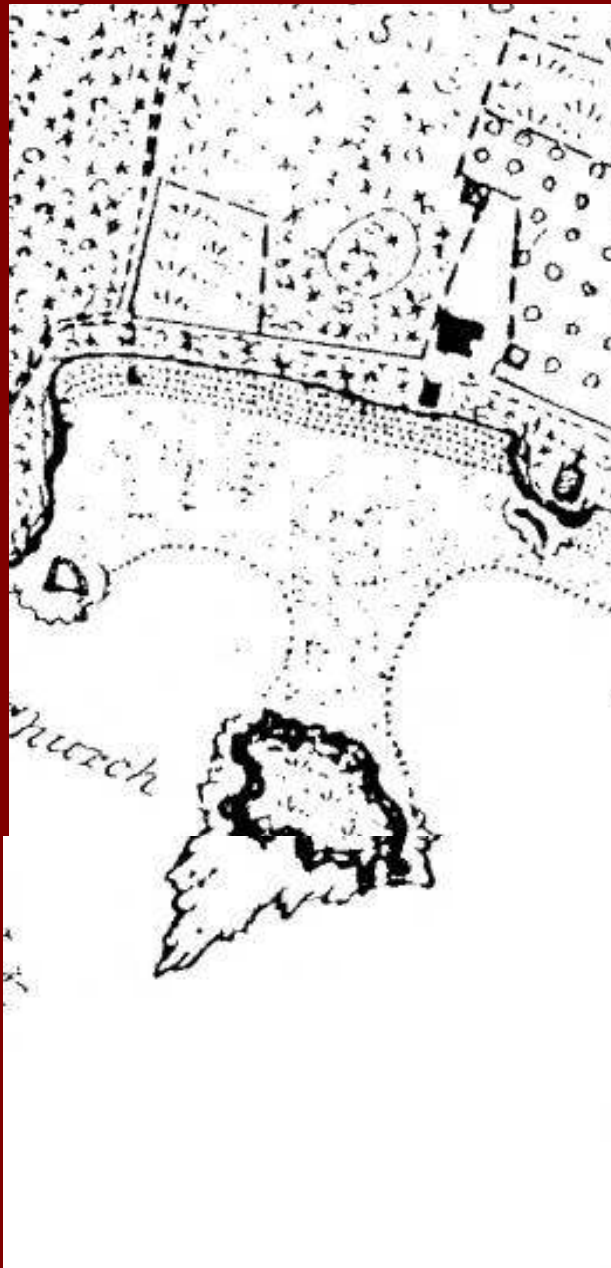




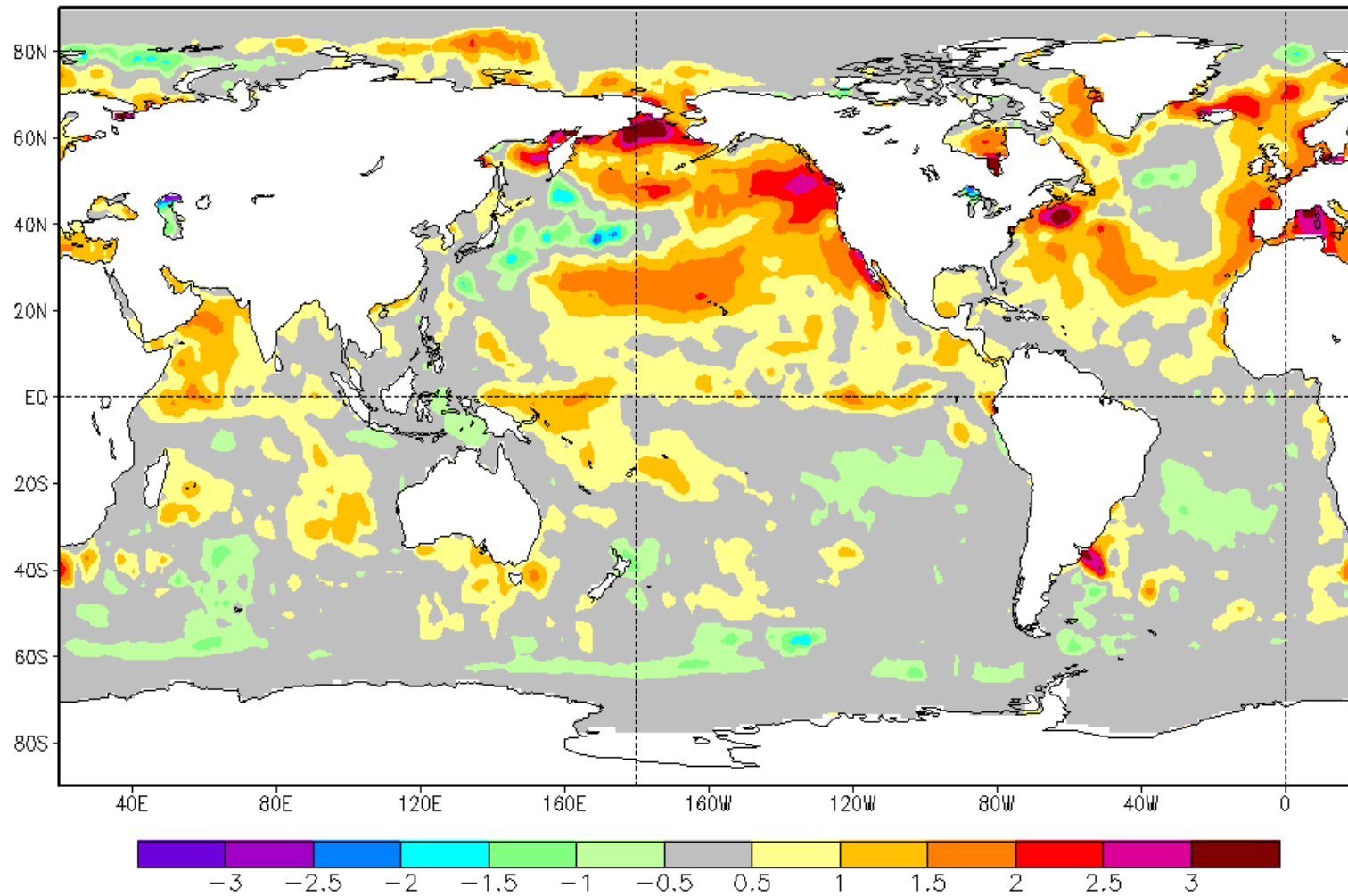
Indian Island

**The health of
the bay 2014**

Five-year review



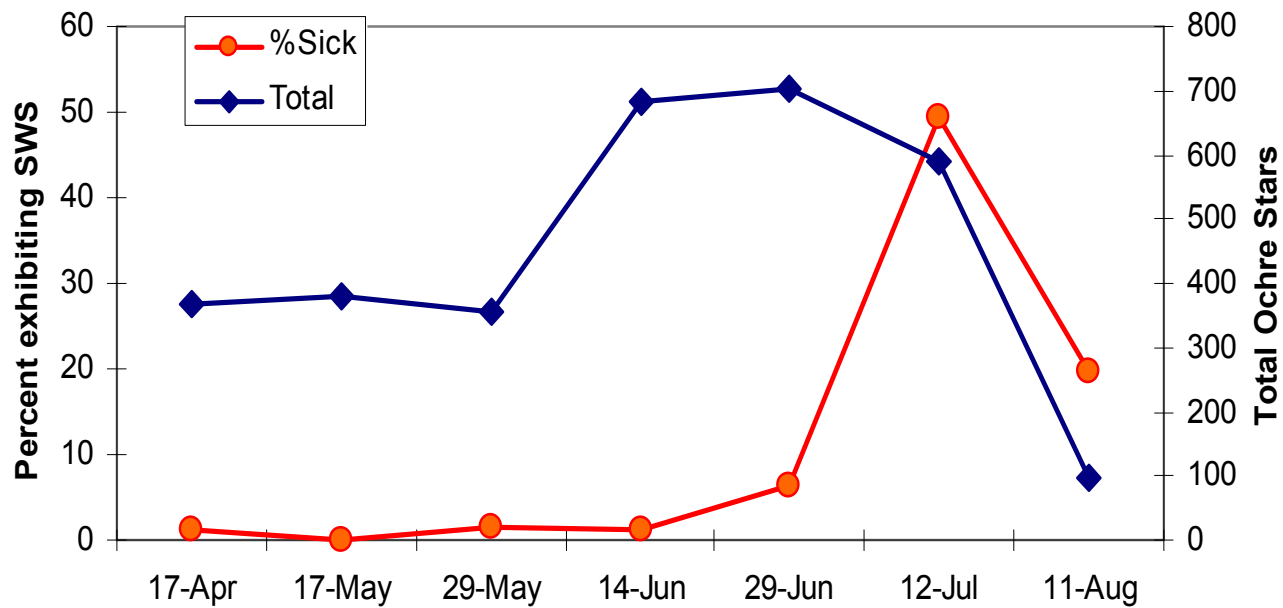
Sea Surface Temperature Anomaly ($^{\circ}\text{C}$), Base Period 1971–2000
Week of 8 OCT 2014



