

# NATURE NOTES

4

VOL

19

中國人民  
共和國

FAIR DINKUM,  
MATE ?

A RINGWOOD INSPECTORATE PUBLICATION

PHOTO: Thanks to "The Sun"



Hello there,

Have you heard the news? Last month it was announced that Nin Nin and Susu, the two Chinese red pandas on the front cover, were on their way to Melbourne zoo. They are a gift to the people of Victoria from their 'sister province', Jiangsu, in China. Aren't they beautiful? Pandas, of course, are very well adapted to living in a cold climate. What features of their body will tell you this? Australia is often thought of as a flat, dry country but this

is not really true. In the southeast of our country is a great boomerang-shaped sweep of mountains, valleys and high plains that are often forgotten in our descriptions of "a wide brown land". The Australian Alps contain most of our highest mountains - Bogong, Feathertop, Hotham, Buffalo and Kosciusko. In these beautiful parts of our country you will find a variety of plants and animals quite different to those found anywhere else. In this month's 'alpine' issue, "Nature Notes" takes a special look at the mountainous parts of our country.

Cheerio for now,  
DEBRA BRYDON

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Wally and Wilbur are on a holiday at the snowfields and are looking for work.....

Wally :Well, what sort of work do you think we can get up here, Wil?

Wilbur :The employment centre wants us to be hu...hu...hu.. huskies!

Wally :Huskies! We can't do that!

Wilbur :Why not, Wally? The bloke said we were furry and had four legs, so we should be able to do it okay.

Wally :Wilbur, huskies are special animals because they can survive in these icy conditions. Wombats just aren't made to work in the snow.

Wilbur :What's so special about icy conditions?

Wally :It's fine if you're all rugged up and out of the cold, but only certain animals are strong enough to live in the snow. The little Burramys, or mountain pygmy possum is one animal who has adapted to the alpine areas.

Wilbur :I saw a broad toothed rat, too, Wal. Can they live in the snow?

Wally :Yes Wilbur, but wombats CAN'T! We'd die of frostbite or exposure!

Wilbur :Yuk! Forget it! Frozen feet? No way am I sticking around here. Let's catch the first bus out of here Wal. It's far too dangerous a place for wombats. We need the warmth of a temperate weather zone.

Wally :Cool it, Wilbur As long as we are protected from the weather we'll be okay. Look, here's a job for a boiler attendant. Let's check that one out. At least it sounds warm.

Wilbur :Okay, Wal. I wonder what we have to boil?

Wally :Wilbur, you'll be the end of me.

# THIS'N'THAT ABOUT...

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## LONG AGO...

More than two million years ago, an important stage in Australia's 'rock history' came to an end. You won't have heard about the Pliocene in "Countdown", even though it's a good name for a band. During the Pliocene period, Australia went through a lot of ups and downs. First, the southern and western parts of the continent were raised. At this time, most of what is today the Nullabor Plain was a sea, as was most of the Murray Basin. These seas dried up when the land was raised. At about the same time,

there was an outburst of volcanic activity in eastern Australia. This produced many volcanic mountain ranges and peaks, which can still be seen today. Finally, the whole of the eastern edge of our continent was raised up. In some places, land was 3000 metres above sea level. What does this mean? New South Wales and Victoria were lifted up even higher than the rest of the strip from Tasmania to Cape York. Although the

THE MT. KOSCIUSKO AREA-IN EARLY SUMMER!



PHOTO: Thanks to "WILDLIFE HERITAGE", page 2439

## A MYSTERY FOSSIL-THE BURRAMYS



original mountains have since been worn down, this area still contains the highest point in Australia. Mt. Kosciusko stands at 2,230 metres even today.

