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Nota di contenuto	Atlantic Salmon Ecology; Contents; Foreword; Preface and acknowledgments; Reviewers; Contributors; Glossary; 1: Aquatic Nomads: The Life and Migrations of the Atlantic Salmon; 1.1 Introduction; 1.2 Atlantic salmon life cycle; 1.3 Geographic distribution; 1.4 Smolt and post-smolt migration - from juvenile life in the river to feeding in the ocean; 1.4.1 Downriver smolt migration; 1.4.2 Marine post-smolt migration; 1.5 Spawning migration - from feeding in the ocean to spawning in the river; 1.5.1 Returning from ocean feeding grounds and entering the rivers; 1.5.2 Upstream river migration 1.5.3 Factors affecting the upstream river migration1.6 Kelt migration - after spawning and during outward migration; 1.7 Homing and orientation mechanisms; 1.8 Conclusion and future research needs; References; 2: Reproductive Ecology: A Tale of Two Sexes; 2.1 Introduction; 2.2 Reproductive strategies: age and size at maturity; 2.2.1 Among populations; 2.2.2 Within populations and the evolution of alternative reproductive phenotypes; 2.2.3 Anadromous and resident phenotypes; 2.3 Reproductive investment; 2.3.1 Differences between the sexes; 2.3.2 Differences between reproductive phenotypes 2.3.3 Survival costs2.4 Breeding behaviour and success; 2.4.1 Females; 2.4.2 Anadromous males; 2.4.3 Mature male parr; 2.5 Reproductive

success through effects on the next generation; 2.5.1 Egg and larvae development; 2.6 Maternal influences on offspring; 2.6.1 Egg size; 2.6.2 Spawning time; 2.6.3 Spawning location and consequences for population productivity; References; 3: Freshwater Habitat Requirements of Atlantic Salmon; 3.1 Introduction; 3.2 The fundamental niche and freshwater habitat requirements; 3.2.1 Scope for growth; 3.2.2 Trading off growth and survival 3.3 Realised niche and observed habitat use 3.4 Large-scale determinants of Atlantic salmon habitat; 3.5 Managing Atlantic salmon freshwater habitats; 3.5.1 General principles; 3.5.2 Optimum habitat-production landscapes; 3.5.3 Management strategies; 3.5.4 Reference conditions and habitat management; 3.5.5 The future; References; 4: The When, What and Where of Freshwater Feeding; 4.1 Introduction; 4.2 Diet selectivity; 4.3 Drift vs. benthic feeding; 4.4 Ontogenetic changes in diet; 4.4.1 Fry; 4.4.2 Parr; 4.4.3 Smolt; 4.4.4 Adults; 4.5 Temporal feeding patterns; 4.5.1 Day vs. night 4.5.2 Season 4.6 Spatial feeding patterns; 4.6.1 Microhabitat scale; 4.6.2 Mesohabitat scale; 4.6.3 Habitat scale; 4.7 Interspecific food resource partitioning; 4.8 Concluding remarks and future perspectives; References; 5: Dietary Life-Support: The Food and Feeding of Atlantic Salmon at Sea; 5.1 Introduction; 5.2 Post-smolt nearshore feeding; 5.2.1 Geographical and annual differences; 5.3 Open ocean feeding of post-smolts; 5.3.1 Post-smolt diet in the open ocean; 5.4 Open ocean feeding of pre-adults and adult pre-spawning salmon; 5.4.1 Northwest Atlantic Ocean; 5.4.2 Northeast Atlantic Ocean 5.5 Summary and conclusions

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## Sommario/riassunto

The Atlantic salmon is one of the most prized and exploited species worldwide, being at the centre of a massive sports fishing industry and increasingly as the major farmed species in many countries worldwide. Atlantic Salmon Ecology is a landmark publication, both scientifically important and visually attractive. Comprehensively covering all major aspects of the relationship of the Atlantic salmon with its environment, chapters include details of migration and dispersal, reproduction, habitat requirements, feeding, growth rates, competition, predation, parasitism, population dynamics,

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