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Winter behaviour of the Grey-headed Woodpecker *Picus canus* in relation to recent population trends in Sweden

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Abstract

We recorded habitat use and movement patterns of 2 male and 3 female Grey-headed Woodpeckers with radio telemetry in coastal northern Sweden during the winter 1997/98. Home ranges of females were c. 20 km^2 large, whereas the home ranges of the males tended to be smaller. Individual birds displayed long movements between day and night locations (maximum 6 km). The woodpeckers showed strong affinity to human settlements (=feeding stations) during daytime. No selection for sites with high abundance of large deciduous trees was found in conjunction with roosting. All radio-equipped woodpeckers disappeared within one-week in early April. Aerial surveys indicated a net displacement of the females of >50 km. Three of the marked woodpeckers (1 male and 2 females) reappeared at their old winter home range in October/November 1998, suggesting a migratory strategy. The findings are discussed in relation to recent population trends and the status of the Grey-headed Woodpecker on the Swedish Red Data list.

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Introduction

The Grey- headed Woodpecker *Picus canus* probably is the least known Fennoscandian woodpecker (Angelstam & Mikusinski 1994). In Sweden the population size is estimated at over 400 pairs, and it is classified as rare (“sällsynt”) in the Swedish Red Data Book (Ahlén & Tjernberg 1996). According to the literature the Grey-headed Woodpecker preferentially feeds on ants, but to a less extent so than its bigger relative, the Green Woodpecker *Picus viridis* (Cramp 1985). Data from boreal forest are sparse, but Rolstad & Rolstad (1995) found a strong dominance of ants, particularly *Serviformica* species in the summer diet. Ants constituted 90% of the biomass, and were mostly searched for at the ground and rotten stumps. During winter when snow prohibited ground-feeding, the woodpeckers fed on carpenter ants *Camponotus* spp. inhabiting galleries between the bark and the wood at the base of old pine trees. When snow depth exceeded 15 cm the woodpeckers shifted diet from carpenter ants to *Diptera* and *Coleoptera* species, dwelling in or under the bark of standing dead trees or living old pine and spruce trees (Rolstad & Rolstad 1995). Availability of old forest may hence be a crucial factor for survival and population maintenance in boreal forest, where snow covers the ground for long periods.

The world's northernmost occurrence of Grey-headed Woodpecker is found at the Swedish side of the Gulf of Bothnia, where the species nowadays regularly occurs up to the Arctic Circle (66° N) (Karström 1998). Recent increase in observations of Grey-headed Woodpeckers in the northern part of the distribution range may be indicative of an increase in population size. An alternative explanation is that deterioration of winter habitat quality due to cutting of old forest has made the birds more visible by altering their behaviour. In the province of Västerbotten (63–65° N) the Grey-headed Woodpecker is a regular winter visitor at feeding tables. Since there are much fewer observations during spring, summer and early fall (Figure 1), one might ask whether this temporal pattern in occurrence reflects a seasonal influx of individuals from elsewhere, or a shift in habitat use by local birds. From the point of view of conservation and population monitoring it

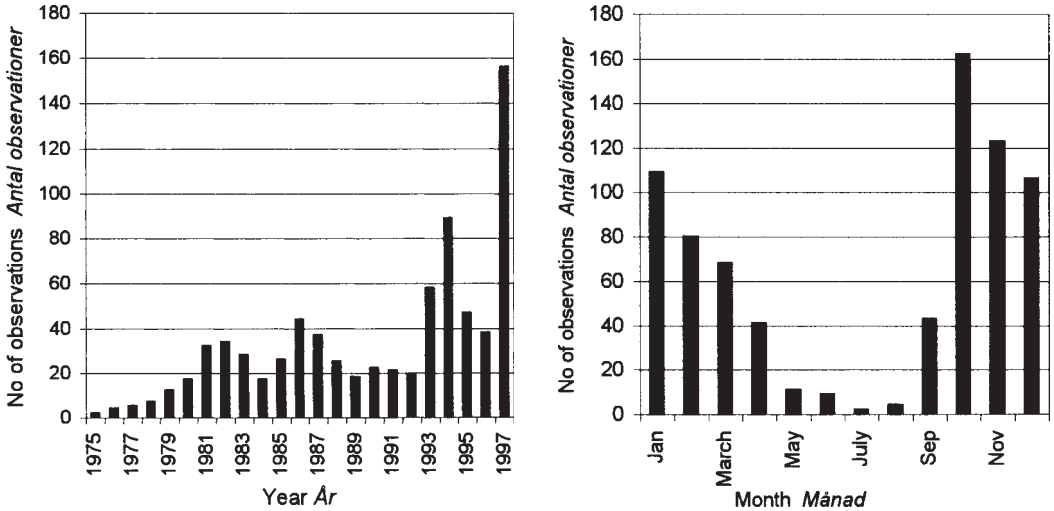

Figure 1. Observations of Grey-headed woodpeckers in the province of Västerbotten 1975–97 (regional report committee of the Swedish Ornithological Society).

