



FRIENDS OF WARRANDYTE STATE PARK NEWSLETTER

Editorial

FEBRUARY 1991

Just when at last the 'cold war' with Eastern Europe appeared to be over, a far from cold war broke out in the Middle East. Environmental issues since then seem to have had little prominence in the media. Most conservationists in the world had come to see the 1990's as a turn around decade- our last chance to reverse the damage being done to our planet. If the economic global recession so often talked about becomes a reality following the end of this war, we will hopefully face up to solving our international disputes on an environmental basis. There should be more attention paid to considering the plight of the enslavement of third world nations by the World Bank and the I.M.F. There is an urgent need in many countries to absolve them of their massive debt, and help them to conserve the non renewable resources. We will need dramatic changes in western lifestyles in order to improve the quality of life for so many less fortunate peoples.

We often hear talk of 'a threatened planet' and endangered species'. It is a laudable sentiment and we should do everything to protect our flora and fauna. What is often forgotten is that the Earth has survived for millions of years before the arrival of Man, and will exist for at least that long into the future. The reality is that Homosapiens are probably the most endangered of the lot. (It is interesting to note the meaning of this root-sapien, from the Latin= wise. Makes you wonder!)

Who should we turn to when attempting to evaluate what things are important in improving the way in which we live and how we can help our children in the problems of growing up? The media does very little to present reality in a truly unbiased way. They depict a fantasy world heavily coated with consumerism. Economists see Man as the most important species on earth, with the right to control and use natural resources as if they were in never ending supply. Contrast this with the native Indian cultures, who have a spiritual relationship with the earth that transcends pure economic values. They saw themselves as only one part of the universe and taught their children the importance of the relationship between all living things on the earth. The Mohawk Indians of North America when considering altering their lifestyle would ponder the experience of the past seven years and the effects their change would have in the forthcoming seven years. Changes would be made only if it pleased their elders and would benefit their children. This is in contrast with modern man living for today, profits for next week, and increasing consumerism for instant gratification.

Maybe it would be well to dispel one illusion about getting our children to have a better understanding of the environment and the world they will inherit from us. It is often thought that science, biology, ecology, and conservation are best left to be taught in high school. By that time children have been programmed by the economic system. Beyond the age of 7-8 years it is too late to have any effect.

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The land we hold is our wealth. It is the only wealth will could possibly pass on to our children. Without our homelands we become true paupers.

Antoinette Helmer.

On a man's journey through life he is confronted by two tragedies - one when he wants a thing he can not get, and the other when he gets the thing and finds he does not want it.

Elbert Hubbard.

FIRST FAMILY SUNDAY MEETING FOR 1991.....IVY PULL IN WILDCAT GULLY
FOLLOWED BY "BRAINSTORMING" AFTERNOON-
TEA AT THE PARK DEPOT AT POUND-BEND.

When.....Sunday February 24th. at 1.00pm. MEET AT GOLD MEMORIAL CAR PARK.

BRINGGloves, Two-pronged weeders and alittle something to share for "afternoon-tea.

We plan an attack on the dreaded English Ivy in several other areas near last years site. Also a check on the 1990 work areas.

Back at the Depot Ian Roche will have some words about this years programme etc. The building committee will discuss progress on the Folly and show off their paving. You will all have the opportunity to admire the Nursery and development there then we will have a session of "Brainstorming" about plans for the Festival next month, the Float etc and a chance to have some last chances for input into the 1991 activities. (Don't ever say you never get asked!) All members welcomed-catch up on old Friends.

FEBRUARY
SUNDAY
FAMILY
MEETING

1-00 PM -
24th.

Hot House Gossip

The Friends have been very much busier than was usual in the past over the holiday period. Many of the activities were rather impromptu and therefore not advertised. Warrandyte really seemed a hive of activity!

Nursery activities were of course on as per usual and when you visit these days IT SHOWS. Our thanks to the members who collected styrene boxes and a very special thanks to Stan Andrews and our HARRY HEATH Supermarket for the joint effort. Most of the pots now go directly into Styrene crates making management much easier, and stopping plant loss from knocked or blown over pots. WE HOPE TO HAVE ALL MEMBERS COME AND ADMIRE ALL THE EFFORTS.

