

Influence of 2011 salinities on Oyster Populations in MD



Oysters

- Management shift in 2009
- 600 active oystermen, 26,471 bushel harvest in 2004, roughly 120,000 bushels in 2011-12
- Great 2010 reproduction and 8 lower than normal disease seasons should cause harvest increases in 2012-13 season
- Oysters (of all sizes) tolerate salinities of 0 for a short time, long term tolerance is about 5

You are viewing the data parameter
Salinity for the month of May .
2010.

May

2010

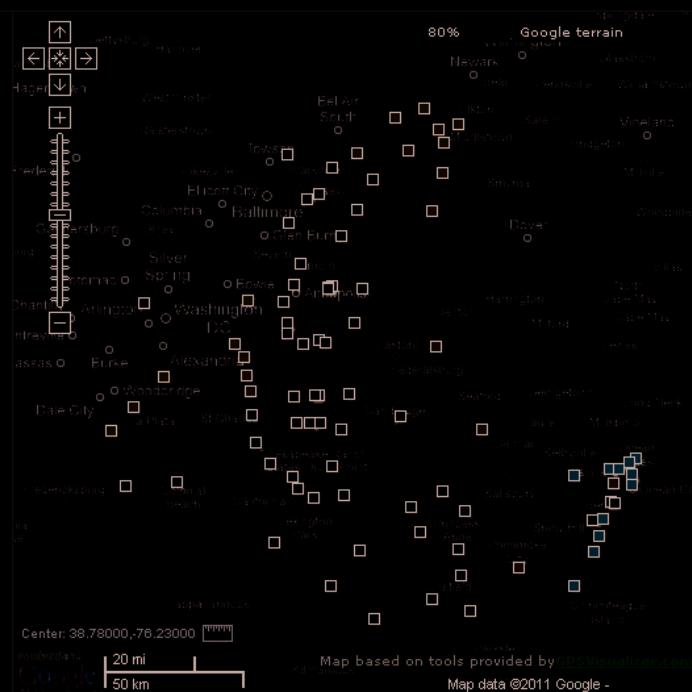
Salinity (ppt)

Zoom to a region

Surface Salinity (ppt)

- ☐ 0 -0.5 (Tidal Freshwater)
- ☐ 0.5 - 5.0 (Oligohaline)
- ☐ 5.0 -10.0 (Mesohaline)
- ☐ 10.0 -15.0 (Mesohaline)
- ☐ 15.0 -18.0 (Mesohaline)
- ☐ 18.0 + (Polyhaline)
- ☐ No Data

Estuaries are water bodies where saltwater and freshwater mix. To varying degrees, most organisms in estuaries have a tolerance for changes in salinities. In most



You are viewing the data parameter
Salinity for the month of May .
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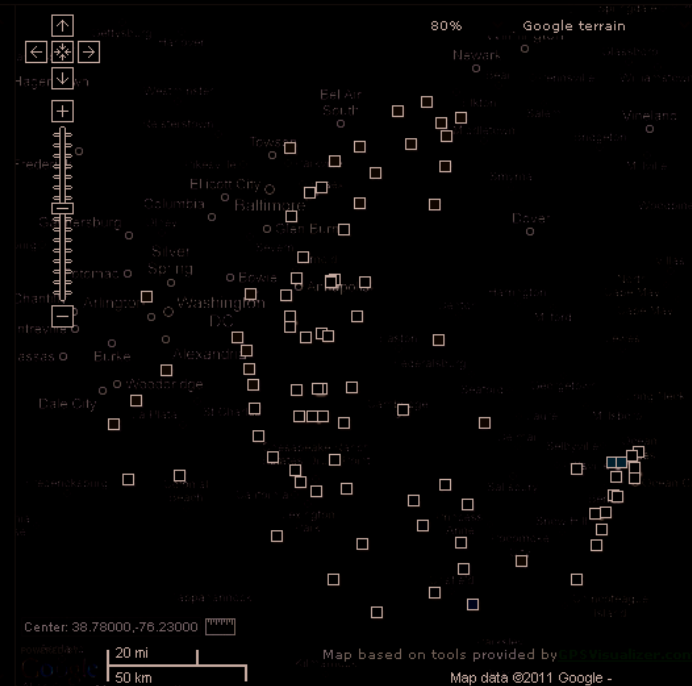
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8/28/2011 Aqua satellite post-Hurricane Irene

