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Age validation and growth of larval and juvenile haddock *Melanogrammus aeglefinus*, and pollock *Pollachius virens*, on the Scotian Shelf

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Daily growth increments on otoliths were used to estimate the age of larval and juvenile haddock, *Melanogrammus aeglefinus*, and pollock, *Pollachius virens*, collected on Emerald and Sable Island Banks, Eastern Canada, between March 1991 and May 1993. The daily periodicity of the increments was validated from observations of reared larvae. For both species, the first increment was deposited the day after hatching and thereafter one increment was added daily. A Laird-Gompertz growth curve was fitted to length–age data for each species. Growth rates in haddock and Pollock larvae varied significantly in different years. For haddock, the lowest growth rate was for the 1993 cohort, and growth rates in 1991 and 1992 cohorts were similar. For pollock, the 1993 cohort had the highest growth rate. The average growth rate was 0.21 mm/d for the first month and 0.42 mm/d for the second month for larval haddock and 0.18 mm/d for the first month and 0.23 mm/d for the second month for larval pollock. Growth continued exponentially after the transition from a primarily pelagic life to a predominantly demersal one, which occurred at an age of about 40–50 d. No indication of a cessation in growth was observed. Analysis of length–age data indicated that the accelerated growth of juveniles alter 50 d in age could have reflected the exploitation of a more abundant food resource after settlement. Thus, pelagic and early demersal growth appear to represent distinct stanzas in the growth history of these gadoids.