Health problems beset several members over the period. Ben and Zoe, looking great these days have been swapping hospital tales and Shirley M. tells us she feels wonderful now.

On New Years Eve those of the F.O.W.S.P. we could gather shared a B.B.Q. and welcomed in 1991 at the Skip Moyle Hut. Looking much less unloved these days we plan quite a bit of activity in and around the old place this year. Thanks to the people who have donated materials and expertise to save the building. It is a marvellous venue for slide and information nights- and fun gatherings like our N.Y.Eve "do". April is Skip Moyle Month! We had our advertised Kangaroo Count and Slide evening at Stane Brae. The five groups track 98 of our Grey Kangaroos before the light beat us. It was a wonderful evening, perfect weather, B.B.Q. up to "expectations", we met Gillian and Bib Stillwell and family, then.... the most wonderful slide show "under the STARS" given by Neil Archbold. The topic... Our Solar System and the audience were entranced. Many thanks to Neil- we hope for an encore!

Our Tent did not fare well, however, after the evening. The Rangers took several trips to collect our gear after the function and when they arrived to collect the tent (which the Lions Club provided 2 years ago) the said tent and our 44gallon drum B.B.Q. had vanished and there has been no trace of it. Horrible to think a group like ours has been robbed. Well Warrandyte is a very special place... this story does have a happy "afterstory"..... We put a notice of woe on Harry Heath's door (and in fact all over town) where a friend who supplies us with Carpet Underlay spied it. George Petacoupoulos remembered his Father's tent which was collecting spiders under his home and made us the most generous offer of it to fill our needs.... just needed some new poles, ropes etc. MANY MANY THANKS GEORGE.

As Festival time is here we have an extra chapter to add.... All the Fowspian MITES (0-8) will be asked to help us make our new tent VERY identifiable. Zoe Murphy will be organising a Tent-Child-Art Paint-a-thon. Any help with suitable paints, experience etc would be gratefully received. Phone Zoe at 844 3397.

Hope you all come along to see the beautiful Market Stall presence we present! Alec has made a wonderful folding "store-front" and we plan to have it all magic and allure when Jan P. paints it! Makes our stall so interesting and attractive. Have YOU checked the Market Stall roster by the way. Many hands make.....etc!

The Folly is coming along well too. The paving of the floor is progressing and Ian and Alec look forward to showing it off on Sun. 24th.

The Committee has set up another Sub-Committee and we want you all to hear about it. We have long talked about producing a real Warrandyte Book. Pat and Mike Coupar lead the group but we have much expertise and please let us know if you could help.

ALL MEMBERSHIP SUBSCRIPTIONS ARE DUE FOR 1991...\$10 is very small amount for so much please help us to avoid "nagging", costs do rise but we remain the best value imaginable. Another plea is for members to return the empty F.O.W.S.P. pots you have. Our supply is limited and we have a bumper crop of seedlings/cuttings to pot.

Lots of feedback about the Concert after the A.G.M. The Hildebrands are marvellous performers.... We hope to have a concert later in the year- Maybe to open the "Folly". Any way we do really value the way they donate time to this little "greenie" group. And they would be the first to remind us not to undervalue the importance of groups such as ours.

Ian and Margaret Burke are off to the 5th. V.N.P.A. Biennial Conference over the Labour Day weekend - as your representatives. The Coupars will also attend - taking Group workshops on Moths and Butterflies. Gretna Weste is a guest speaker. Marg B. is to give a little talk about our success as a group. Report to you later.