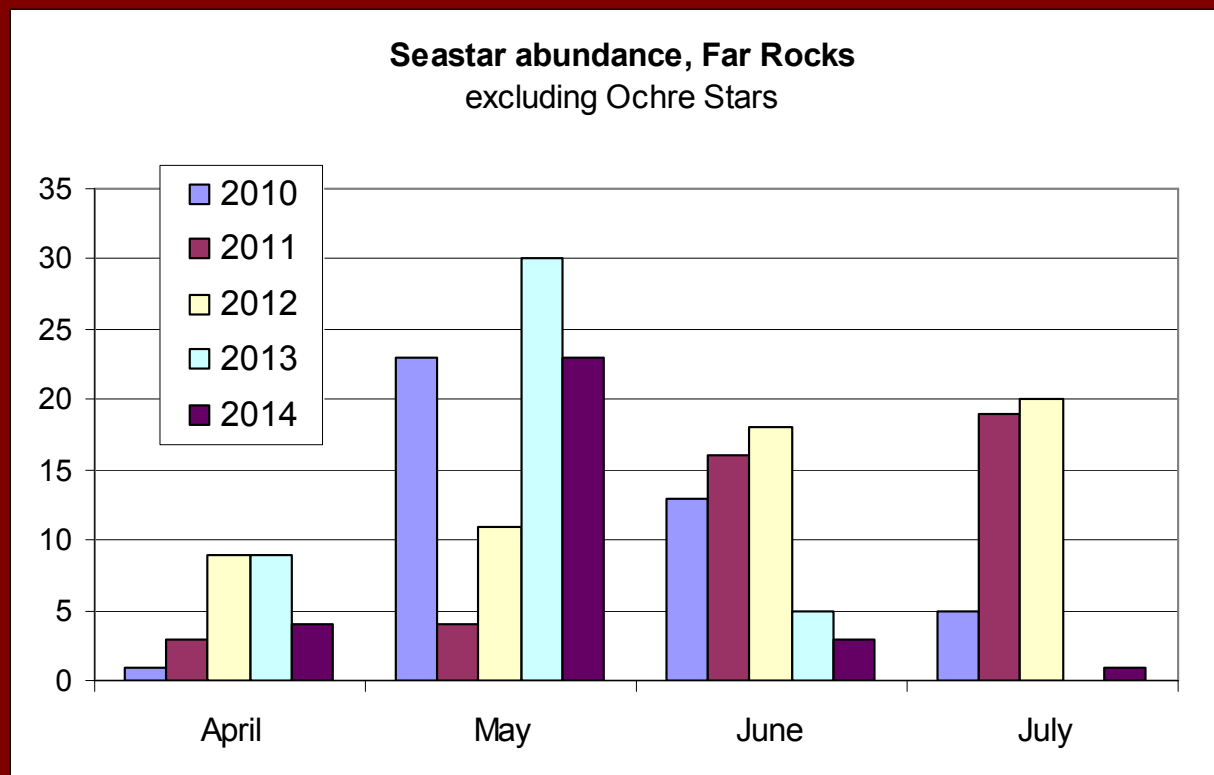


Seastar Wasting Syndrome

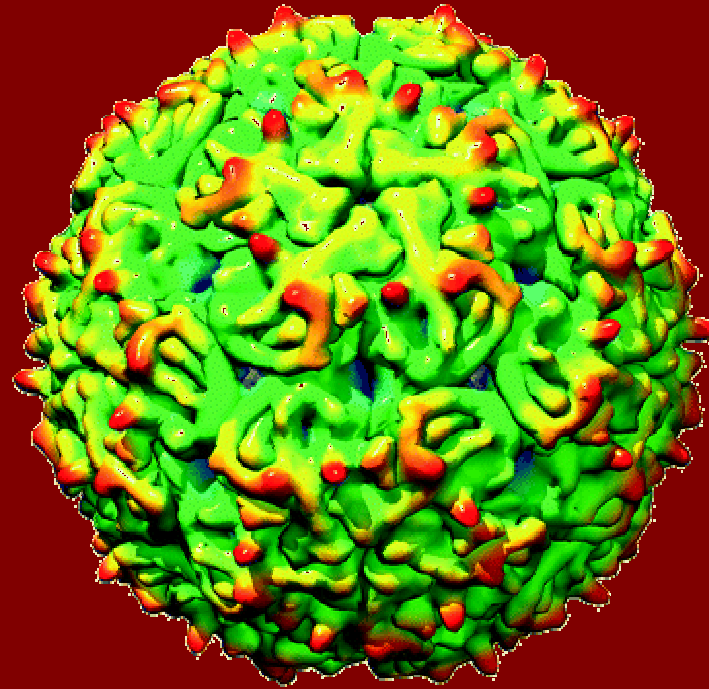
Inter-tidal Ochre Stars Indian Island 2014



**Mortality peaked in late June
and declined in August**



In warm years, sea stars peak in May
then move into deeper water

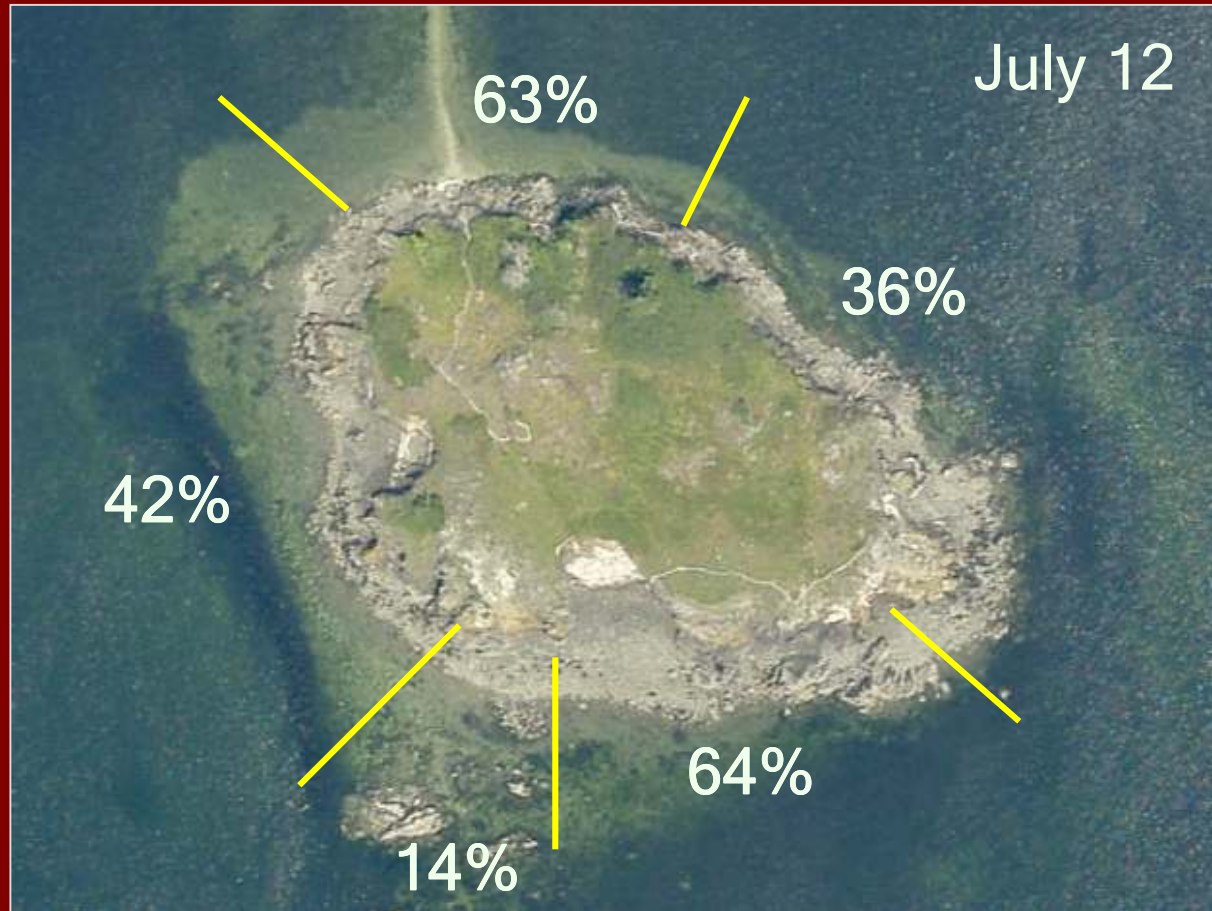


Densovirinae (Parvoviridae)