Fynd av gråspett i Västerbotten 1975–1997 (regionala rapportkommittén).

would be of interest to know whether these movements are despotic or part of a migratory strategy, and the distances travelled.

The knowledge of the ecology of the Grey-headed Woodpecker in Sweden is sparse and partly anecdotal (e.g. Hannerz 1949, Ehrenroth 1973, Birkö 1983, Strand 1983), and few systematic studies have been performed. Aiming at documenting winter home range, habitat use and subsequent breeding, we radio-tracked Grey-headed Woodpeckers close to the species' northern distribution range in Sweden. The questions we specifically asked were: to what extent does the Grey-headed Woodpecker use food sources provided by man during winter, and how selective is the species in habitat use. We addressed these questions in relation to current population trends in the Grey-headed Woodpecker and its conservation status in Sweden.

Material and methods

The study was performed close to Umeå in coastal northern Sweden in the middle boreal zone (sensu Ahti et al. 1968) (63°45´ N/20°00´ E). Mean temperature averages –11° C in January and stays below zero from November to April, and the ground is snow-covered for approximately 175 days with a maximum depth of 60–70 cm in February (1961–1990 means; Raab & Vedin 1995). Our c. 250 km^2 large study area is 73% forest, 13% farmland, 12% bogs, and 2% open water. The forests are managed intensively for timber production with c. 100 year rotation periods, resulting in a mosaic of age-classes. Forest compartments with trees older than 120 years are scarce, and occur mostly as small pockets in younger forest or as open pine stands on barren ground. The forests are predominated by Scots Pine *Pinus sylvestris* and Norway Spruce *Picea abies* with scattered occurrences of deciduous trees, viz. birches (*Betula pendula* and *B. pubescens*), Aspen *Populus tremula* Rowan *Sorbus aucuparia*, and Alder *Alnus incana*. The abundance of deciduous trees is highest at farmland fringes and abandoned farmland.

The minimum winter (November-March) density of Grey-headed woodpecker 1997/98 in our study area, based on our own observations and observations reported to us, was estimated to be at least 2–3 individuals per 100 km^2.

Grey-headed Woodpeckers were captured with mist nets at feeding stations bated with tallow. Individual colour rings were used to allow identification at a distance. Home range, habitat use and movement patterns were assessed by visual observations and radio telemetry. The radio transmitters, Holohil PD-2 with a weight of around 3 gram and an expected lifetime of 6 months, were attached with dental floss and glued to the base of the underside of the two central tail-feathers. (The transmitter was thus shed together with the rectrices during the complete moult in summer). The transmitters allowed relocation of

woodpeckers up to 3-km distance, depending on terrain and vegetation cover. All telemetry locations were based on at least three bearings. We attempted to minimise the error of telemetry locations by (1) minimising the time between consecutive bearings, and (2) interspersion of triangulation positions as to minimise the resultant error polygon. We classified locations with polygons equal to or less than one ha as high quality positions.

For logistic reasons we could not relocate individual birds more often than about every third day. One of us (PS) lives in the study area, and periodically had almost daily contacts with two and sometimes three of the target birds. To avoid biased estimates of habitat use, we down-weighted observations at this feeding site by including only every fourth observation in the analyses (=proportional to frequency of observations). Daytime positions were considered independent when separated by more than five hours in time.

Daily movement was described in terms of net distances between consecutive day and night positions. For days with more than one day position we randomly selected one of them to calculate distance to the night position. We used a digitised version of the line map ("Blå kartan") (scale 1:100 000) and ArcView 3.0 GIS software to generate random positions in forest land within individual home ranges (100% convex polygons), and to derive distances to human settlements for analysing the affinity of woodpeckers to feeding stations. Habitat variables, derived *in situ* at woodpecker locations and random positions, comprised forest type, as determined by tree height and productivity, and abundance of large deciduous trees (aspens and birches) as potentially important substrates for feeding or roosting. At each site we first located, with a GPS navigator (Garmin 12XL), a 10-m radius circle sample plot and then similar sized plots centred at 50 m distance in the north, east, south and west direction, respectively. We thus had five 314 m^2 plots for each site. Forest type of each plot was classified in the following categories: (1) clear-cut; tree height 0–1.3 m, (2) sapling stage; tree height 1.3–3 m, (3) "thinning"-stage; tree height 3–8 m, (4) "old" forest; tree height >8 m, and (5) low productive pine forest on barren land. The median forest type was assigned for the site. In all plots we counted the number of aspen and birch trees thicker than 20 cm at breast height. In addition, we measured diameter at breast height of the largest aspen in the plot.

