

Conservation and Ecology Of Woodpeckers. Foreword to the 8th International Woodpecker Conference Proceedings

Authors: Walters, Eric L., Robles, Hugo, Czeszczewik, Dorota, Perktas, Utku, and Pasinelli, Gilberto

Source: Acta Ornithologica, 55(1) : 61-62

Published By: Museum and Institute of Zoology, Polish Academy of Sciences

URL: <https://doi.org/10.3161/00016454AO2020.55.1.006>

BioOne Complete (complete.BioOne.org) is a full-text database of 200 subscribed and open-access titles in the biological, ecological, and environmental sciences published by nonprofit societies, associations, museums, institutions, and presses.

Your use of this PDF, the BioOne Complete website, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at www.bioone.org/terms-of-use.

Usage of BioOne Complete content is strictly limited to personal, educational, and non - commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

BioOne sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

Conservation and ecology of woodpeckers. Foreword to the 8th International Woodpecker Conference Proceedings

Eric L. WALTERS¹, Hugo ROBLES², Dorota CZESZCZEWIK³, Utku PERKTAS^{4,5} & Gilberto PASINELLI^{6,7}

¹Department of Biological Sciences, Old Dominion University, Norfolk, Virginia 23529, USA

²Evolutionary Ecology Group (EVECO), University of Antwerp, Campus Drie Eiken, Universiteitsplein 1, BE-2610, Wilrijk, BELGIUM

³Siedlce University of Natural Sciences and Humanities, Institute of Biological Sciences, ul. B. Prusa 14, 08–110 Siedlce, POLAND

⁴Department of Biology (Biogeography Research Lab, Zoology Section), Faculty of Science, Hacettepe University, 06800, Beytepe, Ankara, TURKEY

⁵Department of Ornithology, American Museum of Natural History, Central Park West at 79th Street, New York, New York 10024, USA

⁶Swiss Ornithological Institute, Sempach, SWITZERLAND

⁷Department of Evolutionary Biology and Environmental Studies, University of Zurich, Zurich, SWITZERLAND

Scientific Committee, 8th International Woodpecker Conference, Białowieża, Poland

Walters E. L., Robles H., Czeszczewik D., Perktas U., Pasinelli G. 2020. Conservation and ecology of woodpeckers. Foreword to the 8th International Woodpecker Conference Proceedings. *Acta Ornithol.* 55: 61–62. DOI 10.3161/00016454AO2020.55.1.006

Woodpeckers vary widely in their life history characters. Many think of woodpeckers as denizens of deep, dark forests, probing among rotting logs and digging for grubs. However, woodpeckers are not only found in forests but also occur in deserts, open fields, urban areas, and farmland. Woodpeckers as a group are tremendously diverse and occupy habitats on all continents except Australia and Antarctica (Winkler et al. 1995). This taxonomic group has traditionally been thought of as keystone species (Daily et al. 1993; Bednarz et al. 2004) or ecosystem engineers (Robles & Martin 2014) within some forests of North America. As studies from other parts of the world have demonstrated, the role that woodpeckers play varies widely. What has been portrayed for several forests in North America is very different elsewhere. Recent work has demonstrated, for example, that many taxa that rely on cavities in some forests of South America and Eurasia use mostly cavities created by decay; often mediated by fungi, insects, or weather; rather than being created by woodpeckers (Cockle et al. 2011).

From 16 to 19 March 2019, the 8th International Woodpecker Conference was held in Białowieża, Poland. This conference with the theme „Conservation & Ecology of Woodpeckers” gathered together 108 participants from 4 continents and

21 countries. The scientific program consisted of 55 contributions, including 4 plenary talks, 26 other oral contributions (with sessions in conservation, cavity ecology, habitat use, evolutionary ecology and population biology, climate and weather effects, and space use and movement ecology), 25 posters, a workshop that focused on the basics of ecological niche modelling and phylogeography, and a roundtable discussion on the threats to the Białowieża Forest. The plenary lectures were given by esteemed researchers: Tomasz Wesolowski spoke about the local importance of the Białowieża Forest to woodpeckers; Kristina Cockle summarised long-term studies on nest web communities at Riske Creek, British Columbia, Canada and the role of woodpeckers and wood decay in predicting hole-nesting in the Atlantic Forest of Argentina; Jérôme Fuchs discussed current understanding of phylogenetic relationships among the Picidae, based on new genetic work; and Victoria Saab described her long-term work on forest disturbances and the role of fire, bark beetles, and timber harvest in western forests of North America.

