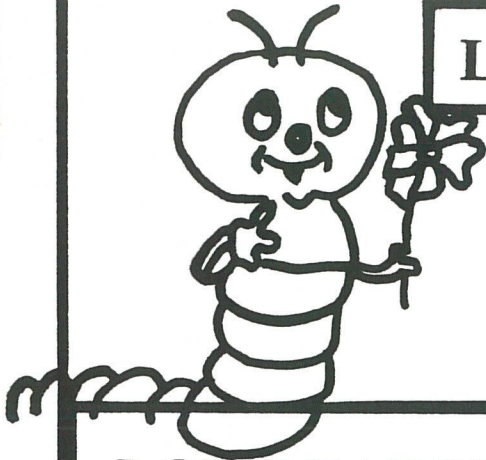


**L E N S BULLETIN**

No. 31

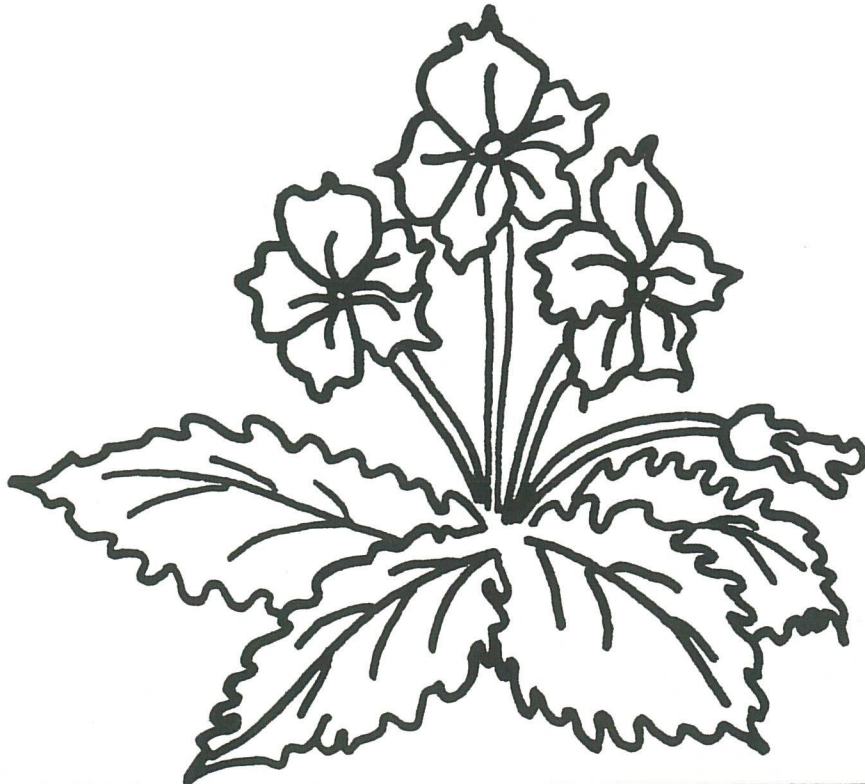


**LONG EATON NATURAL HISTORY SOCIETY**

**SPRING 1995**

<b>CHAIRMAN</b>	:	<b>ALAN HEATH</b>
<b>SECRETARY</b>	:	<b>CAROL WILLAN</b>
<b>MEETINGS SEC</b>	:	<b>J. &amp; F. BLACKBURN</b>
<b>TREASURER</b>	:	<b>FAY DRAPER</b>

**PUBLIC LIABILITY L.E.N.S.  
ACCEPT NO RESPONSIBILITY  
FOR, ACCIDENT, INJURY  
LOSS OF PROPERTY ETC.  
HOWSOEVER CAUSED**



CHAIRMAN'S FORWARD

In order to make room for the good quantity and variety of reports this time, I will keep my 'forward' short.

An INDEX of LENS Bulletins No 1-30 has been prepared and is available at the cost of photocopying.

The summer session is now with us and we hope you will enjoy the outdoor programme which has been arranged and will attend as many as possible.

We would like a volunteer to take over the job of RECORDER currently being done by John & Fay Blackburn, but they also do a marvellous job as organisers of our meetings. They would like to hand over the recorder job at the AGM later this year, which, on its own, is not an onerous task. The importance of our recording cannot be overstressed as this forms the basis of our Bulletin and has made possible our publication 'The Natural History of Long Eaton & District. Details of what is involved can be obtained from John or Fay.

Thanks are extended to all officers for their hard work behind the scenes and we thank all members for their continued support.

Alan Heath

FUNGAL FORAY - DALE ABBEY

9th October 1994

Led by Beverley Rhodes.

