

## **Selected Results :**

[For a general project update and Regional Maps click here: ['results update-Dec.2006'](#) ]

### Selected Tables, Maps & Figures from DVC England Report (2003-2005)

(for fuller reports see '[publications](#)' page)

[Map 5 - Relative Frequency of reported DVC in Great Britain 2003-2005](#)

[Map 6 - Overview of frequency and hot spots of DVCs in southern England](#)

[Map 7 - Comparison of patterns of DVC reported by differing contributors](#)

[Map 9 - Distribution of Deer-Vehicle Collision records where Species is reported](#)

[Table 3: Number of reported DVC by Local Authority in England](#)

[Table 4: Number of reported DVC by Source Category in England](#)

[Table 5: Number of reported DVC by Local Authority in Scotland](#)

[Table 8: Number of Personal Injury Accidents with known involvement of deer](#)

[Table 10: Rates of reported DVC per mile for known roads and road sections](#)

[Table 11: Proportion of DVC involving different deer species where type is reported](#)

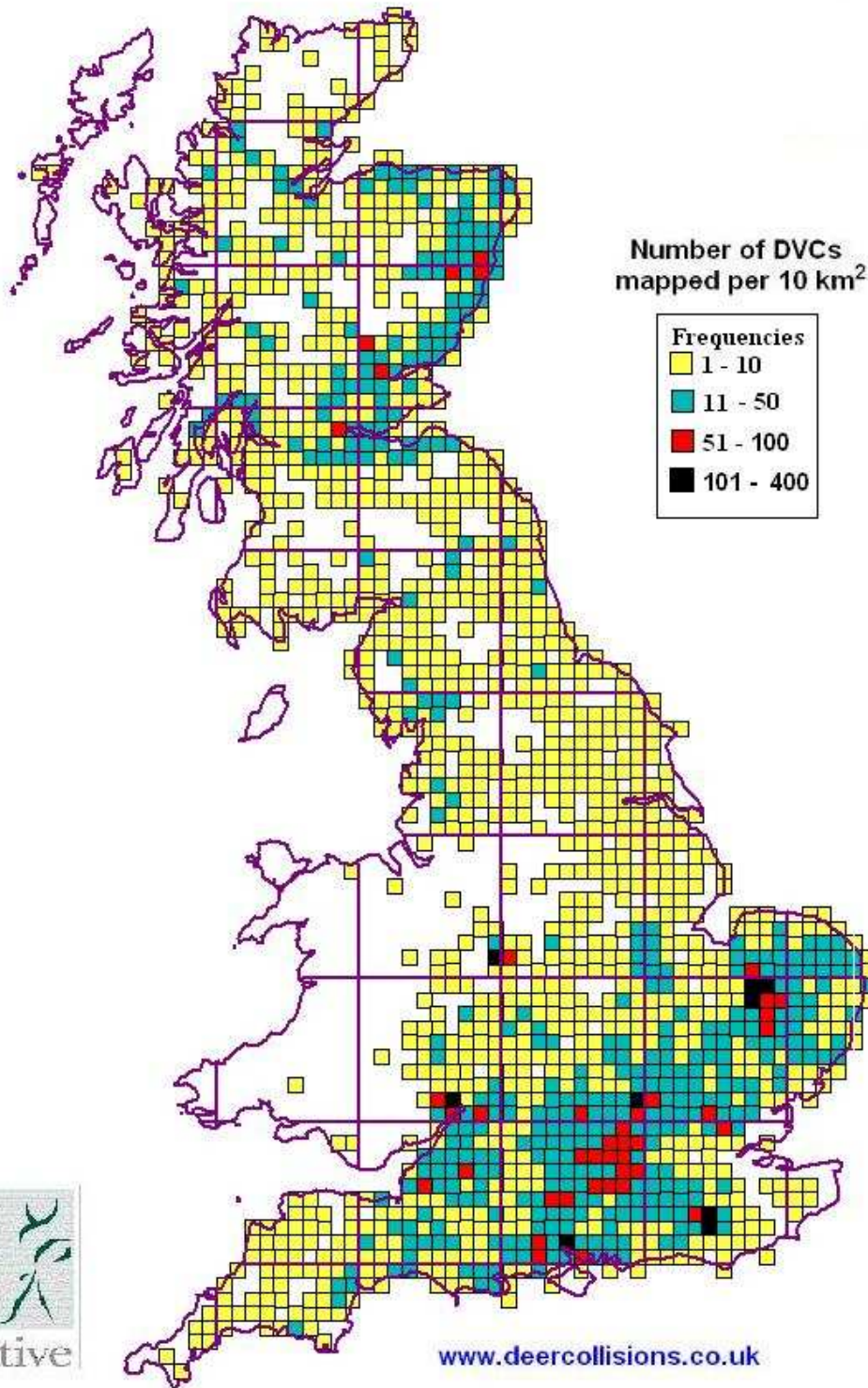
[Figure 1: Increase in Road Traffic in Great Britain 1965-2004 \(DoT\)](#)

[Figure 2: Seasonal Variation of DVC occurrence in England, and affects of species](#)

