## POST-DAMMING FLOODPLAIN INUNDATION AND FISHERIES IN THE VOLGA RIVER (RUSSIA)

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Periodic flooding plays a key role in the ecology of river floodplains. Damming of rivers affects the flow regime and consequently flooding of the floodplain. The Volga River, the largest river in Europe, has a regulated flow regime after the completion of a cascade of dams in 1960. Here, we present the effects of damming on long-term discharge variability and flood pulse characteristics in the Volga-Akhtuba floodplain near Volgograd (southern Russia). In addition, we evaluate the effects of the altered flood pulse on ecosystem functioning and commercial fish yield dynamics. Our results indicate that both flood pulse and fish populations of the Volga-Akhtuba floodplain have varied considerably over the past decades. After damming, annual maximum peak discharges have decreased, minimum discharges increased, but average discharges remained similar pre- and post-damming. Moreover, due to bed level incision of over one and a half meter, a higher discharge is needed to reach bankfull level and inundate the floodplains. However, despite the significantly altered hydrological regime of the Volga River and following morphological changes, the current discharge management provides significant spring flooding, preserving ecohydrological floodplain functioning. We found a strong correlation of commercial fish yield with flood magnitude, suggesting increased fish recruitment and better feeding conditions during high floods. A further understanding of the empirical relations between the Volga discharge and fish catch data requires a more detailed analysis of the spatio-temporal development of the spawning and nursery habitats within the floodplain, and how these depend on the annual flood pulse.