

# Physico–Chemical Characteristics and macroinvertebrate Communities of the Caher River

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## Abstract

A study of the physico–chemical characteristics of the Caher River, Co. Clare, was carried out at two sites between October 1999 and April 2000. The Caher is an alkaline system with pH values in excess of 8.0. Phosphate and nitrogen concentrations showed no evidence of eutrophication. Conductivity values were at the lower end of the range expected for a limestone region. Calcium concentrations were relatively high, and precipitation of calcium carbonate was evident for much of the lower course of the river. However, other ions such as magnesium and potassium were present in low concentrations when compared to other limestone areas. A total of 80 macroinvertebrate taxa were recorded. The upstream site (Site 1) supported a more diverse community. The compacted nature of the substratum at Site 2, located downstream of Site 1, would restrict habitat availability and preclude the establishment of some interstitial dwelling fauna. The macroinvertebrates recorded in the Caher were, for the most part, fairly typical of clean–water rivers in Ireland, being represented by taxa that are relatively common throughout the island. One noteworthy exception was the unusually high abundance of the plecopteran *Dinocras cephalotes*. This predatory species is uncommon in Ireland and, even where it occurs, the numbers present are generally low. The Caher River, with its excellent water quality, has high ecological status, deserving special protection as a biodiversity refuge.