

Ethological observations on wintering woodpeckers, with special reference on the interactions between different species

ILKKA VIRKKUNEN

During the past few years I have had the opportunity to observe different species of wintering woodpeckers in the commune of Sysmä, Southern Häme. The present observations were made in Kuhanhaka, a wooded area of approx. $\frac{1}{2}$ km², surrounded on two sides by a lake and a small river, and on the remaining sides by a road with a few cottages. The soil is rather fertile, there are even some lindens. The main species of trees are pine on the more elevated places of the hilly terrain and grey alder and birch in the depressions. Quite a few of the smaller deciduous trees are in different stages of decaying.

Particularly in the winter 1964—1965 the area was heavily populated by Great Spotted Woodpeckers (*Dendrocopus major*). When wandering White-backed Woodpeckers (*Dendrocopus leucotos*) and Grey-headed Woodpeckers (*Picus canus*) entered the area, certain interesting interactions could be observed.

On the interactions between White-backed and Great Spotted Woodpeckers

The first time I was able to observe a White-backed Woodpecker in the area was October 4th 1964. At that time the Great Spotted Woodpeckers were just settling in the wood, and territorial defence could be observed daily. The White-backed Woodpecker, an adult female, was attracted by the decaying trees in the depressions of the woodland. She was feeding mostly from a height of $\frac{1}{2}$ to 3 metres, and also pecked frequently moss-covered stumps hidden in high grass and bushes. When she heard the call of a Great Spotted Woodpecker from a pine-covered hill about 100 metres away, she reacted instantly by flying approx. 200 metres in the opposite direction. Within a few minutes the call of another Great Spotted Woodpecker was heard, and the White-backed fled again. I had

the bird under observation for two hours, and every time it heard the call of a Great Spotted Woodpecker, a clear reaction to flee could be observed. Finally the White-backed Woodpecker was cornered in a thicket of alder by five Great Spotted Woodpeckers all calling frequently. The White-backed Woodpecker grew rather nervous, flying to and fro evidently trying to avoid the other birds. When sitting she held her neck stretched and made no attempts to feed. After approx. 20 minutes of a behaviour that can best be termed "hysterical", the White-backed Woodpecker finally fled by climbing up to the top of an alder and flew almost vertically to a considerable height and left the entire area.

As far as I could observe, the White-backed Woodpecker moved all the time in such densely covered terrain that she did not see any of the Great Spotted Woodpeckers, and reacted only to their calls. Nor was the White-backed seen by any of the Great Spotted Woodpeckers, they called only in response to each other, and perhaps to the pecking of the White-backed Woodpecker. The latter did not call at all during the whole episode.

The next occasion when a White-backed Woodpecker entered the area was October 24th 1966. In the meantime most of the pines had been cut, and consequently the Great Spotted Woodpeckers were fewer in number. This White-backed Woodpecker was a red-capped unusually pied bird, probably a juvenile. It proceeded undisturbed along the lower parts of the terrain at a pace that allowed me to follow it at usual walking speed. Finally the woodpecker came to a strip of forest projecting into a field, and after some hesitation flew over the field, which was about 300 metres wide. Reaching the other side, the White-backed was vigorously attacked by a male Great Spotted

Woodpecker holding its territory there, and was chased out of sight.

Another White-back visited the area two days later on October 26th. This bird, an adult female, moved through the forest following, as far as I could observe, exactly the same path as the juvenile two days earlier, and stopped to examine the same trees and stumps. The length of the path I was able to observe was about 1100 metres. In some cases the reasons for choosing the path were quite obvious. For instance, when the birds caught sight of a certain big birch, rich in polypores, the made an uninterrupted 60-metre flight to examine it, ignoring objects of minor interest on route. However, in most places the factors that caused the two woodpeckers to choose an identical path were too inconspicuous to be observed. The identical path also led this White-backed Woodpecker to the territory of the same Great Spotted Woodpecker, ending in an similar chase.

The events referred to above are, of course, only casual observations, and absolutely too few to allow any far reaching conclusions. However, because of the wandering habits and rarity of the White-backed Woodpecker, nothing short of casual observations can be known of its winter habits in this country. These few observations give, on the other hand, such an uniform picture of the ethological relationship of these two *Dendrocopus*-species, that I would be very astonished to find them wintering anywhere in peaceful co-existence.

The relationship of Grey-headed and Great Spotted Woodpeckers

During the winter 1964—1965 I had a pair of Grey-headed Woodpeckers under prolonged observation in the same area. I live in a cottage at the

edge of the woodland in question, and keep a constant supply of fat for birds on the fence posts outside my window. The fat is daily eaten by a number of tits, and each winter also by one female Great Spotted Woodpecker.

January 10th 1965 a pair of Grey-headed Woodpeckers unexpectedly arrived at my feeding station. The female Great Spotted Woodpecker was feeding on the fat when the male Grey-headed alighted on a birch-trunk about 4 metres from the Great Spotted, and watched with considerable interest. The Great Spotted Woodpecker did not react at all, but continued to feed. After a quarter of an hour she flew to a nearby tree, while the male Grey-headed Woodpecker which had meanwhile been climbing various trees in the immediate neighbourhood alighted to examine the same fence post. The female Grey-headed had been sitting in a birch some 100 metres away. In a few minutes she flew to a fence post covered with snow. The male Grey-headed Woodpecker fed for some time, while the female pecked the snow-cap of her fencepost and repeatedly looked at the male. Meanwhile the Great Spotted Woodpecker was sitting on a trunk less than 20 metres away.

