collected from beneath the Kikuya on an old dairy farm. The results showed that the farmed soil had altered to such a degree that in its present state, it could never support rain forest trees again. From the approx. 17,000 acres of original rain forest, no more than 700 remain, and except for the 60 odd acres in the Nat.Park, all has been denuded of its hard wood and scrub trees, making this rain forest totally unsuitable for Nat.Park purposes. In the early days of Ravensbourne, Red Cedar was milled at several saw mills, and many men were employed. Today 3 cedar trees of any size remain, and thankfully, these are within the Nat.Park.

The present area in Australia declared as Nat.Parks is adequate for the needs of the public of today, but I stress the public, not the needs of our unique wild life. Many of our parks contain some of the world's unique flora and fauna, Girraween Nat.Park at Wyberba is a good example. Apart from the wild-life, our Qld.Parks sadly lack representation of many Botanical types. There are several representing rain forest types, but even these are lacking. Dr.Well lists 26 rain forest types, 4 are well represented in Q'ld.Nat.Parks, 9 partially represented and 13 not at all. If we leave out the Simpson Desert Park, hardly typical Western Q'ld., in normal seasons anyway, we have but one Park west of the Divide, 10,000 acres near Moonie. The big Central Parks, Carnarvon, Robinsons Gorge, Salvator Rosa are all on the eastern fall. We have no western river areas or Gulf of Carpentaria river systems preserved.

Unfortunately, most of the coastal parks are close to a large town and popular with the nature seeking public, hence we have a situation which will prove hard to reverse.

THE GRANITE BELT NATURALIST.NATIONAL PARKS Cont.:

The basic aim for a Nat.Park is to have an area preserved in its natural state for all time, but even with the utmost care, and the most diligent visitors, how can one expect to keep it in its natural state for all time if many thousands of feet tramp over it?

Fortunately, we have not reached the situation that the Americans know in many of their Parks - severe over-crowding, stream and air pollution and disappearance of their wild-life. Pollution in America is a big problem and the famous Yellowstone Park is a good example. During a recent summer vacation period, 20,000 camp sites were filled with the result that the smoke from 20,000 camp fires registered a higher degree of air pollution than did the Friday evening traffic in downtown Los Angeles! This not only highlights the need for more Nat.Parks, but more careful planning and siting of campsites, as Yellowstone is in a valley.

Most Parks in Aust. are fortunate in that we do not allow camping. This is not popular, but there are valid reasons. I will use Qld.Parks as an example, not being familiar with some southern systems. As stated before many of our parks were originally surveyed to contain a particular type of forest or habitat, the most scenic part of the range or island, with little thought for the future. Early Administrators could not have known of the coming affluent society when almost every-one has a car and a postage stampsized allotment to live on. At Girraween where we do permit camping, we have found the average camper regards his little site as his own but some picnickers regard all as theirs and we have had harsh words between the two.

Another reason for not permitting camping is that if you have a semi-permanent population you have to provide more and bigger toilets more facilities fire-places and a whole lot more fire wood. It is necessary to supply wood for if we allow people to collect their own, they will often cut up a tree we don't cut up or a table and seats will be cut up and burnt!

Third reason is a basic conservation principle. Many picnic areas are sited on old established feeding and watering grounds for some of the larger marsupials of the Park and if people are in occupation for 24 hours a day, these animals will be deprived of these necessities.

What then are the probable future needs and requirements of a Nat.Parks System? In this country we have a rapidly increasing population. Technology is pushing agriculture into marginal lands, irrigation and hydro-electric schemes are increasing and all demand more land to be opened up, more streams to be dammed and diverted. Can National Parks legitimately compete for land with these forms of economic expansion?

Some 'knockers' will say, "Why should more good land be put aside as Nat.Parks, for what are the benefits?" Many obvious ones come to mind, apart from the basic needs of preservation. There are urgent needs for virgin land for water run-off into storage dams, there is urgent needs for timbered land to combat soil erosion and natural purifying of the air and the possibility that large stands of timber attract rainfall cannot be over-looked.

Very little work has been done in the medicinal and drug possibilities of our flora and if the flora has been destroyed many beneficial compounds maybe lost forever. The list of drugs and foods obtained from botanical sources is enormous. No one can say what value any native animal or plant may have in the future, there are centuries of work to be done, yet much of our wild-life seems doomed within the next decade.

