

Fixed Point Photography Survey of the Knepp Estate
2005-2010

Rich Howorth
West Weald Landscape Project, SxWT

Introduction

Annual series of photographs have been taken over six survey years in July on the Knepp Estate to enable visual comparison and detection of significant changes in the site's structure and composition over time. Such an approach is extensively used as a general technique to monitor gross ecological changes in protected areas worldwide, its value increasing with repeated application over time (as for all long-term monitoring studies). Given that substantial changes in habitat composition might be expected from the introduction of the extensive semi-naturalistic grazing regime, this simple method should provide an adequate photographic record of the site's evolution.

Methods

The fixed point photo register has been carried out along side the standardised annual survey of butterflies from 2005-2010, including a selection of points which represent the geographical range, habitat diversity, and management regimes apparent in the areas subject to naturalistic grazing. Views along linear boundaries were particularly chosen where changes in the interface between woodland and grassland, or grazed and ungrazed areas, might be most apparent in time. Some general landscape vistas were taken furthermore, taking advantage of any high elevations present.

All photographs were taken using the same Olympus Mju-zoom 300 digital camera, always at the widest angle (35 mm equivalent) at high quality (3.2 megapixels) in a landscape orientation (with one exception) and angled down slightly to take in as much ground as possible. In the first instance, when the series was originally established, the direction of each shot was recorded using an approximate compass bearing and its location noted using a Garmin Mk 3 GPS unit (typical accuracy c. 5-10 metres) supplemented by a written description of the point. Subsequent photos were then largely located and orientated visually, using this additional information as necessary. It should be noted that an additional point was added from 2006 (Point 35), and that in this same year 3 locations were inadvertently omitted from being photographed furthermore. The points series has been entered onto ArcView GIS as a data layer, so that the total of 35 fixed point photo locations could be mapped – see Table below for the (revised) photographic register and English Nature Research Report 693 Map 4.

A brief visual inspection was made of each photograph from 2010 and its equivalent from last year in 2009 to identify any obvious recent changes.

SUSSEX WILDLIFE TRUST

Results (& Recommendations)

The table below details the photo file numbers for each point in 2010 alongside the previous information provided. A compact disc is also provided of the photographs taken in 2010 for your records.

An assessment of visually apparent changes was made for the photographic series in the 2008 report, with additional observations included in the 2009 report. Limited additional comments on evident changes are again given in this report for 2010, since in general very little change is evident across most areas of the transect route.

- **Grass growth was poorer and sparser** in the summer of 2010 due to the very dry conditions earlier in the season, as can be seen in numerous photos (see photo point no. 32 for example).
- **Changes in the cover of agricultural weed species** (thistle, ragwort and common dock), with localised increases (11) in a few areas but more generally stable (27) or declining cover (28, 29) in the floodplain pig-foraging fields being the apparent trend.
- **Heavy deer damage** where they have got inside the woodland enclosure of Matches Wood (25) unfortunately. See photo comparison below.

Lastly, it is important to continue monitoring through the fixed-point photographic series on a regular basis, at least every 2-4 years although this can continue to be combined with the butterfly transect surveys whilst these continue to be carried out annually (only).

Matches Wood deer impacts (photo point 25)