Nursery Notes

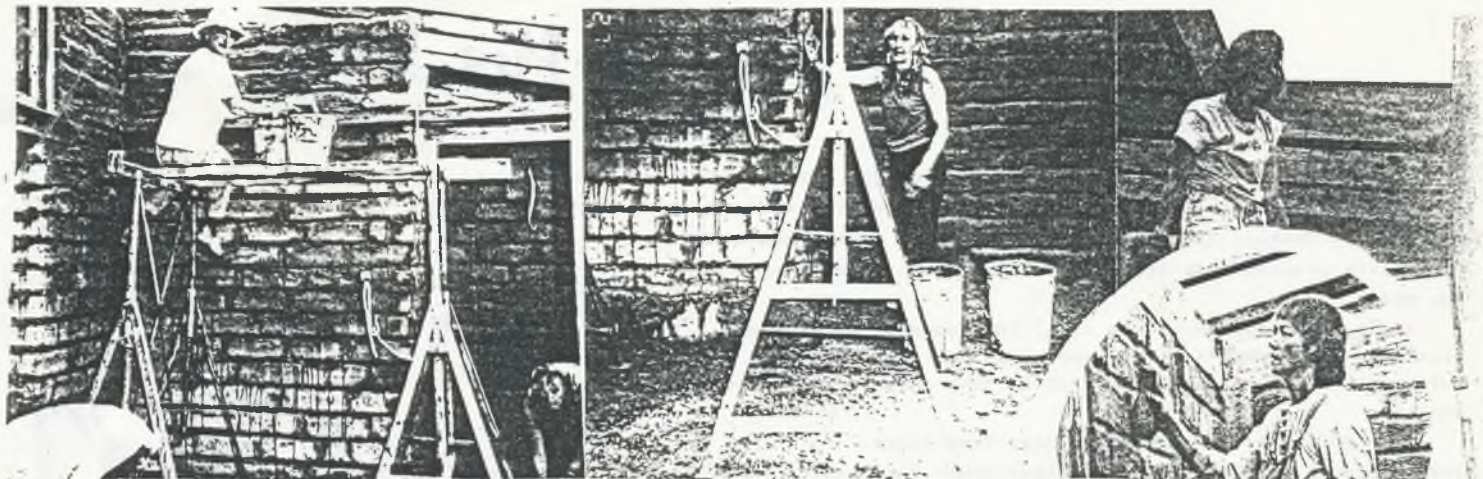
The outdoor hardening-off area is now fully functional and full of top grade plants ready for planting out.

We are continually refining our nursery practices and have now adopted the policy of putting newly pricked-out seedlings into the two poly-houses until they are thriving. They are then packed into polystyrene fruit boxes and transferred to the shade house and then on to the hardening-off area in due course. Our thanks go to the people who provide the boxes as these cut down the handling of individual pots and makes life easier for our hard-working volunteers.

The acacias which were ravaged by rabbits some time ago have made a good recovery, the exception being *Acacia pycnantha* (Golden Wattle). We lost about two thirds of these but fortunately we had more seedlings in reserve. Maintenance of the shade house and the watering system keeps our handy-men busy and is a high priority.

Under the guidance of Pat Coupar we have had success in propagating a wider range of plants this season including *Viola betonifolia*, *Brunonia australis*, *Helichrysum scorpioides*, *Helichrysum dendrobeum*, *Kennedia prostrata*, *Stylidium graminifolium*, *Billardiera scandens* and *Xanthorrhoea minor*.

OLIVE WALTERS



On the last Sunday in January a dozen or so Fowspians held a working bee at Shirley Mandemaker's new abode, mud rendering all interior walls and making a start on the outside. The Roche children weren't the only ones who had fun playing with all that mud and as a result, another session has been planned for 2 p.m. Sunday 17 February at Lot 5 Danita Drive, North Warrandyte - bring a bucket and wear disposable clothes! After medical attention to a blockage in the right coronary artery, Shirley is looking well again and back on site, supervising the builders.



OLYMPIC FOLLIES..... - THEATRE NIGHT

SOCIAL JOTTINGS - Did you miss out on the Friend's tables at the Drama Group's recent production at the Mechanic's Institute? Yes, it was a great night but take heart, the **Olympic Follies** are coming up next month as part of the Warrandyte Festival and we want to see you there with your friends, relatives and neighbours for a memorable evening's entertainment enjoying a very professional revue with a local flavour! The entire hall (over 100 seats) has been booked by the Friends and the Warrandyte Environment League for **Wednesday night, 13th March**, part of the proceeds for the night going to the two groups involved. We want this event to be a success so please try and organize a table and ring either Gay Harris [344 4438 (bus. hours) - 844 1448 (home)] or Margaret Burke [844 1060] to secure bookings, as early as possible. Tickets are only **\$10** each and the follies start at **7.30 for 8 pm** - bring a plate to share and something to drink. The Wednesday will be the first night of seven performances so lets get the Warrandyte Festival off to a good start!

