by Gwyneth Fookes

INDING a paper in the Croydon Natural History & Scientific Society library dated 1880 on churchyard yews in East Surrey, it seemed to be a practical exercise to check how the circumference of the trees which the author, Straker, recorded 115 years ago relates to the present day and also to look at modern thinking on ageing the trees.

The original list of Bourne area churches visited by Straker is reproduced below (table 1) with 1994 figures included. He actually covered a wider field—as far as Ashtead to the west and Horley to the south—and visited 53 churchyards in all. He found that 27 possessed yew trees of noticeable age and 26 did not. In the present survey 16 churchyards from Straker's list were re-visited and a number of other churchyards not on his list that may or may not have had sizeable trees. Two very large yew trees on his list are a little further afield, but are included here because of their fame.

It became apparent very soon that the current situation was very different from that pertaining in 1880. The reputed longevity of yews could be seriously questioned as tree after tree was not found at all. Occasionally as at Caterham (St Lawrence) and Sanderstead a dead stump remained, but mostly there was no sign. At Tatsfield, there is a very obvious large gap with the surrounding trees having high branches, which could well be attributed to the large yew beneath them forcing their growth upward. It would appear that, although some yew trees do survive for centuries, it is not a particular characteristic of the species. Some individual trees of other species, such as oaks, can survive for centuries too, when conditions permit, but most standard trees are harvested long before they reach such great girths.

From the original list 50% of those yews in our area above 5ft in circumference have gone.

In the latter years of the 19th century as suburbia sprawled out along the railway lines in the dry chalk valleys south of Croydon, new churches were built. Were yews planted in the new churchyards? Were there perhaps yews already in the hedgerows of the green-field sites on which the churches were built, or did yews gradually spread in by natural colonisation of the site once the green field ceased to be grazed or ploughed? It will be very difficult to

answer these questions, but some of the 'new' churches visited had notable yews; others, such as Woldingham, had none. At—

Caterham, St Mary, consecrated in 1866 - the largest yew is 8'6" in circumference.

Kenley, All Saints, dedicated in 1871 - a number of yews, typically 8'9".

Purley, Christ Church, consecrated in 1878 - a number, typically 9'0".

Titsey, built in 1860* - two, one 11'3", the second 7'0".

Whyteleafe, St Luke, consecrated 1866 - many yews, the largest 9'9".

*Titsey is unusual in that an earlier church nearby with adjoining yew was demolished about 1860 and the yew remains. It is a fine tree measuring 21'6". There were two even earlier churches on the site.

Oxted apparently did not have a yew worth recording in 1880, but in 1994 it had a tree measuring 10'6". The situation at Godstone was the same - none recorded in 1880 but by 1994 there was a tree measuring 11'9". Presumably both trees were mere saplings in 1880.

Straker's method of ageing yews is not explained; there have over the years been many theories, each new one attempting to disprove earlier versions. Straker's figures are quoted here, but can only be accepted with reservation. Rackham *(personal communication)* believes, and it would appear from the current survey, that in their youth *yew trees grow at approximately* ³/₄" *a year in circumference* as do other species of trees, but no attempt has been made here to age the larger trees. Rate of growth does decrease with age.

A tree's annual growth can be seen in the rings in the trunk and the infallible method of ageing trees is to fell the tree and count the rings, which, of course, is not recommended! Old trees are frequently hollow which makes this method impossible; interestingly recent thinking does suggest that the hollow trunk is beneficial to the tree in enabling it to survive storms such as that in 1987. Most methods of ageing living trees have depended on measuring the circumference of the trunk, preferably at 5ft from the ground, but below the level where the tree branches out, and over the years varying interpretations have been attached to the measurements obtained.

To add confusion, yew trees are often multi-stemmed, that is there are several trunks just above the ground, if not immediately at ground level. Over



WhyteleafeSt Luke's 1Circumference 8'6".Growth c. ³/₄" per year

the years if the trunks merge any attempt to calculate age has to take these into consideration. For example, Hassell's painting of the Tandridge yew appears to show a multistemmed tree and yet this is not really apparent in the tree as it stands today, although Lowe reports three trunks in 1890.