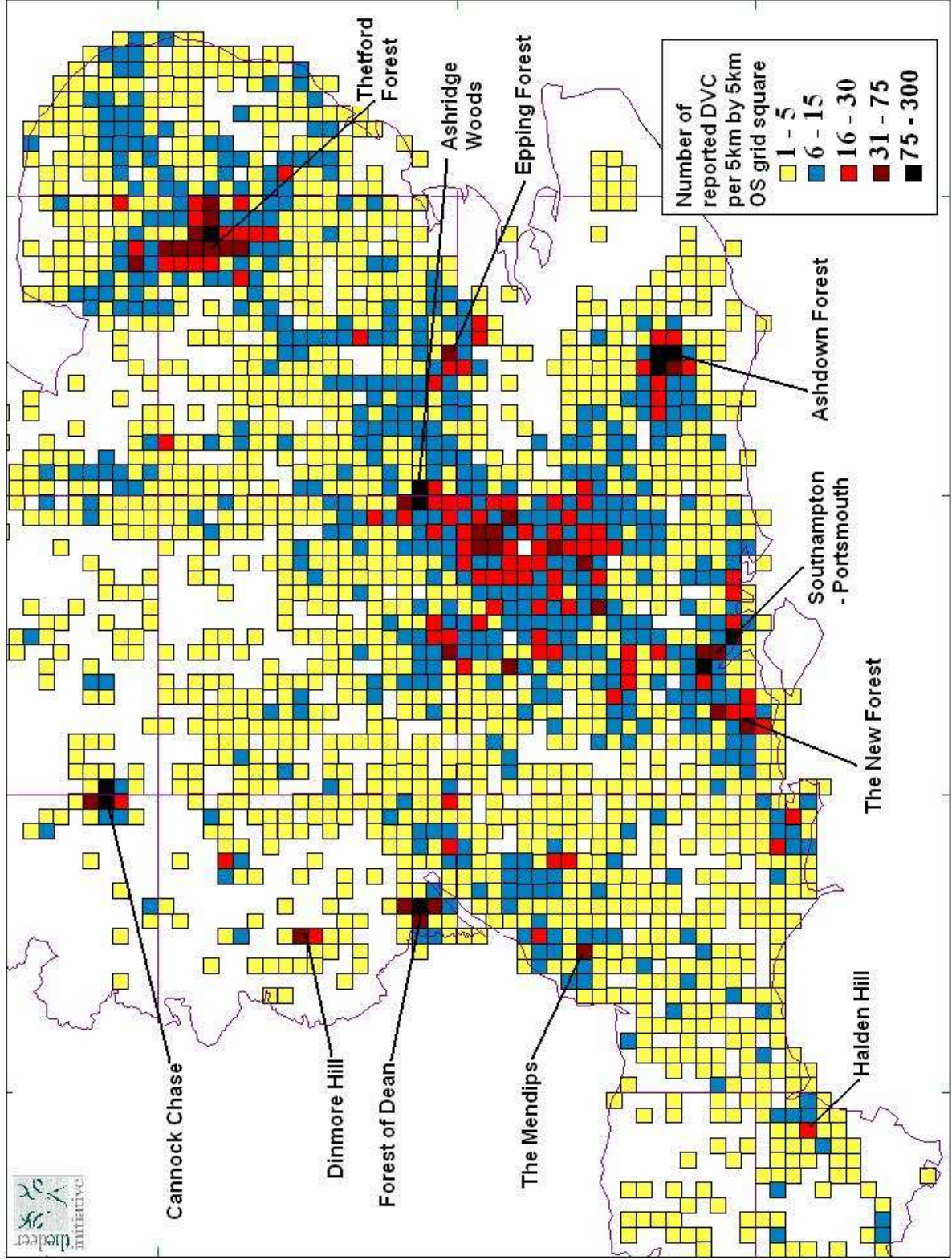
[Figure 3: Daily DVC accidents peaks and influence of season](#)

All maps and figures from: Langbein, J (2007) National Deer-Vehicle Collisions Project – England (2003-2005). Final Report. The Deer Initiative, Wrexham, UK . 96pp. (see '[publications](#)' )

**Relative frequency of Deer-Vehicle Collisions for Great Britain**  
reported to the project between January 2003 to December 2005  
( based on 17035 reports with adequate location details )

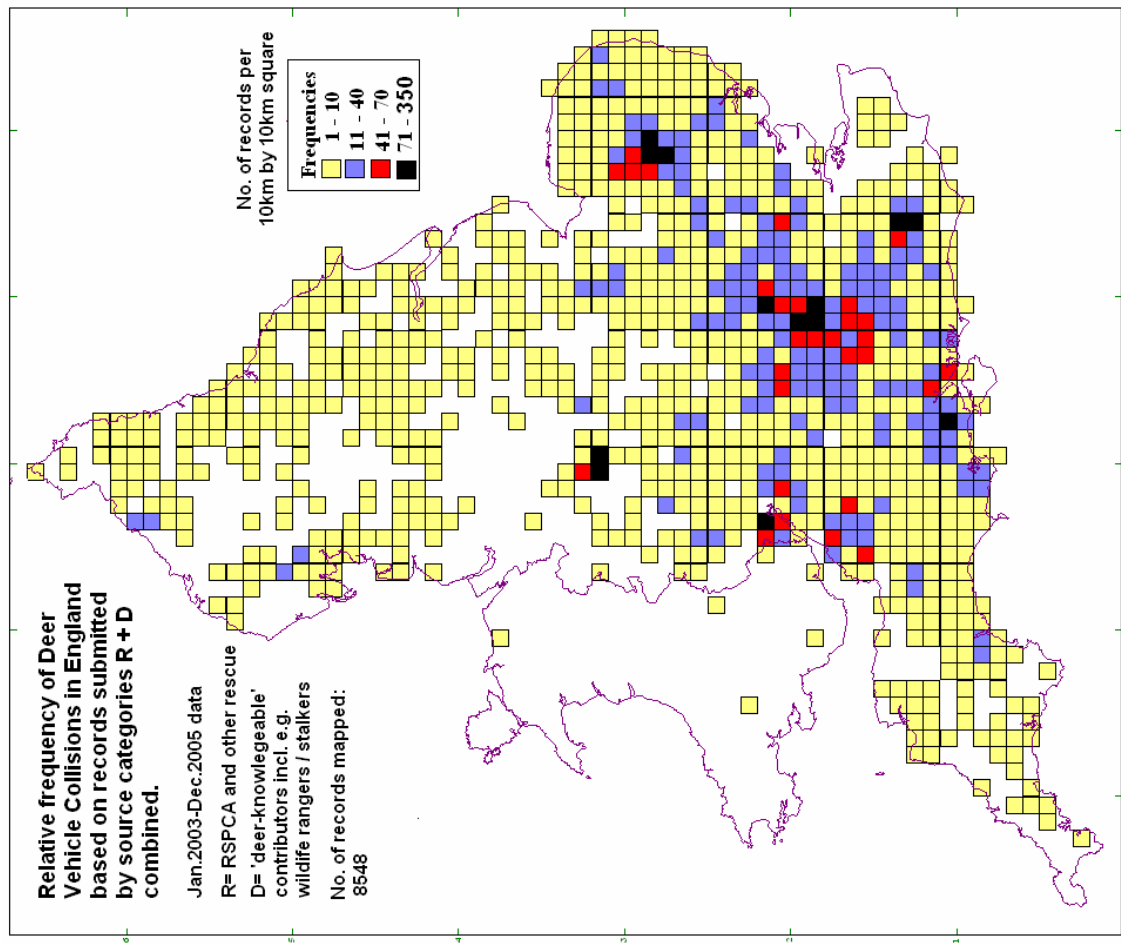


**Map 6:** Overview of frequency of Deer-Vehicle collisions in southern England within 5km by 5km grid squares (based on available records for 2003-2005 with adequate location details for mapping at this scale)

