

The Tyrolean Lech – A comeback in two acts.

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The Lech runs from Austria to Germany, where it joins the Danube. In Tyrol, Austria, the river has remained relatively untamed and wild. The majority of the rivers in the Northern Alps experienced a high degree of modification. Thus the Tyrolean Lech is one of the last refugia for highly specialized riverine species such as the dwarf bulrush (*Typha minima*) and the speckled grasshopper (*Bryodemella tuberculata*). Plans to construct a hydropower plant on a tributary failed because of public resistance and the Tyrolean Lech and its tributaries were designated as Natura 2000 site. Although the Tyrolean Lech comparatively natural river, parts of it have been modified. Sediments barriers at its tributaries, groynes and riprap structures as well as a hydropower plant in the downstream section initiated the incision of the river bed. The incision caused a loss of gravel-dominated pioneer habitats and the reduction of the formerly wide-spread side arm system. In order to restore the natural fluvial dynamics the LIFE-funded river restoration project *Tiroler Lech – Wild river landscape of the Tyrolean Lech* was implemented from 2001 to 2007. A second restoration project *Life Lech – Dynamic River System Lech* started in 2016. For the planning of species protection measures within the frame of this project, researchers at the Institute of Ecology of the University of Innsbruck developed a decision support system (DSS). The DSS uses a multimeric evaluation to identify high priority species for the conservation management of the Natura 2000 site. High scoring species such as the dwarf bulrush are target species of the restoration panning and will be taken into consideration for the management plan of the Natura 2000 site.