## The Honey-buzzard Season in SW Northumberland 2012: Report on Techniques, Results and Summaries Nick Rossiter (Natural England permit 20121364)

The techniques are split into two parts. In the first, the main techniques used from 1993-2003 are described. These techniques were also used in 2004-2012 for most sites but further techniques were introduced in 2004 to take advantage of disturbance permits for NR/MSK.

## Main Techniques 1993-2003, also used 2004-2012 on many sites

Table 1 shows how a typical Honey-buzzard season progresses in Northumberland. Upland sites run 2-4 weeks later so fledging at some of these does not appear to be until mid-September, or even later.

	Season stage		Activity	Visibility on site	Migration	Strategy
Courtship	Early May	Early June	Display/ nest building	Low on first arrival (feeding) followed by active display/ soaring over nest site for about a week to 14 days	Main arrival period	Walk around woods of known sites, particularly on edges; photograph and (from 2003) sound-record; birds seen at 100-500m (birds not worried by presence at this stage)
Sitting	Early June	Early July	Egg laying/ Incubation	Some soaring by male at start, declining to very poor by end	Late migrants still arriving	Look for new sites where activity is usually later in the season; birds seen at 500m
Rearing	Early July	Mid-August	Feeding young	Very poor at start, rising significantly with patrols by male when young approach fledging	Light movements probably occur	Visit known sites from courtship stage towards end of period; birds seen at 500m
Fledging	Mid-August	Early Sept- ember	Young start to fly but are still dependent on adults	High with practice soaring in family groups	First adult males leave	Visit all known sites; birds seen at 500-1,000m (avoid any pressure on birds)
Post-nuptial	Early September	Mid-October	Adults leave at start of this period, juveniles depart about 2-4 weeks after adults	Gatherings occur on edge of breeding concentrations, often to the south in more scrubby areas. Much lower for solo juveniles which spend much time feeding well out of view.	Main departure period (adult males at start, followed by adult females, juveniles last)	Continue visiting sites but origins of birds are now open to question, particularly at lowland sites

Table 1: Timing of Breeding Season of Honey-buzzard in SW Northumberland

The timing of the season varies from year to year, necessitating corresponding adjustments in the fieldwork timing. The season in 2012 ran late throughout with display extending beyond mid-June, fledging starting in the last third of August and post-nuptial starting about a month later. Exact dates assigned to each stage this year are:

Display 1/5-18/6;

Sitting+Rearing 19/6-19/8;

Fledging 20/8-16/9;

Post-nuptial 17/9-25/10.

In practice defining such precise dates can be misleading over the whole study area. The dates may be reasonably accurate for lowland sites but at upland sites the season can run 2 or even 4 weeks later.

Using Table 1 as a guide, the strategy is ideally for each site, defined as a clump of trees, to:

- Find a pair displaying at the courtship stage.
- Observe some activity, however limited, in the Sitting and Rearing stages.
- Count the number of fledged young at the Fledging stage.

The full season is actually rather longer than the above:

February-April: visit wooded areas; locate Goshawk, Red Kite and other raptors; see changes in forests and woods and good vantage points.

Mid-October-early November: continue looking for late Honey-buzzard migrants. mid-November-mid-February is break.

The strategy is an adaptation of that developed for Common Buzzards in their initial colonisation of Northumberland. Common Buzzards show the same basic pattern as Honey-buzzards with much activity at start and finish and almost complete invisibility at times during the incubation and rearing stages. The difference is that the Common Buzzard start and finish are much more drawn-out while the Honey-buzzard's are necessarily much more compressed because it is a long-distance migrant.

Common Buzzard *Buteo buteo* have courtship from February-early May, sitting from mid-April to mid-June, rearing from early June to late July, fledging from mid-July to early August and post-nuptial from late July to late October. They very rarely engage in full display in late May or early June and fledge about one month earlier than Honey-buzzards.

The standard criteria for breeding relevant to Honey-buzzard are based on those in the Atlas of Breeding Birds, 1976, by Sharrock. The ones actually used in Northumberland are shown in Table 2.

