



## **FLOODPLAIN REVEGETATION AND RIVER BASIN RESTORATION**

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### **Abstract**

During the modern history the ability of plant roots to consolidate and strengthen the soil was exploited twice in France: once in 1867 by Joseph Monier who created the reinforced concrete, and then in 1962 by Henry Vidal who created structured soils. The paper presents the some results obtained on the ecological protection of floodplain in major riverbeds. The aerodynamic modeling represents an efficient, economic and easy way to work with. The main condition of successful experiments is to respect the similitude criteria. The benefits of the biological reinforcement consist mainly in the followings: maintaining the river course and protection of the dikes against erosion; acting as physical barriers against surface flows and retain the solid particles eroded from the neighborhood territories and preserving watercourse quality. In depth the roots of plants improve the soil structure by reinforcing.

*Keywords:* floodplain, revegetation, soil reinforcement modeling

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