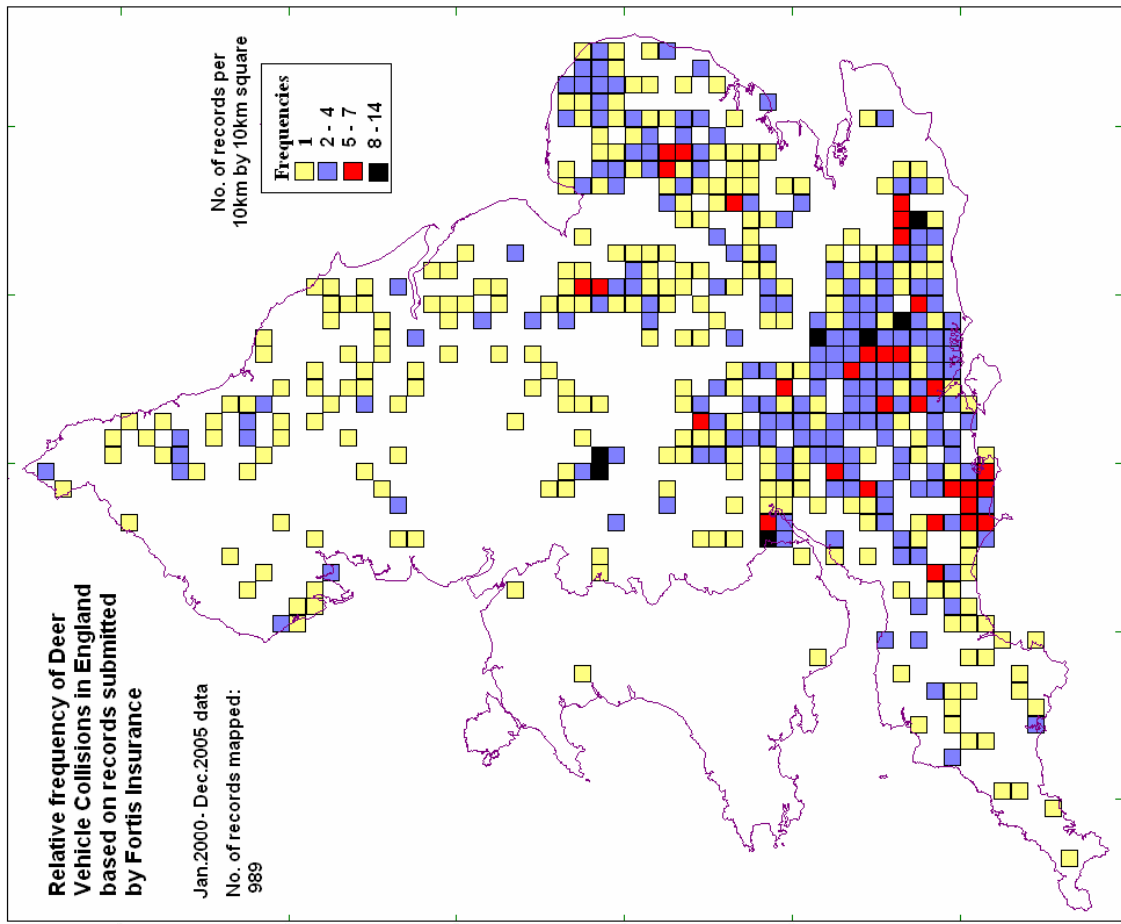




**Map 7a & 7b : Comparison of pattern of relative distribution and abundance of DVCs based on Motor Insurance Claims data (Fortis) with independent pattern shown by combination of records from source categories R + D (see text).**