Sediments suspended by winds , Irene still visible

<http://lance-modis.eosdis.nasa.gov>



Swan #3
9/28/11

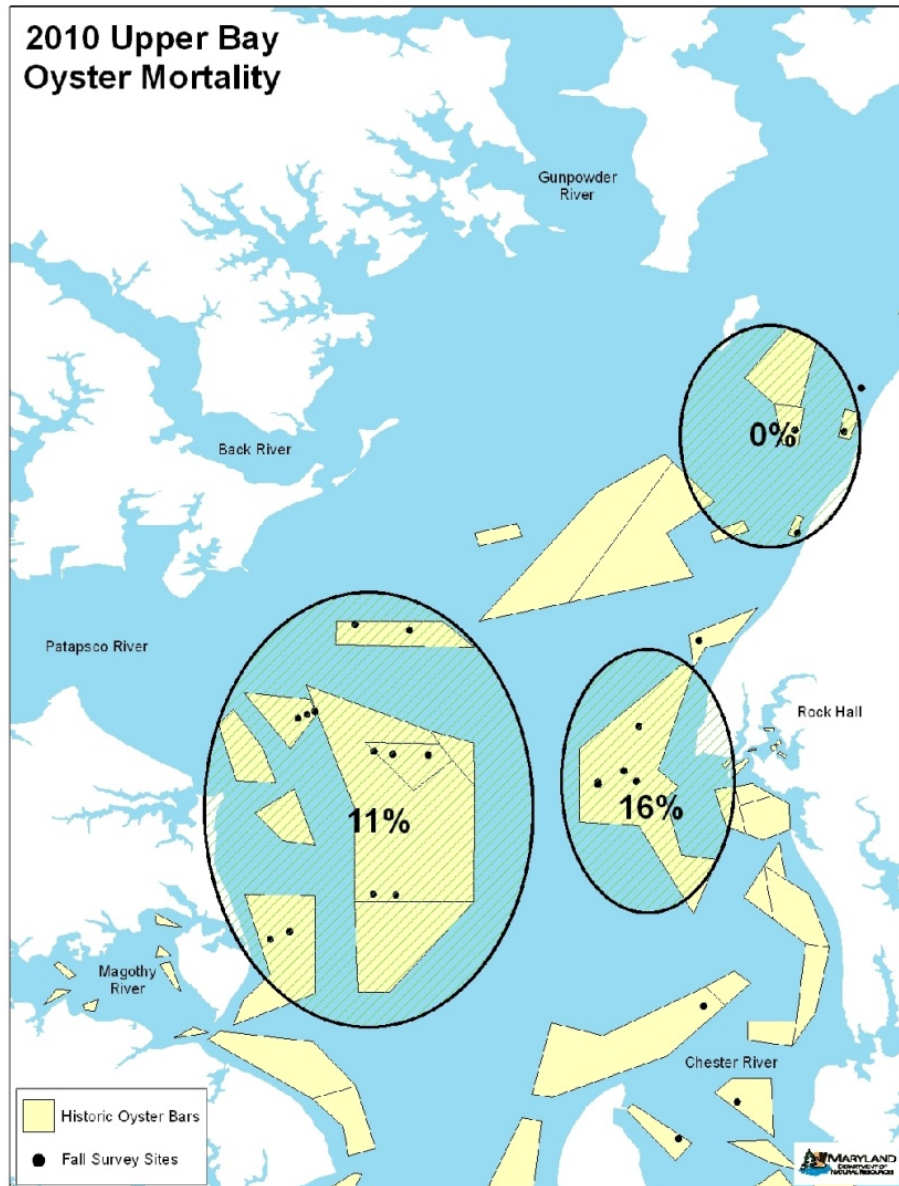




