

Gyrodactylids parasitizing salmonids in Brittany and Western Pyrénées water basins: epidemiological features of infection and species composition



In the first part of a national survey of gyrodactylid parasites, with spécial référence to *Gyrodactylus salaris*, funded by French administrations, two water basins harbouring Atlantic salmon were sampled : Brittany (7 rivers and 3 restocking farms) and the Adour basin in the Western Pyrénées (6 rivers and 1 restocking farm). 535 salmonids were collected and examined for *G. salaris* and other gyrodactylid species investigations. Identification procedure was performed by morphological examination and molecular analysis. Both methods led to the same conclusions with a high degree of consistency : *Gyrodactylus salaris* was declared absent from the examined samples and, therefore, can be considered absent from the sampled water basins with a high level of confidence (over 99.4%). 99.4 %) . A new *Gyrodactylus* species was identified first by morphological examination and confirmed by molecular analysis. This new species is named *Gyrodactylus teuchis* (CUNNINGHAM et al., in prep.). T his result has been confirmed by an independent study performed in t h e same time (Dr. C.O. CUNNINGHAM, personal communication). *G. teuchis* shares several morphological and molecular characters with *G. salaris*. The wrong identification of the latter in France by JOHNSTON et al. (1996) probably originates in their similarities . The absence of *Gyrodactylus salaris* in both sampled régions, displaying optimal conditions for the parasite's maintenance, leads us to deny its current presence in France. Atlantic salmon parr, mainly parasitized by *G. derjavini*, are not infected by *G. salaris* in Brittany and Western Pyrénées. Rainbow trout and brown trout, for which prevalence of gyrodactylids is significantly higher than on salmon parr, are suitable hosts for *G. teuchis*. This wild fish survey will be extended to other parts of France and probably to farmed salmonids. In t he same way, the actual status towards *G. salaris* in whole continental Europe needs to be clarified. Biological characteristics of *G. teuchis*, particularly, its specificity, population dynamics and pathogenesis towards the main host species should be investigated. Besides, further work should be carried out to improve the reliability and efficiency of both identification methods.

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