



1990 Arbor Activities Booklet



Department of Conservation and Land Management

Printed on Recycled Paper



CONTENTS

Arbor Day 1990 1 2 The Year Ahead 3 A Tree I.D. 4 From Seed to Seedling Recipe for a Green Neighbourhood 5 Bark, Branch and Leaf - Getting In Tune and 6 Keeping In Touch A Tree-mendous Discovery 8 Greening Your Neighbourhood 9 **Trees Resource Directory** 15

Page



ARBOR DAY 1990

Arbor Day is a day of celebration of trees. It is a special day to reflect on our achievements over the past year in caring for trees, raising awareness and appreciation of the value of trees to our lives, and in developing our understanding about the role of trees and other plants in our environment.

Arbor Day is a day to establish a program of tree education and tree planting for the year ahead.

This Arbor Activities Booklet is designed to assist teachers, group leaders and parents to participate in the celebration of trees. The experiences and activities can enhance our awareness and enjoyment of trees in our environment and motivate us to conserve and grow trees. The skills needed to do so are outlined. The information provided is a guide for teachers and group leaders and can be used for a range of age groups. The student activity sheets are for grade 5-7 students but with modification are suitable for students of all ages. The focus is on interacting with trees in the environment as the learning experience that can motivate us to pursue the further development of our knowledge skills attitudes and actions in environmental education.

It is hoped you will use these materials, share them with others and incorporate them into an annual program of environmental activities that recognise the essential role of trees and shrubs to our life on Earth.

We would appreciate your response to these activities and how you may have adapted them to suit your students or incorporated them into your program.

Please write to

Community Education Section Department of Conservation and Land Management P O Box 104 COMO W A 6152



THE YEAR AHEAD

Everyday is an opportunity to celebrate the value of trees and other plants to our lives on Earth. You can make this apparent to your students by preparing a Tree Calendar as a group activity.

EQUIPMENT:

- large sheet of plain paper, or newspaper (but you'll have to be colourful to compete with newsprint), or cloth (such as an old sheet), or computer paper joined together.
- fabrics, bark from trees, scrap paper (newspaper, wrappers, magazines) for texture on trunk, branch and leaves.
- paint, felt pens, crayons, and charcoal for outlines
- collect leaves to attach directly to paper backing or to use as stencils for paints or cloth and paper cut outs.

ACTIVITY:

Students prepare an outline of a tree and create a collage to form bark, leaves, roots, branches, fruits and flowers. Using leaf stencils, cut out leaf shapes and label each with a month of the year, then attach to tree.

Student groups choose a tree in the school grounds or local park to watch over the year. Each month they record their observations on the appropriate month's leaf.

See if students can identify when would be the best time to collect and plant seeds, plant seedlings, and to watch for birds and insects visiting the tree.



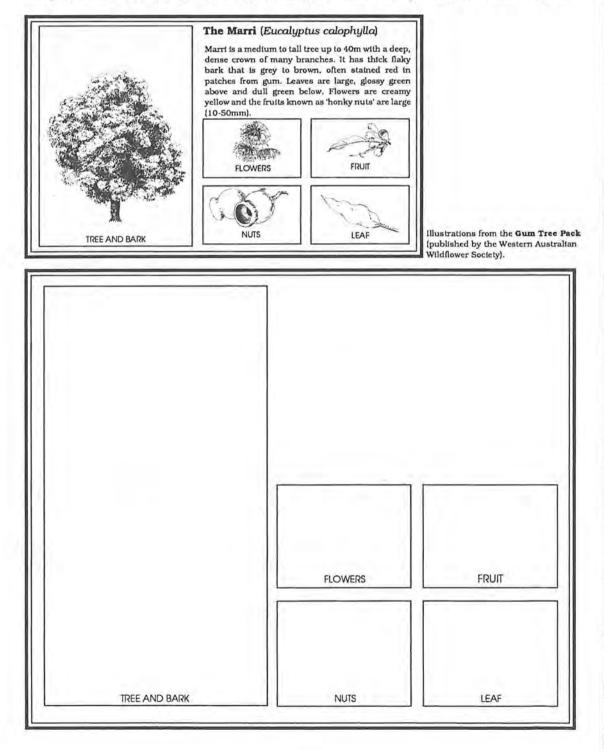
A TREE I.D.