THE FRIENDS OF THE ELTHAM COPPER BUTTERFLY.....NEXT MEETING.

SUNDAY MARCH 24th.....at 10.00am.

Because of the Warrandyte Festival this will not co-incide with a F.O.W.S.P Sunday thus giving us all the chance to help over there and find out how the reserve(AND the butterflies) are all getting along. If you would like to join in contact Elaine Braby on 439 9015 for details (or have a chat to Steve Anderson at our Depot.)

Seeds

Pat-y-Pus Page

The colourful explosion of wildflowers during spring and early summer is over. Now, in late summer the general tone of the bush is subtle. The understorey shrubs are pastel green and the native grasses have dried to a pale brown. Most plants have set seed.

Seeds, the essence of new life. They come in an amazing assortment of packages: from hard capsules, cones and pods to soft feathery plumes and silky tufts; from spikey awns to succulent berries.

The golden bloom of wattles have long since been replaced by dangling pods; first green but turning brown as they dry and finally split to release their seed. However, it is possible to find the occasional shiny, black seed still attached to the lining of the pod by an umbilical-like stalk known as a funicle.

Eucalypts retain their seeds in woody capsules, the size and shape of which varies depending on the species. As the capsule dries little valves at the top open enabling the seeds to fall to the ground or be dispersed by wind. It hardly seems possible that a forest giant, such as a Manna Gum towering over the river bank, could have grown from a seed not much bigger than a grain of sand. But eucalyptus seeds are tiny, similar to the fine seed of tea-trees, burgan and paperbarks which are also contained in woody capsules.

Capsules of a different type are found on Sweet Bursaria. Not woody, but flat, brown and purse-like. In fact the name Bursaria is derived from the Latin 'bursa' meaning a purse.

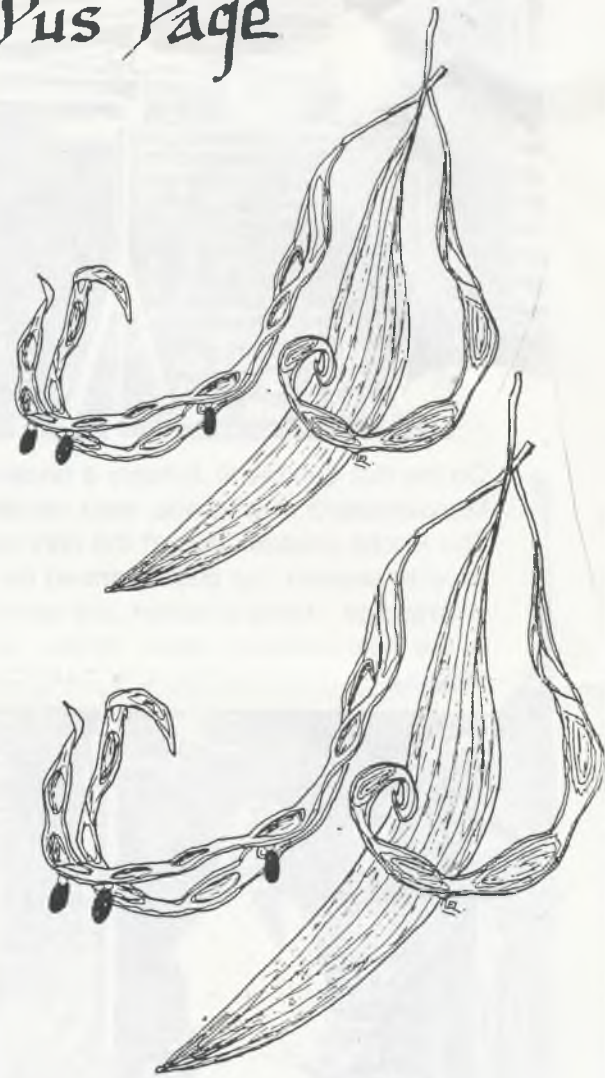
Ideally suited for dispersal by wind are the light fluffy seeds of the daisies (Family Asteraceae). Members of this family range from large shrubs like the Cassinias and Snowy Daisy-bush (*Olearia lirata*) to the diminutive Hoary Sunray (*Helipterum albicans*), common in alpine regions but remarkably found growing in one rocky area of Warrandyte State Park.