POSSIBLE: bird recorded in breeding season in possible nesting habitat, but no other indication of breeding noted (√). PROBABLE: bird (or pair) apparently holding territory (S). Courtship and display (D). Visiting probable nest site (N). Nest-building (B) Adult with food for young (FY).\* CONFIRMED: Recently fledged young (FL) Adult entering or leaving nest site in circumstances indicating occupied nest (ON).

\* moved starting in 2007 from Confirmed to Probable (Hardey et al (2006 p.66-71)).

Table 2: Criteria for Breeding used for Honey-buzzard in Northumberland

It can be seen that finding recently fledged juveniles for most species confirms breeding. However, with a rare breeder further evidence is usually considered essential and *recently* can be subjective. There is extensive habitat for Honey-buzzards in the rest of Northumberland and in Scotland so it is possible that some juveniles seen in September are migrants. It is also possible that some adults seen in May and June are migrants. However, it seems most unlikely that adults will engage in territorial display on their way north. They may explore for trial sites within an area but wasting energy displaying at a site say 300km from their base while under the very tight time pressures imposed by the limited time for breeding seems very unlikely. Put another way, given the scarcity of the species, the chances, without some attempt at breeding, of the same group of trees in large woods being the focus of display in June, unobtrusive occupation in July and of weak-flying juveniles in early September, seem very low. Furthermore the increase in population observed is consistent with a successful local population.

We would consider it safe to consider a site as being in the CONFIRMED category if event 3 and either event 1 or 2 were satisfied for a particular site (defined as a clump of trees):

1. A pair showed territorial behaviour in the Courtship phase

- 2. Some indication was found for presence in the Sitting/Rearing phases
- 3. Recently fledged juveniles were seen in the Fledging phase.

Sites for which only events 1 or 2 are observed are in the probable category at best, though some may really be failed breeding attempts. Sites for which event 3 is the only one observed, are in the possible category if they are not known sites as the birds may have moved in from elsewhere and may possibly even be long-distance migrants. However, they are usually treated as Confirmed if the site is a known regular one. The history of a site is therefore taken into account in assigning a category.

The Dutch strategy for Honey-buzzard monitoring is very sophisticated (Bijlsma, 1997, p.28-30). We do photograph as many birds as possible but we do not identify individual birds on plumage. Also watching from tree-tops seems more appropriate to large forests in flat areas than to smaller woods in undulating country where many vantage points are available. Obviously we do put substantial time into this survey but living in the area means that local weather patterns can be seen as they develop. Ideal survey times are 09:30-13:30 (extending to 16:30 if a good day) in spring and the same but also as late as 17:30 in late summer and autumn. A fine day after several poor ones yields exceptional numbers. In 2002 some display was taking place in drizzle -- the birds just did not get much fine weather. After observation of the expected activity for the season at a site, that site is not usually visited again until the next stage of the season is reached.

### Disturbance permit use in 2004-2012

Disturbance permits enabled us to get closer to the birds and search for nests. In 2004 one nest was found, the first in the county since 1841. In 2005 six selected sites were visited at intervals from ten days to 3 weeks, with interruptions for holidays and other absences. No trees were climbed to inspect nests and the birds seemed unaffected with 100% success at the visited sites. No site was visited for more than one hour and calls were recorded during this time opportunistically with a digital sound recorder and a hand-held tele-microphone. Some still photographs and video footage were also obtained opportunistically during the site visits. A nest was found at each of the six sites. In 2006 some winter work was done in additional sites with the aim of finding a total of ten nests in this season. This aim was achieved.

Finding Honey-buzzard nests is extremely difficult when inexperienced but becomes easier with practice. The first lesson learnt was that although the birds display around the tops of wooded hills, their nests are often at much lower altitude, usually in rough terrain near water (stream, ditch, pond). The birds are of course large so the nest must be near a ride or clearing to give them easy access. The nests are almost invariably in the lower part of the crown of tall trees, estimated typically at about 25m in 30m trees. The nests are not in commercial forestry in the mass production sense, but in stands of trees grown on towards maturity by wealthy private owners or conservation bodies. In oak or pine they are are not so difficult to see, once a precise area has been determined, but in another favoured tree, Norway Spruce, the nests are only visible from the ground with some effort, even when the precise area has been well established, because of the relatively dense crown structure. The liking for Norway Spruce is attributed by Bijlsma *et al* (1993, p.72) to the cover and screening provided by the crown which is particularly useful when both adults leave the nest area to forage, which inevitably occurs at times. In Northumberland the nests of Honey-buzzard appear very large from the ground and usually have sprays and leaves on the edge. The nests also increase in size through the season until mid-August as new material is added. Once the young have fledged the nests then appear to become smaller again quite quickly as maintenance ceases. Bijlsma *et al* (1993, p.72) considers that most Honey-buzzard nests can be identified at a single glance from the ground.

