Growth of adult spinal cord in knifefish: Development and parametrization of a distributed model

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Highlights

- The development of nervous tissue has been rarely examined using modeling approaches
- A mathematical model of adult spinal cord growth in a teleost fish is proposed
- Mechanisms considered include cell proliferation and pressure-driven cell drift
- Specific phenomena include local volumetric expansion and global growth constraints
- Biologically-relevant relative growth rates are identified via parameter estimation