Both Grey-headed Woodpeckers soon began to examine near-by trunks paying no attention to the Great Spotted. A few minutes later I witnessed a most astonishing demonstration of the total indifference of the two species towards each other. The Great Spotted Woodpecker was leisurely pecking a young birch, about 20 centimetres in diameter. The female Grey-headed Woodpecker alighted at the foot of the same tree, and climbed up the opposite side of the trunk passing the Great Spotted. The two birds did not react to each other in any way, neither of the birds even stretched their necks.

After half an hour the pair of Grey-headed Woodpeckers left. They returned, however, two days later, and from then on they visited my feeding station several times daily, like the Great Spotted. It took three more days before the female Grey-headed Woodpecker learned to distinguish between fat and snow atop fence posts.

The state of total indifference between the two species of woodpeckers was continuous. I was unable to discover any pecking-order between the three birds, although I experimented by putting fat on only one fence post. If any of the woodpeckers came to eat while another was having its meal, the newcomer allowed the other to finish in peace, even if it took 10 minutes or more. This was the case both when a Grey-headed came while the Great Spotted was eating, and vice versa.

The two Grey-headed Woodpeckers always moved together, on a distance varying from 2 to 200 metres. From the middle of January to the end of March they stayed within an oval area about 600 metres long and 300 metres broad. Within this area fell, totally or in part, the territories of 6 Great Spotted Woodpeckers. In the course of the winter I was able to observe innumerable occasions when the two species met at close quarters. Every event was marked by total indifference of one species towards the other. The woodpeckers behaved as if they had not seen each other at all. I never saw any trace of reaction, neither of fear nor hostility.

The fat offered by me was undoubtedly the main food for this particular pair of Grey-headed Woodpeckers, and most probably the factor that caused them to stop wandering. Other types of food were different insects, pecked out of trees, and occasionally the Grey-heads were seen feeding on the scrap-heaps of two different cottages. To-

wards the end of March they began to feed also on anthills, but only after the tops of the latter had been exposed by snow melting. Unlike the Black Woodpecker, the Grey-headed is obviously unable to find anthills under snow.

From the beginning of April the pair of Grey-headed Woodpeckers began to dwell alternatively in their winter habitat and on an island of the river Tainionjoki, approx. 1 km away. This seemed to be an ideal nesting locality with its old aspens and common alders. The woodpeckers however did not nest there but disappeared altogether. The last sighting was on April 14th.

Conclusions

It is quite obvious that neither the White-backed Woodpecker nor the Grey-headed competes markedly with the Great Spotted for food in winter-time. The first two are insectivorous all the year round, while the latter feeds on seeds of conifers. The fact that the Great Spotted Woodpecker seems to react aggressively towards the White-backed Woodpecker, but shows no such reaction towards the Grey-headed, can hardly be of any survival value. The tension between the two species of *Dendrocopus* results probably only from their essentially similar calls and plumages. The mere fact that the Great Spotted Woodpeckers present were defending their territories, while the White-backed Woodpeckers were not, is probably enough to explain why the smaller species was capable of scaring away the bigger and perhaps stronger White-backed Woodpecker. In the breeding season, when the Whitebacked is also territorial, the relationship of the two birds may well be quite the reverse. The indifference of Great Spotted and Grey-headed Woodpeckers towards each

other seems so exaggerated, that I am inclined to attribute some unknown factors to their behaviour.

It is rather interesting to see that feeding can make Grey-headed Woodpeckers settle in an area where they are definitely unable to survive on the food naturally available. This makes one wonder to what extent the Grey-headed Woodpecker and also the ecologically rather similar White-backed Woodpecker wander at all by nature, and to what extent the wandering is a result of a lack of suitable permanent winter habitat. In a Swedish edition of BREHM's "Tierleben" printed 1884 it is stated: "In mild winters a pair [of Grey-headed Woodpeckers] once settled stays all the year round in their nesting territory..." I have not seen anything like this mentioned in any modern handbook or publication. A hundred years ago there were plenty of fertile woodland pastures with decaying deciduous trees deformed by the browsing of cattle, and other types of habitats where the bigger insectivorous woodpeckers were able to winter without wandering. Few habitats like this exist any more, and it is quite possible that BREHM was right in this case in spite of his antropomorphic and erratic information on many other topics.

Selostus: Etologisia havaintoja talvehtivista tikoista, etenkin eri lajien suhtautumisesta toisiinsa.

