

## SUMMARY

### **Kajtoch Ł., Piestrzyńska-Kajtoch A. Changes, threats and proposition of protection of bird communities in the middle part of the Raba River valley (SE Poland)**

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Natural river beds with islands and scarps, also riparian forests and meadows still exist in middle part of the valley of the Raba River. During last six years the environmental conditions in the valley have changed because of river regulations and gravel extraction. Nevertheless it is still a very important place for birds. The investigations were carried out in 2002–2007 in the Raba River valley between Dobczyce and Bochnia, mainly in its middle part near the mouth of the Stradomka Stream. Also data collected in previous research in 2000–2001 were included. Study was focused on selected breeding birds (i.e. rare, endangered or typical of river valleys), changes in their populations caused by human activity, and looking for places important for birds. A total of 186 species was recorded, 123–127 of them being bred or possibly bred. Most of these species inhabited river channels, riparian forests and gravel pits. Five breeding or possibly breeding species (*Milvus migrans*, *Charadrius hiaticula*, *Sterna albifrons*, *Chlidonias hybridus* and *Lanius minor*) and 14 non-breeding ones are very rare and endangered in Poland (included into the Polish Red Data Book). Fourteen breeding and 12 non-breeding species are listed in Appendix I of the EC Birds Directive. For 2 species (*S. hirundo* and *Dendrocopos syriacus*) the valley of the Raba River is an important breeding place in Poland. Many migrating and wintering species were observed in the valley (among others *Egretta garzetta*, *Aythya nyroca*, *Milvus milvus*, *Falco vespertinus*, *S. caspia*, *Asio flammeus*, *Eremophila alpestris* and *Anthus cervinus*) but most of birds stopped during migration on the Dobczyce Reservoir situated near the studied area. Declines of populations, especially of plovers, terns, Sand Martins and Kingfishers, were observed after river regulation in 2002–2003. Also gravel extraction caused reduction of number of water birds. Some species have even stopped to breed (*Anas crecca*, *Gallinago gallinago* and *Ch. hybridus*). Third important factor which influenced on breeding birds was water release from the Dobczyce Reservoir during breeding season which destroyed nests in flooded areas in 2004 and 2005. The most important for protection of birds in this valley is to limit gravel extraction, river bed engineering and releasing water from dam reservoir. Also reclamation of post-mining areas (i.e. raising islands in gravel pits and protect them) might create places suitable for breeding. Areas around mouths of the streams Stradomka and Krzyworzeka including river channel network with riparian forest should be protected by creation sites of ecological interest. The segment of the Raba River between the Dobczyce Reservoir and Pierzchów was proposed in 2005 as the special protection area of the Natura 2000 network.