Table 2 shows all the records for our yew trees, with comments. Where earlier authors have recorded particular trees, their measurements and comments are shown in brackets. Table 1 shows most clearly that the growth in the different yews over the past 130 years is very variable. The smallest growth seems to be in Farleigh 1, which has only grown

3" in girth and the largest at Nutfield, which is 9'. One would expect the larger trees to grow much more slowly, but the 9' growth in Nutfield is the rate found by Rackham. Tandridge 1 appears to have grown 6', and it is suggested that this may relate to the multi-stemmed nature of this fine tree,

where the several stems are pushing outwards against one another as they grow. The variation in growth rate could depend on a variety of factors, including the type of soil and subsoil the tree grows on, its aspect, and whether it is surrounded by other trees.



The Tandridge Yew 1994 Circumference 36ft

Allen Meredith, whose work is the subject of *The Sacred Yew* (1994), believes that all the old yews are a great deal older than any previous worker has calculated, and his arguments are well worth reading. He has travelled widely measuring yews and researching known plantings, although having a planting date can be problematical as it is not possible to be sure that the same tree is referred to. A later tree could have been planted on the same site, or a nearby tree could be the one in question. The present tree may be regrowth on an old base. Meredith has had the ear of some well known tree experts, including Alan Mitchell. Meredith (*pers.comm*), suggests growth rates in aged

yews may be very small, and he says that a tree 30ft in girth may be 1500 years old or may be 3000 years old! It would appear that calculation from the measurement of girth is too simplistic. Consequently no attempt to interpret the records collected in 1994 has been made. However, it is clear that the larger the girth the older the tree, and a 30ft tree is very old, with the trees growing at a normal rate at least in their youth.



Painting of the Tandridge Yew by Hassell (1828)

clearly showing the multi-stemmed character of the tree. Hassell usually painted buildings, so must have been impressed by what he saw.

It is worth recording that the Tandridge yew tree is female and, however old it is—and it must certainly be a very old tree—it still produces copious quantities of fruit each year.

There are debates about why yews are in churchyards—Druidical custom, Roman custom, use as palm, shelter for sacred buildings, the significance of the evergreen and eternal life being offered in support. The theories that yew is poisonous and was planted in the churchyard to ensure that animals did not have access is difficult to accept, as the grass in churchyards was frequently kept under control by grazing animals. In fact several observers have seen stock that have grazed yew without coming to harm. The need for bows as a reason seems strange—growing material for instruments of war in a churchyard does not seem appropriate—and in any event we are told that the best bows came from French yew.

In the south of England, yews are frequently found growing naturally on the chalk and there are a number of rows of sizeable yews in this area, which were almost certainly planted, and which will be the subject of a future study.

Main References

Chetan, A. & Brueton, D., 1994. *The sacred yew,* Arkana Penguin
Lowe, J., 1897. *The yew trees of Great Britain & Ireland,* Macmillan
Rackham, O., 1990. *The history of the countryside,* Dent.
Straker, E., 1880. *A table of the girths, position and estimated ages of churchyard yews,* presented to CNHSS

(Tables follow overleaf)

Table 1

A table of the girths, position and estimated ages of churchyard yews E. Straker 1880

(Presented to the Croydon Natural History & Scientific Society 15.12.1880)

(reproduced by kind permission)

With 1994 measurements added

Height means height of measurement from ground and the compass bearing is taken from centre of church.