The effort in finding a nest in a wood may be high initially but there is a tendency to re-use the same nest for a few years so effort per nest in subsequent seasons declines. Common Buzzard may exceptionally nest within 100-200 metres of Honey-buzzards, although 300-500m is preferred. There is some interaction when the Honey-buzzards first arrive back but this soon lessens and the two species ignore each other. Hobbies will also nest close to Honey-buzzards and appear to mob them aggressively.

In the target area in 2012 13 sites were searched for nests with 100% success this year. Scots Pine (7 nests) is now clearly the most popular trees with Norway Spruce (3), Oak (2) and Douglas Fir (1) the only other type employed. Nests are much easier to find in Scots Pine and Oak than in Norway Spruce and Douglas Fir because of the structure of the crowns of the trees with for instance Scots Pine being open and Norway Spruce closed. In 2011 a series of photographs was taken from the ground of each nest in each site visit. Comparison of the photographs between visits showed a clean nest and an expansion of the structure between June/early July and late July/August confirming that the nest was in use. This comparison supports the nests being assigned to Honey-buzzard as a species because it is exactly what would be expected with a tidy late nesting species. Common Buzzard nests always appear very much more used near fledging in early July and are indeed already starting to decline in structure at this point. The material is there also for 2012 but has not yet been analysed.

# Survey Effort

Vast. 15-20 hours a week over the 25 week season in on-site fieldwork. With some breaks for holidays, perhaps 300-400 hours a year from early May to early October.

# Comparison with Work in Scotland/Britain

Hardey *et al* (2006 p.66-71) in their guide to raptor survey and monitoring, make a number of statements and suggestions about the monitoring of Honey-buzzards. Much fits in well with experience in Northumberland, but it is worthwhile highlighting a few differences:

- 1. Very few sites are ever occupied in late April in Northumberland (just one to date).
- 2. Territorial display does not occur from mid-June to early August in Northumberland with breeding birds sitting tight and adopting a very low profile. Non-breeding birds have occasionally been observed displaying in July.
- 3. Three visits, not four, are made to confirm occupancy in Northumberland. Visits 2 and 3 (June and July) are amalgamated into one in Northumberland. However, more visits are made in Northumberland to sites where the intention is to find the active nest using the disturbance permit.
- 4. Evidence of breeding categories are similar in that both treat recently fledged young as confirmed (though see above for corollary in Northumberland). Nest with eggs or young is represented by occupied nest (ON) in Northumberland. The other category for confirmed breeding in Northumberland of carrying food (FY), treated as probable in Hardey *et al* (2006), has been very rarely used in Northumberland to confirm breeding. Nests that fail in Northumberland will most likely be recorded as possible/probable rather than confirmed breeding but failed.

As a result of this comparison, the category FY has been moved in Northumberland from 2007 to match Hardey's definition of the probable breeding category. The treatment of calls is an area where some advance perhaps could be made nationally in future. A number of the calls such as anger, alarm, wailing and ticking surely confirm breeding but of course there is usually other evidence when the nest site has been penetrated sufficiently to hear such calls.

## Disturbance permit use in 2012

Two visits were made to each of the 13 sites selected, the first from mid-June to mid-July and the second from early-August to early September. After some experimentation over the years this timing appears to be optimal as it avoids disturbance when the birds are settling in but is at an active point, egg hatching for first, young fledging for second, so that positive results can be obtained.

