

## Microplastic Pollution in *Leuciscus baicalensis* and *Rutilus rutilus*: An Impending Danger to Aquatic Biodiversity in Western Siberian Riverine Fishes

### **Abstract:**

Microplastic pollution is increasingly recognized as a significant threat to aquatic ecosystems and human health, prompting growing concern among environmental scientists. As a response, this literature review aims to provide a comprehensive overview of the existing research on microplastic pollution, specifically focusing on *Leuciscus baicalensis* and *Rutilus rutilus* in Western Siberian Riverine ecosystems. Previous research findings have shown that items of microplastic found in gastrointestinal tract with micro-fragment been the most abundant compared to sea fish. The study delves into the extent of microplastic contamination, striving to quantify the levels of microplastics present in these fishes and to elucidate their morphology and sources within the species. Recent studies also proved that less than 0.150mm size of microplastics is absorbed in the intestine, underscoring the urgent need for a thorough investigation of their impact on both the aquatic environment and potential transfer through the food chain to human consumers. By emphasizing the potential long-term implications of plastic accumulation in these delicate ecosystems, the review underscores the critical need for effective conservation and management strategies. This analysis represents a crucial step in fostering a deeper comprehension of the threats posed by microplastic contamination, ultimately contributing to the preservation and restoration of Western Siberian Riverine ecosystems and their associated aquatic biodiversity. Furthermore, the research aims to provide insights into the development of targeted measures to mitigate the impacts of microplastic pollution, thereby fostering the conservation of these vital aquatic environments.

**Keywords:** Aquatic Ecosystems; Environmental Conservation; *Leuciscus baicalensis*; Microplastic Pollution; *Rutilus rutilus*; Western Siberia