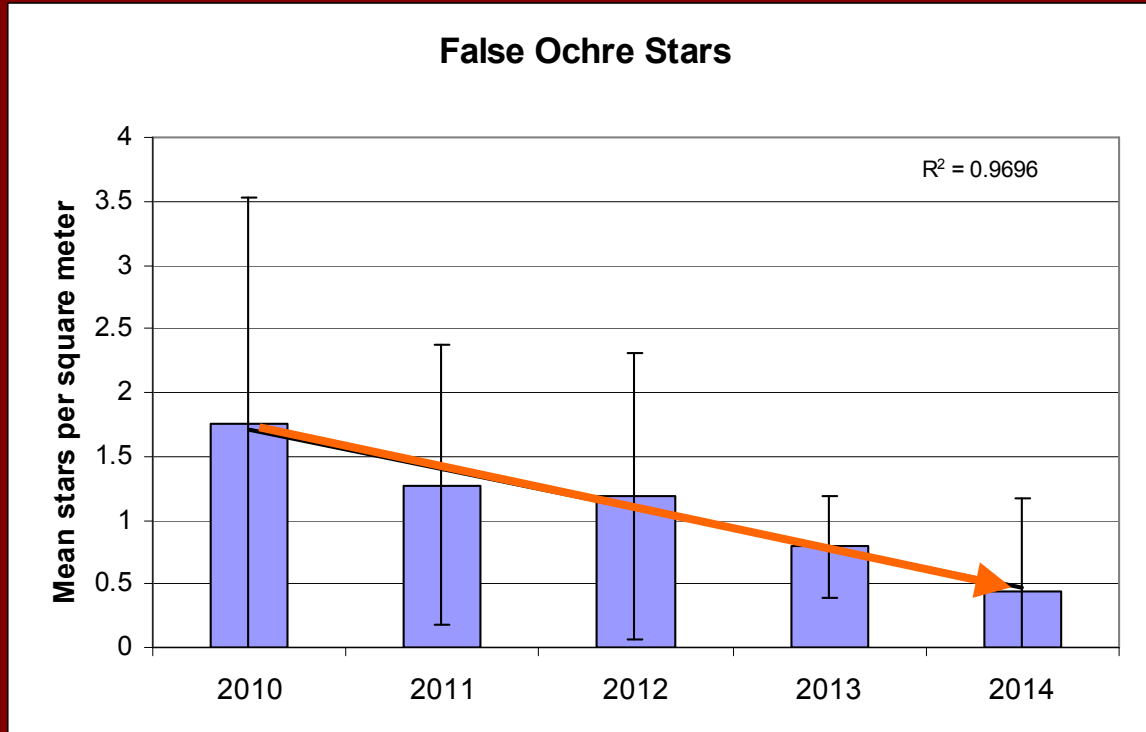
Previously reported hosts are all insects

Found in healthy and sick echinoderms

Ubiquitous and opportunistic?



Mortality was lowest in deeper,
more exposed tide pools



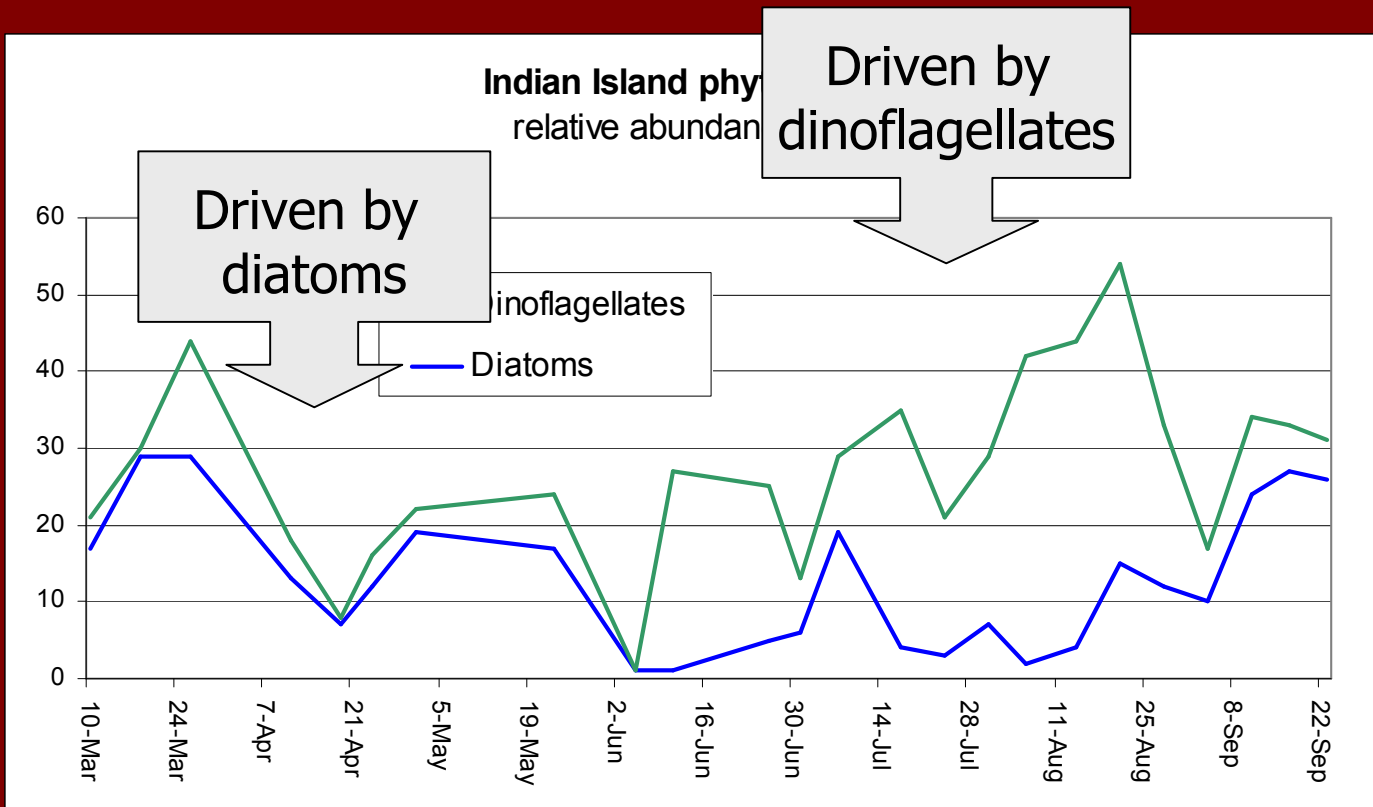
**False Ochres have declined for years!
Orchitophrya?**