Results

One male (male-1) and one female (female-1) Grey-headed Woodpecker were captured and radio-equipped on 6 December 1997, and a second female (female-2) and male (male-2) on the 20 and 21 December 1997, respectively. A fifth bird (female-3) was radio-equipped on 21 March 1998 (Table 1).

Table 1. Number of Grey-headed Woodpeckers radio-monitored, the time period covered, total number of locations, and number of day and night time locations with error polygons <1 ha.

Antal gråspettar följda med radiosändare, aktuell tidsperiod, totalt antal positioner, och antalet positioner bestämda med hög precision (felpolygon <1 ha).

Bird *fågel*	Time period *tidsperiod*	# weeks *antal veckor*	# locations *antal positioner*	# day locations *antal dagspositioner*	# night locations *antal nattpositioner*
Female-1 *hona 1*	971206–980409	17	121	56	29
Male-1 *hane 1*	971206–980404	17	81	28	20
Female-2 *hona 2*	971220–980404	14	61	29	20
Male-2 *hane 2*	971221–980124	5	22	7	1
Female-3 *hona 3*	980321–980407	3	38	15	10
	Sum *summa*	56	323	135	80

Male-2 for unknown reasons lost his transmitter in mid January 1998 (transmitter plus the central pair of tail-feathers retrieved; bird seen at one occasion later in January). The four other birds were regularly seen or located with telemetry till the first week of April when we within a time period of six days lost all contact with all birds. Despite extensive ground surveying we could not find any bird after 9 April within the study area. Six hours of aerial telemetry survey on 23 April and 2 May resulted in relocation of male-1, c. 12 km north of the last telemetry location in April, but none of the females. Male-1 remained stationary within a c. 3 by 3-km large area at this new location till at least mid May, when the transmitter, attached to the two central tail-feathers, was found sticking out of the woodpecker protective net around a power line pole (!) on 28 May. No records at all of Grey-headed Woodpeckers were made after late April and no indication of breeding within the study area was recorded during field inventory in the summer. Male-1, identified by the colour rings, was seen on a clear-cut within the old winter home range on 10 October 1998, and female-3 and female-1 re-appeared on their respective marking place on 7 November and 6 December1998.

The home ranges of female-1 and female-2 were larger than 10 km^2 in early January 1998 (Figure 2). An expansion of the home range of both females was

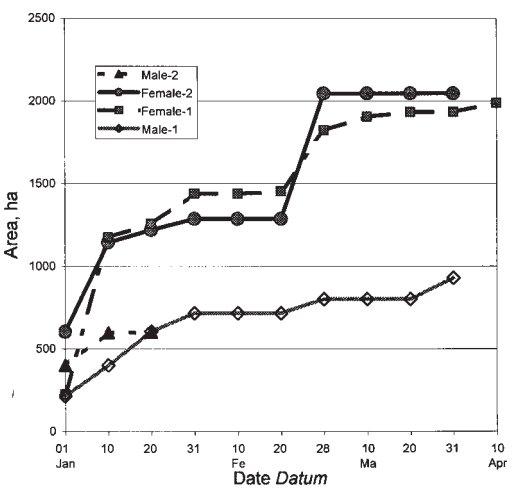

Figure. 2. Space use expressed as the cumulated area (convex polygon) covered by radio-equipped Grey-headed Woodpeckers in coastal Västerbotten in winter 1997/98.

Hemområde hos gråspettar uttryckt som yta ackumulerad under vintern (konvex polygon) hos sändarförsedda fåglar vintern 1997/98.

observed in conjunction with a spell of mild weather in late February. In early April, at time of departure, they had a gross home range of 19.8 km^2 and 21.5 km^2, respectively. By contrast, male-1 had a much smaller gross home range (9.4 km^2; Figure 3). Male-2 followed the same pattern in space use as male-1 for the corresponding 3-week period in January.

The median distance between consecutive day and night positions was 2172 m (range 555–5802 m; N=50; all birds combined; Figure 4). The actual distance travelled on a daily basis was much larger as individual woodpeckers were regularly seen revisiting the same feeding station and also at different feeding stations, some of which were located several km apart (Figure 5). We had no logistic possibilities to investigate food-searching behaviour outside feeding stations. Moving between different feeding stations, the birds did not hesitate to take shortcuts across large (more than one km wide) open farmland. Having finished eating, the woodpeckers typically climbed high in a nearby tree before taking off well above the tree canopy. Feeding stations were visited from dawn to dusk with the highest frequency in morning and afternoon. Particularly the females occurred late at feeding sites. At three occasions we documented how the females took off in almost darkness from feeding sites to roosting places more than four km away. Daytime locations of Grey-headed Woodpeckers were four times closer to human settlements than expected by chance (mean distance for woodpecker locations and random positions, respectively: 277 m and 1078 m [S.D. 376 and 578 m]; $P<0.001$, Student´s $t=11.67$, d.f. 200).