Here's an I.D. (identification) card for a tree commonly found in the south-west of Western Australia.

Find a tree in your garden, street, park or school. Prepare an I.D. card for you tree.

Remember you'll need to look closely at the bark, leaves, flowers, fruits or nuts and the overall shape of the tree. If you can't find flowers, fruits or nuts now, then keep this I.D. card handy and complete those sketches and notes later on.

Do you think someone else could find your tree from your I.D. card? Try it.





FROM SEED TO SEEDLING

Collecting, sorting, storing and propagating seeds of local eucalypts is a significant skill to learn and experience to enjoy.

The germination of life is a powerful personal experience. It is these experiences we need to share to strengthen our relationship with all life on Earth.

You can assist students to have this experience and to record the process as outlined on the other side of this page.

First, you must identify a eucalyptus tree that is a local native species. These require the least effort to successfully maintain because they are naturally adapted to our local soil and climatic conditions.

Second, you'll need to know when local eucalypts flower and fruit. Here is a guide for a few of our local eucalypts. Ask your nursery, wildflower society, field naturalists club, CALM office or Department of Agriculture for information on your local species.

Flowers	Fruit	Collect Seeds	Propagate Seedlings	Plant Out
1990/91	1990/91	1991/92	1992	1991/92/93
Sept-Dec	Dec-Apr	Nov-Dec	Oct-Mar	June-July
Feb-Mar	Mar-Apr	Feb-June	Dec-Mar	May-Aug
Nov-Apr	Dec-May	Dec-May	Dec-Feb	June-July
Nov-Feb	Nov-Mar	Dec-May	Oct-Mar	June-July
Sept-Nov	Sept-Dec	Feb-May	Oct-Mar	May-Aug
	1990/91 Sept-Dec Feb-Mar Nov-Apr Nov-Feb	1990/911990/91Sept-DecDec-AprFeb-MarMar-AprNov-AprDec-MayNov-FebNov-Mar	Seeds1990/911990/911991/92Sept-DecDec-AprNov-DecFeb-MarMar-AprFeb-JuneNov-AprDec-MayDec-MayNov-FebNov-MarDec-May	SeedsSeedlings1990/911990/911991/921992Sept-DecDec-AprNov-DecOct-MarFeb-MarMar-AprFeb-JuneDec-MarNov-AprDec-MayDec-MayDec-FebNov-FebNov-MarDec-MayOct-Mar

Third, you'll need some basic equipment. Students can help here. You'll need paper bags, milk cartons, glass jars with lids, soils, icecream containers to mix soil, watering can, trowel. Also you'll need boiling water in which to sterilize the soil or alternatively obtain potting mix from your nursery.

Fourthly, you'll need to identify site(s) for planting out your seedlings. This can be in the school grounds, street verge or island, council park. Seek approval from local council.

If you produce more seedlings than you need sell them at the school fete or street stall.

RECIPE FOR A GREEN NEIGHBOURHOOD					
1	2	3	4 Date fruit collected Year Month Day Collected by		
Find a local eucalypt tree by looking for gumnuts	The parent tree	The ripe fruit/gumnuts			
5 Store fruit in paperbag in warm dry place	6 Check each day to see if seeds released from nut	7 Date seeds released from nut Year Month Day Observed by	8 The seed shape		
9	10	11	12		
Sterilized soil for potting mix	Pot preparation from milk cartons	Name of Tree Date Seeds Planted Label your seeds	Fill carton with soil, water down so soil 20mm from top of carton		
13	14	15	16		
Scatter seeds onto soil and cover seed with sprinkle of soil	Place in sunny place. Water gently each day.	The first leaves I saw looked like this	The next pair of leaves looked like this		
17	18	19	20		
When the seedling was 100mm tall it was planted	We dug a hole as deep as the carton	The carton was placed on its side and carefully cut away at the join	The seedling was placed in the hole and soil filled the hole		
21	22	23	24		
Water the tree and press soil	Put a stake next to tree (but not in hole) to mark the spot. Don't tie		Water weekly for six months		



Bark, Branch and Leaf Getting in tune keeping in touch

People are complex organisms made up of sensory and emotional responses to stimuli that we store to varying degrees in our conscious and subconscious mind. Sometimes these past experiences can block us from experiencing the intense or subtle aspects of our environment. You can get yourself and your students in touch with trees and the natural environment through this simple discovery exercise.