Heterosigma akashiwo

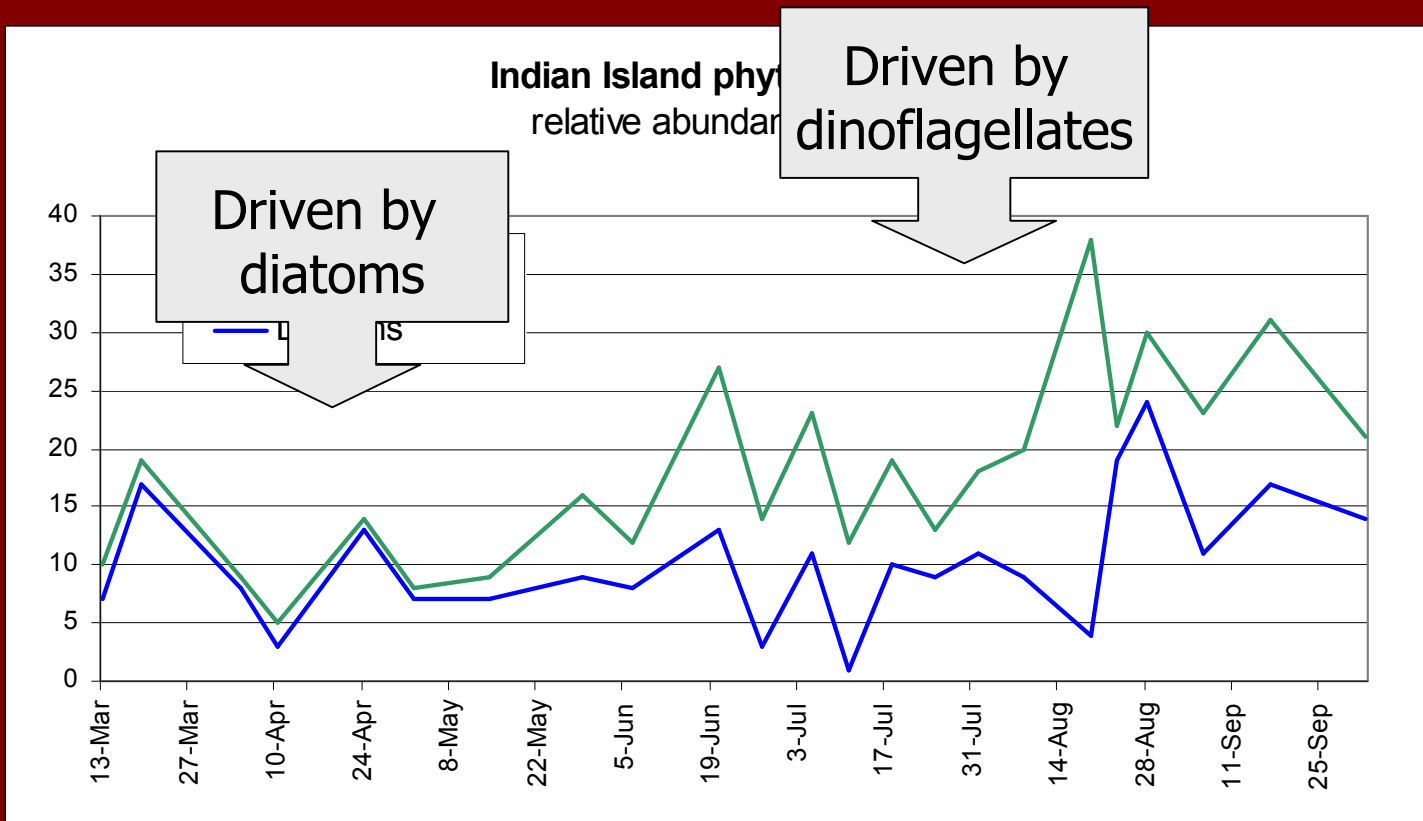


Bloomers

2013	2014
Ceratium	Ceratium*
Ditylum*	Coscinodiscus
Scrippsiella	Detonula
Thalassionema	Gonyaulax
Thalassiosira	Heterosigma
	Minuscula
	Nitzschia
	Noctiluca*
	Scrippsiella
	Thalassiosira*