Also assisting were Roger Flindall  
and John Varty

A pleasant afternoon with good sunshine

Honey Fungus, False Chanterelle, Bonnet Mycena, Cramp Ball, Gregarious Elfcap, Tripe Fungus, Shaggy Pholitoa, Bay Boletus, False Death Cap, Cop or Penny Bun, Staghorn Fungus (Candle Snuff) Wax Cap, Parrot Wax Cap, Grey Tricholoma, Jew's Ear Fungus, Slippery Jack, Red-cracked Boletus, Dry Rot mycellium, Blusher, Common Yellow Russula, Stereum rugosum, The Deceiver, Sweet Milkcap, Slimy Milkcap, Shaggy Inkcap, Brown Rollrim, Fly Agaric, Ugly Milkcap, Wood Blewit, Yellow Stereum, Pink Slime Mould (Lycogla epidendrum)

21 October 1994

EARTH STAR - (*Geastrum pentinatum*) found by Roger Flindall  
by a garden hedge in Thorseby Road, Long Eaton.

FUNGAL FORAY - LOUGHBOROUGH OUTWOODS - 1st October 1994

Leicester Fungal Study Group : Richard Illiffe, David Goldsmith  
and Roger Rixon.

Red cracked Boletus  
Ugly Milk Cap  
Wood Blewit  
Brown Birch Boletus  
Coral Spots  
Mycena sp.  
Buttercap  
Brown Rollrim  
Bonnet Mycena  
Cortinarius rigidus  
Lactarius tabidus  
Mycena inclanata  
Fly Agaric  
Coconut Milkcap  
False Chanterelle  
Crepidotus variabilis  
Honey Fungus  
Oak Milkcap  
Sulphur Tuft  
Calocera palida spatulata  
Spotted Tough shank  
Fragile Russula  
Birch Polypore  
Purple and Yellow Agaric }  
Plum and Custard }  
Stereum rugosum  
Steely-stemmed Mycena  
Common Yellow Russula  
Bay Boletus  
~~COMMON-EARTH-BELL~~  
Hirschioporus abietinus  
Clitocybe vibecina  
Hairy Stereum  
Candle Snuff Fungus  
Wood Woolly Foot  
Beef Steak Fungus  
Lead shot Slime Mould  
Root Fomes  
False Death Cap  
Marasmius sp.

Boletus chrysenteron  
Lactarius turpis  
Lepista nuda  
Leccinum scabrum  
Nectria cinnabarina  
  
Collybia butyracea  
Paxillus involutus  
Mycena galericulata  
  
Amanita muscaria  
Lactarius glyciosmus  
Hygrophoropsis aurantiaca  
  
Armillaria mellea  
Lactarius quietus  
Hypholoma fasciculare  
  
Collybia maculata  
Russula betularum  
Piptoporus betulinus  
Tricholomopsis rutilans  
Tricholomopsis rutilans  
  
Mycena polygramma  
Russula ochroleuca  
Xerocomus badius  
  
Schleroderma citrinum  
  
Stereum hirsutum  
Xylaria hypoxylon  
Collybia peronata  
Fistulina hepatica  
  
Heterobasidion annosum  
Amanita citrina

Jeanette Rhodes, Fred Dyson, Alan Heath

Interesting Bird Sightings - Fay Blackburn

14.5.94 An unusual visitor to Barker's Pond was a Greylag goose, a 'first' as far as we can ascertain.

15.5.94 2 Willow Warblers in the garden of 30 Quorndon Crescent with 5 House Martins flying overhead in the early evening.

Goldfinches have visited the garden at intervals, Oct/Nov/Dec to feed on the Lavender which has been left unpruned.

Also a grey Wagtail was feeding among the weed on our garden pool and was also seen around Barker's Pond - Oct/Nov. One was also noted at Long Eaton Lock by Max Bryce - 30.11.94.

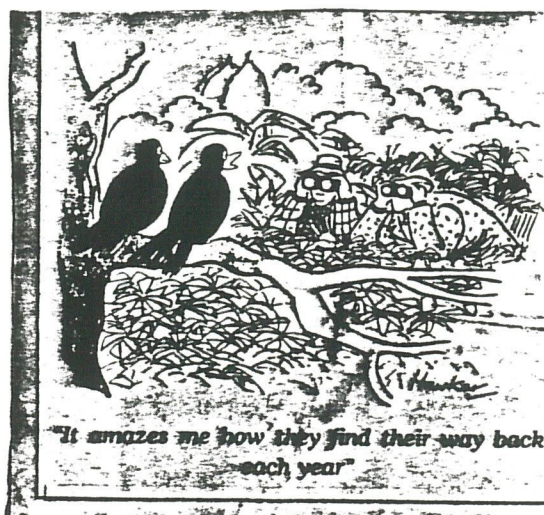
16.11.94 Fieldfares seen at Forbes Hole.