Since we found a strong affinity to human settlements during daytime, we decided to evaluate habitat selection only for night positions. We selected 30 night positions *a priori* where we had either exactly located the roosting tree, or had obtained telemetry locations within less than one ha error polygons, and 30 random sites. The Grey-headed Woodpeckers displayed no selectivity for forest type at roosting places (Figure 6), meaning that different age (productivity) classes were used in relation to availability. Similarly, there was no sign of selection for sites with high abundance of large aspens or birches (Table 2), neither was there any indication of selection for diameter of aspens at roosting sites (Table 3).

Of the four roosting trees identified, three were aspen and one pine. One of the aspens were retained in a small group of aspens on a small (c. 1 ha) clear-cut, while the two others were in old and young forest, respectively. One of these latter trees was the largest aspen recorded in the study area: 55 cm in

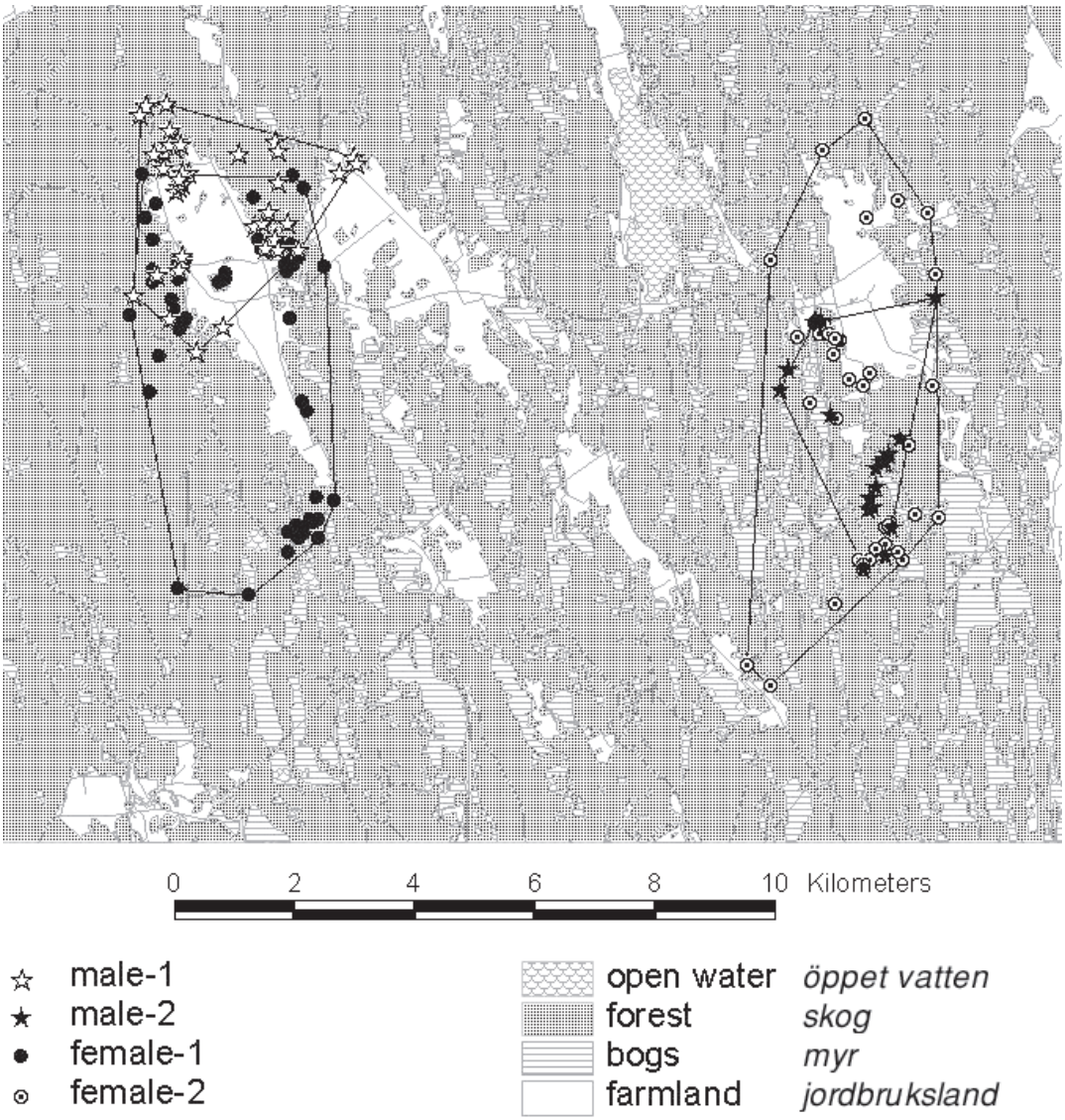

Figure 3. Day- and night time locations and home range (100% convex polygons) of tracked Grey-headed Woodpeckers. The map is N-S oriented.

