

## The false promise of fallowing



Picture: northernlife.ca

### **Inka Milewski, Science Advisor, Conservation Council of New Brunswick**

DFO, provincial regulators and the aquaculture industry claim that fallowing (removing fish from a farm) for as little as two months to two year will allow the sediments to recover. How is recovery defined? Since the industry is only required to monitor one environmental variable - sulphides - recovery is defined as a drop in sulphide levels in the sediments. Research shows that the return of marine life in the sediments takes much longer.

A decade ago I examined recovery of the sea bottom under a salmon farm in New Brunswick. The Penn Island farm site in Crow Harbour had been in operation for one production cycle (18 months) when its license to operate was not renewed due to poor environmental performance. I found that the high sulphide levels in the sediments returned to acceptable regulatory levels within a year. However, after two years, the diversity of marine life in the sediments still had not recovered compared to a control site 700 metres away.

In 2011, I began another study in Shelburne Harbour (Nova Scotia) to examine recovery of the sea bottom under a fish farm that was vacated in September 2011. The water depth at the farm at high tide was approximately 42 ft. After one year of “fallowing”, the sea bottom is still covered in white bacterial mats that can tolerate high sulphide levels in the sediments and only a few species of sulphur-tolerant worms live in the sediments. As I found in Crow Harbour, New Brunswick and given the grossly polluted state of the sea bottom in case of the Shelburne Harbour farm site, it is unlikely the bottom will recover in the next six months or another year. Who will know when full recovery takes place? Not the industry or the regulators because neither is required to monitor marine life in the sediments.