

Breeding observations of Water Pipit (*Anthus spinoletta*), Northern Weather (*Oenanthe oenanthe*) and Great Grey Shrike (*Lanius excubitor*) in a montane habitat affected by windstorm

Hniezdne pozorovania l'abtušky vrchovskej (Anthus spinoletta), skaliarika sivého (Oenanthe oenanthe) a strakoša veľkého (Lanius excubitor) v horskom prostredí postihnutom veternou smršťou

Radovan VÁCLAV

Institute of Zoology SAS, Dúbravská cesta 9, 845 06 Bratislava, Slovakia; Radovan.Vaclav@savba.sk

Natural disturbances such as wildfire, flood, earthquake or windstorm often lead to radical habitat alterations and provide interesting settings for studying animal ecological requirements and responses to habitat changes. For example, altered habitats may be no longer suitable for some species, but in turn may attract, temporarily or permanently, new species, including predators and parasites (Sousa 1984, Petraitis et al. 1989, Hobbs & Huenneke 1992).

In November 2004, a severe windstorm disturbed an extensive montane forest area in Vysoké Tatry Mts and other parts of northern Slovakia. Depending on the measures adopted in the affected area by forestry managers, more than 100 km² of the previously forested area of the Tatry National Park subsequently turned into open scrubland or montane bush-grassland. Despite the great ecological impact of the windstorm and substantial financial costs of its management and research (see Fleischer & Matejka 2007, 2008), only a handful of studies aimed at the effects on avian communities have been published from this area (Kicko 2005, Repel 2008, Repel & Kropil 2008). Here, I report the notes on the three selected bird species from the sites in Vysoké Tatry Mts. affected by the windstorm in 2004, which were not predicted to breed in the windthrown area by Kocian et al. (2005).

During June 2009, I conducted bird censuses in the windthrown area in Vysoké Tatry Mts. The visited sites included two plots located at the

foothills near Tatranské Zruby (hereafter only Zruby) and Tatranská Polianka (hereafter only Polianka; for detailed description of the plots see Fleischer & Koreň 2007). The two plots were affected by the windstorm in 2004, and the trunks of windthrown trees were extracted from both sites. Unlike Polianka, tree remains and grass cover in Zruby underwent further destruction by fire during the summer of 2005. In addition, herbaceous vegetation is mowed patchily in Zruby to promote the survival of tree plantation.

The presence and abundance of birds was sampled in each plot using the point count method (Sutherland 2008, Václav & Prokop 2008). Plots were sampled in the morning (from 6:00 to 12:00 CEST) under good weather conditions (no steady rain and strong wind) during two visits (June, 13 and 28). At each plot, twenty points were sampled with count period of 5 minutes per point. Birds were identified using visual and acoustic cues. If possible, birds were also photographed for later determination of sex and age.

Two pairs of Water Pipits *Anthus spinoletta* were observed in Zruby during June 13 (Fig. 1). The birds were detected during their feeding trips in the upper part of the windthrow area ca 60 m below the edge of the undisturbed spruce stand (1200 m a.s.l.). The adults were observed while provisioning food to the fledglings waiting on the dead branches near a tree stump. The fledglings of the two simultaneously

feeding pairs sat just about 50 m apart. The habitat patch where parents fed the fledglings was characterised by unmowed tall-herb vegetation, burnt tree stumps and branches, and plenty of boulders scattered among the tree stumps. This is the second published observation of Water Pipits from the Vysoké Tatry Mts. windthrow area. Repel & Kropil (2008) reported feeding Water Pipits from the same site (Tatranské Zruby) for May 30 and June 3, 2008. Authors conservatively interpreted their observation as parental feeding outside the nest site, suggesting adverse weather caused Water Pipits to move down to the windthrown area from higher altitudes. My observation, though made in favourable weather, does not confirm the breeding of Water Pipits in the windthrown area, but repeated observations of parental behaviour from the same site suggest that the windthrown area in Zruby could be used for breeding by Water Pipits.

Northern Wheatear *Oenanthe oenanthe* was observed on both plots (i.e. Zruby and Polianka) during both visits. Parental behaviour in one family, including young feeding, alarm calls and distraction-lure display was observed on June 13 in Zruby. Three juveniles were fed by adults on the top of a pile of burnt logs and took cover under the logs immediately after I approached them (Fig. 2). The feeding site around the pile



Fig. 1. Feeding male of Water Pipit (*Anthus spinoletta*) in a windthrow plot near Tatranské Zruby (Photo by R. Václav).