Dag- och nattpositioner och hemområde för radiosändarförsedda gråspettar. Kartan är orienterad i nord-syd.

diameter at breast height. Holes were used for roosting in the aspens, whereas the dense upper part of the canopy was used as roosting place in the pine. At a couple of occasions we had strong indications that barns in open farmland were used for roosting, and we suspected nest boxes for Goldeneye *Bucephala clangula* were used a few times. Roosting trees were used repeatedly by the woodpeckers. For example, female-2 roosted in the aspen retained on the clear-cut 12 out of 15 nights.

Discussion

In Varaldskogen, south-central Norway, Rolstad &

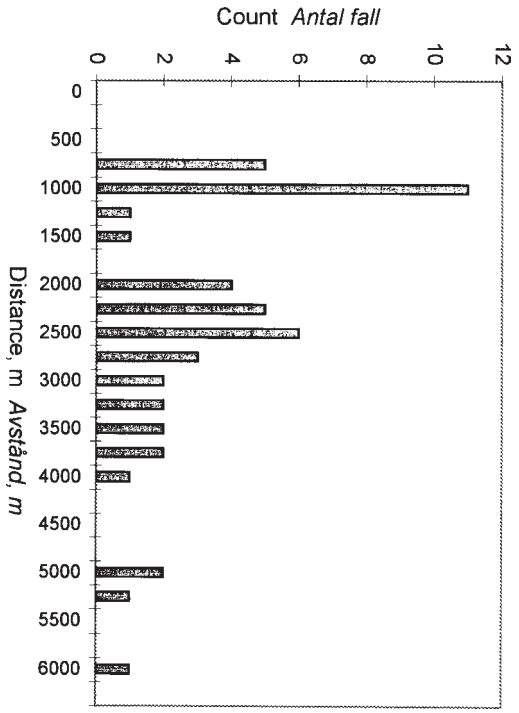

Figure 4. Daily Movement (m) of Grey-headed Woodpeckers expressed as distance between consecutive day and night positions with error polygons <1 ha or visual observations.

Exempel på förflyttningsmönster hos sändarförsedda gråspettar uttryckt som avstånd mellan på varandra följande dag- och nattpositioner.

Rolstad (1995) estimated winter home ranges at 45–54 km^2, i.e. considerably larger than what we found. Our home range estimates could be considered conservative, as we occasionally could not relocate our birds within their "normal" home ranges during the course of the winter. One reason for the smaller home ranges found by us may be that the Norwegian study area was located in more forested terrain (85 % areal coverage) with a lower density of human settlements and fewer feeding stations/tables. The winter home range of Grey-headed Woodpecker in the boreal forest apparently can be very large, which most likely is a consequence of sparse and scattered food resources.

The close association of daytime locations to human settlements suggests that feeding stations/tables are important food sources for Grey-headed Woodpecker in the boreal forest during winter. In fact, due to its habit of regularly visiting feeding stations the Grey-headed Woodpecker nowadays is quite well known, and has become known as the "green" woodpecker in the province of Västerbotten. The usage of feeding stations was strongest when it was cold and much snow, because during spells of mild weather and at the beginning of the winter the woodpeckers occurred less frequently at these places. This pattern is in line with the observation that the Grey-headed Woodpecker preferentially feed on ground-living insects and turn to alternativee food sources when snow or coldness prohibit this mode of feeding (cf. also Rolstad & Rolstad