\* \* \* \* \*

## A SONG AND DANCE MAN OF THE HIGH COUNTRY...

is the Corroboree Frog. Brilliantly coloured in yellow and black, this amphibian was named because of its likeness to the body markings of ochre and charcoal used by the aborigines in dance rituals. Life, however, is no song and dance for this attractive frog. It has to do just about everything to stay alive and breed in the icy conditions of the High Plains. Luckier frogs who live in the lowlands usually begin breeding in April or May. Their young tadpoles turn into frogs the following October or November. In

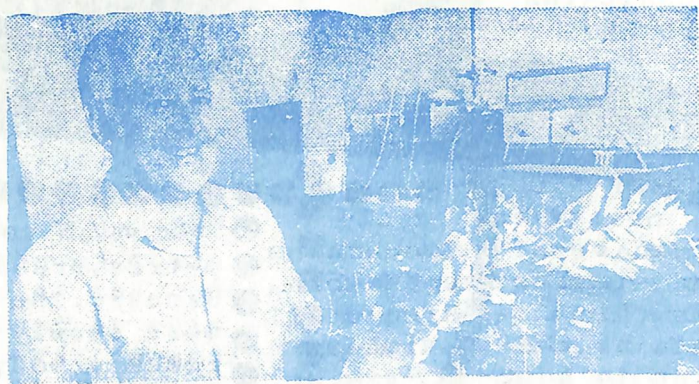
the high country, above 1370 metres, breeding begins in January. The tadpoles develop more slowly but eventually reach a body length that is 50% greater than that of lowland frogs. They must then wait much longer than their cousins to turn into frogs. The snows must melt before the tiny froglets have even a chance of surviving. Until this time comes, they must continue to swim, as 'taddies' in the cold water under the ice. It's enough to make you shiver, isn't it? WHEN THE DEAD CAME TO LIFE! In 1966, two Melbourne men on a ski trip in the high country of Victoria found a small, friendly little possum in a ski hut on Mt. Hotham. It was only 16 centimetres long. Their 'find' ended an argument between Australian zoologists that had been going on since 1894. For all this time, the only burramys that had been seen was a fossilised one. Talk about staying out of the limelight!

# .....THE ALPS

by D. Brydon

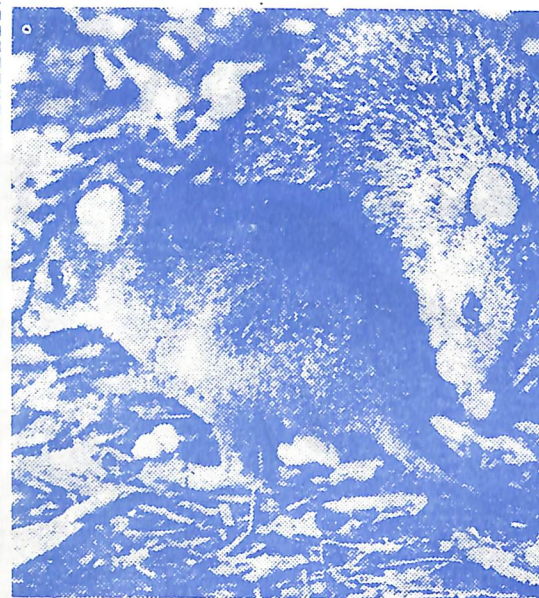
TEXT/PHOTO: Thanks to "THE AGE" (26/3/82,p.13)

## Desert bush may feed petrochemical plants



Professor Underdown in his laboratory with a piece of the cottonseed plant.

A hardy desert bush, known as the broad-leaf cotton bush, could be on its way to becoming an important part of Australia's petrochemical industry. The cotton bush is common all throughout South Australia. Seeds of the bush were originally released by accident last century by Afghans who brought camels to central Australia. The cotton like substance from the bush's pods were used to pad camel saddles. When these became old, they burst open and spread the seeds all over the desert areas. The South Australian Government has recently spent \$150,000 on a project to find out just how the plant can be used to supplement the nation's petrol supply. Professor Reg Underdown, of the South Australian Institute of Technology, says that the hydro-carbons in the oil from the cotton bush could be used to make motor car petrol but it would take at least 12 months to work out exactly how. A committee from the United States is c. its way to South Australia to investigate this exciting project.



● A FEMALE long-footed potoroo with one of its young.

## Little long-foot's a feat!

ONE of Australia's rare animal species — the nocturnal long-footed potoroo — has been bred in captivity for the first time.

Two young long-footed potoroos, or to give them their scientific name Potorous Longipes, have been successfully bred at the Sir Colin MacKenzie Fauna Park, Healesville.

The breeding program will continue.

The marsupial species was first discovered about 10 years ago

when scientists studied animals hit by cars.

In 1979, Fisheries and Wildlife Division research officer Mr John Seebeck caught two long-footed potoroos in East Gippsland.