### **Overall Results for 2012**

Appendix I (available on the web at http://nickrossiter.org.uk/hbweb/Honey-buzzard Season in SW Northumberland Report for 2012 appendix 1 v2.html) shows the detailed reports on visits for 2012, both as site visits to find nests and as more general visits to check for occupation, breeding success and migration. The Appendix for the first time contains hyperlinks to all the video and stills collected during the year in all the site visits. Table 3 gives a summary of the breeding results by area and Table 4 a summary of the migration results.

No birds were seen in April this year. Some sites were colonised early in May but the main arrival was 2-3 weeks later. The season generally started 2 weeks late and fledging did not occur until the last third of August. The weather was fine in late May but poor for the rest of the season with persistent heavy rain in early May, June, July and August. September was windy but as usual there were quite long spells of sunshine.

Fieldwork was performed continuously in the study area from end April-early November, except for the following absences in other parts of England, Scotland and Ireland:

5-12 May, Inverness, Scotland; 23-27 July, Lake District; 9-12 August, Cambridge; 13-14 August, London; 28 September-1 October, Sussex; 4-9 November, Wexford, Ireland.

There were no lengthy absences to affect coverage this year. Compiling the results was again delayed by a broadband connection problem with BT from 28 July-20 August. On 21 August, a move was made to a faster satellite broadband (Avonline) which has performed well.

As shown in Table 3, it was yet another record-breaking season for Honey-buzzard in SW Northumberland in terms of occupancy with 51 (46 in 2011) occupied sites and 50 (46) confirmed breeding pairs. Productivity reduced slightly with 68+ (74+) young fledged. Productivity was still high in absolute terms with 18 of the 50 successful sites raising 2 young; 18 raising at least one young and 14 raising one young. This suggests that in good habitat, Honey-buzzard are largely unaffected in their breeding success by very poor weather.

This year the breeding density increased as all new pairs resulted from infilling: in lower South Tyne (+2): Langley, Haughstrother W; in upper South Tyne (+1): Featherstone Castle; in Tyne Valley E (1): Whittle Burn; in Derwent (+1): Slaley Forest Trygill. A determined effort in fieldwork was made this year in all unoccupied suitable areas permitted within the 2.5 km inter-nest spacing. The sites are not necessarily new for Honey-buzzard, just for my survey. The increase of 10% in sites found suggests that even in a continually monitored area, pairs may go undetected.

Survey effort was maintained throughout the season. In the 4 phases of display, sit/rear, fledge and post-nuptial, the number of sites at which the species was recorded was 43, 23, 35 and 25 respectively. The dip in the sit/rear stage is because of the greater secrecy of the species when incubating and rearing the young. The display period was again covered well. No gangs of juveniles were seen this year.

Another feature of the year was the strong observed visible migration as shown in Table 4.

Spring visible migration is typically very light and no birds were seen at all in 2012. Weather for observations was poor except for the end of May.

In autumn much more activity was noted with 24 birds going S/SW, hence over North Pennines, and 6 SE. Five resting birds were found so grand total was 35 birds, comprising 27 juvenile, 7 adult male, 1 adult female. With most records for migrating juveniles

this year, the peak was in October with juveniles bred in northern Britain, particularly Scotland, moving through in numbers. As many as 23 birds were noted in October, with 10 in September and only 2 in August. The 2 popular routes of upper South Tyne and Tyne Valley W were again evident. The latter may appear to move SE but close examination this year shows they depart from Bywell through Derwent at Greymare Hill so skirt the E edge of the North Pennines. The record total for 2012 indicates rising numbers in general and high productivity in northern Britain.

# **Objectives for 2013**

Next season the plan is similar to that of 2012 in coverage and effort.

