

Editorial

Editorial for Special Issue “Biodiversity and Management of Temperate Floodplain Forests”

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Floodplain forests are considered as key forest ecosystems in lowland regions of the temperate climate zone [1]. Despite a long-term history of human impacts [2], floodplain forests are considered as biodiversity hotspots in cultural landscapes with extraordinary monetary value of habitats [3]. Ecosystem services of floodplain forests are manifold, extending from flood risk management to maintaining biodiversity, supporting sustainable management of water resources, and timber production [3]. The ecosystem functions of these forests relate to the presence of very large trees (e.g., oaks) as determinants of forest structure [4]. Unfortunately, the floodplain forests' ecosystem function has been disturbed due to the modification of stream channels or hydroelectricity development and flood protection structures. The ecological role of floodplain forest ecosystems in the landscape is emphasized in the context of global climate changes because of the flood event frequency and extent rising in landscapes along lowland rivers [5].

This Special Issue of *Forests* deals with these important ecosystem functions of floodplain forests from a worldwide perspective. The authors of papers in this Special Issue filled some scientific knowledge gaps related to the better understanding of floodplain forests' functions and their restoration and the development of sustainable forest management practices, including biodiversity conservation of these unique forest ecosystems.

Some papers presented an ecological role of abiotic drivers in floodplain landscapes, such as the importance of artisanal small-scale mining activities as a driver in floodplain landscapes within the frame of the awareness of uncertainties in environmental assessment of land cover data [6]. Other important studies in this Special Issue deal with the modeling of forest windthrow disturbance as a basis for recommendations for sustainable forest management or applying knowledge on plant and bird diversity of floodplain habitats to the economic evaluation of sustainable forest management strategies.

The authors of papers in this Special Issue aimed at the building of bridges between forest sciences and forest management practices via the application of sustainability principles to multifunctional forestry in cultural landscapes.

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References

1. Schnitzler, A.; Hale, B.W.; Alsum, E. Biodiversity of floodplain forests in Europe and eastern North America: A comparative study of the Rhine and Mississippi Valleys. *Biodivers Conserv* **2005**, *14*, 97–117. [[CrossRef](#)]
2. Machar, I.; Vozenilek, V.; Simon, J.; Pechanec, V.; Brus, J.; Fulnecek, P.; Vitek, T. Joining of the historical research and future prediction as a support tool for the assessment of management strategy for European beech-dominated forests in protected areas. *Nat. Conserv.-Bulg.* **2017**, *22*, 51–78. [[CrossRef](#)]
3. Pechanec, V.; Machar, I.; Sterbova, L.; Prokopova, M.; Kilianova, H.; Chobot, K.; Cudlin, P. Monetary Valuation of Natural Forest Habitats in Protected Areas. *Forests* **2017**, *8*, 427. [[CrossRef](#)]
4. Salekl, L.; Sivacioglu, A.; Topacoglu, O.; Zahradnile, D.; Jerabkova, L.; Machar, I. Crowns of Old Remnant Oak Standards. *Fresenius Environ. Bull.* **2017**, *26*, 4023–4032.
5. Machar, I.; Vozenilek, V.; Kirchner, K.; Vlckova, V.; Bucek, A. Biogeographic model of climate conditions for vegetation zones in Czechia. *Geografie* **2017**, *122*, 64–82. [[CrossRef](#)]
6. Brus, J.; Pechanec, V.; Machar, I. Depiction of uncertainty in the visually interpreted land cover data. *Ecol. Inform.* **2018**, *47*, 10–13. [[CrossRef](#)]