



An appraisal of different models for the river-vegetation mutual interactions

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In the recent past the ecology and river hydrology communities (which, in principle, have different both interests and aims) have started joining their efforts toward a comprehensive vision of the real complexity of fluvial and riparian ecosystem dynamics. Several models have been proposed to describe the interactions between the river and the riparian environment at different spatial and temporal scales. Such models tackle the problem with respect to both arid and humid regions from a conceptual, analytical, numerical, descriptive or observational viewpoint. In the context of our scientific interests, we address here the state of the art of existing models aiming at a comprehensive classification and a critical appraisal with specific reference to the problem of modelling the floodplain vegetation dynamics of an impounded alpine river system at the riverine corridor scale.