A number of indigenous plants produce fleshy fruit in the form of brightly coloured berries or drupes. These colours attract birds which feast on the berries, then scatter the seeds in their droppings. Large, globular, orange fruit are found on Kangaroo Apple (*Solanum aviculare*), while small red berries form on the aptly named Prickly Currant-bush (*Coprosma quadrifida*). The orange-red berries of Cherry Ballart are unusual as the seed actually forms on the outside



Red Stringybark

(*Eucalyptus macrorhyncha*)



Lightwood Wattle

(*Acacia implexa*)

of the fruit, hence the name *Exocarpos*. The greenish-yellow bell shaped flowers on the Common Apple-berry (*Billardiera scandens*) are replaced during summer by oblong, green berries. Mistletoe (*Amyema* spp) and Dodder-laurel (*Cassytha* spp.) are both parasites producing sticky green berries which are appetizing to certain birds. The seeds adhere to the host plant when the bird deposits them in its droppings onto a branch.

Every year enormous numbers of seeds are produced, far in excess of the plants requirements to ensure a future generation. Many form an important food source for birds, small mammals and countless invertebrates. Many are stored in the soil and may lie dormant for years. Some, such as the wattles, awaiting an intense bushfire to crack the hard coating of the seed and allow germination to take place.

A very small proportion of seeds are harvested; gathered with love by a small group of people on thursday afternoon rambles through the Park. They are sown with care; the tiny seedlings which sprout are nurtured and cherished as any precious new life.

I would like to thank my fellow plant propagaters for their hard work and devotion that has enabled us, over the past couple of years to grow almost 100 different species of plants. These range from magnificent Manna Gums to delicate Sundews; from the ubiquitous Burgen to the seldom seen Purple Violet. We are now producing approximately 5,000 individual plants per year. They are being used to replenish the bush where required, restoring these areas to their former glory.

Fascinating Facts From Flora

Are the spokes of a wheel verticillate ?

A verticil is a whorl ie. a radiation from a common centre.

And so verticillate means something is radiating from a common centre.

Which brings us all the way from bicycle spokes to *Acacia verticillata*.

So, when you next look at the phyllodes of this wattle you will see that it's arrangement of the phyllodes around the stem which inspired the name.

But we must stop dallying with verticils because there are no less than 17 wattles to deal with.

You were left in December contemplating *Acacia dealbata* (Silver Wattle) so named because it's trunk and branches are covered with mottled silver patches.

Other patches of different colors are lichens.

dealbata = a white powdery covering.

Acacia mearnsii (Black Wattle) named after E. A. Mearns American Botanical Collector.

Acacia genistifolia has leaves similar to genus *Genista*.

Acacia implexa (Lightwood) has twisted seed pods. *Implexa* = entwined.

Acacia leprosa (Cinnamon Wattle) At this point I find myself on the horns of a dilemma. One reference tells me that leprose refers to the leprose odor while another that leprose = scurfy or scaly. It is your choice!

Acacia mucronata is more straightforward. The phyllodes of the Narrow leaf Wattle have a short point. *mucro* = a point.

Acacia myrtifolia (Myrtle Wattle) has the leaves similar to genus *Myrtus*.

Acacia paradoxa (Hedge Wattle) *Paradoxa* = unexpected. Perhaps this refers to the unexpected wound you get if too close to the fine thorns.

Acacia pycnantha (Golden Wattle) *pycn(os)* = dense, compact refers to dense flower heads.

Acacia stricta (Hop Wattle) *Strict* = of erect and straight habit.

Acacia ulicifolia (Juniper Wattle) Leaves similar to genus *Ulex*

Acacia verniciflua (Varnish Wattle) *Vernicose* = glossy surfaced, as though varnished.

From the French *vernis* = polished. Or from the Latin *vernalis* - season of Spring.