A female Sparrowhawk has been sighted in the garden at regular intervals and also around Barker's Pond. This is probably the same one that Max Bryce noted feeding on his bird table - unusual.

On various days in December a Lesser Black-backed gull and 2 Common gull were sighted on Barker's Pond.

27.12.94 It was good to see that the Golden Eye (8) had returned to Attenborough and also interesting to see how well Little Grebe had bred, 5 were noted in a relatively small area.

January 1995 Now that I have managed to commence feeding the birds at Risley School, the Willow Tit has returned to feed on the nuts! Long-tailed tits have also returned.



<u>BIRD SIGHTINGS :</u>	Jeanette Rhodes
28 August 1994	Red backed Shrike ; Cresswell Crags
29 August 1994	Black tailed Godwit ; Attenborough Nat. Res.
4 September 1994	Buff breasted Sandpiper ; Draycote Water, Warwickshire
14 September 1994	Grey Phalarope : Jubilee Ponds, Ryton on Dunchurch
17 September 1994	Wryneck ; Barton Road, Attenborough
	Red Crested Pochard
	Black necked Grebe Victoria Park,
	Flock of Golden Plover Netherfield
8 October 1994	Cattle Egret ; Ansty, Warwickshire
16 October 1994	Knot Rutland Water (Eyebrook)
	Little Stint
	Ringed Plover
5 November 1994	Jack Snipe ; New Workings, Meadow Lane
6 November 1994	Great Grey Shrike ; New Workings, Meadow Lane
<hr/>	
6 January 1995	Grey Wagtail ; Trent Lock
	Common Sandpiper ; Cranfleet Lock
	Sparrowhawk ; around farmyard
	Kestrel ; Meadow Lane
	Short-eared Owl ; Cranfleet Lock
5,7 and 8 January 1995	Blackcap in garden, 114 Breedon St.

John & Judy Langford

COLWICK PARK 1st January 1995

A visit by LENS members on a sunny but bitterly cold day revealed the following birds :

Canada Geese, Gadwell, Cormorant, Moorhen, Black headed Gull, Little Grebe, Great Crested Grebe, Mallard, Greylag Goose, Tufted Duck, Mute Swan, Coot, Pochard, Heron, Common Gull, Pied Wagtail, Magpie, Chaffinch, Crow, Lesser Blackback Gull, Black back Gull.

BESTWOOD COUNTRY PARK : 15 January 1995 Jeanette Rhodes

Brambling, Longtailed Tit, Bluetit, Great Tit, Hedge Sparrow, Greater Spotted Woodpecker, Pigeon, Blackbird, Magpie, Wren, Carrion Crow, Lapwing

BARTON LANE, ATTENBOROUGH 15 January 1995 Jeanette Rhodes

Shoveller, Teal, Coot, Cormorant, Snipe, Tufted Duck, Mallard, Water Rail (H), Shelduck, Great Crested Grebe, Goldfinch, Blackheaded Gull, Redpoll, Willow Tit, Heron, Canada Geese, Moorhen, Bullfinch, Kingfisher

Mr & Mrs Bates recorded in the last two weeks of December and the first week of January, a Siskin and a group of four long-tailed Tits in their garden in Hardy Close.

BRITAIN'S VANISHING BIRDS - John Langford

A short article in the Sunday Express for 30th October 1994 claimed that 9 common birds have decreased in the last 20 years by the percentages shown : -

Tree Sparrow	Down	85%
Corn Bunting	"	76%
Grey Partridge	"	73%
Turtle Dove	"	72%
Reed Bunting	"	59%
Linnet	"	56%
Skylark	"	54%
Lapwing	"	47%
Kestrel	"	33%

Others at risk are the Whitethroat ( down 18%), Little Owl (-16) Starling (-16), Yellow Wagtail (-11), Greenfinch (-6) and the Yellowhammer (-5%).

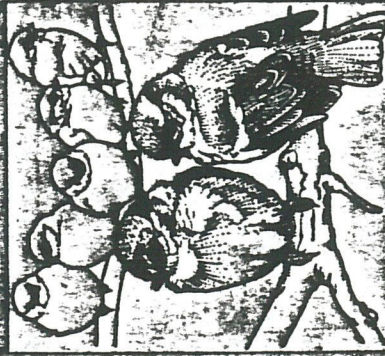
British Trust for Ornithology studies from 1969 to 1991 reveal farmland birds have tumbled uniformly in all areas where there is intensive arable farming. The problem seems to be that they are being deprived of winter food. Seeds are either not there because of herbicides or they are being ploughed under in the autumn. Birds have also been hit as thousands of miles of hedgerows have been grubbed up, denying them food and nesting sites. Between 1945 and 1985, 109,000 miles were cleared and 32,000 miles were removed in the six years to 1990.