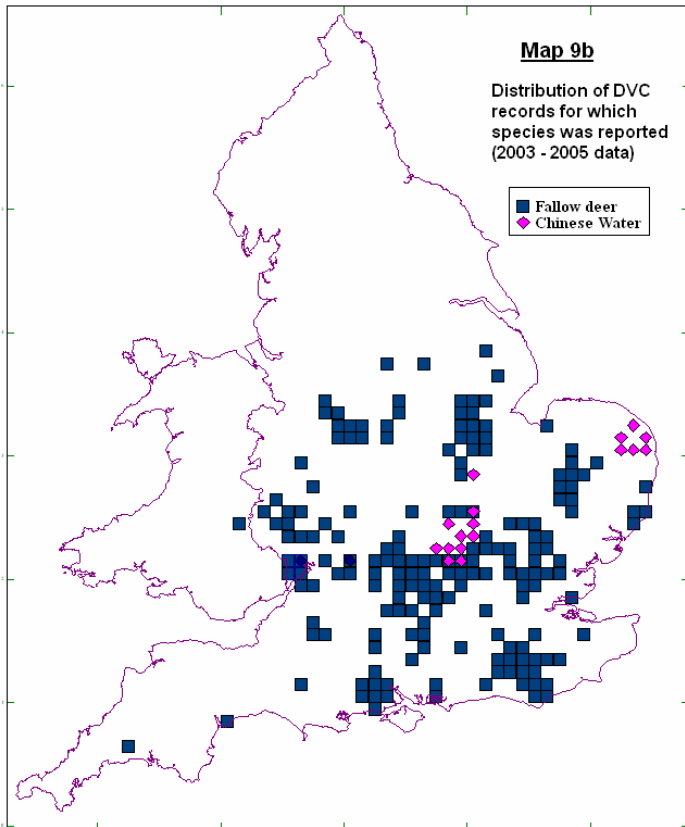
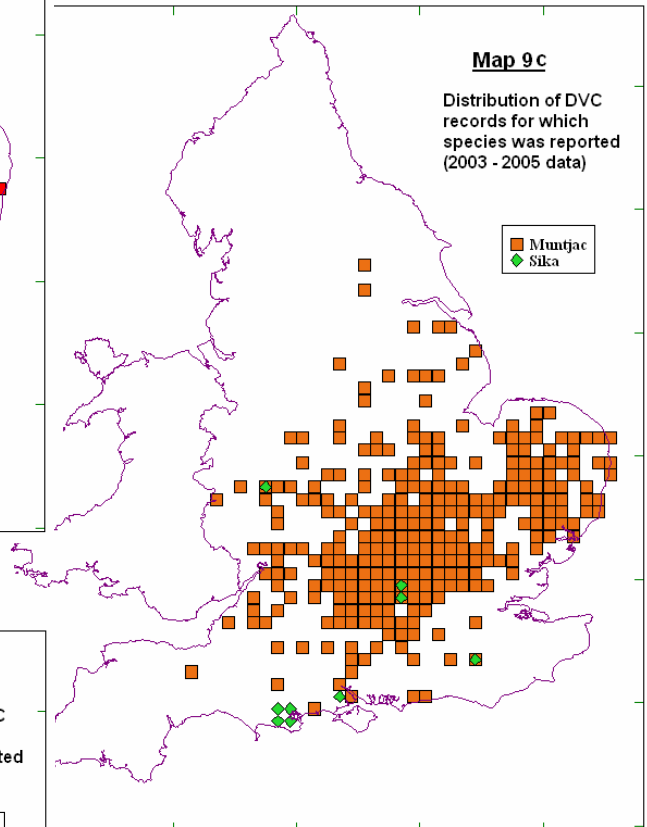
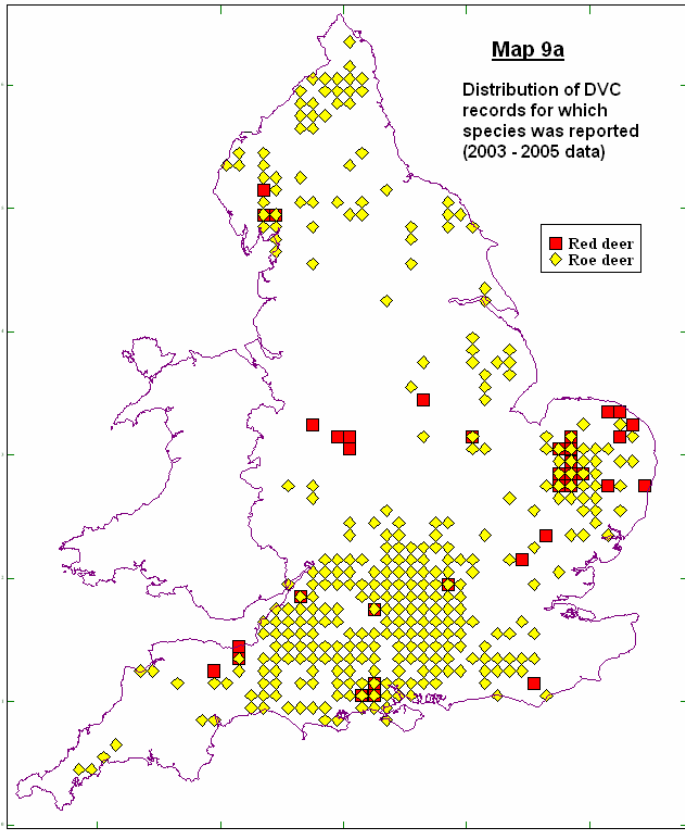


(a)



(b)

# Map 9 : Distribution of Deer-Vehicle Collision records where Species is known



**TABLE 3: Number of Deer Vehicle Collision reports per County and/or Unitary Authority obtained for differing years. Local authorities are listed in descending order based on the rate of reported DVCs per year per driven Billion Vehicle kilometres (traffic volume).**

Local Authority	Number of Deer-Vehicle collisions reported					Annual Traffic volume MVkm	DVCs per annum / BVkm	Rank on total DVCs 2003-05	Rank on rate of DVC / bVkm		
	Total 2000 to 2002	2003	2004	2005	Total 2003 to 2005					Total 2000 to 2005 excluding duplicates	
Suffolk	591	342	319	230	891	1482	1461	5,947	49.9	3	1
East Sussex	321	182	232	233	647	968	956	4,373	49.3	6	2
Norfolk	447	350	601	253	1204	1651	1620	8,158	49.2	2	3
Hampshire	959	451	605	443	1499	2458	2435	15,187	32.9	1	4
Bath&North East Somerset UA	64	50	41	19	110	174	164	1,118	32.8	28	5
Oxfordshire	351	232	303	144	679	1030	1020	7,441	30.4	4	6
Gloucestershire	133	236	172	127	535	668	657	6,015	29.6	9	7
Dorset inc. B'mouth & Poole UA	228	154	121	42	317	545	542	3,779	28.0	16	8
Lincolnshire + Rutland	105	148	219	133	500	605	594	6,276	26.6	11	9
Buckinghamshire inc. Slough UA	406	210	221	116	547	953	949	7,035	25.9	8	10
Berkshire (of which):	356	191	226	168	585	941	934	7,892	24.7	7	11
- Bracknell Forest UA	35	25	20	21	66	101	101	743	29.6		11
- Reading UA	13	9	11	6	26	39	38	565	15.3		11
- West Berkshire UA	172	79	108	80	267	439	437	2,990	29.8		11
- Windsor&Maidenhead UA	56	42	31	25	98	154	151	1,903	17.2		11
- Wokingham UA	77	35	53	35	123	200	200	1,691	24.2		11
Northumberland	46	63	72	40	175	221	220	2,646	22.0	22	12
North Somerset UA	97	68	53	21	142	239	237	2,200	21.5	25	13
Hertfordshire	530	290	267	116	673	1203	1189	11,357	19.8	5	14
Cumbria	167	207	61	60	328	495	492	5,573	19.6	15	15
Wiltshire	235	156	120	35	311	546	542	5,362	19.3	17	16
Herefordshire UA	16	52	19	32	103	119	116	1,829	18.8	29	17
Somerset	283	115	122	57	294	577	571	5,941	16.5	19	18
West Sussex inc. Brighton&Hove	236	145	161	86	392	628	611	9,105	14.4	14	19
Bedfordshire	154	59	69	51	179	333	333	4,161	14.3	21	20
Cambridgeshire	100	90	129	68	287	387	383	7,084	13.5	20	21
Devon	252	114	115	78	307	559	554	7,619	13.4	18	22
Staffordshire incl S-o-T UA	25	111	153	139	403	428	420	10,610	12.7	13	23
South Gloucestershire UA	57	44	49	34	127	184	178	3,652	11.6	27	24
Essex inc. Thurrock	452	219	179	112	510	962	937	15,068	11.3	10	25
Surrey	358	161	186	123	470	828	817	14,001	11.2	12	26
Peterborough UA	16	14	25	13	52	68	67	1,760	9.8	36	27