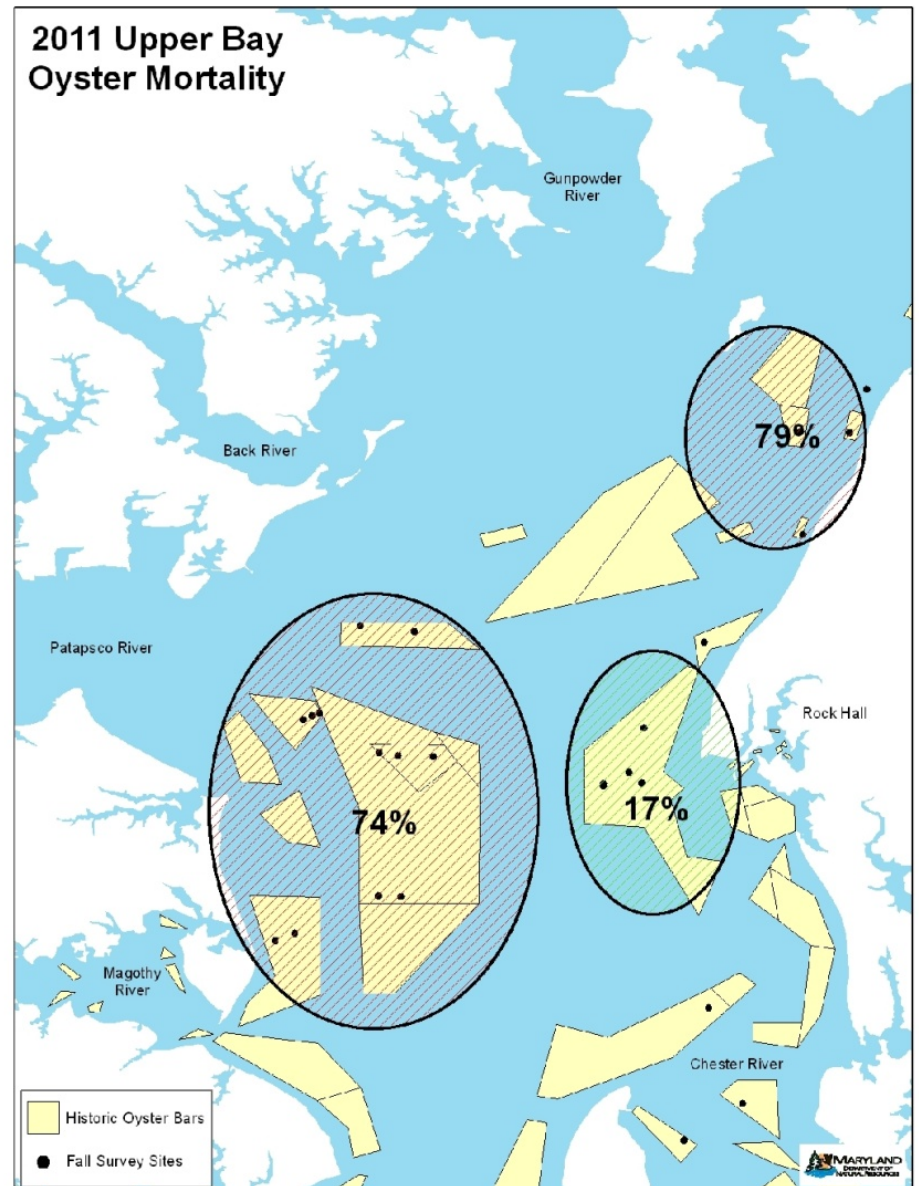
Halifax 2008
Central Atlantic
to Margins Conference
www.congressofgeology.com