### References

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Nick Rossiter 9th April 2013

Area	No.	No.	No.	Obs	erve	d Occi	upied	Bree	ding Ca	tegory	Number young	Trees used for
	sites	adults	nests found	Display	Sit/ Rear	Fledge	Post- nuptial	Conf	Prob	Poss	fledged	Nesting
Devil's Water	6	12	3	5	5	5	2	6	0	0	7 (1x2, 3x1+, 2x1)	Scots Pine x2, Norway Spruce
Allen	9	16	2	7	4	6	3	9	0	0	13 (4x2, 2x1+, 3x1)	Oak, Norway Spruce
Upper South Tyne	6	11	2	6	2	6	2	6	0	0	9 (3x2, 3x1+)	Oak, Norway Spruce
Lower South Tyne	7	10	1	7	1	5	3	6	0	1	8 (2x2, 3x1+, 1x1, 1x0)	Scots Pine
Tipalt	3	6	0	2	1	0	3	3	0	0	4 (1x2, 2x1+)	
Tyne W	7	14	3	7	5	6	5	7	0	0	9 (2x2, 2x1+, 3x1)	Scots Pine x2, Douglas Fir
Tyne E	5	7	1	4	2	5	0	5	0	0	6 (1x2, 1x1+, 3x1)	Scots Pine
Derwent	8	14	1	5	3	2	7	8	0	0	12 (4x2, 2x1+, 2x1)	Scots Pine
Total	51	90	13	43	23	35	25	50	0	1	68 (18x2, 18x1+, 14x1, 1x0)	Scots Pine x7, Norway Spruce x3, Oak x2, Douglas Fir

Table 3: Results for the Honey-buzzard Breeding Season in SW Northumberland by area in 2012

Date	Time	Locality	Age/Sex	Count	Direction	Movement
August 22	15:57	Staward N (Allen)	Adult male	1	1 S	Finally at 15:57 yet more action, with male up again this time with female, and doing a muted display over site with rises and falls but without butterfly action at top of rise; the birds come very close together in touching farewell and the male starts moving S, gliding fast overhead before being lost in the sun. Always nice when speck in the distance is 100% confirmed when bird comes much closer! Think the male was actually emigrating, starting journey back to Africa, after seeing young gain confidence in air and making space for the brood in terms of food resources (good strategy!).
August 26	12:28-12:31	Bywell Cottagebank (Tyne Valley W)	Adult male	1	1 SE	the male was up floating over area from 12:28-12:31, moving SE at altitude and was presumed to leave-
September 1	15:35-15:40	Towsbank (upper South Tyne)	Adult male 1	1	1 S	From 15:35-15:40 another male Honey-buzzard, a presumed migrant from Scotland, was gliding to S at moderate height on E side of valley

Date	Time	Locality	Age/Sex	Count	Direction	Movement
						using orographic lift on the moderate W breeze in the sunshine; he was actually intercepted by the resident local pair, who shielded their site from the intruder: keep away you forker!! Suspect he was tired and looking for somewhere for half-board: he moved on towards the higher end of the upper South Tyne where he should find the natives more amenable! The migrant male when first seen by me had local male getting ready to intercept; the intruder was obviously seen much earlier by the resident pair; the migrant moved S trying to give the area a miss but was intercepted and chased off by the local male; the local male celebrated his success in seeing him off
September 9	12:20	Beaufront (Tyne Valley W)	Adult male	1	1 S	at 12:20 a male Honey-buzzard was spotted very high-up moving S and quickly lost in haze; not sure whether it was the local male or one from further N but definitely a migrant
September	13:13:00	Bardon Mill E	Adult male	1	1 SW	The1st Honey-buzzard of day was a

Date	Time	Locality	Age/Sex	Count	Direction	Movement
17		(lower South Tyne)				male migrating SW at 13:13 over Bardon Mill, taking advantage of orographic lift in the fresh breeze, with a bounce in the end over Ridley. There were no thermals today for soar-glide.
September 21	16:40:00	Langley (lower South Tyne)	Juvenile	1	1 SW	had a juvenile Honey-buzzard soaring high over Langley at 16:40 and moving SW; this is a new site this year so very good to see them fledge young; confirms pull-out is taking place, a trend which may be accelerated tomorrow after forecast ground frost tonight
September 22	11:44-13:45	Allen	Adult male 1 Adult female 1 Juvenile 4	6	5 S 1 SW	Weather was beautiful with almost continuous bright sunshine, incredible visibility and wind light and variable. In more detail, action started at 11:44 with 3 juvenile Honey-buzzard coming out of the Allen valley from the Staward area, disappearing into thin grey cloud, taking about 8 minutes to get out of sight; count here matches 3 young raised in this area (2 Staward N, 1 Staward S). At 12:40 another

