

WET HABITATS ALONG RIVER IPOLY (HUNGARY) IN 2000 (EXTREMELY DRY) AND 2010 (EXTREMELY WET)

BIOTOPY POZDĹŽ RIEKY IPOLY (MAĎARSKO) V ROKU 2000 (EXTRĚMNE SUCHÝ) A ROK 2010 (EXTRĚMNE VLHKÝ)

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Our study presents habitat maps from two years in which precipitation was extreme – 2000 was one of the driest years while 2010 was one of the wettest years in the Carpathian Basin. The study area is in northern Hungary, beside the River Ipoly, in the municipality of Drégelypalánk, with a smaller proportion in Hont and Ipolyvece. Its extent is 621.5 hectares. During the field survey habitat polygons were recorded using a hand-held GPS (e-Trex Legende Garmin) device, with aerial photographs helping to identify the exact location. Processing of the data, establishment of a database of the mapped area, and editing of maps were performed using ESRI ArcView GIS 3.2 and ESRI ArcGIS 10.0. Maps were compiled in the Unified National Projection System of Hungary.

The maps, at a scale of 1:15,000, show vegetation and habitats of the study area. They display changes occurring within habitats, in habitat types determined by their nature, composition and changes that occurred along their polygon borders. Large vegetation changes caused by the changes in precipitation over the time period can be tracked with the maps which display habitat changes. The area of wetlands increased significantly, whilst areas of meadow and marsh decreased and in their place new complex aquatic habitat forms appeared. The number of habitat complexes also increased because of the presence of water linked to habitat types and fragments. In the humid period, a sustained floodplain groundwater-level increase was observed that resulted in a mosaic appearance in habitats, but led to species degradation.

Keywords: vegetation map; habitat mapping; habitat change