From an address by T. RYAN.

To be Continued.

THE GRANITE BELT NATURALIST.North Branch Campout:

On Saturday 22nd July, 30 of Stanthorpe's hardy Nats. set up camp in a beautiful spot on North Branch Creek. There was a flat, grassy, treey area along the banks of a beautiful mountain stream. Truly an ideal place to pitch tents and our camp even included a caravan, but no electric blankets!

After lunch most members set off for Mt. Devlin, a nearby 3,134ft. peak. The mountain appeared quite close and an easy climb, but both of these assumptions proved incorrect.

A relatively easy walk up a spur led to the saddle of the range which we followed to the base of the peak with just a few inclines to stretch the leg muscles. The final ascent was steeper, but the view from the top was well worth the effort. On the summit a large aluminium-foil marker had been laid out for use during a recent metric survey by the Army.

From the peak we looked down the North Branch Valley with its surprisingly large area of cultivation, then onto Gladfield and down the Glengallon Flats and for miles and miles to the west where the view was interrupted only by distance. Through a gap in the range to the north-west we could see into the Dalrymple Valley where Allora could be clearly seen with binoculars. To the south-east was Spicers Peak and the two humps of Mt. Mitchell while through a gap Mt. Barney stood a solid mass in the distance. Closer at hand and to the north-east, we tried to locate our camp, but it was well screened by the canopy of trees. We could, however, trace the cliff, the saddle and the main ridge that was to be the scene of activity next day. The demarkation line between rain forest and eucalyptus scrub stood out clearly following well down the valleys, but receding up the ridge.

A feature of the eucalyptus clad ridges was the surprisingly dense stands of the root-parasitic wild cherry (*Exocarpus cupressiformis*). The sight of a healthy clump of mistletoe on a wild cherry was a good example of a parasite living on a parasite. Other plants to attract out attention were some fine specimens of Grass Trees (*Xanthorrhoea* Sp.) which brought the cameras out, and luxuriant clumps of the large-flowered red lilly (*Doryanthes excelsa*). The latter growing on the southern and western side of the peak must add a splash of colour when in bloom.

The return trip to camp was much easier and quicker, but harder on the seats of some pants!

At night we all enjoyed the camp fire while listening to taped Australian songs and live guitar music. No one was in any hurry to leave the cheerful warmth of the fire, but eventually silence did descend on the moonlit valley.

If anyone says it wasn't cold at night, don't believe them. It was cold, but as we were camped amongst trees there was very little frost and the temperature was obviously higher than the 22° recorded at Stanthorpe that Sunday morning. Despite the cold, in fact probably because of it, most people were up early. Two more cars arrived from Stanthorpe and Mr. Frank Brown came from Gladfield and then everyone was off for what proved to be a strenuous day.

Mr. Brown, a member of the N.P.A., led a party from the camp up to and through a gap in the rocky cliff to a large red soil plain on top. As much of the ascent was done on hands and knees there was ample opportunity for close observance of several species of ground orchid, many of them heavy in bud.

The other members took what their leader described as an easier route up into a saddle on the ridge and there both parties met for lunch. There were some unkind things said about the above mentioned leader and at one stage it looked as if he might have been the 'menu' for lunch.

An old timber chute near the lunch spot was of great interest and we

THE GRANITE BELT NATURALIST.North Branch Campout Cont.:

tried to visualize the spectacular sight of huge logs flying through the air and crashing into the valley way down below.

After lunch a relatively easy walk led to the rain forest which covers a large area from Cunninghams Gap northward along the main range. Following a survey line, we went some distance into the forest and a saw-miller in our party had a running battle between his naturalists interests and his saw-milling instincts.

Time, and tiring limbs, didn't permit an extended stay in the rain forest, but while there we were entertained by a vociferous Lyre Bird - a master of mimicry. At one stage a white Cockatoo screeched overhead and almost immediately an identical screech came from the depths of the undergrowth.

Another quick return and it was time to break camp. As all the good books say "we reluctantly headed for home, tired but happy". What is more though, we all felt that we knew more about the beautiful North Branch Creek and its surrounding ridges and we all hoped that it wouldn't be long before the next camp-out.

TOM CHAPMAN.

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Hints, questions etc.:

Have you an idea or handy hint someone else might like to know?