Date	Time	Locality	Age/Sex	Count	Direction	Movement
						juvenile Honey-buzzard came out of the Allen valley, from the Ridley area, matching the one young raised at this site. All the juveniles appeared to be moving S at high altitude; these fledged around 20/8 so, after one month of getting their strength up, are now ready for the journey to Africa. From 13:40-13:44 the female Honey- buzzard at this site decided to leave, soaring rapidly as usual into the base of a grey cloud (where thermals are strongest) and moving off S, high-up; she must have thought the young could now fend for themselves. The next site to visit was the highest known on the West Allen at Parmently, but from Monk at 13:45, before could get there, saw the male moving rapidly SW into the dark grey clouds; he gained height incredibly quickly before moving off on the edge of the clouds
October 7	13:43-15:00	Stocksfield Guessburn (Tyne Valley W)	Juvenile	6	3 SE 2 SW 1 rest	made Stocksfield Mount from 13:05- 15:50 looking for migrant Honey- buzzard; impressed with big pull-out

Date	Time	Locality	Age/Sex	Count	Direction	Movement
						as 6 juveniles noted, all coming over hill above Bywell Cottagebank and either moving SE or SW at considerable height: 1 flapping hard to SE at 13:43 then soaring very high over S side of valley S of Mickley before moving on; 2 moving very high off N side of valley at Bywell at 13:46 before moving off high to SW; 1 moving SE quickly at moderate altitude at 14:03; 2 moving high to SE at 15:00 of which one carried on SE and the other came flapping back to Bywell, presumably to rest and feed for the night
October 8	15:15-15:35	North Wood, Haltwhistle (upper South Tyne)	Juvenile	2	2 S	Today, in continuation of fine autumn spell with all-day sunshine after early frost, in the afternoon made Haltwhistle North Wood from 14:50- 16:50 where had 2 juvenile Honey- buzzard, presumed Scottish, feeding up in area, before setting off high into the sky and S from 15:15-15:35; one typical juvenile flight call was heard. Seen were 2 juveniles floating up

Date	Time	Locality	Age/Sex	Count	Direction	Movement
						slowly without a wingbeat, escorted by a flock of Jackdaw; one juvenile disappears, the other flies high then quickly comes back to their base in a wood; then at 15:18 one bird came out of the wood in which they had been feeding and did a circuit before returning; at 15:26 the 2nd bird again slowly ascended and this time it appeared to depart to S
October 10	13:20-16:05	Towsbank (upper South Tyne)	Juvenile	2	2 rest	good trip out to Eals in upper South Tyne from 13:20-16:05 in sunny, mild weather on light SW breeze. As expected saw more Honey-buzzard: 2 juveniles up together, one of which was tracked down to a field grazed by sheep and photographed at close range, calling in flight. These birds are also presumed to be Scottish-bred migrants: local birds will have left some time ago. Towsbank is an incredible magnet for Honey-buzzard: combination of moorland, deciduous woodland, river and rough sheep pastures seems to be ideal

Date	Time	Locality	Age/Sex	Count	Direction	Movement
October 11	11:30:00	Prospect Hill (Tyne Valley W)	Juvenile	1	1 SE	a juvenile Honey-buzzard flapping slowly SE at Prospect Hill at 11:30, mobbed by quite a few corvids, as drove towards Corbridge Station. These juveniles will of course not have made the journey before; I'm sure they linger through Northumberland and Durham as the habitat is so ideal in these 2 counties; further S will be a bit more of a shock as the agriculture intensifies and the population density (of people) increases
October 13	15:00:00	Greymare Hill (Derwent)	Adult male 1 Juvenile 1	2	2 S	The two birds came through together around 15:30-15:40, comprising a juvenile and an adult male; the male presumably is from a high moorland site in Scotland where finish very late as at Riddlehamhope. The 2 birds were gaining height over the ridge, the juvenile was lost to sight after an attack by a Carrion Crow caused it to go ever higher but the male glided S high above the wind farm, roughly in line for Castleside. The Honey- buzzard seen today would have