STONEY CREEK REGENERATION

10/FEB/91 and 10/MARCH/91

DEAR RESIDENT AND OR FRIEND

THE STONEY CREEK REGENERATION GROUP IS A GOING CONCERN AND IS PICKING UP MOMENTUM.

THE AREAS THAT HAVE ALREADY HAD SOME HEAVY WORK ARE LOOKING GOOD, WITH THE NATIVE GRASS BLOOMING, ALONG SIDE PLANTS THAT HAVE BEEN PLANTED SPEEDING UP RECOVERY.

THERE IS STILL PLENTY TO DO AND WE CAN ALWAYS DO WITH MORE HANDS.

THINGS TO BE DONE AT THE FIRST SESSION FOR 91 INCLUDED SEED COLLECTION, BROOM RILL, IVY RILL, HONEY-SUCKLE CUT AND TOUCH UP WORK.

I'M LOOKING FORWARD TO SEE YOU THERE

ill John 844 3799

MARY GARDNER

Bursaria Spinosa

This article will also be available in a complete booklet form at the market stall. Next month Chapter Two will feature in our Newsletter.

THE NATURAL HISTORY OF EUCALYPTS

Eucalypts are unique to Australia. Regal giants such as Manna Gum (*Eucalyptus viminalis*) and River Red Gum (*E. camaldulensis*) guard the river banks. The tallest flowering plant in the world, the Mountain Ash (*E. regnans*), occupies pure stands in cool mountain valleys. Snow Gums (*E. pauciflora*) clothe the cold Australian Alps and a variety of eucalypts thrive in the impoverished soils of the Mallee plains. Eucalypts dominate the landscape. They are the pastel shades of Australia, the rustling of wind-blown foliage and the scent of the clean clear air.

So how did they rise to dominate the plant kingdom here in Australia and what qualities have determined the success of the 450 or so modern species of eucalypt? This is their story as revealed by the available scientific evidence.

By all appearances eucalypts seem to be present day examples of primitive flowering plants. The flowers, for example, are called "brush blossoms" because of their conspicuous show of stamens. Also, that versatile hallmark of advanced flowers, the petal, is apparently absent. However, eucalypts are Angiosperms which is the major and most complex group in the plant kingdom. All of its members produce seeds from flowers. These beautiful reproductive structures developed and coloured the world some 140 million years ago.

Many environmental pressures forced the diversification of the ancestral Angiosperms in the ancient cool forests of ferns, cycads and conifers at this time. For instance, the forest community was under stress by a gradual phase of global warming. But perhaps the greatest impetus for plants to develop flowers was the ever increasing associations between insects and plants. Insects such as beetles, bees, ants and wasps would have been frequent visitors to primitive flowering plants. We can only make an informed guess about those earliest of associations. It is likely, however, that many species of insects then, as now, were herbivorous and brushed pollen from one primitive flower to another as they investigated them as potential sources of food. So cross-pollination was achieved, not by the inefficient and unpredictable means of wind dispersal as used by the conifers, but by insect couriers. Thus Angiosperm evolution was guided and accelerated by the insects of the time. The Angiosperms for their part were a major influence on insect diversification. This type of two-way interaction leading to change is called "co-evolution". The development by Angiosperms of specific attractant colours and scents, together with the reward of nectar for their pollinating insects, guaranteed reproductive success and hence ascendancy in the plant kingdom. In turn insects benefited their own kind in this pollination service by encouraging the propagation of their favoured food plants.

Evolution is a difficult concept to comprehend. But whether it appeals to us or not, all living organisms adapt to suit their own habitat. And remember, the process of change occurs over time scales beyond our comprehension.

