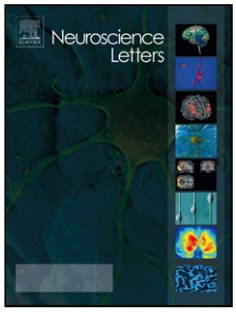

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PECULARITIES OF THE STRUCTURE OF GLYCOGEN AS AN INDICATOR OF THE FUNCTIONAL STATE OF MAUTHNER NEURONS IN FISH *Perccottus glehni* DURING WINTERING

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Highlights•

- •Mauthner neurons were used as a model for studying the cell adaptation during wintering.
- In summer, glycogen is present in neurons as single granules.
- At the wintering, concentrated fields are formed from glycogen granules.
- There is a relationship between glycogen fields and smooth reticulum.
- There is the invagination of mitochondria immediately into glycogen fields.
- Mauthner neurons may have their own systems of glycolysis, glycogenesis, and storage of glycogen.

Abstract---Mauthner neurons (MN)*, specific multifunctional neurons of fish, are a unique object for investigating the adaptive potentialities of the cell. The goal of the work