Table 3 - continued:

Local Authority	Number of Deer-Vehicle collisions reported										Annual Traffic volume MV/km	DVCs per annum / BVkm	Rank on total DVCs 2003-05	Rank on rate of DVC / bVkm
	Total 2000 to 2002	2003	2004	2005	Total 2003 to 2005	Total 2000 to 2005	Incidents excluding duplicates							
Southampton UA	25	13	10	9	32	57	55	1,174	9.1	44	28			
Milton Keynes UA	41	20	20	10	50	91	91	2,418	6.9	37	29			
Northamptonshire	113	45	72	52	169	282	278	8,293	6.8	24	30			
Luton UA	13	9	4	3	16	29	29	821	6.5	51	31			
Swindon UA	29	11	14	9	34	63	62	1,783	6.4	43	32			
North Yorkshire inc. York UA	114	48	82	44	174	288	288	9,168	6.3	23	33			
Redcar&Cleveland UA	18	7	6	4	17	35	35	961	5.9	50	34			
Warwickshire	103	41	41	47	129	232	230	8,674	5.0	26	35			
Worcestershire	41	19	39	38	96	137	136	6,601	4.8	30	36			
Darlington UA	6		10	2	12	18	18	860	4.7	54	37			
Bristol, City of UA	17	8	16	6	30	47	46	2,180	4.6	46	38			
Durham	22	9	33	11	53	75	75	3,976	4.4	35	39			
East Riding of Yorkshire UA	42	15	15	8	38	80	80	3,280	3.9	41	40			
Shropshire inc. Telford&Wrekin	17	10	27	9	46	63	62	4,360	3.5	39	41			
Plymouth UA	7	5	7	2	14	21	21	1,372	3.4	53	42			
North Lincolnshire + NE L UA	22	6	15	4	25	47	43	2,609	3.2	47	43			
Cornwall&Isles of Scilly	25	14	16	9	39	64	64	4,508	2.9	40	44			
Lancashire	24	25	53	10	88	112	110	11,190	2.6	32	45			
Tyne&Wear	21	13	9	3	25	46	45	3,307	2.5	48	46			
Middlesbrough UA	12	5	3		8	20	20	1,330	2.0	55	47			
Nottinghamshire incl. Notts UA	23	13	18	16	47	70	69	8,226	1.9	38	48			
Portsmouth UA	11	1	2	4	7	18	18	1,274	1.8	56	49			
Blackburn with Darwen UA	4	1	3		4	8	8	733	1.8	58	50			
Kent	45	21	39	18	78	123	123	14,486	1.8	33	51			
Kingston upon Hull, City of UA	8	1	3	2	6	14	14	1,236	1.6	57	52			
Leicestershire incl Leiceter UA	22	13	13	9	35	57	56	8,704	1.3	42	53			
Derbyshire incl Derby UA	14	10	18	3	31	45	43	9,134	1.1	45	54			
Greater London	95	32	37	27	96	191	191	32,685	1.0	31	55			
South+West Yorkshire (inc. UAs)	75	22	25	14	61	136	135	25,500	0.8	34	56			
Greater Man. / Merseys. / Warringto	9	1	12	3	16	25	25	7,639	0.7	52	57			
West Midlands (excl. Heref./Worcs.)	22	2	7	13	22	44	44	16,968	0.4	49	58			
CHESHIRE	3		2	1	3	6	6	8,437	0.1	59	59			
(uncertain/ unallocated)	62	55	125	517	697	759	759							
<b>Grand Total</b>	<b>8090</b>	<b>4949</b>	<b>5636</b>	<b>4140</b>	<b>14465</b>	<b>22555</b>	<b>22278</b>	<b>429,705</b>	<b>11.2</b>					

Table 4 : Nos. of organisations contacted & nos. of DVC reports obtained during the main study period (1/1/2003 to 31/12/2005)

Local Authority	Number of Deer-Vehicle Collision Reports submitted													Total Reports received	Total incidents excluding duplicates		
	Trunk Road uplift requests	District Council uplifts	Police RTC data (PIA + damage only)	Police Control call logs	Fortis Group - Insurance Claims	RSPCA and other wildlife rescue	Rangers / stalkers / naturalists	General public and others'	D	G	R	IC	P			ST	UC
Hampshire	388	191	41	2	64	419	345	49	1499	1481							
Norfolk	25	72	54	323	44	199	414	73	1204	1176							
Suffolk	56	104	100	11	29	165	335	91	891	877							
Oxfordshire	43	135	26		29	303	119	24	679	670							
Hertfordshire	40	114	19	37	12	236	189	26	673	661							
East Sussex		1	2	1	14	65	538	26	647	641							
Berkshire (incl. 5 U.A.s)	110	6	19	2	20	304	104	20	585	579							
Buckinghamshire inc. Slough UA	17	16	20		2	355	111	26	547	544							
Gloucestershire	13		23	10	18	85	359	27	535	524							
Lincolnshire + Rutland	3	9	4	335	17	50	83	19	520	509							
Essex inc. Thurrock	19	35	30	95	16	170	110	36	511	498							
Surrey	15	50	18	1	17	323	24	22	470	462							
Staffordshire incl S-o-T UA	1			1	17	22	353	3	397	395							
West Sussex incl. Brighton & Hove	10	127	10		19	142	59	25	392	387							
Cumbria			4	244	4	23	48	5	328	325							
Dorset inc. B'mth & Poole UA	22	1	27	7	40	112	82	26	317	314							
Wiltshire	25	5	12	1	43	88	104	33	311	309							
Devon	112		42		13	116	17	7	307	304							
Somerset	29		9	1	21	148	52	34	294	289							
Cambridgeshire	17	27		53	11	117	39	23	287	283							
Bedfordshire	11	1	6	2	4	116	26	13	179	179							
Northumberland	26	13		3	12	23	86	12	175	174							
North Yorkshire inc. York UA	19	7			12	93	26	17	174	174							
Northamptonshire	4	41	14	1	4	71	21	13	169	165							
North Somerset UA	12				2	30	94	4	142	140							
Warwickshire	22	1	8		10	68	4	16	129	128							
South Gloucestershire UA	14	62	1	1	1	23	22	3	127	122							

continued overleaf ....