Have LENS members any points on the plus-es or minus-es for particular bird species that occur to them? My own feelings based on some 20 years bird-watching in our area, would certainly support the reduction of Reed Buntings (at places like Attenborough) and, of course, in nesting Lapwings and Redshank in the Trent Valley. I don't think I have seen or heard a single Turtle Dove during the last two summers.

Please send any thoughts you have, however unscientific, to the LENS Bulletin editor.

## NATURE NOTE

It is a sad thought that many of the birds that came into the garden at the end of last summer will be dead before spring. Throughout the spring and summer, pairs had worked hard to bring up their families, and the weeds and fields were full of small birds. But from the end of the nesting season their numbers have been dwindling. By the end of winter we can expect the number of survivors will be about the same as had started to nest in the previous spring. Starvation will have been the main cause of death. The life expectancy of a small bird is very short. To say it is born to die is not far from the truth. Of 100 eggs laid, 30 will be lost before hatching and only 10



produce birds that will survive to adulthood. This should not come as a surprise. If a population of birds is to remain stable, each adult needs only to replace itself. So a single pair of birds needs to rear only two offspring during a lifetime's breeding. The "surplus" makes it possible for the survivors of a catastrophic disease or famine to breed rapidly and rebuild the population quickly. Despite the large majority of young, a tiny minority of birds enjoy a long life. There are records, based on bird-ringing, of a blue tit living to 10 years, a Robin to 13 and a blackbird and a starling to 20.

FRESHWATER OBSERVATIONS AT FORBES HOLE, Long Eaton 1994

During the year only four samples were taken from the main pond and one from the small pond. The main pond samples were taken from SITE A and the population numbers estimated as follows : -

- |    |               |                     |
|----|---------------|---------------------|
| 1. | Very Rare     | only one seen       |
| 2. | Rare          | two or three seen   |
| 3. | Ocassional    | about 10 seen       |
| 4. | Common        | 20 or more seen     |
| 5. | Frequent      | obviously plentiful |
| 6. | Abundant      |                     |
| 7. | Very Abundant |                     |
| 8. | Dominant      |                     |

A POPULATION INDEX for each species is calculated by giving the number for each estimate, i.e. 4 = Common these being totalled and divided by the number of samples taken. An example is that of Diaptomus. The four samples revealed population estimates of Frequent (5), Common (4) and two were Ocassional (3). The total is 15 which when divided by 4 gives 3.8 This figure is the Population Index. It is then compared with the previous year to ascertain if this is increasing, the same or on the decline. The following record was obtained for 1994

	2 Mar	16 Jun	28 Jul	10 Dec	Total	Pop Index	
Cloeon nymph	VR	-	VR	O	5	1.2	-
Corixa	-	R	C	-	6	1.5	+
Caddis larvae	-	VR	-	R	3	0.8	+
Ascellus	VR	-	VR	-	2	0.5	-
Chironomus larva	VR	-	-	VR	2	0.5	=
Eurycercus	VR	-	-	-	1	0.2	-
Daphnia hyalina	-	-	O	F	8	2.0	+
Bosmina	-	-	R	-	2	0.5	+
Chydorus	O	-	R	-	5	1.2	-
Gerris	-	-	C	-	4	1.0	+
Cyclops	O	VR	-	R	6	1.5	-
Diaptomus	F	C	O	O	15	3.8	+
Cypris	R	VR	-	O	6	1.5	-
Hydracarina	VR	-	R	-	3	0.8	-
Amoeba	-	-	VR	-	1	0.2	+
Spirostomum	-	-	VR	-	1	0.2	+
Simocephalus	-	-	-	R	2	0.2	+
Coleps	O	-	-	-	3	0.8	+
Chaetonotus	-	-	R	-	2	0.5	-
Phacus	VR	-	-	-	1	0.2	-
Spirogyra	R	-	O	-	5	1.2	+
Oscillatoria	VR	-	-	-	1	0.2	=
Closterium concavum	R	VR	-	-	3	0.8	-
Euglena	O	VR	-	-	4	1.0	-
Cosmarium	-	-	VR	-	1	0.2	+
Acromatium oxaliferum	R	R	-	-	4	1.0	-
Nitzschia sigmoidea	O	R	R	R	9	2.2	+
Pinnularia	O	VR	R	R	8	2.0	-
Fragellaria	O	R	R	C	11	2.8	+
Surirella constricta	VR	-	-	-	1	0.2	=
Diatoma	VR	R	-	VR	4	1.0	=
Cymbella ehrenbergii	C	C	O	-	11	2.8	+
Cymbella gastroides	-	R	-	-	2	0.5	-

- + more than last year  
 = same as last year  
 - less than last year

The total species recorded last year was 44 compared with 39 for 1994. This total includes the following found at a site near the car park but along the north track.