- The Site: Take your students to a quiet, natural location. Face them all in one direction looking towards a significant tree.
- The Explanation : Stand or sit behind the group and explain that we learn through our 5 senses - sight, sound, smell, taste, touch. We respond with emotional feelings to these sensory responses. This is an exercise to sharpen our responses so we can get more out of life.
- Activity 1 Getting in Tune

Breath of Life - Close your eyes and listen to the sound of your own breathing. In. Out. In. Out. In. Out. Let your thoughts go. Listen just to the rhythm of your breathing (for up to 60 seconds). That's the breath of life.

Rhythm of Life - Now focus on the sounds around you. Don't name them, just listen to them as if it was music. Listen for low and high sounds, bass and treble sounds; sound patterns. (Pause) How many different sounds can you hear? Now you can ask yourself what are those sounds. Stay still but now open your eyes. Would anyone like to share their experience of the rhythm of life?

Activity 2 - Keeping in Touch

Equipment: blindfolds

The Explanation - Divide into pairs with one blindfold. One of you will wear the blindfold while the other leads that person along by the hand (or elbow) to touch, smell, even taste a variety of natural items (especially trees). The sighted person must not speak, touch or taste any of the items. They are "the eyes only".

The blindfolded person is "the describer" and must describe everything they experience to "the eyes only". You must return carefully to this spot once called.

The Discussion - Once the group is recalled have "the describer" discuss what it was like to be blind and reliant on the other senses. Share some of the interesting descriptive words that were used.

Next "the eyes only" discuss only having sight. Were there things they wanted to touch, taste or smell? Were they satisfied just with descriptions?



Activity 3 - Finding a friend

Same pairs, exchange blindfolds. This time newly blindfolded person is lead via a devious route to a tree to feel, taste, smell this new acquaintance.

Demonstrate this process for all the group by leading one blindfolded student yourself. Once they believe they could recognize their tree, return to starting point via a few imaginary obstacles such as huge puddles, quick sand and sleeping pythons (with actions to match). Include a few 360 degree turns to disorient blindfolded person. On return student removes blindfold and looks for the tree while others watch and verify when successful.

Now instruct pairs to do the same but choose different trees. Remind them to care for the blindfolded person's safety.

Activity 4 - Taking a closer look

Explore your tree now with the aid of magnifying glass or hand lens. Looking for details that we normally overlook.

The Message - We discover nature and ourselves through our senses. By focusing on individual senses we can intensify our experience of nature and our feelings towards the natural environment. Nature and trees, in particular, are a source of many diverse sensory and emotional experiences for us. Let's care for trees and the natural environment by getting in tune and keeping in touch with ourselves and the environment.



A TREE-MENDOUS DISCOVERY

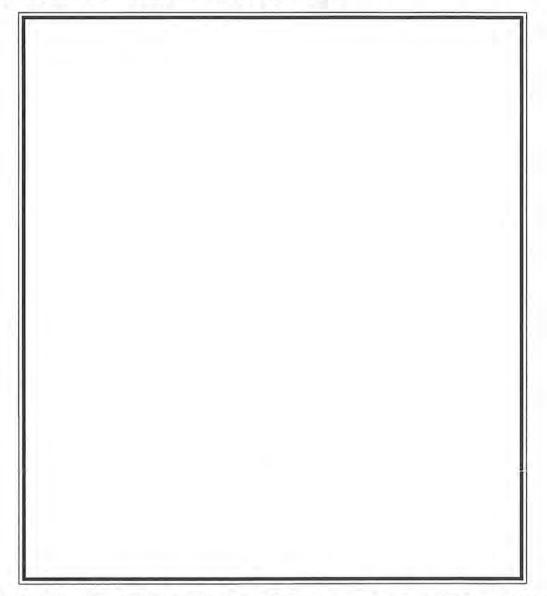
Take a walk through the school grounds, park or bushland. Look for a special tree. Don't just pick the first tree you find of interest. Look for a tree that has something special about it. Quietly explore your tree with all your senses and feelings.

