

Philippart, J. C.

0

GEOGRAPHICAL DISTRIBUTION AND POPULATION STATUS OF CHONDROSTOMA NASUS IN THE RIVER MEUSE CATCHMENT AREA

Address:

Laboratory of Fish Demography and Aquaculture, Zoological Department of the University of Liege, 22 quai Van Beneden, B-4020, Belgium

C. nasus is not native to the R. Meuse basin (France, Belgium and Netherlands) where it established in the early 1800 following the connection by artificial waterways of western and eastern European river systems. At that time, C. nasus was recorded in the R. Meuse and its tributaries and in the R. Schelt near Anvers.

C. nasus is currently extinct in the Schelt basin. It is still occurring in the R. Meuse and several tributaries (especially the R. Ourthe, R. Semois and R. Lesse in the Belgian Ardennes) belonging to the grayling and barbel zones according to Huet's classification. Our research on the status of C. nasus populations reveals two opposite trends: i) a recovery of C. nasus in stretches of the canalized navigable R. Meuse which were previously (in the fifties and sixties) polluted by industrial wastes and ii) a demographic decline of C. nasus in tributaries which supported dense populations in the fifties-sixties. Causes of this demographic decline of C. nasus in the Belgian barbel and grayling streams are likely to be linked with factors like water quality (eutrophication), loss or alteration of key habitats (spawning and nursery grounds) and overexploitation by anglers. Among the rheophilic and lithophilic cyprinids composing the barbel zone community (B. barbus + C. nasus + L. cephalus + L. leuciscus + A. bipunctatus), C. nasus has suffered the most important population decrease during the two last decades.

Current efforts aiming at stopping the decline of C. nasus in the Belgian R. Meuse basin include: i) studying the ecology of the species, focusing mainly on the habitat requirements for spawning, first summer growth and wintering (importance of cover features), ii) opening the migration routes by building new efficient multispecies fish passes, iii) stocking streams with hatchery reared fingerlings of local origin and iv) improving angling regulations.