Water Moss ; Water Spider, Water Measurer and Water Scorpion. Smooth Newt was found in the meadow region.

THE SMALL POND Only one sample obtained on 16 June 1994 which revealed the following -

Spirogyra (Dominant in regions) ; Corixa VR ; Diaptomus VR ; Chydorus C ; Cypris - VR ; Nitzschia sigmoidea C ; Synedra C ; Coleps - R ; Diatoma R ; Phacus R ; Pinnularia R ; Cymbella ehrenbergii C ; Nematode VR ; Acromatium oxaliferum VR ; Closterium concavum VR ; Spirostomum VR ; Amoeba VR ; Pediastrum VR ; Synura VR ; Chaetonotus VR ; Euglena VR ; Cymbella gastroides VR ; Surirella constricta VR ; Scenedesmus R ; plus two diatoms which were unidentified. Total 26 species

Only nematode and Pediastrum were found in this pond but not in the main pond.

COMMENTS :

The water level was very low during the summer and was probably as low as I have ever seen it. During the spring, reed-mace was mechanically removed from much of the pond thus causing a major disturbance.

A marked change in dissolved oxygen occurred during the year.

2 March	8.5 ppm	
16 June	3.7 ppm	(small pond was 7.8 ppm on same date)
28 July	2.5 ppm	(water very low)
10 December	8.0 ppm	

FORBES HOLE - WATER DATA

	2 Mar	16 Jun	28 Jul	10 Dec
Air Temp	11.5	14.1	18.4	13.5
Water Temp	9.0	19.9	21.4	7.5
pH	7.4	7.5	7.6	7.5
Dissolved O <sub>2</sub>	8.5	3.7	2.5	8.0
Hardness	195	185	200	205
Conductance	222 <sub>µs</sub>	181 <sub>µs</sub>	250 <sub>µs</sub>	333 <sub>µs</sub>

O<sub>2</sub> Winkler chemical method  
 Hardness Titration using Methyl Orange indicator  
 pH B.D.H. Comparitor (Phenol Red)

The dissolved O<sub>2</sub> and Hardness recorded in p.p.m.  
 Conductance recorded in micro seimens.

Alan Heath



WEATHER SUMMARY 1994

PREVAILING WIND		- WEST
LEAST WIND		- EAST followed closely by N, SE and NW
WARMEST DAY	88°F	- 12 July
COLDEST DAY	24°F	- 22 Feb and 24 Dec
WETTEST DAY		- Sept 14/15 with over an inch in 12 hours
WETTEST MONTH		- September
DRIEST MONTH		- June
DAYS WITH OVER AN INCH OF RAIN IN 24 HRS	- 2	- Sept 14-15 and Dec 26-27
TOTAL THUNDERSTORMS		- 9
TOTAL RAIN		- 27.94 inches ( 709.5 mm) = 0.54 ins/week (13.64mm/week)
TOTAL DRY DAYS + NIGHTS		- 470
TOTAL WET DAYS + NIGHTS		- 260
TOTAL SNOW (Level snow in inches)		- 6½ ins
DAYS WITH NEW SNOW ON GROUND		- 3
TOTAL FOG		- 7
FOG ALL DAY		- 1
BAROMETER Max.		- 30.8 Nov 28 and Dec 23
Min.		- 28.75 April 1
STRONG WINDS/GALES		- 5 - Jan 26 and 27, Mar 13 and 14, March 23 West Gales on Mar 13 and 14
AVERAGE MAXIMUM TEMPERATURE		- 68.6 F
AVERAGE MINIMUM TEMPERATURE		- 35.9 F
DAYS WITH TEMPERATURES OF 80°F OR MORE	- 14	- 2 in June, 11 in July and 1 in August.

NOTE : Due to being away at the end of October and early November, the rain total is given for both months combined. Thanks are extended to Stephen Hudson who kindly recorded the days when rain fell and general description of each day.

