Testing three common stocking methods: Differences in smolt size, migration rate and timing of two strains of stocked Atlantic salmon (Salmo salar) - DTU Orbit (12/10/2019)

The influence of three common stocking practices for two strains (Åtran and Burrishoole) of hatchery-reared Atlantic salmon, Salmo salar, on smolt size, migration probability and migration timing were investigated in situ. Using a common garden experiment, fish from these populations were released as fry, half-year olds and one-year olds. Our results indicate that fish released at the fry and half-year stage produce smaller smolts, and migrate later in the year than their counterparts released at one-year of age, for both the Åtran and the Burrishoole populations. While fry had the lowest probability of migration, half-year old releases had greater migration rates than one-year olds of the same strain. Additionally, Åtran fish tended to migrate earlier in the year than Burrishoole fish of the same age. Our findings highlight the variability that exists among individuals and populations due to inherited factors, and emphasize the importance of considering age of fish and time spent in the hatchery when stocking populations in the wild to maximize smolt output.

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