Each month we will set aside a space where readers are asked to forward their hints. This month the subject will be camping. Here are a few examples to get you started:

- (i) Always build your cooking fire so that the wind does not blow smoke through your camp. This avoids watery eyes smokey clothes etc.
- (ii) Camping under a tree in wet weather does not pay dividends. Long after rain has stopped, droplets fall whenever the wind blows.
- (iii) Keep food cool when no refrigeration is available by placing in a watertight container in a shaded part of a running creek making sure it is fast & cannot float away when you leave.
- (iv) If your feet are cold - put a hat on!

Go to it! Write down your Handy Hints and let us have them. It would help other members if they wished to know more about your subject if your name accompanied your contributions, but you may remain anonymous if you wish.

Contributions should reach the magazine committee before 1st September. Members who have a query on the subject of the month should send these in also, and maybe another member can help you.

Eds.

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PROPOSED CLUB SAFARI: At the July meeting a tentative suggestion was made that club members join in a week long safari to Carnarvon Nat. Park in Cent. Qld.

The plan envisaged is to leave Stanthorpe on a Sat. morn aiming for Injune where we could camp or stay in the motel overnight, then on to the Park which should be reached Sunday afternoon. We would leave again on the following Sat. and expect to arrive in Stanthorpe on Sunday evening.

Camping facilities are excellent. There is a very good Nat. Park camp providing facilities similar to Girraween. In addition there is privately owned Carnarvon Tourist Lodge where accommodation is available, ranging from caravan sites to cabins with or without meals. Hot showers, meals, food and petrol supplies are also available to the public.

THE GRANITE BELT NATURALIST.PROPOSED CLUB SAFARI Cont.:

Activities would be planned for each day giving a choice of strenuous or lazy projects and it is hoped to arrange film or slide evenings as well as camp fire entertainment.

The immediate question is a suitable week. This would probably have to be during May or August school holidays to suit those with young families.

Could everyone who is interested please let us know by the August meeting:

- (i) Which week would suit your party.
- (ii) Would you camp at the Nat.Park or require accommodation at the Tourist Lodge.

Please let us have your ideas and suggestions and we will try to organise something to suit the majority.

If you won't be at the meeting, please ring us at Stanthorpe 232.

I.M.CHAPMAN.

--oOo--

Outing to Harsletts' Area:

Cars will assemble at Weeroona Park for departure at 9.30 am.

The day's activities include viewing aboriginal markings, climbing Mt. View and Mt. Ferguson, visiting some falls and rock formations known as the Sow and Pigs, and for those so inclined hunting for crystals and topas.

J.HARSLETT.

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REMEMBER:

DESIGNS FOR CAR STICKER AND/OR CLUB BADGE AT NEXT MEETING.

YOUR IDEAS ON PROPOSED CLUB SAFARI TO CARNARVONS.

OUTING TO HARSLETTS' AREA ON 20th AUGUST.

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Outing to Tenterfield Area scheduled for 6th Aug.:

Once again Phillip Ingram was washed out!

It is beginning to seem as though the weatherman is not in favour of The Stanthorpe Field Naturalists paying a visit to the Gerard State Forest!

--oOo--

Did you know:

The sleep of a true hibernating animal is almost like death and quite unlike ordinary sleep. When an animal is hibernating, its life activities nearly stop. The animals burn the food stored in their bodies very, very slowly, and as a result they burn less fuel, need less oxygen so their breathing is slower and their hearts beat only faintly (in the case of the Bearded Dragon (Amphibolurus barbatus) breathing is slowed to one breath every minute).

Hibernating animals "sleep" varying amounts of time during the colder months of the year depending on the climate of the area in which they live.

When spring comes, the animals are awakened by the change in temperature, moisture and by hunger.

--oOo--

THE GRANITE BELT NATURALIST.

Queensland you are a land of pests
 From flies and fleas one never rests.
 Bandicoots and swarms of rats,
 Bull-dog ants and native cats,
 Stunted timber, thirsty plains
 Parched up deserts and scanty rains.

From an Aust. Folk Song, Author Unknown.

THE FEROCIOUS JUMPER ANTS:

Unknown to the average Australian, the ferocious bull-ants or bulldog ants which occur abundantly in the State of Queensland are some of the highlights of our insect fauna. They are so because they are now confined to Australia but in the remote past they occurred in many parts of the world as fossil specimens have been discovered in Baltic amber (resin of northern European conifers) where they lived millions of years ago. Although changed, bulldog ants are leftovers of an ancient group of ants that existed long before the age of man.