WIND 1994

	N	NE	E	SE	S	SW	W	NW	
Jan	1	-	-	1	6	7	14	2	31
Feb	-	2	3	4	6	1	-	2	18
Mar	-	-	-	-	2	13	15	2	32
Apr	5	2	-	-	5	6	8	5	31
May	4	12	4	2	4	2	-	1	29
Jun	1	-	-	-	3	5	12	1	22
Jul	1	1	4	2	3	3	2	-	16
Aug	1	5	1	1	1	9	5	1	24
Sep	3	4	3	-	1	4	9	4	28
Oct	1	-	2	4	3	2	11	1	24
Nov	1	-	-	3	2	5	5	1	17
Dec	1	1	-	2	3	9	7	-	23
TOTAL	19	27	17	19	39	66	88	20	295

MONTHLY WEATHER SUMMARY 1994

- January** A wet and windy month, wind especially strong in final week. Generally mild for time of year
- February** A mixed month with some snow especially on 23rd. Very cold at times especially on the 14th when it did not get above freezing all day. This was coldest day of year together with December 24
- March** A mixed month again. Very windy at times with gales on the 13th and 14th. Moderate to strong winds on 11 days in addition to the gales.
- April** Mixed month yet again with fair amount of rain. Wind change from northerly in second week to southerly to end of month. Some hail and thunder at times
- May** Fair amount of rain but a generally cool month. Dominance of North-East wind in second half of month. Continuous cloud from 15th to 28th.
- June** A little rain in first and last week, otherwise dry. Driest month of the year. Westerly winds dominated this month. Thunderstorm on 24th with vivid lightning but little rain.
- July** A good frequently dry month with some hot and muggy days. Eleven days with temperature of 80 F or more and warmest day of the year was on the 12th
- August** Another mainly dry month with a good amount of sun.
- September** The wettest month of the year especially on the 14th with over an inch of rain in 12 hours. Less rain in the last week.
- October** Fog in second week and fairly wet at end of month.
- November** A very mild month being one of the mildest on record. Fairly wet but drier in last week.
- December** A mixed month with a lot of rain. Over an inch in 24 hours on 26-27th. Mild at times. Rather windy in mid-month and last week. Coldest day of year on 24th which equalled that of February 14th.

SIMPLIFIED TREE KEY

This key is designed for use whilst looking at a tree in leaf and should enable you to identify at least the family of trees it belongs to or in some cases a choice of 2 or 3 species. It will then be easier to check in a field guide of trees to confirm the species. If tree does not tally to pictures in book check other species in same group of key from previous question. If identification is still uncertain you may have a large shrub or an unusual foreign species.

Does tree have flat broad leaves?

Yes - Go to A  
No - Go to B

Key A

1. Is the tree evergreen, with dark green leathery leaves, or deciduous?

Evergreen - Go to 2  
Deciduous - Go to 8

Evergreens 2 - 7

2. Do the leaves have pale undersides?

Yes ---- Holm Oak  
No - Go to 3

3. Are the leaves narrow with smooth edges?

Yes - Go to 4  
No - Go to 6

4. Is the foliage aromatic?

Yes ---- Bay Laurel  
No - Go to 5

5. Are the leaves thick and fleshy?

Yes - Evergreen Magnolia  
No - Eucalypts (Gum Trees)

6. Are the leaves A. less than 4 cm?  
B. 6 - 10 cm?

Box  
Go to 7

7. Are the leaves A. Regularly toothed?  
B. Prickly?

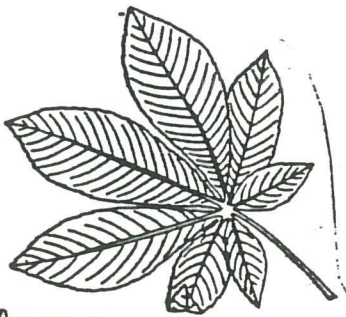
Strawberry Tree  
Holly

Deciduous 8 - 53

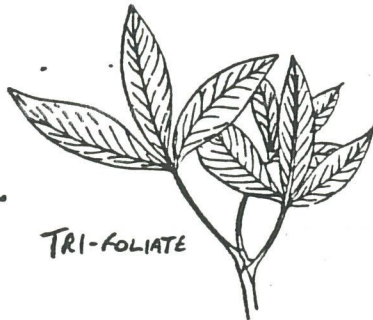
8. Are the leaves compound or simple?

Compound - Go to 9  
Simple - Go to 20

COMPOUND



PALMATE



TRI-FOLIATE

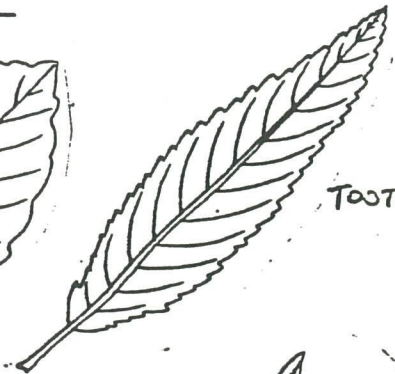


BI-PINNATE



PINNATE.

