Diet, Growth, and Drivers of Recruitment of Larval Deepwater Redfish, *Sebastes mentella*, in the Gulf of St. Lawrence

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à la salle Mohammed El-Sabh
de l'Institut des sciences de la mer à Rimouski

"Atlantic redfish, *Sebastes mentella*, biomass in the Gulf of St. Lawrence (GSL) has increased dramatically since the early 2010s following multiple strong recruitment events, years when larval redfish survival was high, but the drivers behind larval redfish survival are unknown. The GSL is a bottom-up driven ecosystem, and we hypothesize that prey availability and starvation are the primary sources of mortality for larval redfish. When larvae feed, they consume carbon and other nutrients that fuel larval growth, a trait that has been shown to influence larval fish survival. Both the growth of larval fishes, as well as the developmental rate and reproductive phenology of potential copepod prey, are influenced by abiotic oceanographic variables such as temperature. This seminar will present results that detail the diet composition and dietary preferences of larval redfish in the GSL across multiple years (1997-2000), and preliminary results that compare the daily larval growth rates from larvae collected in 1999 and 2000. Finally, the potential oceanographic variables that most strongly influence the timing and abundance of preferred prey taxa, as well as larval growth, will be discussed in order to develop a model to best understand drivers of larval redfish survival and recruitment. "