
Poster Session 2 – Conservation and Ecosystem Services

97 When will beavers build a dam? A study in Belgian lowland

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Beavers have returned to Belgium after more than 150 years of absence and are now spreading along waterways in the densely populated landscape. While their presence is applauded for nature conservation reasons, there is also a serious concern about the damage beavers may cause by their burrowing activity, by destroying crops or by constructing dams that may cause flooding upstream. Beavers, however, do not always build dams and in this study, we investigated under which conditions they do. We took measurements in 28 beaver territories in Flanders in 2013, 13 of them without dams and 15 with one or more dams. We measured river water depth in Summer, river width, bank height, stream velocity and distance to woody vegetation. Of these, water depth turned out to be the most important one and in fact the best predictive model for dam construction was one in which water depth was the only variable. A significant logistic regression showed that if river depth in late Summer was less than 68 cm, probability for dam construction was high, of it was more than 68 cm, dam building was unlikely. If a dam was constructed, water level rose on average 47 cm, indicating a risk for flooding if bank height was less than that. These results provide a simple tool to assess the probability of floodplain inundation by beaver dam building, that can help to identify where beavers may constitute a real risk for flooding in the densely populated Flemish landscape where often agriculture, houses and industry are situated close to rivers.

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Jens Jacob, Jana Eccard (Editors)

6th International Conference of Rodent
Biology and Management
and
16th Rodens et Spatium

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Book of Abstracts



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