SIMPLE



TOOTHED



LOBED



Compound leaves 9 - 19

9. What type are the compound leaves?

Trifoliate - Laburnum  
Palmate - Horse Chestnut  
and Buckeyes  
Pinnate - Go to 10  
Bi-Pinnate - Go to 19

- |  |   |
|--|---|
| 10. Are the leaflets toothed?                  | Yes - Go to 11<br>No - Go to 16                       |
| 11. Are the leaflets stalked ?                 | Yes - Elder and Manna A<br>No - Go to 12              |
| 12. Are the leaflets all the same size?        | Yes - Go to 13<br>No - Go to 14                       |
| 13. Are the buds black?                        | Yes - Ash<br>No - Rowan and Service tree              |
| 14. Is the terminal leaflet largest and lobed? | Yes Finnish Service Tree<br>No - Go to 15             |
| 15. Are the shoots very hairy?                 | Yes - Stagshorn Sumach<br>No - Black Walnut           |
| 16. Are there less than 10 leaflets ?          | Yes - Go to 17<br>No - Go to 18                       |
| 17. Are the leaflets lobed?                    | Yes - Box Elder<br>No - Walnut                        |
| 18. Do the leaflets have small ears at base?   | Yes - Tree of Heaven<br>No - Robinia and Honey Locust |
| 19. Are the leaflets toothed?                  | Yes - Pride of India<br>No - Hercules Club            |

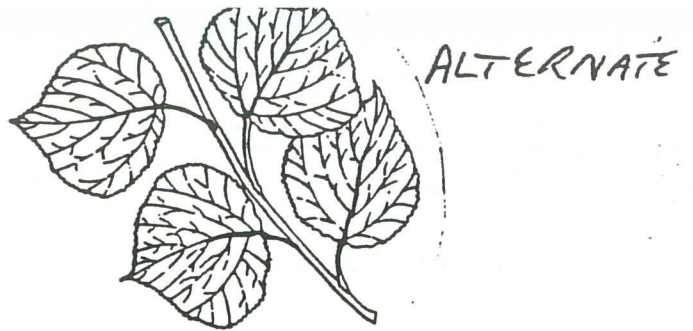
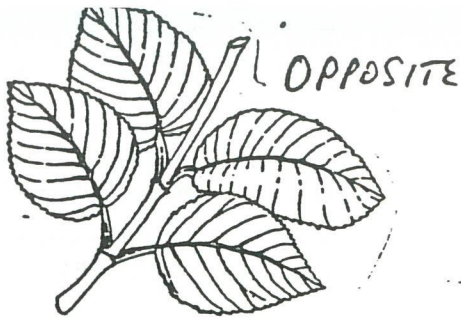
Simple leaves 20 - 53

- |                           |                                 |
|---------------------------|---------------------------------|
| 20. Are the leaves lobed? | Yes - Go to 21<br>No - Go to 28 |
|---------------------------|---------------------------------|



Lobed Leaves 21 - 27

- |   |   |
|---|---|
| 21. What sort of lobes are they?          | 2 lobed - Gingko<br>3 lobed - Go to 22<br>4 lobed - Tulip Tree<br>5 Palmate lobes - Go to<br>Pinnate lobes - Go to 26 |
| 22. Is the leaf very shiny?               | Yes - White Mulberry<br>No - Maples   |
| 23. Are the leaves opposite or alternate? | Opposite - Sycamore and Maples<br>Alternate - Go to 24  |



24. Are the leaves hairy?

Yes - White Poplar  
No - Go to 25

25. Does bark peel in large sheets leaving white patches?

Yes - London Plans  
No - Sweet Gum and  
Wild Service Tree

26 Are the leaves white underneath?

Yes - Swedish Whitebeam  
No - Go to 27

27. Are leaves small with stipules (little extra growths)  
at base

Yes - Hawthorn  
No - Oaks

Unlobed leaves 28 - 53

28 Are the leaves pointed at each end?

Yes - Go to 29  
No - Go to 35



Pointed leaves 29 - 34

29. Are the leaves  
A. At least 4 times as long as wide?  
B. At least twice as long as wide?  
C. less than twice as long as wide?