They were the first live ones to be studied in Australia. Scientists found they had twice the number of chromosomes as the more common potoroo.

RIGHT: Thanks to "The Sun", 19/3/82, p.11  
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ABOVE: Thanks to "The Sun"

● ● ● ● ● ● ● ●  
S T O P  
P R E S S !!

● ● ● ● ● ● ● ●  
The pandas have now arrived!

## Quarantine hitch for panda 2

By JIM NEVEIN

QUARANTINE restrictions have delayed the arrival of a pair of rare Chinese pandas to the Melbourne Zoo.

The Red Styans pandas were expected to arrive next week as part of a cultural exchange between Victoria and our sister province of Jiangsu.

The pair is Nin Nin, a five-year-old female weighing 5.4 kg, and Susu, a six-year-old 6 kg male.

The pandas have reddish-brown fur with long brown tails and spend most of their time in trees.

A Melbourne Zoo spokesman said that Nin Nin and Susu were the

"closest living relatives of a giant panda common in China 40 years ago."

Their arrival was to coincide with the visit of the Vice-Governor of Jiangsu Province, Mr Jin Xun, who will be in Melbourne for the Jiangsu Arts Fair which begins at the Exhibition Building today.

The pandas are being kept in quarantine to ensure that they are fit before they are flown to Melbourne.

A Chinese vet, Mr Su Ling Mu, should arrive with the pandas some time in mid-April.



# WHO ARE WE?

W \_ \_ \_ \_ \_ t \_ \_ \_ \_ \_ E \_ \_ \_ \_ \_  
F \_ \_ \_ \_ \_ R \_ \_ \_ \_ \_

S \_ \_ \_ \_ \_  
W \_ \_ \_ \_ \_  
P \_ \_ \_ \_ \_



BEAK, EYE AND  
NOSE PIECE - YELLOW.  
CHEST AND NECK - WHITE.  
BACK AND WINGS - MID BROWN.  
LEGS - PINK.  
END OF TAIL - WHITE.

♀ FEMALE. MID BROWN.

♂ MALE. RED CHEST. WHITE ABOVE LEGS.  
BROWN - LEGS.

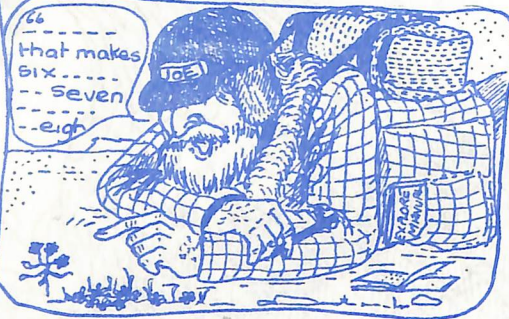


BODY AND  
'TROUSERED'  
LEGS - BROWN.  
NOSE PIECE, EYE  
AND FEET - YELLOW.

The Alpine areas of the Eastern Victorian Ranges are those which are, in parts, above the 5000 foot altitude. These areas (bounded by Mt. Buller, Mt. Buffalo, Mt. Bogong, Mt. Cobbaras and Mt. Wellington) are covered in deep snow throughout the winter months. Blizzards, low cloud, high winds and falling snow keep the bird life to a minimum at this time of the year. When the weather improves, however, birds venture back up the mountains from the deep valleys below to feed in the snow gums or to pick frozen insects from the melting snow. The flowers of the alpine grevilleas, the snow gums and heaths attract nectar seeking birds like the Honeyeater. Hordes of mountain grasshoppers provide ample food for the larger birds including the Hawks, Ravens, Currawongs and Magpies. The birds on this page are frequent visitors to Victoria's alpine areas. Colour them in and then see if you can discover their correct names. A handy book for this task is "Birds of Victoria-the Ranges", which will probably be found in your school library-or should be!

# FROZEN

When you think of Antarctica, do you think of any types of plants or flowers? Well, they exist there just as plants do on the other continents of the earth.



This "microflora", as it is known, includes moulds like penicillin. There are many different types of micro-plants living in the ponds and soil of the Antarctic.