2008



2010

SUSSEX WILDLIFE TRUST

Photographic register of Knepp Estate 2005-2010

Photo no	2005 JPEG file nos.	2006 JPEG file nos.	2007 JPEG file nos.	2008 JPEG file nos.	2009 JPEG file nos.	2010 JPEG file nos.	Description	Compass Bearing	POINT_X	POINT_Y
1	719002	P1010001	P1010012	P1010002	P7220003	P1010020	N view W of Kneppmill Pond	5	515739	121680
2	719003	P1010002	P1010013	P1010003	P7220004	P1010021	E view W of Kneppmill Pond at S wood boundary	100	515684	121923
3	719004	P1010004	P1010014	P1010004	P7220005	P1010022	SW view within glade/ride of mixed woodland	230	515586	122072
4	719005	P1010005	P1010015	P1010005	P7220006	P1010023	E view at S boundary of Merrik Wood on wooden steps	100	515736	122284
5	719006	P1010006	P1010016	P1010006	P7220007	P1010024	W view at N boundary of Merrik Wood on wooden steps	280	515770	122429
6	719007	P1010007	P1010017	P1010007	P7220008	P1010025	W view along ditch by marshy grassland patch	270	516064	122601
7	719008	P1010008	P1010018	P1010009	P7220009	P1010026	S view at NE field corner by wood and road	200	516105	122726
8	719009	P1010009	P1010019	P1010010	P7220011	P1010027	W view at N fence along A272 road at oak tree	280	515808	122817
9	719010	P1010010	P1010020	P1010011	P7220012	P1010028	S view at N fence by planted cherry tree copse by lodge	180	515663	122818
10	719011	P1010011	P1010021	P1010012	P7220013	P1010029	E view along road hedge boundary	90	515603	122856
11	719012	P1010012	P1010022	P1010013	P7220014	P1010030	N view half way up W margin of Cricketing Field	10	515232	122934
12	719013	P1010013	P1010023	P1010014	P7220015	P1010031	S view at end of T junction of forest track between pine-ash & oak blocks (N.B. portrait)	200	515228	123230
13	719014	P1010014	P1010024	P1010015	P7220016	P1010032	E view at S boundary of pylon field beneath oak near gateway	90	515397	123327
14	719015	P1010015	P1010025	P1010016	P7220017	P1010033	N view along woodland ride at Horsham Common by pheasant coup	10	515718	123736
15	719016	P1010016	P1010026	P1010017	P7220018	P1010034	E view at rides crossroad, Horsham Common	100	515740	123837
16	719017	P1010017	P1010027	P1010021	P7220020	P1010040	S view of more acid grassland at NE end of wood by pheasant coup	220	516044	124021
17	719018	P1010018	P1010028	P1010022	P7220021	P1010041	S view at field margin with Bar Furze field wood	200	516375	123884
18	719019	P1010019	P1010029	P1010023	P7220022	P1010044	ENE view at 4th oak from boundary at N end of large field to Pondtail Farm (owl box fixed)	60	516278	123340
19	719020	P1010020	P1010030	P1010024	P7220023	P1010045	N view on W side of entrance drive by shaded pond	10	515554	122370
20	719021	P1010021	P1010031	P1010025	P7220024	P1010046	NNW view from pond E of Spring Wood at E end	330	515335	122103
21	719022	P1010022	P1010032	P1010026	P7220025	P1010047	S view from pond E of Spring Wood at E end	210	515335	122103
22	719027	P1010023	P1010033	P1010030	P7220026	P1010048	W view at S boundary of Spring Wood, hedgerow removed, adj to corner deer fence wood	290	515077	122180
23	719029	P1010024	P1010034	P1010031	P7220027	P1010049	E view along pheasant fence just W of forest tracks intersection in Spring Wood	110	514981	122292
24	719030	P1010025	P1010035	P1010032	P7220028	P1010050	N view along deer fence inside Matches Wood at SW end	10	515243	122330
25	719031	P1010026	P1010036	P1010034	P7220029	P1010051	W view along deer fence inside matches Wood at N end at track junction – <u>in 2010 deer got in and wrecked the understorey of wood!</u>	280	515420	122612
26	719035	-	P1010037	P1010035	P7220030	P1010052	E view at path through wood at S end of field by Spring Wood	95	515142	122345
27	719036	P1010029	P1010038	P1010036	P7220031	P1010053	E view from N bank of R Adur at W end of field just below Capps Bridge	95	514919	121835
28	719039	P1010030	P1010039	P1010037	P7220033	P1010054	N view from E bank of R Adur at midpoint of track to Pounds Bridge	350	515181	121409
29	719040	P1010031	P1010040	P1010038	P7220034	P1010055	S view from E bank of R Adur at midpoint of track to Pounds Bridge	170	515181	121409
30	719041	P1010032	P1010041	P1010040	P7220035	P1010059	W view from S bank of R Adur at end of line of oak trees from bridge track	280	516293	120648
31	719042	P1010033	P1010042	P1010041	P7220036	P1010060	N view along deer fence in field bordering A24 road N.B. Doubts over location of original point! 2010 location half way up second field to S of river.	10	516165	120371
32	719043	-	P1010043	P1010042	P7220037	P1010061	E view near gate in field just E of Swallows Farm	110	515711	120190
33	719045	-	P1010044	P1010043	P7220038	P1010062	S view from old trackway by E edge of Jackson's Wood by boundary oak tree	190	515804	120548
34	719047	P1010036	P1010054	P1010044	P7220040	P1010065	NW view from road gate near Medlays on old brick foundation	310	515338	120877
35	-	P1010034	P1010045	P1010045	P7220039	P1010064	Extra point from 2006: N view down footpath & pylon line, by first pylon in field near house	30	515547	120653