Now record you responses on this chart.

Sense	Name of or Part of Tree	Describe	Imagine	Makes Me Feel	My Phrase
Sight			looks like		
Sound			sounds like		
Taste			tastes like		
Touch			feels like		
Smell			smells like		
Her	e's an exan leaf	nple bitter	tastes like wet leather	quietly thoughtful	chewing quietly on a leaf, thoughtful of the bitter taste



Once you have 5 phrases (or sentences) see if you can weave them into a story about your tree. Write your finished story here.



Take your class back to your tree and read your story to the class while everyone sits looking at your tree.

Trees are a source of many discoveries about nature and ourselves if we only take the time to observe, explore and wonder. Draw a picture of your tree and yourself discovering what's special about it.

.... GREENING YOUR NEIGHBOURHOOD

There are many things we can do to lessen our impact on the environment and to make it a cleaner, safer, more pleasing place to live. The 'poster' illustrates some of those things you can do, and some you shouldn't.

 Use the list of positive environmental actions and place numbers on the poster (or colour it in) where you think the description is best illustrated.

the Department 5 2a of Conservation 9 -A Western ans A 3 0 itralia Ś BO PAPER and man 10 03





Environmental Actions List	Number	do at		can do at	
		home	school	home	school
Compost food scraps for mulch for your garden	1				
Grow you own fruit and vegetables	2				
Drip water your garden and save water	3				
Make a space for local wildlife	4				
Raise seedlings to green your garden and neighbourhood	5				
Chickens can turn your scraps into eggs and nutrient rich manure for your compost	6				
Enjoy your bush backyard	7				
Bush gardens attract birds and insects	8				
Conserve energy with solar power, skylights, verandah shade and shade trees	9				
Bicycle for food, fun and fitness; save fumes and fuel costs of a car	10				
A bird in the bush is worth two in a cage	11				
Recycle paper, glass, tin and plastic	12				
Return reusable bottles	13				
Observe nature, go bird- watching	14				



7	Env	viron	mental Actions List	Number	do at		can d	lo at
					home scl	hool	home s	school
			bush corridors through nity lands	15				
	Take time to sit and feel the force of nature			16				
	Mal bus		ne for exploring the	17				
	Dis	cover	your special place	18				
	pos	sums	tes provide homes for s, birds and bats when rees are scarce	19				
	ano		d turn deserves - birds help control bests	20				
	٠	(a) (b) (c)	ntify with a tick which p do take at home can take at home do take at school can take at school	oositive actio	ons you			
	٠	Collate class responses to actions list by counting who ticked which box.						h box.
	٠	Discuss the results, then consider which actions we could take as individuals and as a group						
		*	Choose one of these 'a doing it at home or sc		outline how	you w	ould go	about
			<u>Consider</u> - information of funds, preparation t					
			or					
			Outline how you would planting trees and shi		greening' you	r hom	ie or sch	ool by

A Department of Conservation and Land Management



A TREE DIRECTORY

1. PUBLICATIONS

1.1 CALM Tree Publications

Write or call personally at CALM offices throughout WA. In Perth enquire at 50 Hayman Road, Como, 6152 or phone (09) 367 0481/(09) 367 0437.

