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## ATTI CONVEGNO

## FIRST DETECTION OF *LACTOCOCCUS FORMOSENSIS* SUBSP. *FORMOSENSIS* IN RAINBOW TROUT (*ONCORHYNCHUS MYKISS*) IN EUROPE

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*Lactococcus garvieae*, *Lactococcus petauri* and *Lactococcus formosensis* are recognised as etiological agents of piscine lactococcosis, a condition that has been affecting Italian aquaculture since the early 1990s and has been associated with considerable economic impact. To our knowledge, this is the first report of *L. formosensis* subsp. *formosensis* in farmed rainbow trout (*Oncorhynchus mykiss*) within Europe. In 2024, seventy trout were examined in the Piedmont region (Northern Italy) as part of a routine health surveillance programme. Bacteriological and molecular investigations revealed *L. garvieae* in four specimens (5.7%), while *L. formosensis* subsp. *formosensis* was detected in a single fish showing mild clinical signs, confirmed through 16S–23S rRNA ITS sequencing. Phylogenetic reconstruction placed the isolate within the *L. formosensis* lineage, distinct from both *L. garvieae* and *L. petauri*. Comparative virulence profiling indicated closer similarity between *L. petauri* and *L. formosensis* subsp. *formosensis*, although the latter showed a unique biochemical pattern and showed high susceptibility to antimicrobial agents commonly employed in aquaculture. These findings underscore the importance of continued monitoring and the application of advanced diagnostic approaches to better understand the epidemiological significance of this bacterium and to inform potential preventive and control strategies.

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