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Orientation: Sustainable use of marine resources Specialization Area: Aquaculture Research Area: 2.13: Pathology and immunology of organisms in culture

PhD project: Morphopathological study of the interaction between the Freshwater Pearl Mussel and the Atlantic salmon

Supervisors: Dra. Mª Isabel Quiroga Berdeal (Universidade de Santiago de Compostela) Dr. Roberto Bermúdez Pose (Universidade de Santiago de Compostela) Dra. Mª Paz Ondina Navarret (Universidade de Santiago de Compostela)

Summary: This Ph.D. Thesis arose with the aim to understand and provide solutions for culturing the endangered Freshwater Pearl Mussel during its parasitic stage in the Atlantic salmon. To optimize the production of young mussels and preserve fish health, the morphopathological pattern of glochidiosis was characterized during the early and late stages of glochidiosis and related to the larval development and metamorphosis of *Margaritifera margaritifera*, from glochidium to post-larva. The results here enclosed contribute to a better understanding of the pathogenesis of glochidiosis that may aid to manage the parasitic stage during the culture of freshwater mussels.