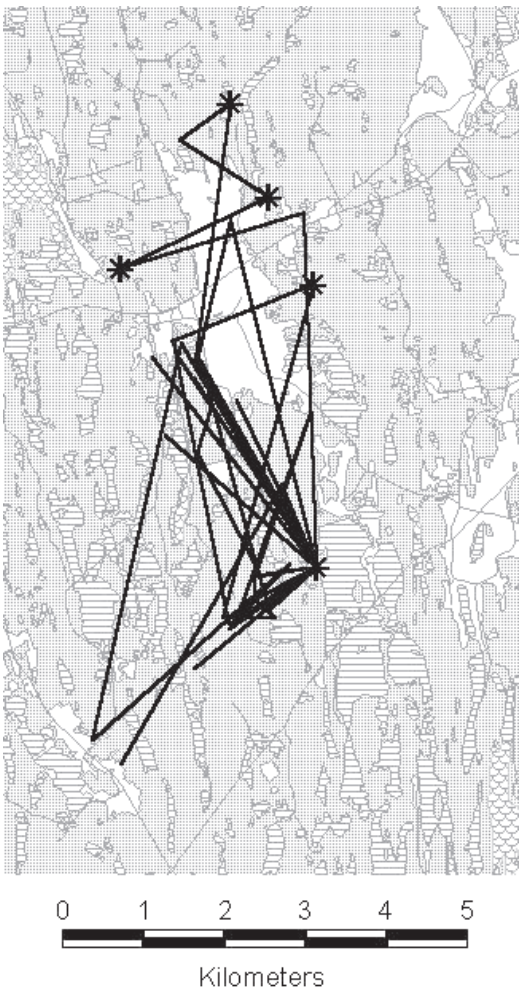

Figure 5. Movement vectors of female-2 based on consecutive locations 26 December 1997 – 4 April 1998. Asterisk denotes roosting places. Habitat representation as in Figure 3.

Rörelsevektorer hos hona 2 baserat på varandra följande positioner mellan 26 december 1997 – 4 april 1998. Asterisker markerar övernattningsplatser.

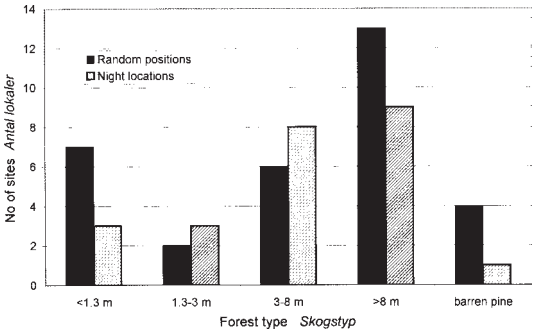

Figure 6. Distribution of roosting and random sites across forest types. There was no difference in distribution between site categories (P>0.05, χ^2=2.345, d.f. 3).

Övernattningsplatser och slumpytor fördelat på olika skogstyper. Det fanns ingen statistiskt säkerställd skillnad i utnyttjandet.

1995). It might be added that old forest is very sparse and that winter food provision has occurred frequently in our study area since at least 25 years (L. Brodin, pers. comm.).

Low population density and spatially segregated home ranges of individual birds may indicate that the Grey-headed Woodpecker holds winter territories (Rolstad & Rolstad 1995). We found clearly separated home ranges of the two males, and female-1 and female-2, respectively, which would be in line with this reasoning. (The inclusion of the males' home ranges of the males within those of the females' could indicate pair bonds). However, the home range of female- 3's home range was enclosed within that of female- 1's, and the two birds were seen together at the same feeding station at several occasions (PS unpublished data). Observations in the study area in the subsequent winter (1998/99) confirm that two birds of the same sex may occur at the same feeding station quite frequently. One interpretation might be that in our study area, where food provision is common and regular, the woodpeckers do not have to claim, or cannot monopolise the food resources. This hypothesis could be tested by comparing habitat use and home range overlap in areas with different intensity in winter food provision.

The woodpeckers did not show selection for any of the roosting habitat and substrate characteristics investigated. Hypotheses that could be advanced are that availability of roosting substrate is not a limiting factor during the winter, and that proximity to reliable food sources rather than substrate type *per se* is more important. However, especially the females flew long distances (2624 m on average as compared to 1668 m for the males) for roosting and recurrently used the same trees, and tended to arrive late to and depart early from these trees. This could possibly reflect an anti-predator strategy, and, if so, landscape context could be of importance. Interestingly, the most frequently used roosting tree was the retained aspen on the clear-cut, and similarly, solitary aspens retained on clear cuts were often used for roosting in Varaldskogen (J. Rolstad, pers.comm).

The Grey-headed Woodpecker has a high potential reproductive capacity in terms of clutch size (mean 7–9; Cramp 1985), and the main food during summer, *Serviformica* ants, occurs in high abundance in e.g. young plantations (Rolstad & Rolstad 1995). One scenario hence is that the increase in number of observations of Grey-headed Woodpeck-

Table 2. Abundance of large aspens and birches (>20 cm diameter as breast height, no. stems per ha) at night locations and random positions. "Significance" refers to non-parametric Mann-Whitney U-test with test statistic given within parentheses.

Förekomst av stora aspar och björkar (>20 cm diameter i brösthöjd) där gråspettar övernattat respektive på slumpytor i hemområdena. Icke-parametrisk Mann-Whitney U-test användes för att testa eventuella skillnader.