Things to do:

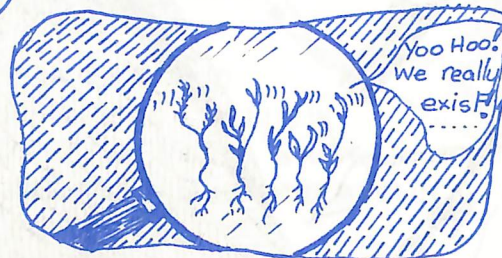
Find out what these plants are; lichen, moss, algae.

What is a fossil?

What is mould? How do we use it?



A long time ago, a botanist called Joseph Hooker wrote that there were only nine types of plants at the Antarctic. What he didn't know about were microscopes, which have now shown many more types of plants that live there.



Hooker believed that a long time ago, the continent was covered with lots of flowers. It wasn't until after he died that fossils of plants were found in the rocks that proved his theory. The sort of fossil found proved that Antarctica wasn't always as cold as it is today, too. How do you think scientists could find this out?

# FLOWERS

Flowering plants have been discovered in the Antarctic too. One day an explorer named George Bryant was wandering around an island off the Antarctic coast, when he came across a tiny hidden valley, which had moss and grassy slopes. He called it "Shangri-La". Do you know why he chose this name?



Can you think why the Antarctic has only such a small amount of plant life compared to mainland Australia? Well, out of 13 million square km, only 5.7 thousand square km. is free of ice! Add to this the fact that there is not a lot of rain in the Antarctic, and you can see why only special kinds of plants can survive there.



There is still a lot of exploring and finding out to do in the Antarctic. Can you think of reasons why it would have been harder to do research there even forty years ago?

exposure  
perma  
frost  
ice  
rain  
frost  
freezing  
sleet  
iceberg  
wind

c.c. cold  
snow

ice  
glacier



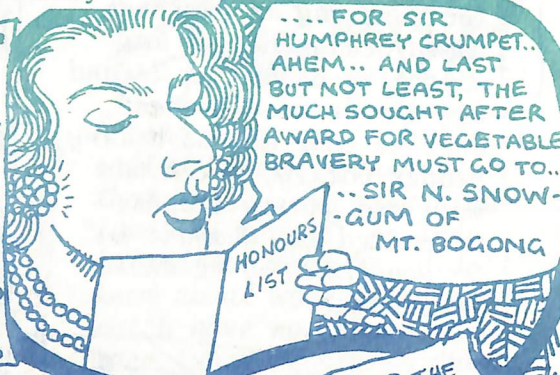
CAROL MEASURES

M. CARMICHAEL

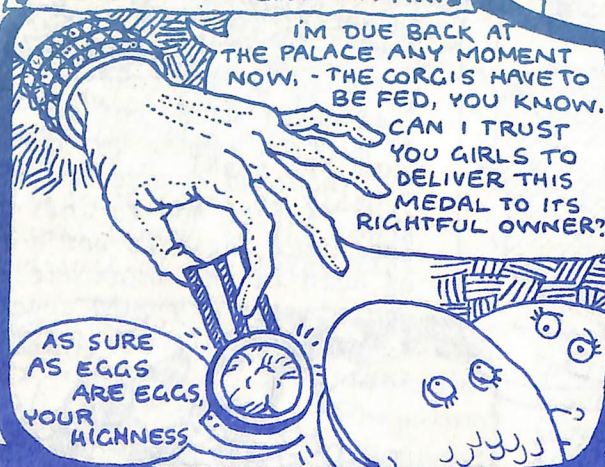
# Hairy Buncher and the Lowland Sisters

BY D. BRYDON.....ARTIST: Cindy Humnan

TREKKING ACROSS THE COUNTRYSIDE, OUR FAMOUS AUSTRALIAN NATURALIST HAIRY BUNCHER JOINS THOSE OTHER FAMOUS NATURALISTS THE LOWLAND SISTERS IN AN UNENDING QUEST TO SOLVE THE MANY MYSTERIES OF NATURE..... THIS MONTH..... THE LOWLAND SISTERS HELP TO MAKE A CERTAIN TREE VERY HAPPY.....