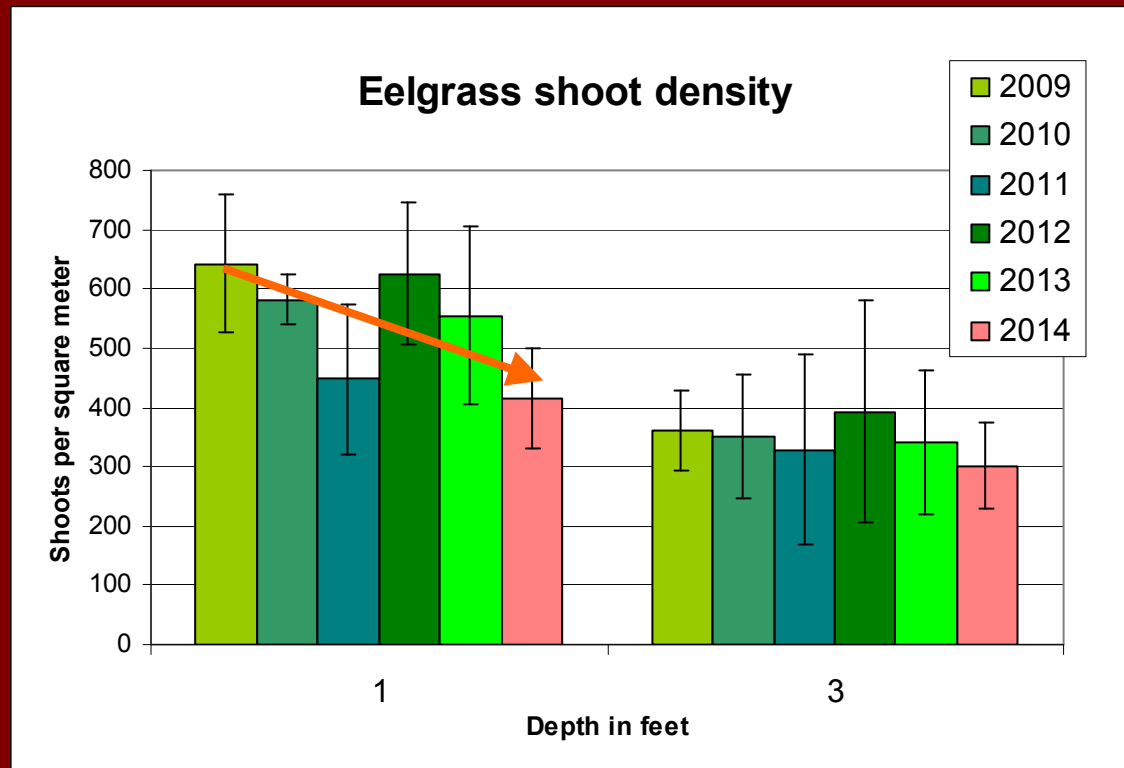


Raw data courtesy SoundToxins

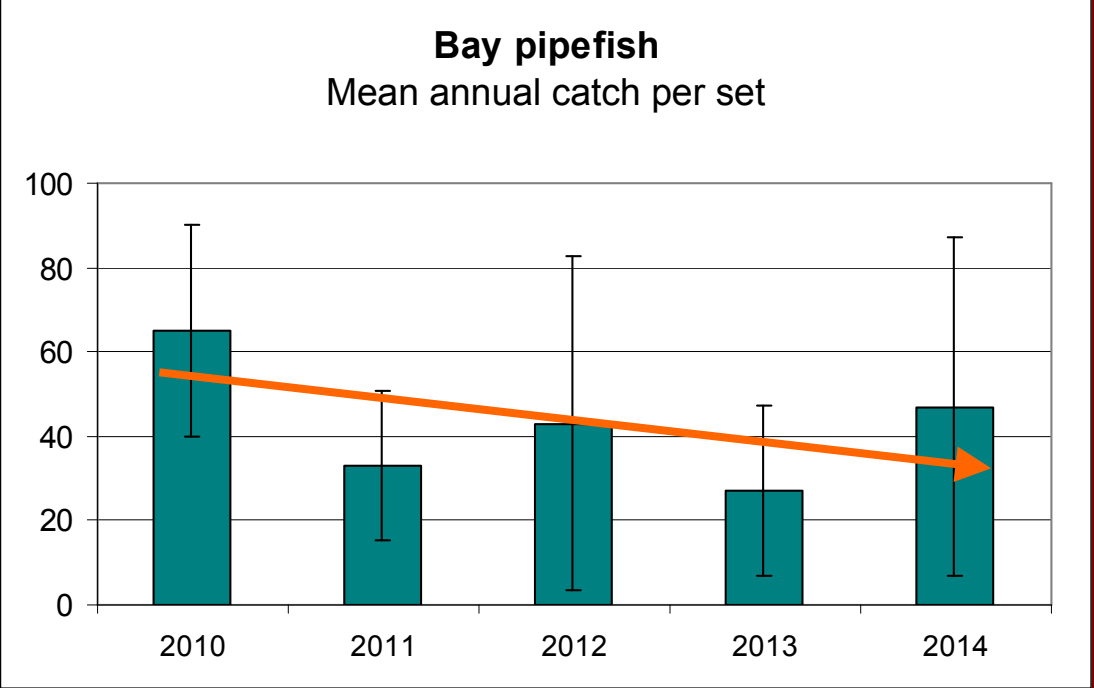