These unloved ants which sting viciously, have become an important part of my life as, since 1967 with the help of my wife, I have been carrying out a study of the jumper ant (*Myrmecia nigrocincta*) the only bulldog ant that has the power of jumping. Shown for the first time in an Australian magazine, are samples of the jumper ant and their nests. The species occurs in Eastern Aust and is one of the more common bulldog ants between north and south Queensland.

The jumper ant is abundant in the Wide Bay Area where I work and occupies two main habitats; scrub and open forest. In these we have examined about 450 nests and marked 45 for individual studies at the Bingera cattle station nine miles south of Bundaberg, my home town. Nobody had ever done a scientific study of the jumper ant before and that I undertook it may be partly due to scientific curiosity, partly to accepting a challenge, for the possibility of being stung in the process is always there. Indeed, I have been stung more times than I can remember.

The jumper ant's sting produces a painful burning sensation which lasts for a short while only but flares up every time you touch the stung part for days afterwards. The irritation feels as though you had creepy-crawlers racing inside your bone. Under medical supervision and for special research purposes, I have tried various drugs and creams but so far none works. There is really no cure for the sting unless you are administered a powerful sedative and put to sleep.

The jumper ant prefers to make its nest on a well drained site and because of this most nests occur on slopes, hillsides, ridges and other spots well above flood-levels. The shape of the nest varies; it can be like a volcano (crater type=) or a mound, or a simple hole in the ground. Most nests are well camouflaged with the background and can easily be stepped on which causes the soldier ants to swarm and attack. The nest may be sealed completely in winter to trap the heat inside, or may be open to provide some cooling of the interior in summer.

The jumper ant can leap up to 7 inches. Like all known bulldog ants, it is solitary and hunts insects within a radius of some 400 yards from the nest. Extremely agile, it runs and leaps about the foliage of saplings, up and down grass blades and may scale high trees to pounce on insects. When making contact with prey, it closes its enormous jaws on it holds it and proceeds to sting it to death with the lance-like sting which is protruded through the hind end of the abdomen or gaster. Death follows in a few seconds.

We can find no evidence of an animal preying upon the jumper ant, but several species cause stress and energy-loss in many colonies. Among these are the lorikeets, the blueys and greenies. While feeding on eucalypt blossoms,

THE GRANITE BELT NATURALIST.THE FEROCIOUS JUMPER ANTS Cont.:

these lorikeets cause much blossom debris to fall on the ground and some of it fetches up in the jumpers' nests. This is a time of toil and troubles for the ants because they spend so much energy and time in attempting to remove the flossom debris from the nests, that they are unable to feed properly and some die as a result.

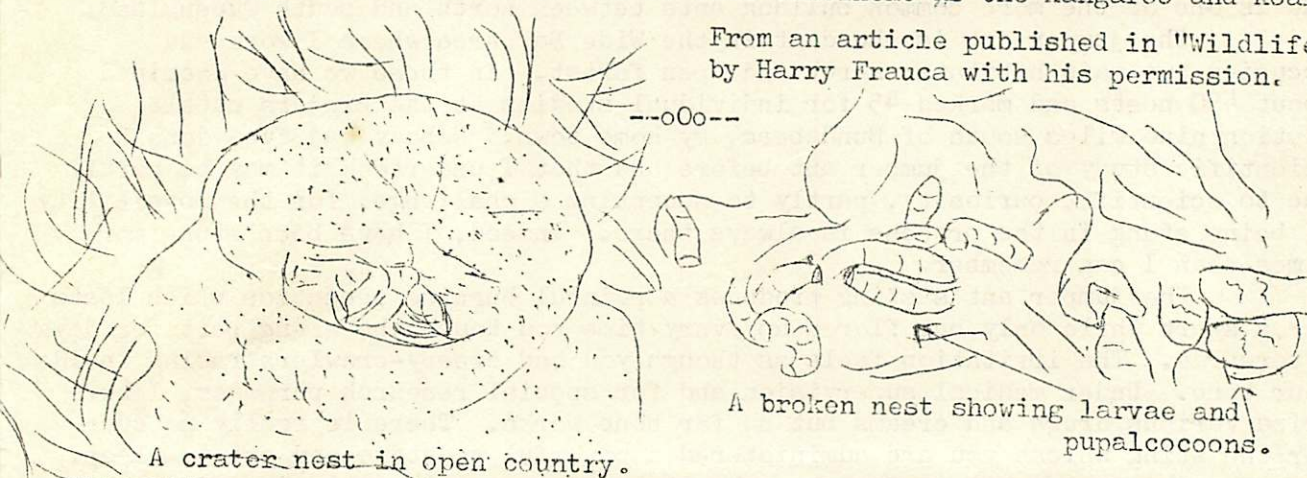
The jumper ant is without a doubt the most aggressive of the bulldogs, this being so mainly because of its terrific jumping powers, but its aggressive behaviour has been exaggerated. On cold winter days when the ants are sluggish, they may not attack at all. Nor will they attack if they are deep underground. The strongest aggression is obtained on summer days in nests where the ants are close to the entrance. Then on disturbing the nest, the soldiers charge, stinging everything saturated with alien odour withing 9 feet or so from the nest.