- Brochures
 - . The Boab
 - Kimberley Rainforests
 - Trees of the Southwest
- Educational Resource Notes
 - 17 Some trees of the jarrah forest
 - 21 Eucalypts of Perth
- Information Sheets

Forests Department (1919-85)

- 1 Tall Trees
- 6 Eucalypts A Simplified Key to 17 W A Species
- 10 Forests and Their Importance to Water Supplies
- 17 Planting Pines in W A Conditions
- 18 Pine Trees Growing in W A
- 19 Seed Germination and Testing
- 20 Conserving the Inland Woodland
- 25 How to Measure A Tree
- 28 The Establishment of Plants by the Seaside
- 33 Protecting Trees During Home Construction
- 36 Growing Eucalypts From Seed
- 37 Plants Resistant to Phytopthora Cinnamoni
- 42 Arbor Day

CALM (1985-90)

- 1/87 Natural Regeneration of Bush Areas in W A
- 2/87 Pine Trees for Timber Under W A Conditions

3/87 Tree Planters Guide

5/87 Mature Seed Collection and Storage

1/88 Trees and Tall Shrubs of Perth

2/88 Broadscale Direct Seeding of Trees on Farms

2/89 Protecting Our Flora: A Brief Guide to the Legislation and Licensing



Management Plans, Wildlife and Technical Reports, and Scientific Journal Reprints

suitable for teachers and tertiary students can be viewed at CALM's Como Resource Centre, 50 Hayman Road, Como. Ask at the Front Counter. At other CALM offices a written request is required.

Management

Forest Management Plans (Northern, Central and Southern Forest Regions)

- Timber Strategy
- Technical Reports

3 A Eucalyptus study tour of South Western Australia. January 1986. T.E.H. Aplin, R.J. Edmiston, I. Abbott.

- Saleable Publications
 - Management Plans
 - . Wild Places, Quiet Places guide to trees and tree places in the south west
 - Beating About The Bush guide to trees and tree places around Perth
 - . Voices of the Bush guide to trees and tree places in the Southern Central Wheatbelt
 - . Finding the Magic drive trail guide to trees and tree places in the Southern Forest
 - . Rugged Mountains and Jewelled Seas guide to heritage trails of the South Coast
 - Landscope \$5.75 or \$20 subscription for four issues (Early copies out of print, refer to school or public library)

Spring 85	Historic Trees of Western Australia			
Summer 85	The Tenuous Tuart			
Autumn 86	Sharefarming Softwood Looking Back			
Summer 87	W A Rainforest			
Winter 88	Bush Telegraph			
Spring 88	Pines - The Soft Option Rebuilding the Cathedral			
Summer 88/	89 Conservation Reserves in the Karri Forest			
Autumn 89	Karri for Keeps			
Winter 89	Marri for Money Fragrant Harvest Restoring Nature's Balance			



Posters

- Granite Outcrops
- Bush Corridors
- Forests Forever
- Tree Series (5)
- . Arbor Day 1990
- Greening Your Neighbourhood
- Other CALM Publications
 - Tree Trust
 - . Discovering Mundaring Forest
 - . Marrinup Drive Trail (Dwellingup)
 - . Exploring Granite Outcrops
 - . Exploring Coastal Wetlands
 - . Forest Explorer (for kids)
 - . Wetlands Explorer (for kids)
- 1.2 Other Tree Publications (not available from CALM)

The titles of useful tree publications and access to library/resource centres can be obtained from:

- . Environmental Protection Authority (09) 222 7000
- . Department of Agriculture (09) 368 3333
- . Greening Australia (09) 227 5771
- . West Australian Wildflower Society (09) 383 1254
- Teacher Guides to Tree Education
 - Gum Tree Pack : A series of educational notes and activities that focus on eucalypts of W A \$ 20.00 Wildflower Society (Tel. (09) 383 1254)
 - Arbor Activities Booklet : Book of activities for primary and lower secondary students and notes for teachers and group leaders in leading activities for all ages. Available from CALM (Tel. (09) 367 0333).

2. AUDIO-VISUAL AIDS

These video resources are available for loan from CALM to teachers and community group leaders. Phone (09) 367 0333 to arrange a booking.

- Department of Conservation and Land Management
- **Restoring Nature's Balance**
- . Timber Talk (1 & 2)

Other tree videos are available for loan from the State Film Centre (Tel. (09) 427 3159).



3. TREE FACILITIES

3.1 CALM Facilities

CALM is progressively establishing interpretive displays, signs and trails in national parks and state forest recreation areas. They are designed to enrich visitor awareness, enjoyment and understanding of trees and other natural and cultural values of these areas.