Table 4. continued :

	Trunk Road Uplift requests	District Council uplifts	Police RTC data (PIA + damage only)	Police Control call logs	Fortis Group - Insurance Claims	RSPCA and other wildlife rescue	Rangers / stalkers / naturalists	General public and 'others'	Total Reports received	Total incidents excluding duplicates
Source code:	UT	UC	ST	P	IC	R	D	G		
Nos. sources contacted:	22	c.350	40	40	32	80	nk	nk		
Nos. submitted records:	16	39	28	8	1	7	c.175	c.550		
Herefordshire UA	20		6		3	10	56	8	103	100
Bath & North East Somerset UA	11	2			2	68	26	1	110	100
Worcestershire	15		1		4	49	26	1	96	96
Greater London	2	3			2	79	4	6	96	96
Lancashire	5	5		11	4	25	4	34	88	86
Kent	11		3		3	47	8	6	78	78
Durham	9	7		1	7	27	2		53	53
Peterborough UA		2		17	2	25	5	1	52	51
Milton Keynes UA			2			42	1	5	50	50
Nottinghamshire incl. Notts UA	15		4	1	1	20	4	2	47	47
Shropshire	3		3		6	17	16	1	46	45
Cornwall & Isles of Scilly	5		8		4	20	1	1	39	39
West Yorkshire					1	33		4	38	38
East Riding of Yorkshire UA					8	27		3	38	38
Swindon UA	5				4	20	3	2	34	34
Leicestershire incl Leicester UA	1			11	2	17	1	3	35	34
Southampton UA	3	11			1	16		1	32	32
Derbyshire incl Derby UA				1	1	8	17	4	31	31
Bristol, City of UA	1	2			1	18	8		30	29
Tyne & Wear	4	7			1	11		2	25	25
North Lincolnshire + NE L UA		13			2	6	1	3	25	24
South Yorkshire	1	1		8	2	11			23	23
West Midlands	6					15	1		22	22
Redcar and Cleveland UA					3	14			17	17
Luton UA						16			16	16
Greater Man.+Merseys.+Warrington	7	1				7		1	16	16
Others	37	3	0	0	3	32	0	7	82	54
(yet unallocated / received late)	312		97	1	412	262	2		1086	1086
<b>Grand Total</b>	1526	1075	613	1182	974	4808	3950	769	14897	14670

**Table 5[S]:** Numbers of organisations contacted and DVC reports obtained in SCOTLAND during main study period (1/1/2003 to 31/12/2005)

	Trunk Road Upfit requests	Council road /cleansing departments	Police / AIU RTA records incl. ST19	Police Control call logs	Forstis Group - Insurance Claims	SSPCA and other wildlife rescue	Deer informed individuals	General public and 'others'	Total Reports received	Total incidents excluding duplicates
Source code:	UT	UC	ST	P	IC	R	D	G		
Nos. sources contacted:	2	29	10	15	c.30	3	nk	nk		
Nos. submitted records:	2	19	5	9	1	1	64	c.100		
<b>Number of Deer-Vehicle Collision Reports submitted</b>										
<b>Local Authority</b>										
Aberdeen City	1	3		58	2	14		1	79	73
Aberdeenshire	6	723		183	16	38	33	10	1009	966
Angus	24	184	9	86	3	13	4	4	327	288
Argyll and Bute	107	3		5	12	5	121	8	261	256
Ayrshire (E+N+S)	4	5	0	2	4	8	3	2	28	27
Clackmannan		1	1	2		1	1	1	6	6
Dumfries and Galloway	15	99	13		14	7	34	5	187	185
Dunbartonshire (E+W)	2	0	0	0	2	18	3	0	25	25
Dundee	2	1		5	2	1		1	12	11
East Lothian	25	16			1	9		2	53	52
Edinburgh City	14				1	8			23	23
Falkirk	43	11		4	1	4	1	1	65	62
Fife	45	4	59	32	9	26	1	5	181	175
Glasgow City	1	2			2	14			19	18
Highland (+Islands)	139	118	155	60	38	17	163	61	751	725
Inverclyde	1			2		3	1		7	7
Mid Lothian	14	1		1		5			21	21
Moray	9	161		54	6	11	19	3	263	219
North Lanarkshire	20	11		1	1	21	2	1	57	57
Perth and Kinross	104	251	19	125	8	30	38	16	591	519
Renfrewshire	3					4		1	8	8
South Lanarkshire	5	15		1	2	3			26	26
Stirling	60	36	2	41	5	9	37	6	196	162
The Borders	17		2		6	14	2	3	44	43
West Lothian	21	1		1		10		2	35	35
(un-certain)	73	1		159	10	39	4	2	288	287
<b>Grand Total</b>	<b>755</b>	<b>1647</b>	<b>260</b>	<b>822</b>	<b>145</b>	<b>332</b>	<b>466</b>	<b>135</b>	<b>4562</b>	<b>4276</b>

**Table 8 :**

Deer-Vehicle Collisions (DVC) leading to Human injury, as identified within road traffic accidents records for a sample of 26 English counties plus eights Unitary Authorities for which data were available for between three to six years each

