

EXAMPLE ABSTRACT

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An RNA:DNA-based Growth Model for Young-of-the-Year Winter Flounder *Pseudopleuronectes americanus*

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A laboratory calibration experiment was conducted to determine the relationship between nucleic-acid based parameters and growth rate in young-of-the-year winter flounder (*Pseudopleuronectes americanus*). Three temperatures and three feeding levels were used to produce a variety of growth rates. Nucleic acid analyses were conducted on white muscle tissue using an ultraviolet absorption assay. RNA concentration ($\mu\text{g mg}^{-1}$ wet tissue weight) and the ratio of RNA:DNA (R/D) were positively correlated with a weight-based instantaneous growth coefficient (G_W) ($r = 0.42$ and 0.72 , respectively). Fifty-one percent of the variability in growth rate was explained by the simple linear regression $G_W = -0.02615 + (0.00848) \text{ R/D}$ ($p < 0.0001$). This model can be used to estimate recent growth rates for early juvenile winter flounder (27-52 mm standard length) at temperatures ranging from 11 to 24°C.