Obr. 1. Kŕmiaci samec ľabtušky vrchovskej (*Anthus spinoletta*) na polome pri Tatranských Zruboch (Foto: R. Václav).

of logs was situated within a mowed patch of herbaceous vegetation and about 15 m from the rough skid road. Interestingly, adults of Black Redstart *Phoenicurus ochruros* fed their young under a tree stump in the same mowed habitat patch only about 5 m from begging juvenile Wheatears. Further, a presumably incubating Dunnock *Prunella modularis* was flushed from unmowed tallgrass cover surrounding tree stumps and post-fire woody vegetation regrowth, ca 20 m from the juvenile Wheatears and Black Redstarts. Kocian et al. (2005) did not include Wheatear among the breeders of the windstorm-affected area in Vysoké Tatry Mts. Repeated findings of Wheatears during the breeding period as well as the observation of parental behaviours suggest that Wheatears might breed in low densities in those windthrow sites where herbaceous vegetation is maintained short by mowing and where local conditions allow nesting in cavities in or near the ground (e.g., piles of stones or logs).

As in Wheatear, the Great Grey Shrike *Lanius excubitor* was detected in both plots during both visits. A family consisting of two adults and two recently fledged juveniles (short remiges and rectrices) was observed on June 28 in Zruby. Two juveniles begged for food on a bunch of dead tree branches while one of the parents was sallying for large flying insects (Fig. 3). In Polianka, except for sporadic calls heard in the plot, two Great Grey Shrikes were observed when chased by Blackbirds *Turdus merula*. In both sites, shrikes were observed in the lowest parts of the plots (ca 1000 m a.s.l.) in patches with scattered living spruce trees and more advanced vegetation succession. In both plots, shrikes used the edge habitat near the border between the windthrow area and a forest largely unaffected by the windstorm.

Great Grey Shrike breeds in open country with sufficient number of solitary trees and shrubs from low to high altitudes, though nesting above 1000 m a.s.l. is infrequent (Cramp & Perrins 1993). My observations are in line with those reporting breeding of Great Grey Shrikes in forest clearings and glades (Cramps & Perrins 1993) and suggest that the windstorm



Fig. 2. A juvenile Northern Wheatear (*Oenanthe oenanthe*) fed by parents and pile of logs as its potential nest site in a windthrow plot near Tatranské Zruby (Photo by R. Václav).
Obr. 2. Kŕmený juvenil skaljarika sivého (*Oenanthe oenanthe*) a kopa polien ako jeho potenciálne hniezdisko v polome pri Tatranských Zruboch (Foto: R. Václav).

in the High Tatras could have temporarily created suitable breeding and foraging habitat for the species. Therefore, the list of potentially breeding species in managed windthrow habitat in Vysoké Tatry Mts. (Kocian et al. 2005) should be enlarged by adding the Great Grey Shrike.

My observations suggest that the specific habitat features of the windthrow area in Vysoké Tatry Mts., including spatial configuration of short and tall vegetation (effects of windstorm, wildfire and mowing), artificial structures (tracks, piles of logs and boulders), and food availability (invertebrates including large insects, lizards, small rodents, or the eggs and nestlings of other birds) provide suitable conditions for reproducing Water Pipits, Wheatears, and Great Grey Shrikes. Thus it points to the considerable niche breadth of the three discussed species and to their tolerance to a wide range of breeding habitats and disturbance types.

Súhrn

Počas hniezdnej sezóny v r. 2009 som v dňoch 13. a 28. 6. vykonával sčítanie vtáctva na plochách postihnutých v r. 2004 veternou smršťou. Počas sčítania som pozoroval rodičovské správanie (kŕmenie mláďat, antipredačné správanie) *Anthus spinoletta*, *Oenanthe oenanthe* a *Lanius excubitor*. Dva páry ľabtušky vrchovskej, simultánne kŕmiace mláďatá vo vzdialenosti cca 50 m od seba, boli pozorované 13. 6. 2009 v spáleniskovom polome pri obci Tatranské Zruby v nadmorskej výške asi 1200 m n. m. Páry s mláďatami sa nachádzali v polome asi 60 m pod okrajom lesa v časti, kde trávnatá vegetácia nebola vykosená. Skaljarik sivý bol počutý a vidенý v oboch sčítacích dňoch na dvoch plochách: Tatranské Zruby a Nová Polianka. Dňa 13. 6. som v polome pri Tatranských Zruboch pozoroval kŕmenie



Fig. 3. Two juveniles of Great Grey Shrike (*Lanius excubitor*) fed by one of the parents in a windthrow plot near Tatranské Zruby (Photo by R. Václav).