County / Unitary Authorities	Year						No. of years with data	Total	Annual mean
	2000	2001	2002	2003	2004	2005			
Hampshire	13	20	16	18	18	10	6	95	16
Essex	17	4	21	19	11	9	6	81	14
Suffolk	9	14	16	11	16	15	6	81	14
Norfolk	na	na	6	8	8	16	4	38	10
Oxfordshire	9	6	10	9	11	7	6	52	9
Hertfordshire	6	7	6	5	10	5	6	39	7
Devon	8	5	6	6	10	3	6	38	6
Surrey	3	4	10	7	10	3	6	37	6
Buckinghamshire	3	4	3	6	10	4	6	30	5
Gloucestershire	1	5	10	7	3	3	6	29	5
Northamptonshire	na	na	6	3	5	0	3	14	5
Dorset	2	5	1	9	7	2	6	26	4
Wiltshire incl. Swindon UA	na	na	1	6	7	3	4	17	4
Somerset	na	5	4	5	5	2	5	21	4
West Berkshire UA	5	4	2	5	3	3	6	22	4
Bedfordshire inc. Luton UA	3	5	4	3	3	na	5	18	4
Lincolnshire	2	3	4	4	na	na	4	13	3
Warwickshire	3	4	2	5	2	2	6	18	3
West Sussex	na	1	1	1	9	3	5	15	3
Herefordshire UA	na	na	2	2	3	2	4	9	2
Kent	3	4	3	0	1	2	6	13	2
East Sussex	1	2	3	1	0	3	6	10	2
Nottinghamshire	2	1	0	2	1	1	6	7	1
Cumbria	1	1	0	0	1	3	6	6	1
Shropshire	na	na	1	1	1	1	4	4	1
Windsor and Maidenhead UA	1	1	0	1	1	1	6	5	1
Wokingham UA	1	1	0	0	2	1	6	5	1
Bracknell Forest UA	1	0	0	2	0	1	6	4	1
Cornwall and Isles of Scilly	1	0	0	1	2	0	6	4	1
Milton Keynes UA	2	0	0	2	0	0	6	4	1
Lancashire	1	0	1	na	nd	nd	3	2	1
Worcestershire	na	1	na	na	na	1	4	2	1
<b>Total</b>	<b>98</b>	<b>107</b>	<b>139</b>	<b>149</b>	<b>160</b>	<b>106</b>		<b>759</b>	

(Note: not all English counties / police forces in England have been able to search out and provide any 'deer' specific information, depending on whether text accident descriptions are held in searchable format on computer; for areas where information was obtainable, in many cases rather fewer records were retrieved in 2005 believed due to changes in how PIAs are coded on new ST19 forms since January 2005). na = data not available.

**Table 10:**

DVC rates recorded for the 40 main roads (class B and above) where the highest average numbers of records are available per year during 2003 – 2005.

The rate of 'reported' DVC per km per year is shown calculated as : a) averaged out across the entire length of that road; and b) the highest rate per km for any one stretch of 5km or longer within each road where rates exceeding 1.0 / km have been logged.

(Note: even these high rates of Deer-Vehicle Collisions represent merely those reported to the study, and true figures are likely to be significantly higher in many cases)

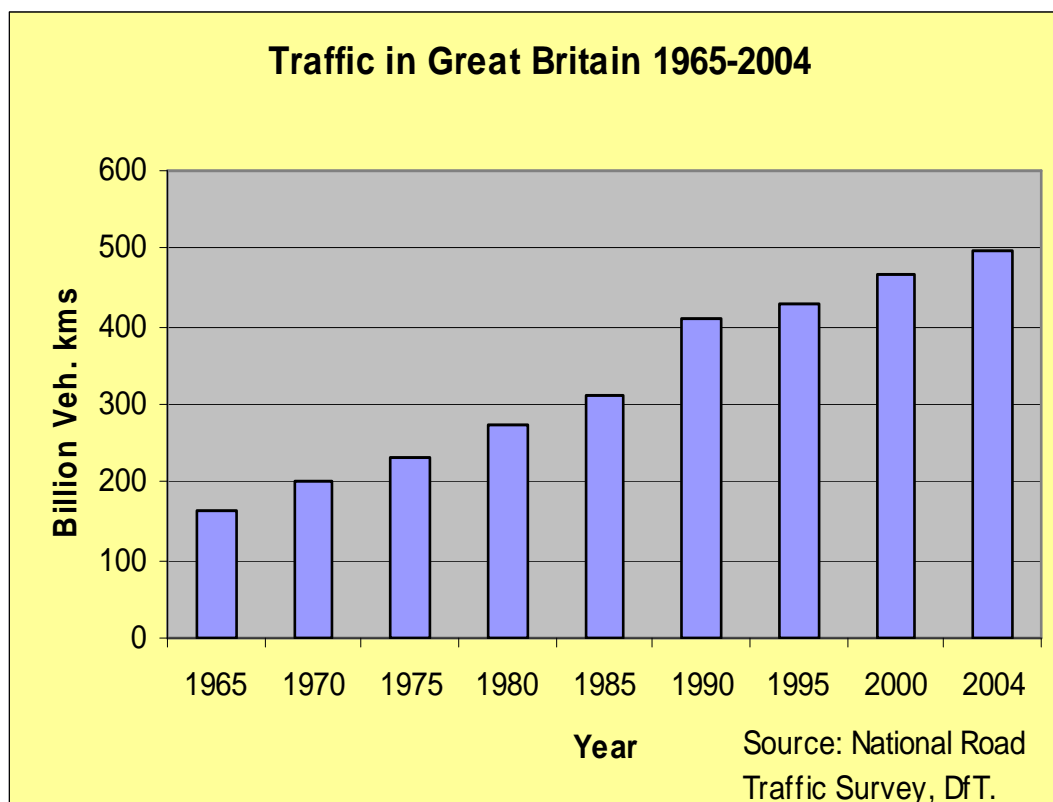
Road Number	Total length of route (kilometres)	Reported DVCs 2003-2005	Average number DVCs/year	DVC per km/year	Highest rate/km recorded over any 5km stretch (& location)	
A22	83	203	68	0.82	>10 / km	Ashdown Forest
B4506	11	124	41	3.76	>5 / km	Ashridge Forest
B2188	17	37	12	0.73	>5 / km	Ashdown Forest
B4226	9	40	13	1.48	>4 / km	Forest of Dean
B1106	31	125	42	1.34	>4 / km	Thetford Forest
A4136	26	67	22	0.86	>4 / km	Forest of Dean
B2026	28	49	16	0.58	>4 / km	Ashdown Forest
A134	111	116	39	0.35	>4 / km	Thetford Forest
M27	49	113	38	0.77	>3 / km	So'ton-Portsmouth
A4146	42	50	17	0.40	>3 / km	nr. Ashridge
A35	159	117	39	0.25	>3 / km	New Forest
A31	120	70	23	0.19	>3 / km	New Forest
B1393	10	26	9	0.87	>2 / km	Epping
A1066	30	60	20	0.67	>2 / km	Thetford Forest
B1107	21	37	12	0.59	>2 / km	Thetford Forest
A1065	64	112	37	0.58	>2 / km	Thetford Forest
A4130	48	47	16	0.33	>2 / km	nr. Henley
A419	58	50	17	0.29	>2 / km	nr. Coates
A38	239	114	38	0.16	>1.5 / km	Halden Hill
A49	228	76	25	0.11	>1.5 / km	Dinmore Hill
A303	152	140	47	0.31	>1.5 / km	Andover
M3	96	142	47	0.49	>1.0 / km	several(Hants)
A11	111	129	43	0.39	>1.0 / km	nr. Thetford Forest
A143	118	83	28	0.23	>1.0 / km	nr. Thetford Forest
M4	310	127	42	0.14	>1.0 / km	several(Berkshire)
A1122	32	43	14	0.45		
A3	65	84	28	0.43		
B2110	34	35	12	0.34		
A14	231	206	69	0.30		
A4074	37	31	10	0.28		
A404	68	56	19	0.27		
A339	49	40	13	0.27		
A10	172	108	36	0.21		
B3078	42	26	9	0.21		
A140	93	52	17	0.19		
A505	78	42	14	0.18		
A420	84	45	15	0.18		
A34	245	127	42	0.17		
A12	202	97	32	0.16		
A47	256	122	41	0.16		