.... FOR SIR HUMPHREY CRUMPET.. AHM... AND LAST BUT NOT LEAST, THE MUCH SOUGHT AFTER AWARD FOR VEGETABLE BRAVERY MUST GO TO... .. SIR N. SNOW-GUM OF MT. BOGONG



I'M DUE BACK AT THE PALACE ANY MOMENT NOW. - THE CORGIS HAVE TO BE FED, YOU KNOW. CAN I TRUST YOU GIRLS TO DELIVER THIS MEDAL TO ITS RIGHTFUL OWNER?

AS SURE AS EGGS ARE EGGS, YOUR HIGHNESS

BACK AT THE JEEP, THE GIRLS TELL HAIRY OF THEIR AWE-INSPIRING TASK.....

...BUT ITS FREEZING UP THERE GIRLS! WHAT'S SO SPECIAL ABOUT A DUMB OLD TREE ANYHOW?....



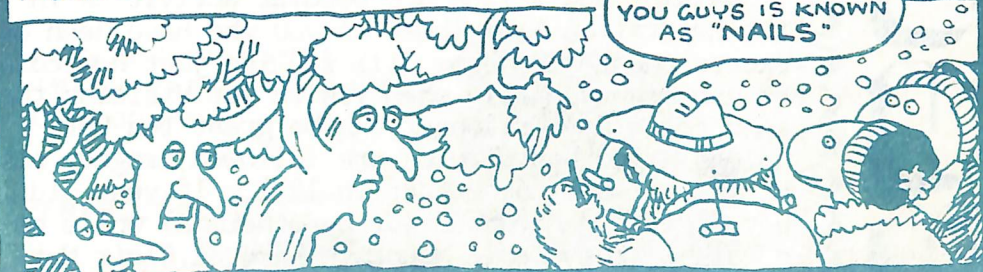
...BUT THE HARDY LIZARDS JUST IGNORE HAIRY'S COWARDLY PROTESTS AND HEAD OFF UP MT BOGONG...



I THINK ITS MUCH HARDER FOR A WOMBAT TO BE BRAVE THAN A SILLY OLD TREE....!

MUCH FURTHER

AFTER A WHILE, THEY COME ACROSS A CLUSTER OF EXTREMELY TOUGH LOOKING TREES.....



HEY! WHICH ONE OF YOU GUYS IS KNOWN AS "NAILS"

THE NOT-SO MODEST IS DULY AWARDED HIS WELL EARNED MEDAL...



SPEECH SPEECH

WELL, I MUST ADMIT THAT LIFE AS A SNOW-GUM HAS BEEN PRETTY TOUGH. LIKE ALL OTHER ALPINE PLANTS, I'VE HAD TWO MAIN PROBLEMS - ONE IS HOW TO KEEP MYSELF DECENTLY DRESSED WITH LEAVES IN THE STRONG WINDS WE HAVE UP HERE.. THE SECOND PROBLEM I'VE HAD TO BATTLE WITH IS THE SLUSHY SOIL WHICH IS ALWAYS ERODING AWAY - OR TURNING TO MUD - JUST WHEN YOU LEAST EXPECT IT! WHEN I WAS A YOUNG LAD - JUST A SAPLING.....

... SOME OF THE OTHER YOUNG TREES GROWING NEAR ME HAD A MUCH TOUGHER BATTLE TO SURVIVE THAN I DID. ALL OF US SUFFERED FROM FROST DAMAGE WHEN OUR NEW LEAVES APPEARED, BUT I WAS LUCKY. I AM A SHORT TREE WITH A VERY SHORT GROWING PERIOD EACH YEAR.

...I WAS ONE OF THE FEW THAT SURVIVED. OF COURSE MY 'BENT DOWN LOW SHAPE HELPED STOP THE WIND FROM UP-ROOTING ME

DO YOU EAT SNOW?



MY BARK IS THINNER AND MY LEAVES ARE SMALLER THAN THOSE ON TREES FURTHER DOWN THE SLOPE, - IT ALL HELPS!



I DON'T SEE WHY I CAN'T WIN A BRAVERY AWARD TOO....

HAIRY COMPARES LEAVES...

..AND A PHOTO IS TAKEN

# SURVIVAL IN THE COLD

DON'T RISK DEATH IN THE HIGH COUNTRY-Following these basic 'survival' rules may save your life!