Date	Time	Locality	Age/Sex	Count	Direction	Movement
						passed over Bywell: Greymare Hill is almost exactly S of Bywell by 8km. The Scottish population must be increasing rapidly, given the number of juveniles seen in the last 2 Octobers
October 15	14:55:00	Barrasford (North Tyne)	Juvenile	1	1 rest	Today made Barrasford, 11km to NNW of Hexham, on North Tyne from 14:45-16:00 in beautiful sunny weather with light SW breeze. Took all of 10 minutes to locate a juvenile Honey-buzzard, involved in a massive stand-off with Rook and Jackdaw at 14:55 in the trees around Haughton Castle, which is suitable breeding habitat. It was up for a few seconds before disappearing below the canopy again. Plenty of other good habitat in the area, including out to NE at The Hermitage, but suspect that this bird was a Scottish-bred migrant as birds reared in the lush lower reaches of the North Tyne will have left a long time ago

Date	Time	Locality	Age/Sex	Count	Direction	Movement
October 18	12:40:00	Haydon Bridge (lower South Tyne)	Juvenile	1	1 SE	Weather was sunny on trip out on SW wind and had a juvenile Honey- buzzard gliding high to SE near Haydon Bridge at 12:40 with a Common Buzzard way below trying to fend it off – quite a common scenario
October 20	14:25-16:05	Towsbank (upper South Tyne)	Juvenile	7	6 SW 1 S	The 1st Honey-buzzard was up at 14:25, joined by a 2nd at 14:32 floating together; various further sightings were made over the next 50 minutes and it was going to be difficult to get an accurate total; then at 15:30 6 birds got up in the air together, 3 very high-up and 3 at moderate height, and proceeded to glide off slowly SW to disappear completely from sight. Meanwhile at 15:20 another bird had arrived from the N over Lambley Bridge and was presumably the bird left at the end on its own, last seen at 16:05. So Towsbank is a bit like a café, a place to stop and refresh, for Scottish-bred Honey-buzzard. So 6 SW, 1 rest
October 25	12:57:00	Shilford (Tyne	Juvenile	1	1 rest	Down to Stocksfield Mount from

Date	Time	Locality	Age/Sex	Count	Direction	Movement
		Valley W)				12:05-14:05 in mainly cloudy, cool conditions on light N wind with just a few brief sunny intervals near the end; good enough to check for Honey- buzzard juveniles which are typically active unless weather really bad! On passing woods E of Shilford had what looked like a Honey-buzzard juvenile being harassed by 2 Common Buzzard but nowhere to stop so drove on and hoped the action would move my way. Had to wait a while but at 12:57 a juvenile Honey-buzzard came over Broomley Woods low-down flying E on what looked like a feeding trip and continued over the Guessburn still at low altitude
Summary/ Comments:						
Aug: 2 Sept: 10 Oct: 23	11-12: 4 12-13: 4 13-14: 6 14-15: 1 15-16: 14 16-17: 1	upper South Tyne: 12 Iower South Tyne: 3 Allen: 7 Tyne Valley W: 10	Adult male: 7 Adult female: 1 Juvenile: 27	35		IN: 0 OUT: 13 S, 11 SW, 6 SE, 5 resting

Date	Time	Locality	Age/Sex	Count	Direction	Movement
	rest 5	Derwent: 2 North Tyne: 1				
Most records are for migrating juveniles this year, hence peak in October with juveniles bred in northern Britain, particularly Scotland, moving through in numbers	Much more activity this year in late afternoon, when in October many juveniles moving through from Scotland, decide to continue their journey	The 2 popular routes of upper South Tyne and Tyne Valley W were again evident. The latter continue from Bywell through Derwent at Greymare Hill. The Allen birds were all locals exiting from breeding areas	Adult males predominate early-on, followed by adult females and finally by juveniles moving slowly through. May have missed this year the main move of females towards end of September	A record total indicating rising numbers in general and high productivit y in northern Britain		No spring records this year; weather for observations was poor except for the end of May. In autumn birds went mainly S/SW with 24 in this direction and 6 SE; 5 resting birds were found, all juveniles in October

Table 4: Visible Migration Movements noted for Honey-buzzard in SW Northumberland in 2012