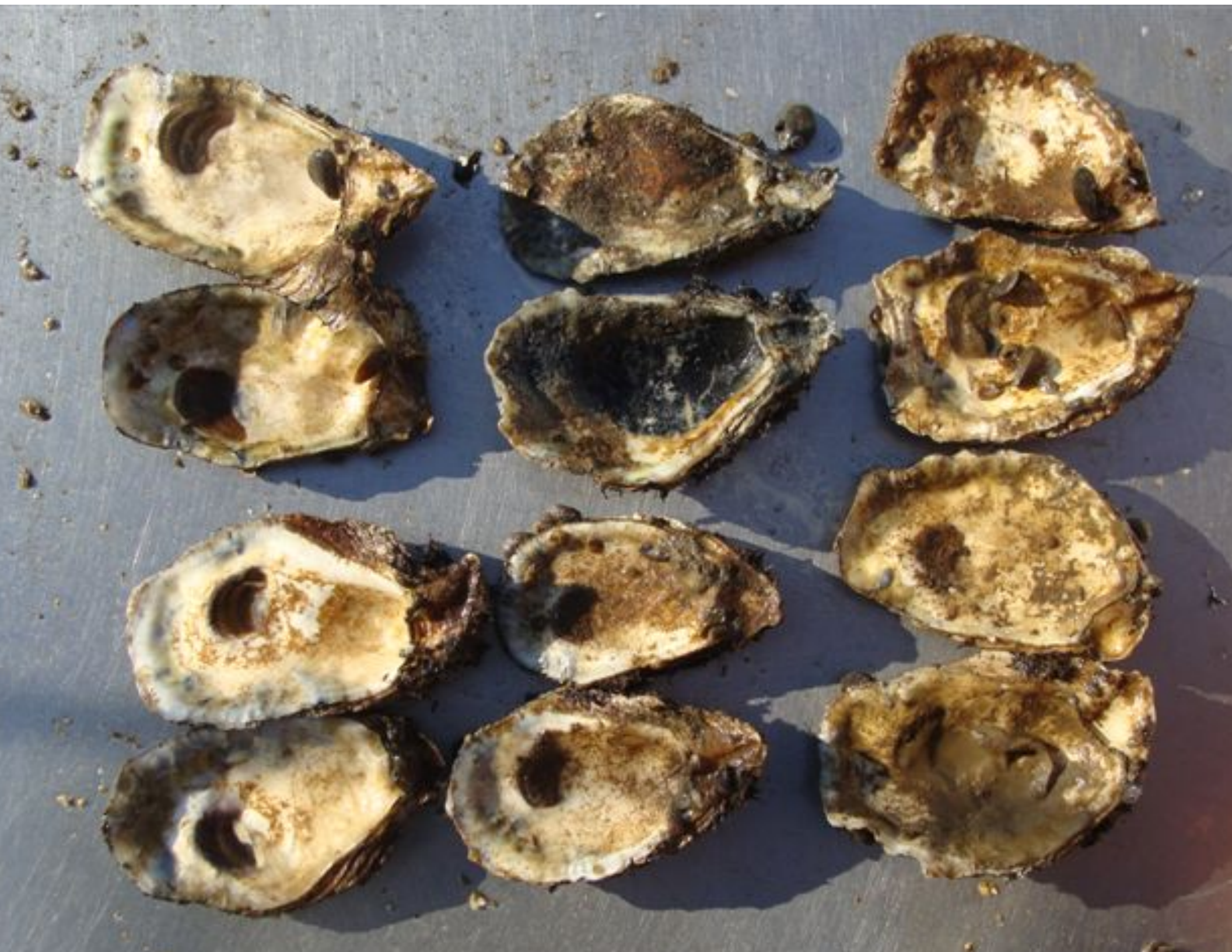
Swan #7
9/28/11

2010 Upper Bay Oyster Mortality



2011 Upper Bay Oyster Mortality









Flow impact to Oysters

- Highest overall oyster survival rate since 1985 (92%)
- More than double the survival rate of 2002
- 44% increase in oyster biomass in one year
- Dermo and MSX at all-time lows

Fig. 3 Annual means for dermo and MSX disease prevalences (%) and non-fishing oyster mortality (%) 1990 - 2011
 (22-year mortality mean = dashed line)