Walking and skiing are popular activities in the Australian Alps. Those of you who have been on excursions to the snow will realise just how cold it can be-especially when you're wet. Visiting the snow for a day or longer, can be great fun but unless a few basic rules are followed, tragedy can be just around the corner. In 1971, a 15 year old boy died from EXPOSURE (or hypothermia) while on a walk in the Cradle Mountain-Lake St. Clair National Park in Tasmania. Such deaths occur regularly each year, many of them caused by ignorance of survival rules. The main problem is that

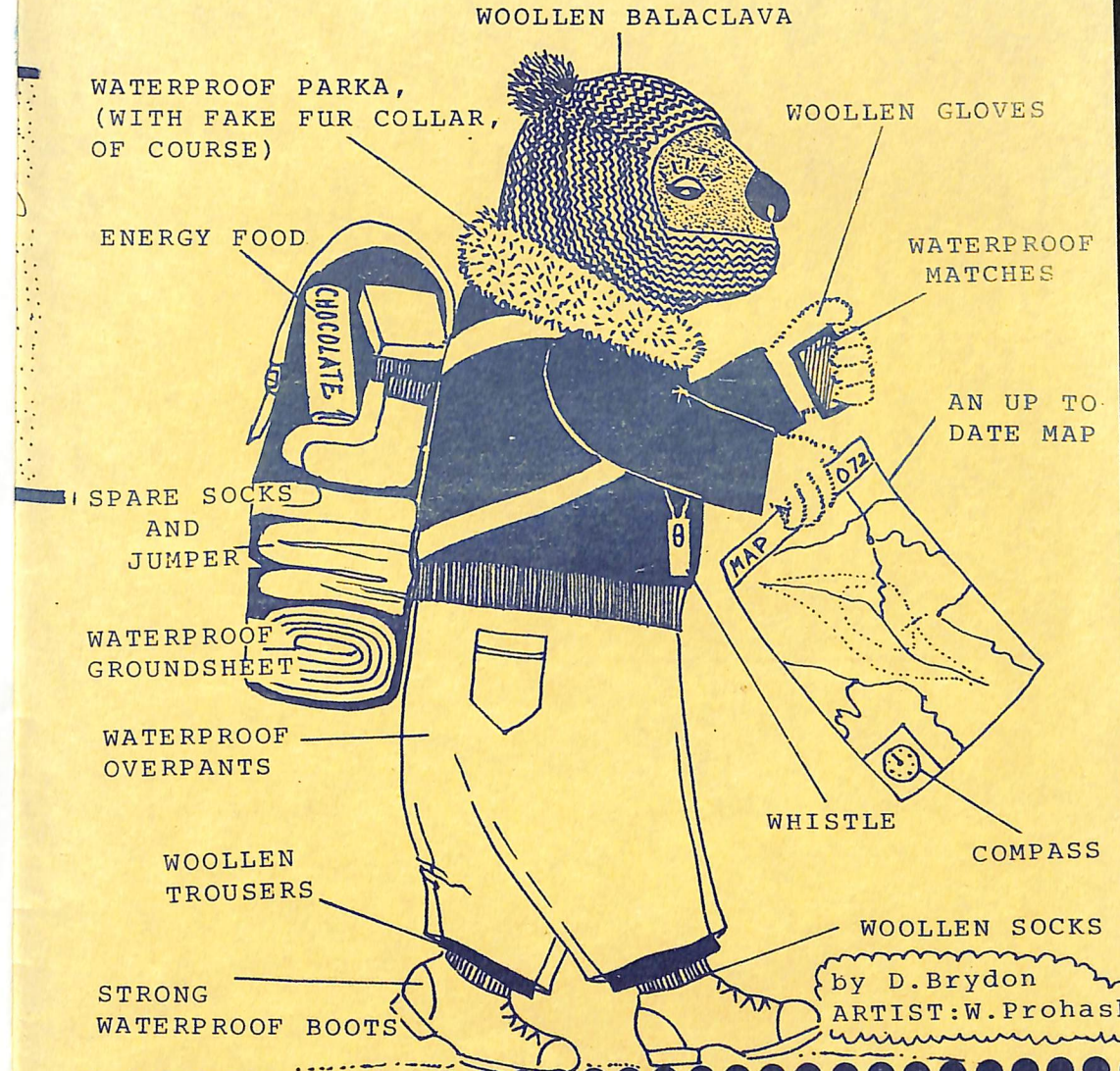


the human body is just not made for survival in these cold areas. We have to make up for our lack of fur in other ways. Wind and wetness are the two killers. At 10 degrees C., a wind of 50 kilometres per hour produces the same heat loss on unprotected skin as completely windless conditions at -22 degrees centigrade. Also, if the skin is wet, it loses heat 20 times faster than dry skin. If left unprotected in these wet and windy conditions, a human being's body temperature would begin to drop below normal and finally become so cold it couldn't warm up again-even if given warm drinks and wrapped in warm clothing!