Kirjoitus käsittelee talvehtivien valkoselkätikkojen ja harmaapäätikkojen suhtautumista käpytikkaan ja käpytikan suhtautumista mainittuihin lajeihin. Havainnot on tehty 1/2 km²:n laajuisella Kuhanhaka-nimisellä sekametsäalueella Sysmässä (EH). Talvella 1964—65 alueella talvehti erittäin tiheä käpytikkakanta. Vaeltava valkoselkätikkanaaras, joka saapui alueelle 4.10.1964, kulki matalalla pitkin pensaita ja lehtipuita kasvavia notkoja, eikä koko lähes 2 t:n havaintoaikana luultavasti nähnyt ainoakaan käpytikkaa. Tästä

huolimatta se pakeni lentäen joka kerta, kun kuuli käpytikan äänen. Viimein valkoselkätikka joutui leppätiheikköön, jota ympäröivät joka puolelta vilkkaasti ääntelevät käpytikat. Valkoselkätikka lenteli noin 20 minuutin ajan hermostuneena edestakaisin. Viimein se pakeni koko alueelta kiipeämällä lepän latvaan ja lentämällä sitten lähes kohtisuoraan ylöspäin.

Seuraavat vaeltavat valkoselkätikat tapasin alueella 24.10.1966 (juv?) ja 26.10.1966 (ad. ♀). Seurasin kumpaakin tikkaa vähän toista kilometriä, ja sikäli kuin voin havaita, ne kulkivat täsmälleen samaa reittiä ruokailun aivan samoissa lahopuissa ja kannoissa. Kumpikin joutui lopulta saman käpytikka-koiraan reviiiriin, jolloin käpytikka karkoitti ne kiivaalla lentohyökkäyksellä.

Tammikuussa 1965 alueelle ilmestyi yllättäen harmaapäätikka-pariskunta. Näin ne ensi kertaa ikkunani ulkopuolella metsänreunassa sijaitsevalla ruokintapaikallani 10.1. Harmaapäätikköjen saapessa vakinaisiin ruokavieraihini kuuluva naaraskäpytikka oli parhaillaan syömässä. Toinen harmaapäätikkoista katseli käpytikan syömistä 4 m:n päästä, mutta linnut eivät mitenkään reagoineet toistensa suhteen. Vähän myöhemmin näin harmaapään kiipeävän käpytikan ohi vastakkaiselta puolelta n. 20 cm:n läpimitaista runkoa. Nytkään kumpikaan lintu ei edes venyttänyt kaulaansa. Harmaapäätikat palasivat ruokintapaikalle 12.1. ja ruokailivat sen jälkeen useita kertoja päivittäin maaliskuun loppuun asti. Ne elivät jatkuvasti täydessä sovussa ruokailupaikan käpytikan kanssa, eikä lintujen kesken ollut havaittavissa edes mitään nokkimisjärjestystä.

Harmaapäätikat liikkuivat aina yhdessä, etäisyys vaihteli 2—200 m:iin. Ne pysyttelivät jatkuvasti noin 600x300 m:n alueella, joka käsitti ainakin osia 6 käpytikan reviiireistä. Näin talven aikana lukemattomia kertoja harmaapään ja käpytikan kohtaavan aivan lähi-etäisyydellä, ja linnut toimivat aina ikäänkuin eivät olisi nähneetkään toista lajia.

Tarjoamani rasva oli epäilemättä näiden harmaapäätikköjen pääravinto — ilmeisesti juuri se aiheutti tikkojen jäämisen paikkalinnuiksi. Muita ruokalajeja olivat puista kai-vetut hyönteiset ja joskus tunkioitten tähteet. Kun muurahaiskekojen laet paljastuivat lumen sulaessa, harmaapäätikat alkoivat kaivella myös niitä. Huhtikuun alkupuolella harmaapäätikat oleskelivat vuoroin talvi-alueellaan, vuoroin eräällä hyvältä pesimämaastolta vaikuttavalla Tainionjoen saarella n. 1 km:n päässä. Ne katosivat kuitenkin 14.4.

On hyvin omituista, että käpytikan ja valkoselkätikan suhde vaikuttaa niin erilaiselta kuin käpytikan ja harmaapään. Eräs asiaan vaikuttava tekijä on kenties se, että *Dendrocopus*-lajit muistuttavat väreiltään suuresti toisiaan.

Harmaapäätikköjen asettuminen aloilleen ruokinnan ansiosta antaa aiheen pohtia, missä määrin tämä laji ja myös valkoselkätikka vaeltavat luonnostaan, ja missä määrin vaeltaminen johtuu vain sopivan talvehtimisbiotoopin puutteesta. BREHM (1884) kirjoittaa harmaapäätikköparin leutoina talvina pysyttelevän vuoden ympäriinsä pesimäpiirissään. Asia on tosiaan voinut olla näin 100 v. sitten, jolloin hakamaat lahopuineen ja muut vastaavat biotoopit tekivät mahdolliseksi isojen hyönteissyöjätikkojen jatkuvan oleskelun samalla alueella.

References

- BREHM, A. E. 1884. Foglarnes Lif. — Autoriserad översättning och bearbetning af F. A. Smitt. Stockholm.
- CONDRADS, K. & HERRMANN, A. 1963. Beobachtungen beim Grauspecht (*Picus canus* Gmelin) in der Brutzeit. Journ. f. Ornithol. 104:205—248.

Address of the author: Tainio.