Arboreta can be visited at Kalgoorlie, Pemberton, Kununurra and Karratha.

CALM has nurseries at Narrogin, Manjimup and Broome

The W A Herbarium is in Hayman Road, Como. There is a botanical garden here.

Visitor Centres are at Milyering, Cape Range National Park and the Homestead Millstream-Chichester National Park.

Enquire at CALM offices for more information about facilities, areas and activities.

- 3.2 Other Facilities
 - Manjimup Timber Park
 - . Manjimup Museum
 - . Pemberton Museum
 - . Golden Valley Tree Park, Ballingup
 - . Northcliffe Information Centre
 - . Walpole Information Centre
 - . Pemberton Mill
 - Perth Botanical Gardens
 - . Kings Park
 - . Sci-Tech Discovery Centre, Perth
 - Zoological Gardens, Microworld, Harmony Farm
- 3.3 Environmental Education Centres

CALM supports these centres that are ideal localities for field studies of trees and plant communities.

- . Icy Creek Bush Camp
- . Mundaring Field Study Centre
- . Jarrahdale Field Study Centre
- . Donnelly River Field Study Centre
- . Perup Forest Ecology Centre
- Twertup Field Study Centre

See Getting BushED - a guide to CALM's educational resources.

- 4. HUMAN RESOURCES
- 4.1 CALM

CALM staff manage national parks, nature reserves, state forests and wildlife throughout Western Australia. They are pleased to help with any questions you may have, and can assist with field excursions and talks.



÷

CALM encourages direct experience of natural environments. Staff can visit schools or assist field excursions if a booking is made at least four weeks in advance and if other commitments permit.

Contact CALM offices, then send in the completed form titled "School and Group Requests". Refer to "Getting BushED with CALM" - a guide to CALM's educational resources.

For further assistance with resources and activity programs contact:

- . Community Education Officer
- Regional Interpretation Officers
 - Northern Forest Region Central Forest Region Southern Forest Region Metropolitan Region Pilbara Region
- (09) 390 5799
 (097) 254 300
 (097) 711 988
 (09) 364 0777
 (091) 868 288

(09) 367 0333

CALM Regional and District Offices and Research Centres and the WA Herbarium (see CALM Directory or consult Telephone Directory)

4.2 Other Agencies (for tree resources)

Government

4.3

÷	Department of Agriculture Baron-Hay Court, South Pert	
	Environmental Protection Au	
	1 Mount Street, Perth 6000	
a. 1	Ministry of Education	(09) 420 4111
	151 Royal Street, East Perth	
No	n Government	
	Greening Australia	(09) 227 5771
	Unit 5 106 Oxford St, Leeder	ville 6007
	Bunnings	(09) 421 6777
	255Adelaide Terrace, Perth	
	WACAP	(097) 711 222
	'Diamond Mill' Eastbourne R	oad, Manjimup 6258
•	Forest Products Association 103 Colin St, West Perth 60	(09) 322 2088
	Alcoa	(09) 316 5111
	Marmion Street (Cnr Davey S	
Vo	luntary Organisations	
	Conservation Council W A	(09) 321 4507
	794 Hay St, Perth 6000	
	Institute of Foresters of Aust	ralia
	C/- Ian Clunies Ross Memor	ial Foundation
	P O Box 123	
	Nedlands 6009	
4	Men of the Trees	(09) 291 6619
	3 Over Avenue	
	and when the visit of a literature state and a literature	

19

Lesmurdie 6076

(09) 383 1254



W A Wildflower Society POBox 64 Nedlands 6009 W A Field Naturalists Association P O Box 156 Nedlands 6009 Australian Association for Environmental Education (03) 347 9655 P O Box 74 Parkville Vic 3052

5. SPECIAL EVENTS

Arbor Day: celebration day of trees and the yearly program of activities towards understanding and care of trees and the environment.

Arbor Day celebrations are held on the Friday of W A Week in the first week of June each year. They are coordinated by Greening Australia WA. Activities include tree planting programs, displays, media events and educational activities toward understanding and care of trees and the environment.

Other Events : as organised by the various agencies listed. Enquire direct.

0797 0690 2000