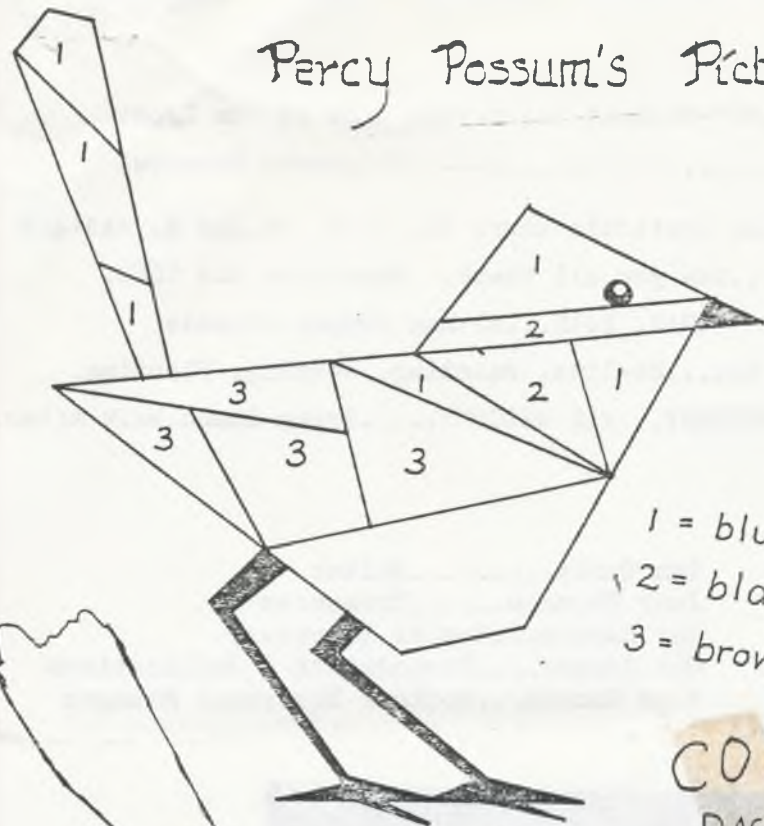
The mechanisms that allow new characteristics and hence adaptations to proceed are locked within the nucleus of reproductive cells. It is here that the chemical codes (DNA molecules called genes) are stored for forming the entire adult. At fertilization genetic codes are mixed, and the information reduced or even expanded. Surprisingly, it was not a biologist but a humble monk called Gregor Mendel who first taught us that characteristics are inherited from the parents in the form of either dominant or recessive codes. As well as being a Man of God, Mendel was also a "Man of Flowers", for it was his scientific mission that revealed how height and colour are inherited in Sweet Peas. We tend to forget the courageous nature of his pioneering work because it was in direct opposition to the religious dogma of the nineteenth century. Geneticists have now discovered that characteristics are usually controlled by several genes. Changes in the order of certain gene groups can result in expressing a new characteristic. So, a reshuffle can add an extra command word in the volumes that write the instructions for creating each species from egg cell to adult.

The era of 140 million years ago was a particularly prolific time in the genetic reshuffles in both plant and animal kingdoms. The geographical location of this activity was the Western region of a great supercontinent called Gondwana. But approximately 65 million years ago violent forces beneath the earth's crust literally broke the supercontinent apart. One portion embarked on a northerly migration carried on a current of molten magma. The geological isolation of this fragment together with new sets of environmental pressures over infinite ticks of the earth's clock encouraged even more gene reshuffles. The splendid results were unique forms of plants and animals. The island continent with its living cargo was destined to become the driest on planet earth. It is now our country; our Australia.