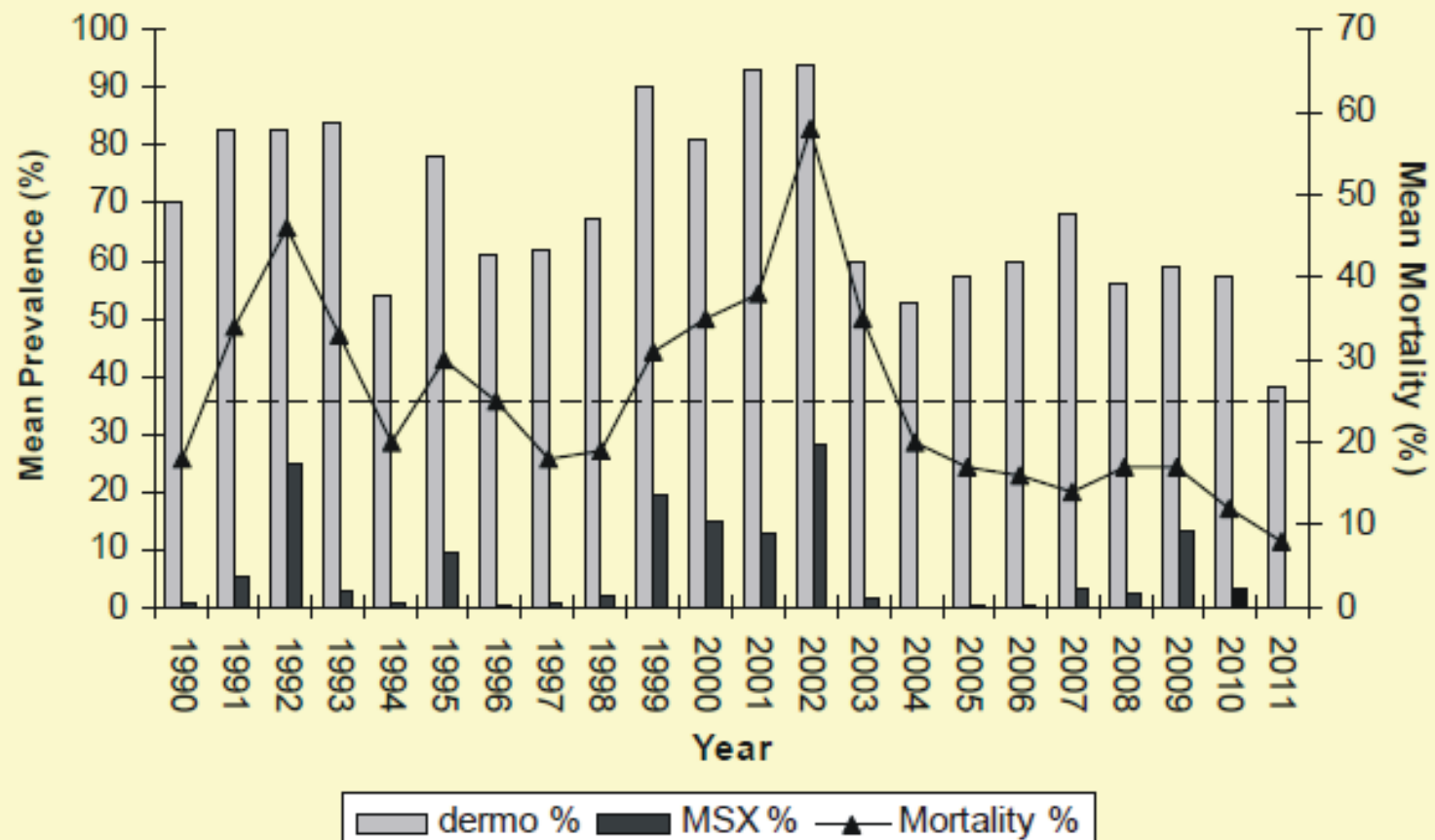
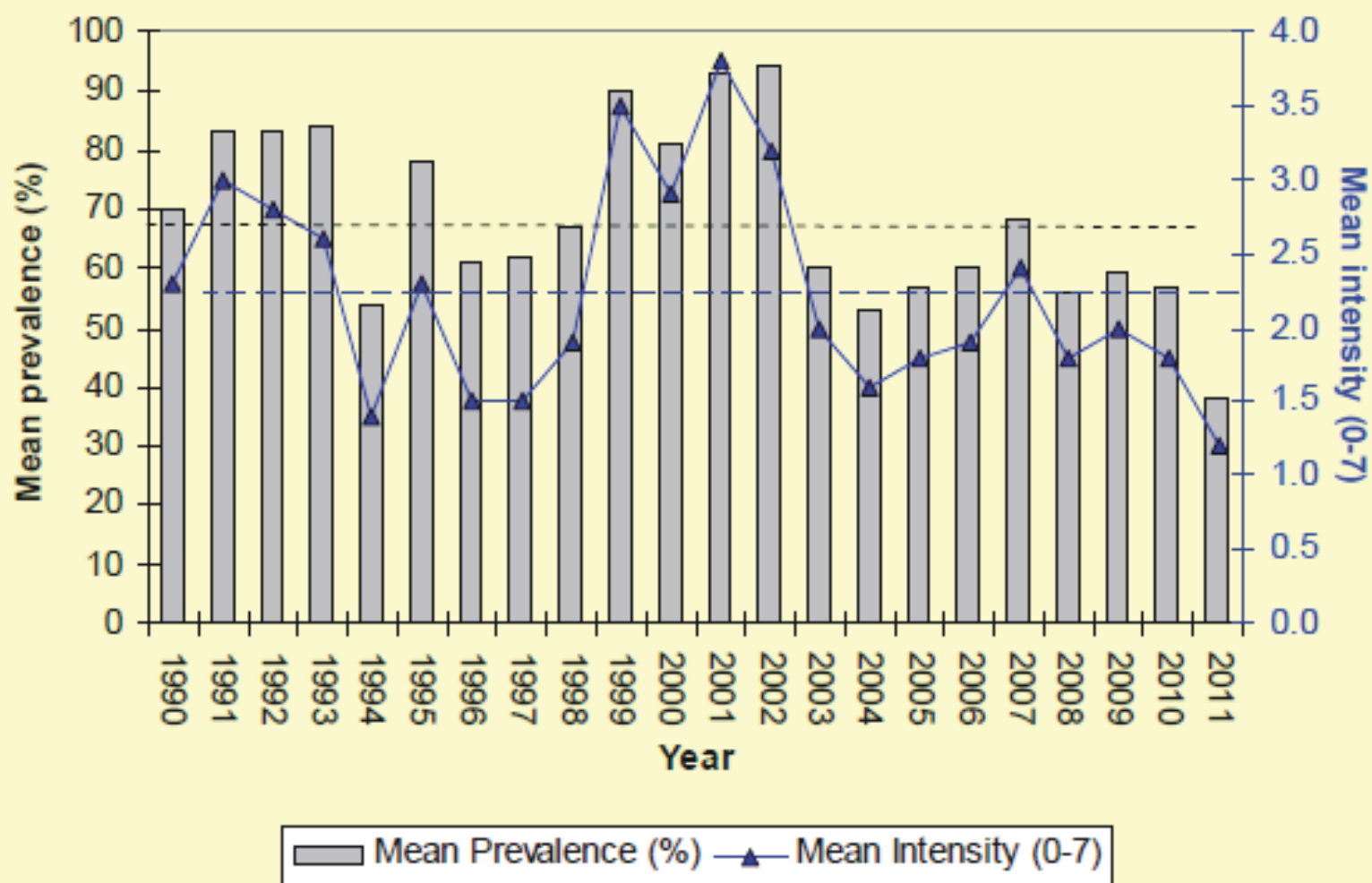


Fig. 1. MDDNR means for dermo disease prevalence (%) and intensity (0-7) 1990-2011. Dashed lines are 22-year means for measures.



Questions?