		Aspen *Asp*		Birch *Björk*	
	N	Mean *medel*	S.D.	Mean *medel*	S.D.
Night locations *nattpositioner*	30	3.1	4.4	8.6	16.5
Random positions *slumpytor*	30	2.0	6.5	10.7	19.4
Significance *Statistisk sigifikans*		P=0.724 (446)		P=0.350 (522)	

Table 3. Diameter at breast height of aspens (cm) at night locations and random positions. "Significance" refers to non-parametric Mann-Whitney U-test with test statistic given within parentheses.

Diameter i brösthöjd i cm hos aspar på platser där gråspettar övernattat respektive på slumpytor i hemområdena. Icke-parametrisk Mann-Whitney U-test användes för att testa eventuella skillnader.

	N	Mean *medel*	S.D.
Night locations *nattpositioner*	10	27.2	15.41
Random positions *Slumpytor*	8	27.0	11.49
Significance *statistisk signifikans*		P=0.423 (49)	

ers in Västerbotten (Figure 1), reflects a general increase in local breeding population size. However, the very few observations during breeding time (Figure 1), and the fact that only two breeding records have been verified during the 1975–1997 period (archive of regional report committee of the Swedish Ornithological Society), do not lend support for an increase in local breeding density. In addition, there is no trend of increase in number of summer observations (0–3 observations; median 0; annually June–August) during the same time period. Although the Grey-headed Woodpecker may be secretive at the breeding ground (e.g. Ehrenroth 1973), and therefore easily overlooked, we contend that the species is a rare breeder in the province of Västerbotten. We compared the observational data with climate data from the weather station Svartberget (64°14´ N/19°46´ E, 225 m.a.s.l.), characterised by a typical boreal inland climate. Only the correlation with number of days with a snow cover of more than 15 cm before 31 December in the current year was found to be significant (positively) (Table 4). An alternative "increase" scenario then is a weather-induced change in behaviour, "forcing" birds to appear at feeding tables.

All four of our radio-equipped birds disappeared within just a few days in early April before the onset of breeding. Based on the area covered by the aerial survey we calculate a displacement of the three females of more than 50 km. Long distance recruitment has been described in the Grey-headed Woodpecker from other areas, with a reported 65-km ring recovery from Finland (Cramp 1985). In the province of Västerbotten, Grey-headed Woodpeckers appear regularly along the coast of the Gulf of Bothnia from late September throughout October, and at feeding stations from October and onwards. These movements likely are of north Swedish origin as there is little evidence of movements across the Gulf of Bothnia, and the distribution range in Finland does not extend as far north as in Sweden (Väisänen et al. 1998). That at least three of our marked birds had returned to their old winter range by December 1998 is suggestive of a migratory strategy. Considering the annual pattern of the observations, one might thus hypothesise that the birds turning up in October reflects a general dispersal wave, followed by settlement for winter at reliable food sources till the onset of the breeding period.

Table 4. Spearman rank correlation coefficients for records of Grey-headed Woodpecker in the province of Västerbotten, northern Sweden 1980–1997, as related to climate data from weather station Svartberget (64°14´ N/19°46´ E) (Climate data only available from 1980). Asterisk denotes significance at the $p<0.05$ level (N=18).

Spearman rank korrelationskoefficienter för antal fynd av gråspett i Västerbottens rapportområde (regionala rapportkommittén) 1980–1997 och klimatdata från Svartberget (64°14´ N/19°46´ E). Asterisk visar signifikans på 5%-nivån.

Variable	Current year *samma år*	year before *året före*
No. of days with snow depth >15 cm from January 1 *antalet dagar med >15 snö efter nyår*	-0.175	0.123
" before December 31 *dito, före nyår*	0.494*	0.322
Mean temperature in January *Medeltemperatur i januari*	-0.048	-0.140
Mean temperature in February *Medeltemperatur i februari*	-0.188	-0.272
Mean temperature in March *Medeltemperatur i mars*	0.164	0.085
Mean temperature in April *Medeltemperatur i april*	-0.256	-0.241
Mean temperature in November *Medeltemperatur i november*	-0.007	0.115
Mean temperature in December *Medeltemperatur i december*	-0.022	-0.083

However, till we have established the extent of such movements and identified the breeding grounds this remains speculation.

Our results have at least two implications for conservation. First, the high mobility and large home range of the radio-tracked birds deserve attention and call for critical interpretation of observational data. We identify different potential error sources in observational data that have to be addressed. For example, in Västerbotten, increased bird watching activity from the 1980ies at strategic points along the coast of the Gulf of Bothnia can clearly be traced in the observational data. In addition, campaigns in media (e.g. Andersson 1992) have increased the public awareness of and interest in the Grey-headed Woodpecker. Furthermore, although we lack hard data, personal communication gives a coherent view of an increase in winter food provisioning during the time period. Second, according to the new criteria elaborated by IUCN (Gärdenfors & Lejfelt-Sahlén 1997), the Grey-headed Woodpecker may not qualify as a threatened species on the Swedish Red Data list (M. Tjernberg, pers. com.). The main reason for this would be no signs of a population decline, rather the contrary. However, till we have sufficient knowledge about the ecology we argue that it is premature to remove the Grey-headed Woodpecker from the list. There are a number of questions that have to be resolved. For example, have winter food provision compensated for losses of natural winter habitats (old forest), or even enhanced survival above precutting levels, and how does climate and habitat quality interact on survival? Data from Finland (Saari & Mikusinski 1996) suggest that winter temperature may be a major regulating factor when habitat conditions are unaltered, but we know little about the combined effect of changing climate and habitat modification.