Obr. 3. Dva juvenilí strakoša veľkého (*Lanius excubitor*) kŕmené jedným z rodičov v polome pri Tatranských Zruboch (Foto: R. Václav).

troch čerstvo vyletených mláďat, ktoré sa zdržovali na kope spálených polien a po mojich pokusoch o priblíženie sa schovávali do jej vnútra. Trávnatá vegetácia v okolí polien, kde sa mláďatá nachádzali, bola vyžinaná za účelom ochrany sadeníc pred burinou. V tom istom biotope, len asi 5 m odiaľ kŕmil pod pňom vyhoreného smreka svoje mláďatá aj pár žltochvosta domového. Asi 20 m od tejto dvojice som z nevykosenej trávinatej vegetácie vyplašil aj pravdepodobne inkubujúcu vrchárku modrú. Ukazuje to na pomerne vysokú koncentráciu vtákov, zistenú na malej, ale habitatovo značne heterogénnej ploche. Dňa 28. 6. som pozoroval na spodnom úseku vyčisteného polomu pri Tatranských Zruboch kŕmenie dvoch vyletených mláďat strakoša veľkého. Strakoše boli pozorované aj na polome pri Novej Polianke počas útoku a prenasledovania drozdom čiernym. Strakoše sa na oboch lokalitách vyskytovali v polome, kde ostali stáť v malých skupinkách stromy smrekov, v okolí ktorých bol už značne vyrastený krovinný podrast. Moje pozorovania naznačujú, že niektoré špecifické typy habitatov, vyskytujúce sa na smršťou postihnutých miestach Vysokých Tatier môžu byť potenciálne vhodné aj pre vtáky, ktorých hniezdenie sa v tomto prostredí nepredpokladalo (cf. Kocian et al. 2005).

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The third record of breeding Citrine Wagtail (*Motacilla citreola*) in Slovakia

Tretí prípad hniezdenia trasochvosta žltohlavého (Motacilla citreola) na Slovensku

Tomasz WILK¹, Łukasz KAJTOCH² & Wojciech BIELAŃSKI³

¹Polish Society for the Protection of Birds, Odrowaza 24, 05-279 Marki k. Warszawy, Poland; tomasz.wilk@otop.org.pl

²Institute of Systematics and Evolution of Animals PAS, Sławkowska 17, 31-016 Kraków, Poland; kajtoch@isez.pan.krakow.pl

³Institute of Nature Conservation PAS, Al. Mickiewicza 33, 31-120 Kraków, Poland; bielanski@iop.krakow.pl

Citrine Wagtail is a summer visitor in Europe, wintering in southern Asia (Alström & Mild 2003). It occupies many types of open habitats with close proximity to water including tundra-like areas, sedge-mires, swampy meadows and peat-bogs (Baumanis et al. 1997, Alström & Mild 2003). It is widely distributed species, with a main breeding range in Central Asia and its European breeding population is reaching Eastern Europe. The biggest populations in Europe are located in Russia (250000–300000 pairs) and Ukraine (8300–13800 pairs). In total European population constitutes less than 25% of its global population (BirdLife 2004). However, the breeding range of this species is expanding westwards during the last decades (Alström & Mild 2003), with the first breeding attempts recently recorded in Lithuania – 1987 (Pranaitis 1990), Latvia – 1989 (Kalvans & Keišs 2003), Estonia – 1991 (Baumanis et al.

1997), Poland – 1997 (Meissner & Skakuj 1997) and Switzerland – 1997 (Maumary 1998).

In Slovakia, Citrine Wagtail is a rare vagrant, with ca 20 records up to date (D. Karaska, pers. comm.). There have been two breeding records of Citrine Wagtail in Slovakia – both in 1997: Turiec (district Turčianske Teplice) in NW Slovakia and Turňanský rybník fishpond (district Košice okolie) in SE Slovakia (Dobrota & Topercer 1998, Mošanský & Karaska 2002).

On May 16, 2009, while counting birds along the Polish-Slovak border near Lipnica Wielka village, we encountered a female of a Citrine Wagtail feeding on water plants on the Polish side of the border. Then, after ca 7 minutes of observation the bird moved to Slovak part of the area (the course of the border was clearly visible thanks to the border posts), where it was observed for another five minutes. The bird disappeared in the short vegetation covering