Walkers and skiers in Australian alpine areas

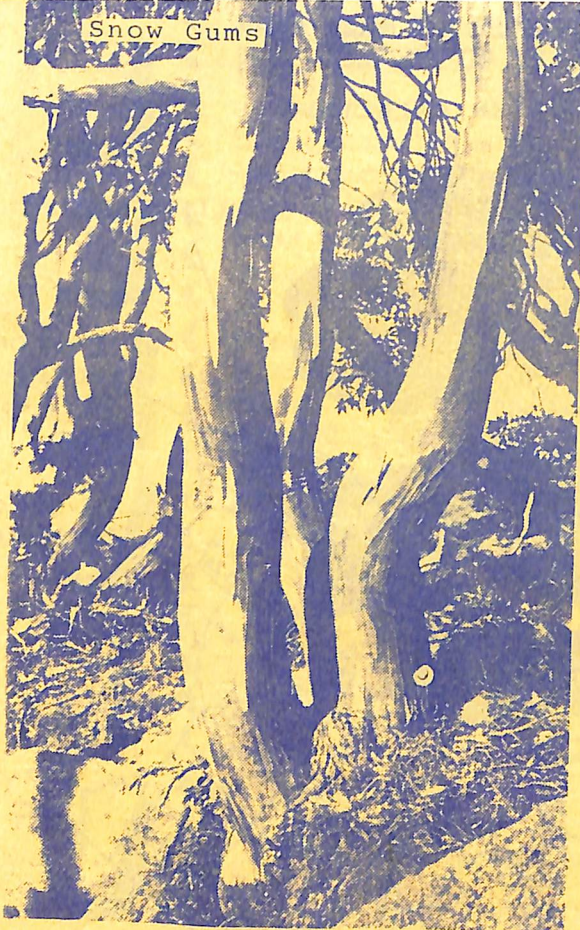
## THE COLD

WILBUR ALWAYS DRESSES IN THE RIGHT GEAR FOR HIS EXCURSIONS TO THE SNOW....



have often been fooled into dangerous situations by warm, sunny weather. They should know better. Even in summer, weather in the Alps can change much more rapidly than it does at home. Sudden blizzards have killed many a careless person in spring or summer. Basic clothing for walking in the high country should ALWAYS include strong waterproof boots, long woollen trousers with plastic 'overpants' and a waterproof, windproof parka. A woollen cap (preferably of the balaclava type) and woollen gloves are essential. Why wool, did you say? Well, wool remains warm, even when wet, which acrylic blends or cotton cannot do.

by D. Brydon  
ARTIST: W. Prohash



# A Tree-rific Idea \*

You all know, I hope, that 1982 is the Year of the Tree. It's a year when all people should think carefully about the importance of trees, not only to humans but to the rest of the natural world.

Trees can make a suburb or a street beautiful. Have you ever looked at the interesting texture of the trees in your area? Bark rubbings or plaster casts can easily be made. To make a bark rubbing, press a piece of

light paper or greaseproof paper against the trunk, then rub over the surface with a soft crayon or pencil. The patterns and textures of the trunk will be seen in the rubbing. Plaster casts of a trunk of a tree such as the Ironbark, *Eucalyptus sideroxylon*, are made by first pressing plasticine into the crevices and shape of a section of the trunk. The plasticine is then removed, then used as a mould into which plaster of paris is poured. When the plaster has set, the plasticine can be removed and the plaster cast painted to look as near as possible to the colour of the bark.

PERHAPS YOUR CLASS COULD GET TOGETHER AND MAKE A COLLECTION OF BARK PLASTER CASTS OF THE TREES IN YOUR AREA. FIND OUT THE CORRECT NAME FOR EACH TYPE OF TREE.