Apart from their sting, they are harmless to man and to his economy. But in certain areas where their nests tend to form clumping patterns, the ants' excavations are responsible for a certain amount of erosion.

On the balance side, the jumper ant is beneficial in that it preys upon a large number of insects, including grasshopper nymphs or young, moths and flies that can be harmful to crops and to natural vegetation.

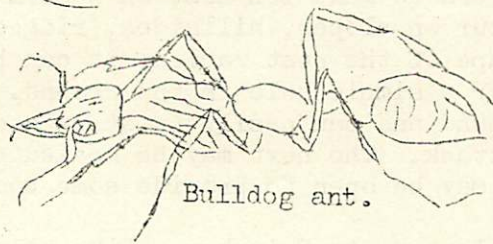
The jumpers and their kinsmen the bulldogs, are a part of the Australian fauna, as typical of this state and of this continent as the kangaroo and koala.

From an article published in "Wildlife"
by Harry Frauca with his permission.

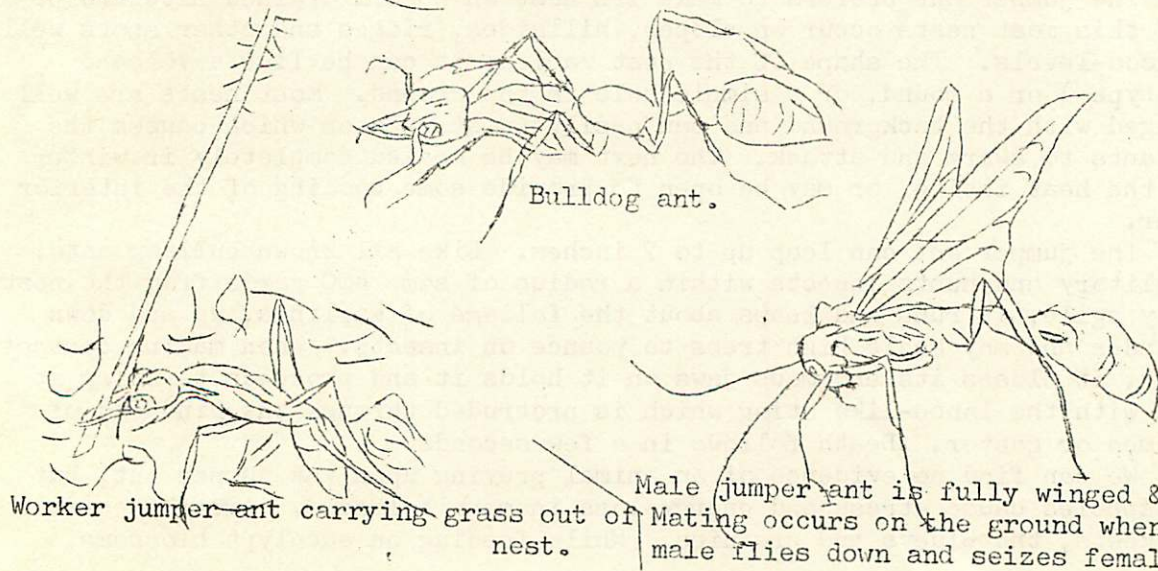


A crater nest in open country.

A broken nest showing larvae and pupal cocoons.



Bulldog ant.



Worker jumper ant carrying grass out of nest.

Male jumper ant is fully winged & flies. Mating occurs on the ground when winged male flies down and seizes female.