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**Using maturity data to determine the suitability of the timing of the Atlantic cod Spawning Closure in NAFO Subdivision 3Ps**

R.M. Rideout, M.J. Morgan, J. Vigneau

**Abstract**

The Atlantic cod stock on the south coast of Newfoundland, Canada (NAFO Subdivision 3Ps) is managed jointly by Canada and France. The current management plan for this stock includes a spring spawning closure, intended to prevent fishing during the cod spawning season. The timing of the spawning closure has varied since its inception but in recent years has generally been March 1-May 15. In recent years some harvesters have lobbied for a change to the timing of the spawning closure in order to fish in the offshore regions of 3Ps in March, insisting that cod are not spawning in this area at that time. We conducted a study of maturity status of cod in this area based on a combination of macroscopic observations, oocyte size measurements, and histological analyses. The purpose of the study was to integrate this fundamental biology into the advice to fisheries managers on the appropriateness of the current timing of the spawning closure. Here we discuss general aspects of fish spawning closures as well as what our maturity analyses indicate regarding the suitability of the timing of the cod spawning closure in NAFO Subdivision 3Ps.

**Keywords:** cod, spawning, spawning closure, maturity, histology

**Contact Author:** R.M. Rideout, Fisheries and Oceans Canada, Northwest Atlantic Fisheries Centre, St. John's, Canada, email: rick.rideout@dfo-mpo.gc.ca