(average recorded number of DVC/km per annum for all major roads (Motorways + A-roads) in England = 0.14/km/ year)

**Table 11:**

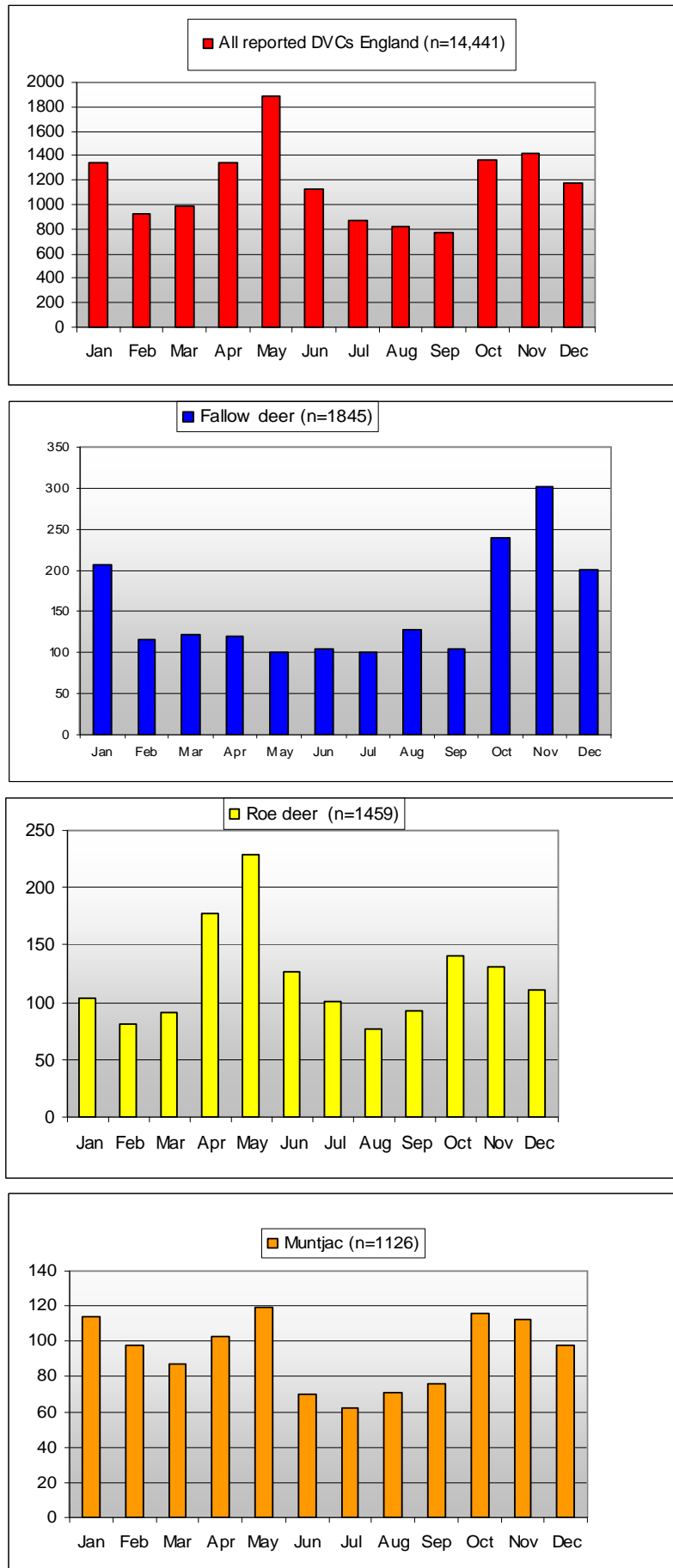
<b>Table 11: Proportion of Deer Vehicle Collisions involving differing species of deer</b> (During 2003-2005 Species detail is available for 6873 reported incidents)							
a) Breakdown among those records submitted by contributors with known knowledge of deer							
	<b>Number</b>	<b>Fallow</b>	<b>Roe</b>	<b>Muntjac</b>	<b>Red</b>	<b>Sika</b>	<b>CWD</b>
England	4563	40.4%	32.0%	24.7%	1.4%	0.9%	0.7%
Scotland	450	3.8%	69.1%	0.0%	24.4%	2.7%	0.0%
	5013	37.1%	9.4%	22.5%	3.4%	1.1%	0.6%
b) Breakdown among <u>all</u> records for which detail of species was provided by contributors							
	<b>Number</b>	<b>Fallow</b>	<b>Roe</b>	<b>Muntjac</b>	<b>Red</b>	<b>Sika</b>	<b>CWD</b>
England	5307	37.7%	33.5%	25.3%	1.9%	1.0%	0.6%
Scotland	1566	1.5%	76.9%	0.1%	20.5%	1.0%	0.0%
Total	6873	29.5%	43.4%	19.5%	6.2%	1.0%	0.5%

**Figure 1 : Increase in Road vehicle traffic in Britain 1965 – 2004**  
(measured in Billion Vehicle kilometers driven per annum)





**Figure 2 :** Seasonal Variation in the occurrence of Deer Vehicle Collisions in England, and comparison of patterns between the most common species involved.



**Figure 3: Daily accident peaks and the influence of season.**  
 (analysis is restricted to human injury accidents only, as incidents times tend to be recorded most accurately and consistently for that sub-set of data)