Willows  
Go to 30  
Go to 33

30 Are the leaves hairy?

Yes - Go to 31  
No - Go to 32

31. Are the leaves toothed ?

Yes - Blackthorn and Medlar  
No - Magnolia

32. Are the leaves toothed?

Yes - Sweet Chestnut  
No - Spindle, Snowbell and  
Almond

33. Are the leaves downy?

Yes - Whitebeam  
No - Go to 34

34. Are the leaves toothed?

Yes - Apple, Pear and  
Damson  
No - Goat Willow

Not pointed both ends 35 - 53

35. What shape are leaves?

Triangular - Go to 36  
Lop sided - Elms  
Broad as long - Go to 38  
Heart shaped - Go to 40  
Oval - Go to 46

Triangular leaves 36 and 37

36. Are the leaves toothed?

Yes - Birch  
No - Go to 37

37. Does trunk have shaggy bark

Yes - Lilac  
No - Poplars

Leaves Broad as long 38 and 39

38. Are the leaves pointed?

Yes - Go to 39  
No - Common Alder

39. Do leaves have saw tooth or wavy margin?

Saw tooth - Hazels  
Wavy - Grey Poplar and Aspen

Heart shaped leaves 40 - 45

40. Are the leaves opposite or alternate?

Opposite - Go to 41  
Alternate - Go to 42

41. Are the leaves toothed?

Yes - Wayfaring Tree  
No - Katsura, Indian Bean  
and Foxglove Tree

42. Are leaves toothed?

Yes - Go to 43  
No - Judas Tree

43. Do leaves have orange hairs at vein joints?

Yes - Italian Alder  
No - Go to 44

44. Does tree have very short main trunk?

Yes - Black Mulberry  
No - Go to 45

45. Is fruit like a papery leaf with seeds dangling  
on umbrella like structure?

Yes - Limes  
No - Handkerchief Tree

Oval Leaves 46 - 53

46. Are Leaves A. opposite with veins parallel to edge?  
B. alternate with veins pinnate?

Yes - Go to 47  
Go to 48

47. Are the leaves toothed?

Yes - Purging Buckthorn  
No - Dogwood and Cornelian  
Cherry

48. Are the leaves toothed?

Yes - Go to 49  
No - Go to 52

49. Are there 2 bumps/glands on leaf stalk or base?

Yes - Cherries  
No - Go to 50

50. Are teeth regular and large?

Yes - Caucasian Elm and Keel  
No - Go to 51

51. Is the trunk fluted?

Yes - Hornbeam  
No - Grey Alder

52. Does the leaf have a wavy margin?

Yes - Go to 53  
No - Go to Alder Buckthorn

53. Does leaf have red veins?

Yes - Persian Ironwood  
No - Beech.

Key B

1. Are the leaves over 4mm broad?  
Yes - Monkey Puzzle  
No - Go to 2
2. Are the leaves awls, scales or needles?  
Awls - Go to 3  
Scales - Go to 4  
Needles - Go to 7
3. What length are the leaves? Not more than 7mm  
About 15mm  
Wellingtonia  
Japanese Cedar
4. Is the fruit berry like, under 6mm and rounded?  
Yes - Chines Juniper and  
Pencil Cedar  
No - Go to 5
5. Is the foliage in flat sprays or 3D sprays?  
Flat - Go to 6  
3D - Monterey Cypress  
Itallian Cypress  
Smooth Cypress
6. Are the cones spherical or flask shaped?  
Sperical - Cypresses  
Flask - Thūjas ans Incence  
Cedar
7. Do the needles grow singly from twig?  
Yes - Go to 8  
No - Go to 16
8. Are all the needles in much the same plane forming  
flattened herring bone?  
Yes - Go to 9  
No - Go to 13
9. Is the tree deciduous with light green delicate leaves?  
Yes - Go to 10  
No - Go to 11
10. Are the leaves opposite or alternate?  
Opposite - Dawn Redwood  
Alternate - Swamp Cypress
11. Does Tree have soft spongy bark ?  
Yes - California Redwood  
No - Go to 12
12. Does tree have very straight undivided trunk ?  
Yes - Grand Fir  
No - Yews
13. How do needles grow? From wooden pegs - Spruces  
In whofls of 3 - Common Juniper  
Neither of above - Go to 14
14. Does tree have large erect cones?  
Yes - Firg  
No - Go to 15
15. Poigted needles with 3 pointed projecting bracts on cone  
Needles with rounded tips and small cones  
Douglas Fir  
Hemlocks
16. Are the needles in A Groups of 2, 3 or 5  
B Rosettes of 10 or more  
C Whorls round shoot  
Pines  
Go to 17  
Japanese Umbrella Pine
17. Is tree deciduous or evergreen?  
Deciduous - Larches  
Evergreen - Cedars.