	<u>Church</u>	<u>Circum.</u> <u>1880</u>	<u>Circum.</u> <u>1994</u>	<u>Height</u>	<u>Bearing</u>	Estimated age Straker - 1880
1.	Crowhurst	30'6"	31'6"	5'	ENE	1800
2.	Tandridge 1	30'	36'	5'	WSW	1700
3.	Chipstead	22'9"	GONE	5'	NE	1200
4.	Warlingham I	20'6	22'6"	571	SSE	870
5.	Farleigh 1	19'6"	19'9"	5'/4'	WSW	850
6.	Warlingham 3	17'	17'6"	5'	WSW	730
7.	Sanderstead 1	16'3"	GONE	5'	SSW	670
8.	Tatsfield	16'3"	GONE	5'	ENE	700
9.	Woldingham	14'	19'3"	2'/0'	S	550
10.	Limpsfield 1	13'3"	GONE	Ľ	W	500
11.	Sanderstead 3	12'3"	14'9"	5'/3'	E	500
12.	Limpsfield 2	11'3"	GONE	5'	WSW	470
13.	Tandridge 2	11'	GONE	5'	NNW	400
14.	Caterham 1	10'	GONE	4'	SSW	360
15.	Farleigh 2	8'6"	GONE	5'	NNW	290
16.	Chaldon	8'3	11'3"	5'	WSW	300
17.	Warlingham 2	7'9"	12'	5'/4'	S	250
18.	Chelsham 2	7'3"	13'3"	5'/3'	SE	245
19.	Sanderstead 2	7'	GONE	5'	SSE	240
20.	Bletchingley 1	7'	9'	5'	S	240
21.	Merstham	6'6"	GONE	4'	SSW	220
22.	Chelsham I	6'	8'	5'	SSW	200
23.	Bletchingley 2	5'	GONE	5'	SW	175
24.	Chelsham 3	4'6"	12'6"	5'/3'	ESE	160
25.	Nutfield	4'6"	13'6"	27/1	SE	160
26.	Caterham 2	4'	M-st*	6'/0'	SSE	140
27.	Coulsdon	4'	11	371	w	140

* Many stemmed, unmeasurable

Church	<u>Circum,</u>	<u>Circum, H</u>	eight'	Bearing ²	Estimated	Notes ³
	<u>1880</u>	<u>1994</u>		1880/1994	age - 18804	10103
Bletchin	igley 32750	08 St Mar	v			
1	7'	9' [.]	5'/4'	S	240	Hellow
2	5'	GONE	5'	ŝw	175	Honow
3	-	6'9"	3'6"	WSW	-	
Caterha	m 336554	St Lawre	nce			
1	10'	GONE	4'/3'	SSW	400	Dead stump 10'6"
2	4'	?*	6"/0"	SSE	140	* Many stemmed immeasurable
3	-	3'6"*	-/3'	w		* Multi-stemmed - 1 of 7 stems
Caterba	m 336554	St Mary				
1	-	4'6"	-/5'	SE L-R	1 -	Lots of twigs near base
2	-	8'6"	-/4'	SE L-R	2 -	Lots of twigs near base
3	-	7'	-/4'	SE L-R	3 -	Lots of twigs near base
Chaldon	308556	St Peter &	St Pa	ud .		
1	8'3"	11'3"	5'	WSW	300	
Chelsha	m 388591	St Leonard	,			
1	6'	8'	5'	SSW	200	
2	7'3"	13'3"	5'/3'	SE	245	
3	4'6"	12'6"	5'/3'	ESE	160	
Chipstea	nd 283564	St Margar	et			
1	22'9"	GONE	5'	NE	1200	
2	•	8'9"	-/2'	N	-	
Coulsdo	n 312582	St John				
1	4'	11'	3'/1'	w	140	
2	-	8'6"	-/4'	SW	•	
Crowhu	rst 391474	St George				
1	(30'0"	•				• 1664 Evelyn
	36'*		5'	ENE		* 1809 50' high - Stevenson
	30'9"*		5'	ENE		• 1850 Brailey
	31'*					* 1877 Jennings
	37'6"*		5'			• 1890 Lowe)
	520					

