

## Life history of *Leptagonus decagonus* (Atlantic poacher) in Svalbard waters

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The demersal fish species *Leptagonus decagonus* (Atlantic poacher) is a commonly encountered species on the continental shelf in the Barents Sea and around Svalbard, but little is known about the life-history and population traits of the species in Svalbard waters. It is therefore important to investigate this species to understand its importance in the ecosystem.

A total of 80 specimens were obtained during October 2010 and 2011. We measured gutted weight, caudal length, sex, gonad-length, -width and -weight, and weight of the liver. Eggs were counted and measured. Age was estimated by surface reading of otoliths. Preliminary data suggest that there is no significant difference in age distribution between the sexes, although males had a wider age distribution (2-14 years) than females (3-7 years). The majority of specimens were 4-7 years old (mean = 4.9 years). Both females and males are mature by the age of 4. The sex distribution in the population was 45 % female and 55 % male. Overall, females were larger than males with age. Both sexes had a length-weight relationship that gave a negative isomorphic body condition, indicating energy priority towards reproduction rather than tissue growth. There was little variation in the gonadosomatic index between the sexes, with length and age. This indicates that most of the specimens were mature. There was however a difference in the size of the liver between the sexes, where the males have a higher hepatosomatic index than the females. The females had a relatively high fecundity, with an average of 2448 eggs, although at least half of the eggs were undeveloped.