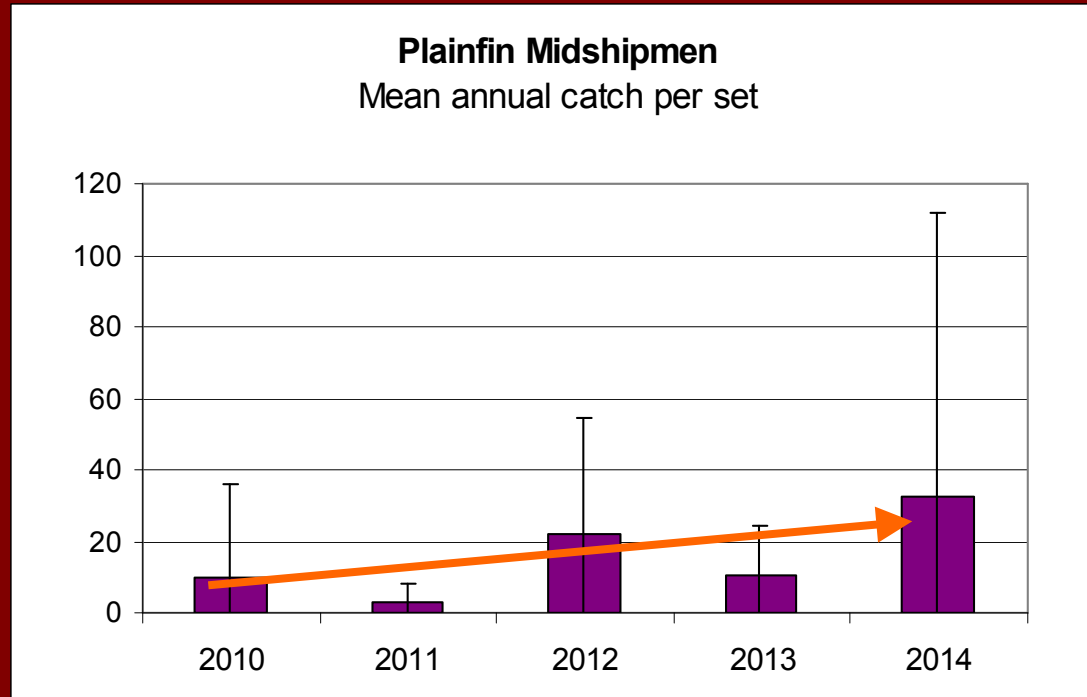
Viral Hemorrhagic Septicemia



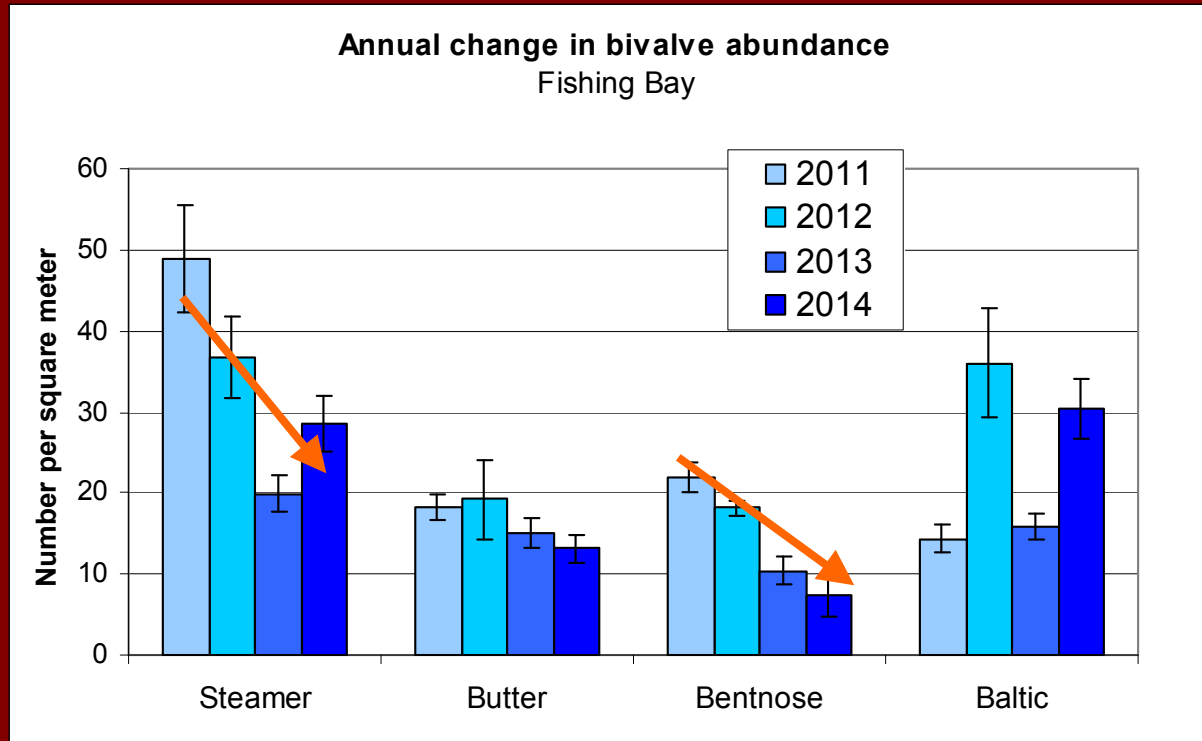
Eelgrass density declined in the shallows