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Sammanfattning

Vinterbeteendet hos gråspetten Picus canus *i förhållande till sentida populationstrender i Sverige*

Gråspetten *Picus canus* är en av våra allra minst kända hackspettar. Uppgifter om dess ekologi i Sverige är knapphändiga och delvis anekdotiska, och få systematiska studier har gjorts. Vi studerade

habitatutnyttjande och hemområdesstorlek hos fem gråspettar (två hannar och tre honor) vintern 1997/98 utanför Umeå, Västerbotten (63°45´N/20°0´E) med hjälp av telemetri. Det ca 250 km^2 stora undersökningsområdet utgjordes till 73% av skog, 13% odlad mark, och 14% myr och öppet vatten. Området är en mosaik av olika skogstyper och gammal skog förekommer mycket sparsamt till följd av ett intensivt skogsbruk. Grövre lövträd återfinns främst i anslutning till odlad mark och på igenväxningsmark.

Honornas hemområde under december – april omfattade ca 20 km^2 medan hannarnas var ungefär hälften så stort. Spettarna var mycket rörliga dagtid och besökte ofta matplatser belägna flera km från varandra. Under dagtid uppehöll sig de märkta gråspettarna fyra gånger närmare bebyggelse (=matplatser) än vad som kunde förväntas utifrån en slumpmässig fördelning av positioner inom hemområdet. Avståndet mellan dag- och nattpositioner var 2172 m, med längsta dokumenterade förflyttning 5802 m. Vi fann tre natträd, två i asp varav den mest utnyttjade var kvarlämnad på ett hygge.

I början av april 1998 tappade vi inom en vecka all kontakt med de sändarförsedda spettarna (fyra stycken vid denna tid) inom studieområdet. Med hjälp av pejling från flygplan återfann vi den enda hannen 12 km från den senaste positionen inom vinterhemområdet. Han uppehöll sig i samma område till åtminstone mitten av maj då sändaren hittades (tappad i samband med att stjärtpennorna ruggades). De tre honorna förblev spårlöst försvunna och beräknas på basis av flyginventeringen ha förflyttat sig minst 50 km. Den 10 oktober 1998 återfanns hannen (identifierad genom färgringar) inom det gamla hemområdet och minst två av de märkta honorna hade återvänt till vinterhemområdet i november.

En sammanställning av rapporterade fynd av gråspett i Västerbottens rapportområde (regionala rapportkommittén) 1975–1997 visar på en kraftig sentida ökning. Särskilt många fynd görs under senhösten medan sommarfynden är väldigt få (under perioden 1975–1997 har bara två häckningar säkerställts i rapportområdet). Vi jämförde årsfyndbilden med vinterklimatdata från Svartbergets klimatstation (64°14´ N/19°46´ E, 225 m.ö.h.) som har ett typiskt inlandsklimat, och fann enbart en signifikant korrelation (positiv), nämligen med antal dagar med mer än 15 cm snötäcke före nyår. Detta tolkar vi som att gråspetten, som mestadels födosöker på eller nära marken, lämnar skogen i samband med mycket snö och söker upp matplatser i anslutning till bebyggelse där de är lättare att observera.

Gråspettens rörliga beteende och stora hemområde vintertid innebär att det är lätt att överskatta det verkliga antalet individer, vidare tycks det finnas en betydande klimatbetingad mellanårsvariation i uppträdandemönstret. Genom kampanjer i media har uppmärksamheten för arten ökat , och i vårt undersökningsområde har vintermatningar blivit vanligare. Vi manar därför till försiktighet vid tolkning av populationstrender baserat enbart på inrapporterade fynd. Diskussioner förs om gråspettens status på den svenska hotlistan (den är nu kategoriserad som “sällsynt”). Ett sådant beslut bör baserar på en god kunskap om artens ekologi, vilket är tveksamt om vi har för tillfället. Ex. vis vet vi lite om relationer mellan sommar- och vinterhabitat – våra data antyder att gråspetten kan flytta långa sträckor mellan säsongshemområden, vidare vet vi lite om i vad mån fågelmatningar kompenserar för förluster av naturliga vinterhabitat, d v s gammal skog.