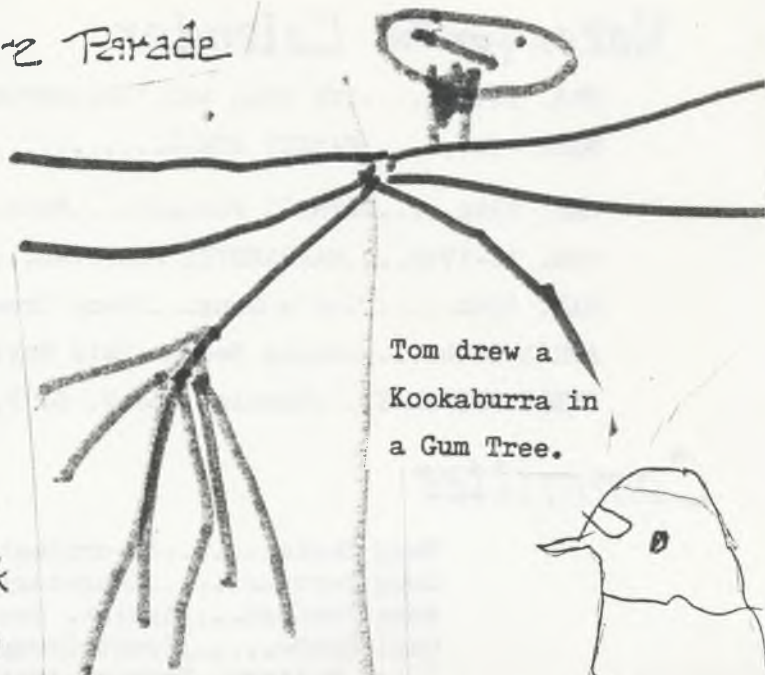
As Gondwana fragmented its various components became isolated by seas. Consequently, air and ocean currents became unstable, so a second era of climatic change was set in motion. The Australian fragment became increasingly hotter and drier as it continued on its northerly migration. Thus climatic stress and geological isolation drove novel directions in evolution. The most dramatic consequence of these imposed changes was a retraction of the closed rainforest and their replacement by water-conserving plants forming open forests and woodlands. So 65 million years ago the Banksias and She-oaks had made their debut. Also, the family Myrtaceae, the family that our eucalypts belong to, also became established. Its members include the Tee-trees (*Leptospermum* spp.), Bottlebrushes (*Callistemon* spp.) and Paperbarks (*Melaleuca* spp.). All have nectar-producing flowers to attract flying insects so that cross-pollination is achieved over the long distances between plants in the open, woodland habitats.

By Mike Coupar

Percy Possum's Picture Parade



1 = blue
2 = black
3 = brown



Tom drew a
Kookaburra in
a Gum Tree.

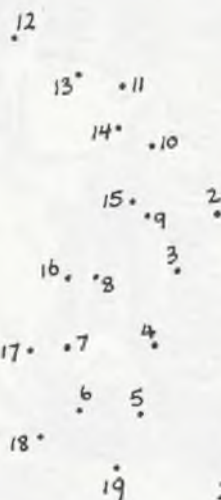
COLOURING PAGE



RYAN

SUPERB BLUE

WREN



FLAME
ROBIN

RYAN



EASTERN
PIGMY
POSSUM

If you would like to have a picture in our Newsletter
give it to Margaret Burke or send it to P.O.Box 220 W'dyte 311.

Family Subscription \$10

Donation to help cover costs.....

Please fill in the membership details and send with a cheque to P.O. Box 220
Warrandyte

Membership entitles you to a Free Indigenous plant at each
Market and to also be able to join in all of our activities.

DETAILS OF MEMBERS....

Names of all family members.....

Please include children's
ages and special interests

Address.....

.....p.c.....

Telephone.....

Suggestions you may have.....

☆ 1991 NOW DUE ☆

Dates for the Calendar

FEB. 24th.....IVY PULL AND "BRAINSTORMING"-Wildcat Gully then back at the Depot

MAR. 1st.....MARKET STALL.....Stiggants Reserve.

MAR. 13th.....OLYMPIC FOLLIES....Mechanics Institute Yarra St. 7.30. Ph.Gay H. 8441448

MAR. 16-17th....WARRANTYTE FESTIVAL.....See you all there. Enquiries 844 1060.

MAR. 10th.....Gad's Gang...Stony Creek MAR. 24th...Eltham Copper Friends

APRIL 28th....Working Bee at Skip Moyle Hut...Re-line, Painting, Weeding, Planting.

EVERY THURSDAY....Running the W. S. P. NURSERY...ALL WELCOME.....Bring Lunch.Walk after.

Committee

Marg Burke.....Co-ordinator
Doug Seymour.....Secretary
Anne Bedford....Assist. Sec.
Gail Roche.....Craft Groups.
Olive Walters..Propag. Asst.
Mark Gardner....Groups Advisor.

Ian Burke.....Editor
Judy Thomson.....Treasurer
Gay Harris...Social Secretary
Pat Coupar....Propagation & Publications
Alec Manson...Works & Equipment Manager

Did you
help with



the Yarra
Clean-up?



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