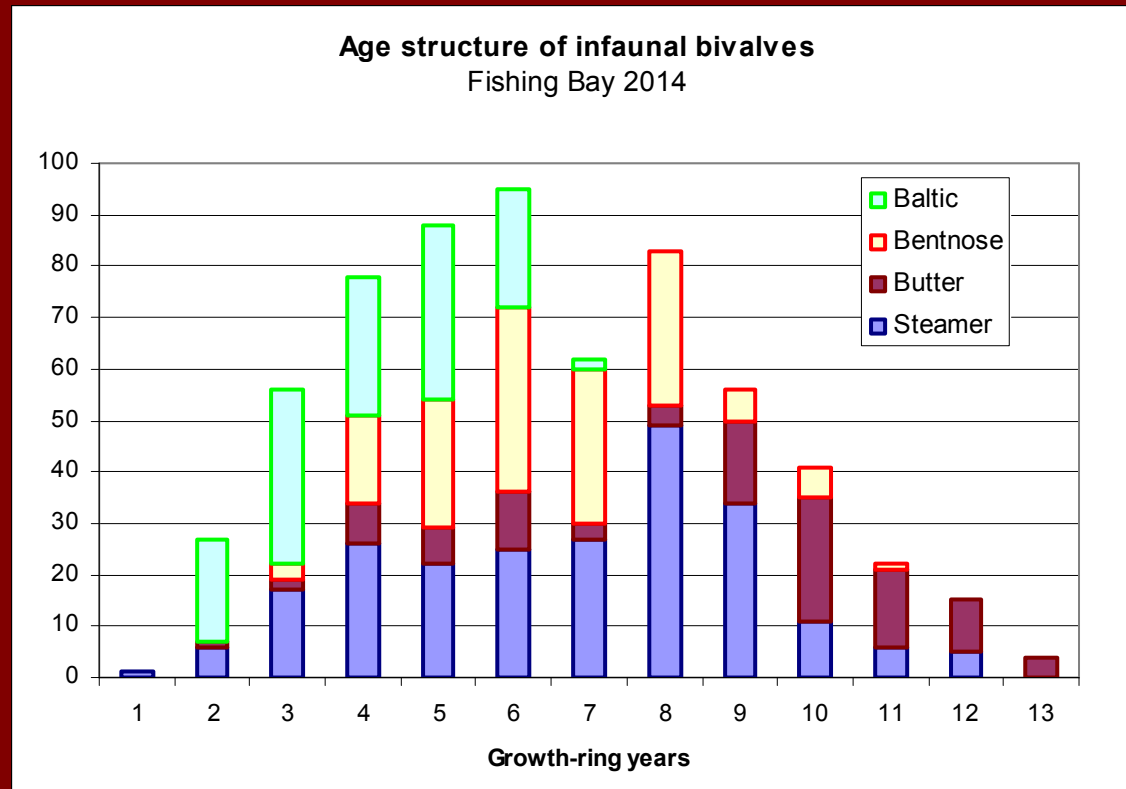
Gradual downward trend in Pipefish



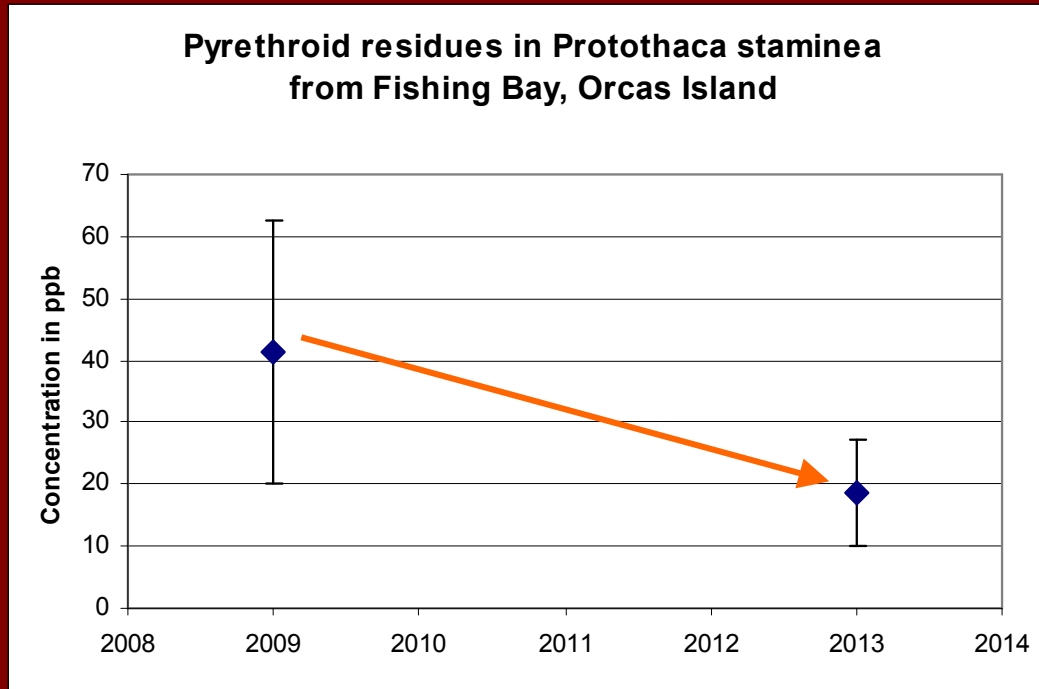
And upwards for Midshipmen



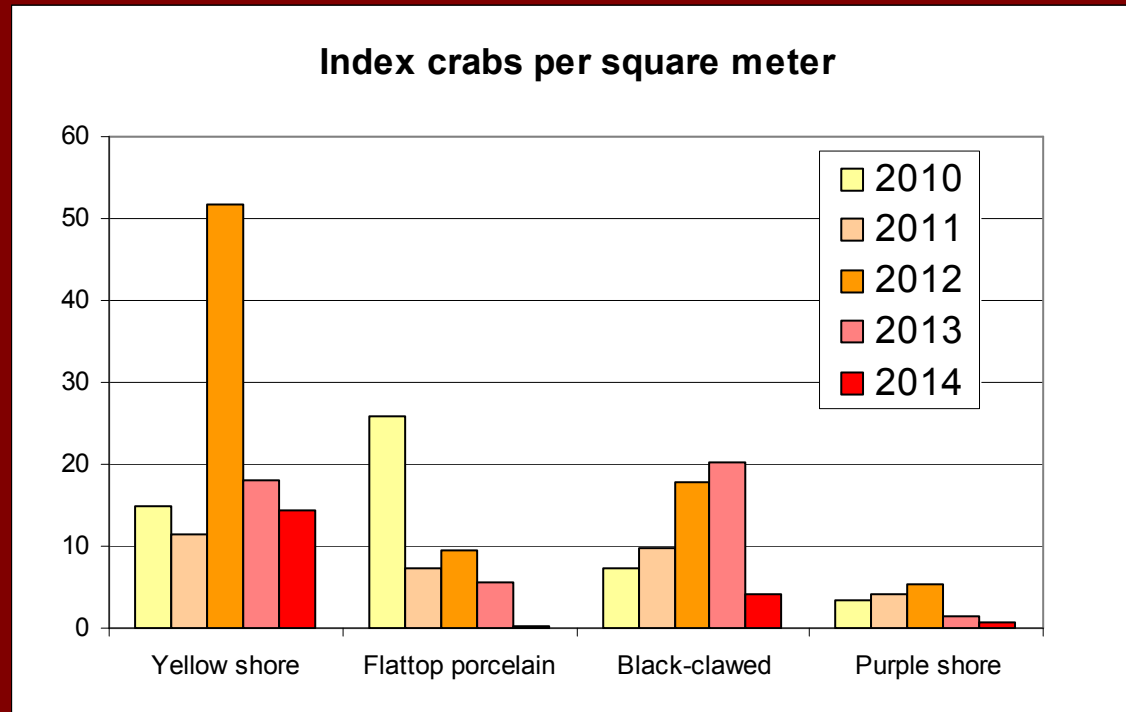
Many infaunal clams have declined
Both “hard-” and “soft-shell” species



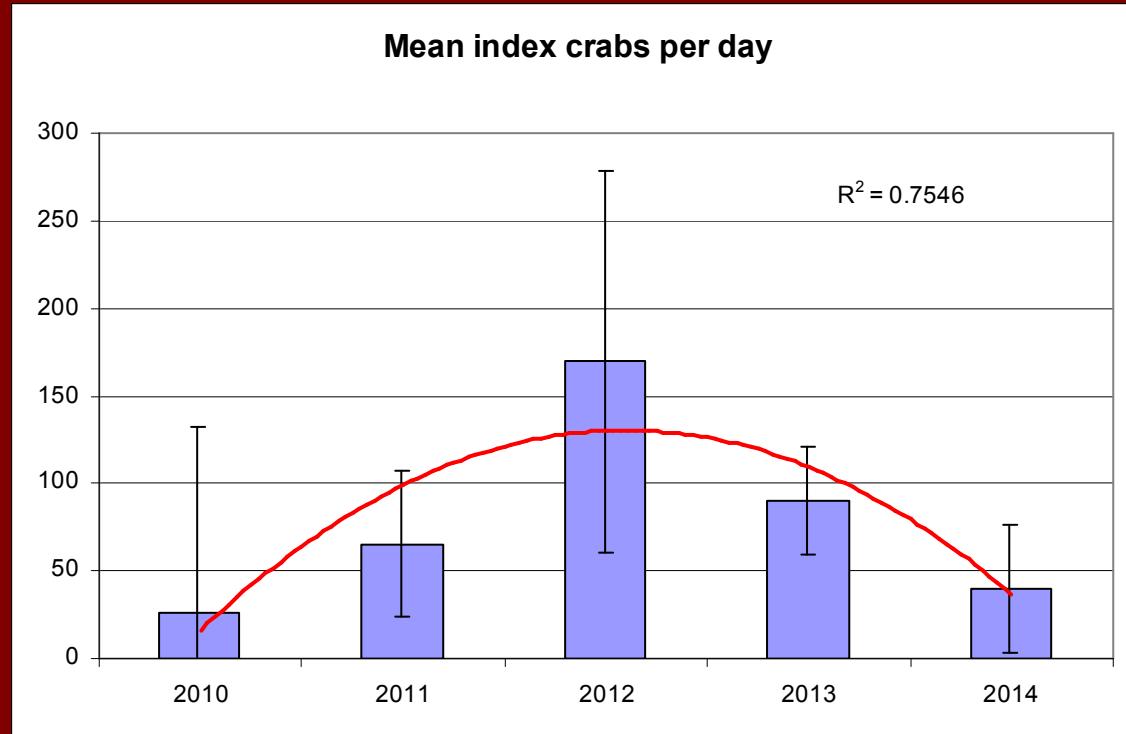
Only Baltics are recruiting vigorously



Contamination appears to have decreased



Crab species have good and bad years



All together, crabs peaked in 2012

Sea slugs:
Residents, seasonal, opportunistic visitors

Monterey dorid



Taylor's sea hare



Frosted dirona



Vascular plant species

	Native	Non-native
Trees, shrubs	12	2
Wildflowers	30	12
Grasses	5	6
	47	20



Oystercatcher cam