Table 2 - Overall records

Height at which tree was measured - before it splayed out into branches

² Taken from centre of church

³ Straker records are in bold type

4 Based on the thinking of the time - see text

<u>Church</u>	<u>Circum, C</u>	<u>ircum.</u> H	leight	Bearing	<u>Estimated</u>	<u>Notes</u>
	<u>1880</u>	<u>1994</u>		<u>1880/1994</u>	<u>age - 1880</u>	
Crowhu	rst 391474	St George	e conti	nued		
	30'6"	31'6"	5'	ENE	1800	Hollow
2	-	11'	1'	Е	-	The largest of several
Farleigh	372601 Sr	Mary				
1	19'6"	19'2"	5'/4'	WSW	850	
2	8'6"	GONE	5'	NNW	290	
Godston	e 357515 S	t Nicholas	ř			
1	-	11'9"	2'6"	Е	-	
Kenley 3	325598 All	Saints				
1	-	8'9"	-/1'	ESE	-	Typical of several young yews
Limpsfie	eld 405532	St Peter				
1	13'3"	GONE	1'	w	500	
2	11'3"	GONE	5'	WSW	470	
3	-	14'6"	-/3'	NNW	-	
4	-	13'9"	-/0'	N	-	
5	-	7'6"	-/3'	NNE	-	
Merstha	m 290538					
1	6'6"	GONE	4'	SSW	220	
2	-	14'6"	5'	NNE	-	
Nutfield	309509 SI	Peter & S	St Pau	1		
1	4'6"	13'6"	2'/1'	SE	160	
2	-	6'3"	3'6"	ENE	-	
3	-	5'3"*	3'	NW	-	5 stems, largest*
Oxted 3	90529 St	Marv				
1	-	10'6"	-/3'	SW	-	
Purley 3	17619 Chr	istchurch				
1	-	9'	-/5'	SE	-	3 stems. Typical of several trees
Sanderst	ead 34161	5 All Sair	nts			
1	16'3"	GONE	5'	SSW	670	Hollow strmp remains - 13'3" at 1'
an a	(15'4"*	3'	c.	0011	0.0	*1895 - Lowe)
2	7'	GONE	5'	SSE	240	
	(6'9"*	3'				*1895 - Lowe)
3	12'3"	14'9"	5'/3'	E	500	
	(12'*	3'				*1895 - Lowe)
4	•	6'	-/5'	w		Larger of 2 stems

<u>Church</u>	<u>Circum.</u> (<u>1880</u>	<u>Circum.</u> <u>H</u> 1994	leight	<u>Bearing</u> 1880/1994	<u>Estimated</u> <u>age - 1880</u>	Notes		
Tandridge 374511 St Peter								
L	30'	36'	5'	WSW	1700	Hellow		
	(30'4"*	•	2'		1700	*1890 Jowe there are 3 toucks		
	34'*		0'			*1897)		
2	117	GONE	5'	NNW	400			
3	-	8'10"	5'	WSW	-	Very close to 1		
4	-	10'6"	5'	NW	-	Outside hedge		
5	-	13'9"	4'	WSW	-	Lopsided and outside hedge		
Tatsfield	417561	St Mary						
1	16'3"	Gone	5'	ENE	700	On record 1928		
2	-	6'6"	2'	E	-			
3	-	8'	3'	SSE	-			
Titsey 4	07550 St.	lames old a	hurch	site				
1	(18'6"*	k i				*1838 Loudon		
	19'6"*					*1869		
	19'6"*					*1928 - perhaps repeat of 1869)		
	-	21'6"	5'		-	/		
Titsey 4	09549 St	James nev	v chure	ch				
1	-	7'	0'	NNE	-			
2	-	11'3"	3'	SNW	-			
Warling	ham 3565	89 All Sai	nis					
1	20'6"	22'6"	5'/1'	SSE	870	Hallow: lot of young growth to S		
2	7'0"	12'	5'/4'	S	250	Honow, for or young growin to b		
3	17'	17'6"	5'	wsw	730			
Л		4'3"*	3'	SW	-	*7 trunks at 3'6". largest measured		
5	-	7	4'	N	-	/ Haiks de 5 0 , Migott instanted		
		C I I		0/0 14				
whytele	ate 330383	SI LUKE		1808. Many ye	ews an round o	church and churchyard. 5 selected		
1	-	80	4	WOW	-			
2	-	7.9"	2	w 5 W				
3	-	9'9"	4	5 K-				
4	-	9	4	S R-	·L2 -			
5	-	9'	3'	S R-	L3 -			
Wolding	ham 3715	49 St Agai	ha					
1	14'	19'3"	2'/0	S S	550	Lot of twigs nr ground. Partly		
						hollow.		