The following special issue features a subset of papers that materialised out of the woodpecker conference. Two of the studies focus on global woodpecker biodiversity hotspots and the relative

importance of medium- to large-sized woodpeckers. Kumar et al. (2020) describe ten of the seventeen species of woodpeckers found in sub-Himalayan forests of India. They highlight the reliance of larger species on larger diameter trees and emphasise the importance of managing such forests for larger, more mature trees to maintain the diverse communities that are currently under threat. Similarly, Lammertink et al. (2020) describe the nesting habits of three species of Atlantic Forest woodpeckers in Argentina and conclude that the globally threatened Helmeted Woodpecker *Celeus galeatus* would benefit from the protection of larger trees and more intact mature forests. Besides the size of trees, Aszalós et al. (2020) demonstrate how deadwood plays a critical role in maintaining suitable habitat for woodpeckers that live in oak-dominated forests of Hungary. The work described by Schaaf et al. (2020) highlight the importance of snags to small- and medium-sized woodpeckers of the subtropical piedmont forests of northwestern Argentina. The largest species, the Cream-backed Woodpecker *Campephilus leucopogon*, requires live trees.

Stański et al. (2020) discuss how male Great Spotted Woodpeckers *Dendrocopos major* forage higher in trees, and among thinner branches, than females in the Białowieża National Park. Other papers in this issue highlight the role of behaviour in woodpecker life history. Turner (2020) describes how Middle Spotted Woodpeckers *Dendrocoptes medius* in France use drumming to communicate with mates, but with reduced amplitude. This modification of the typical territorial role of drumming is an example of the variability in behaviour among picids globally. Finally, Campion et al. (2020) address the utility and potential bias of using GPS tagging to delineate home range in a medium-sized woodpecker, the Lilford Woodpecker *Denrocopos leucotos lilfordi*, found within the Spanish Pyrenees. Many management recommendations are based on older estimates of space use, and more accurate estimates of habitat use have important implications for endangered subspecies like the Lilford Woodpecker.

Despite the great strides that have been made in woodpecker research, the major issue facing picids globally is the loss of habitat. The 8th International Woodpecker Conference highlighted the importance of the Białowieża Forest to both the rich history of Poland but also globally as a UNESCO World Heritage site. Conference attendees signed a resolution affirming the group's support that the Białowieża Forest represents the

largest remnant of lowland old-growth forest in Europe and that it should be protected based on the irreplaceable biodiversity that it yields. In particular, participants were concerned that forestry operations continue in much of the Polish portion of the forest and thus pose a risk to both sustainable development of local communities and the natural processes inherent within the intact forest. As such, signees urged Polish, European, and international entities to protect this unique world heritage site for current and future generations. Without the strong support of forest managers, researchers, and citizens; many of the species described in this special issue may also face conservation threats as demand for land increases over time.

REFERENCES

- Aszalós R., Szigeti V., Harnos K., Csernák S., Frank T., Ónodi G. 2020. Foraging activity of woodpeckers on various forms of artificially created deadwood. *Acta Ornithol.* 55: 63–76.
- Bednarz J. C., Ripper D., Radley P. M. 2004. Emerging concepts and research directions in the study of cavity-nesting birds: keystone ecological processes. *Condor* 106: 1–4.
- Campion D., Pardo I., Elósegui M., Villanua D. 2020. GPS telemetry and home range of the White-backed Woodpecker *Dendrocopos leucotos*: results of the first experience. *Acta Ornithol.* 55: 77–87.
- Cockle K. L., Martin K., Wesolowski T. 2011. Woodpeckers, decay, and the future of cavity-nesting vertebrate communities worldwide. *Front. Ecol. Environ.* 9: 377–382.
- Daily G. C., Ehrlich P. R., Haddad N. M. 1993. Double keystone bird in a keystone species complex. *Proc. Nat. Acad. Sci.* 90: 592–594.
- Kumar R., Shahabuddin G., Kumar A. 2020. Foraging niche differentiation among sympatric woodpecker species in forests of north-western India. *Acta Ornithol.* 55: 88–100.
- Lammertink M., Fernández J. M., Cockle K. L. 2020. Comparison of nesting ecology of three co-existing Atlantic Forest woodpeckers reveals narrow specialization in the Helmeted Woodpecker *Celeus galeatus*. *Acta Ornithol.* 55: 101–110.
- Robles H., Martin K. 2014. Habitat-mediated variation in the importance of ecosystem engineers for secondary cavity nesters in a nest web. *PLoS ONE* 9: e90071.
- Schaaf A. A., Ruggera R. A., Vivanco C. G., Tallei E., Benavidez A., Albanesi S., Rivera L. O., Politi N. 2020. Tree use, niche breadth and overlap for excavation by woodpeckers in subtropical piedmont forests of northwestern Argentina. *Acta Ornithol.* 55: 111–119.
- Stański T., Czeszczewik D., Stańska M., Walankiewicz W. 2020. Foraging behaviour of the Great Spotted Woodpecker *Dendrocopos major* in relation to sex in primeval stands of the Białowieża National Park. *Acta Ornithol.* 55: 120–128.
- Turner K. 2020. The structure and function of drumming in the Middle Spotted Woodpecker *Dendrocoptes medius*. *Acta Ornithol.* 55: 129–138.
- Winkler H., Christie D. A., Nurney D. 1995. Woodpeckers: an identification guide to the woodpeckers of the world. Houghton Mifflin Company, New York, NY.