

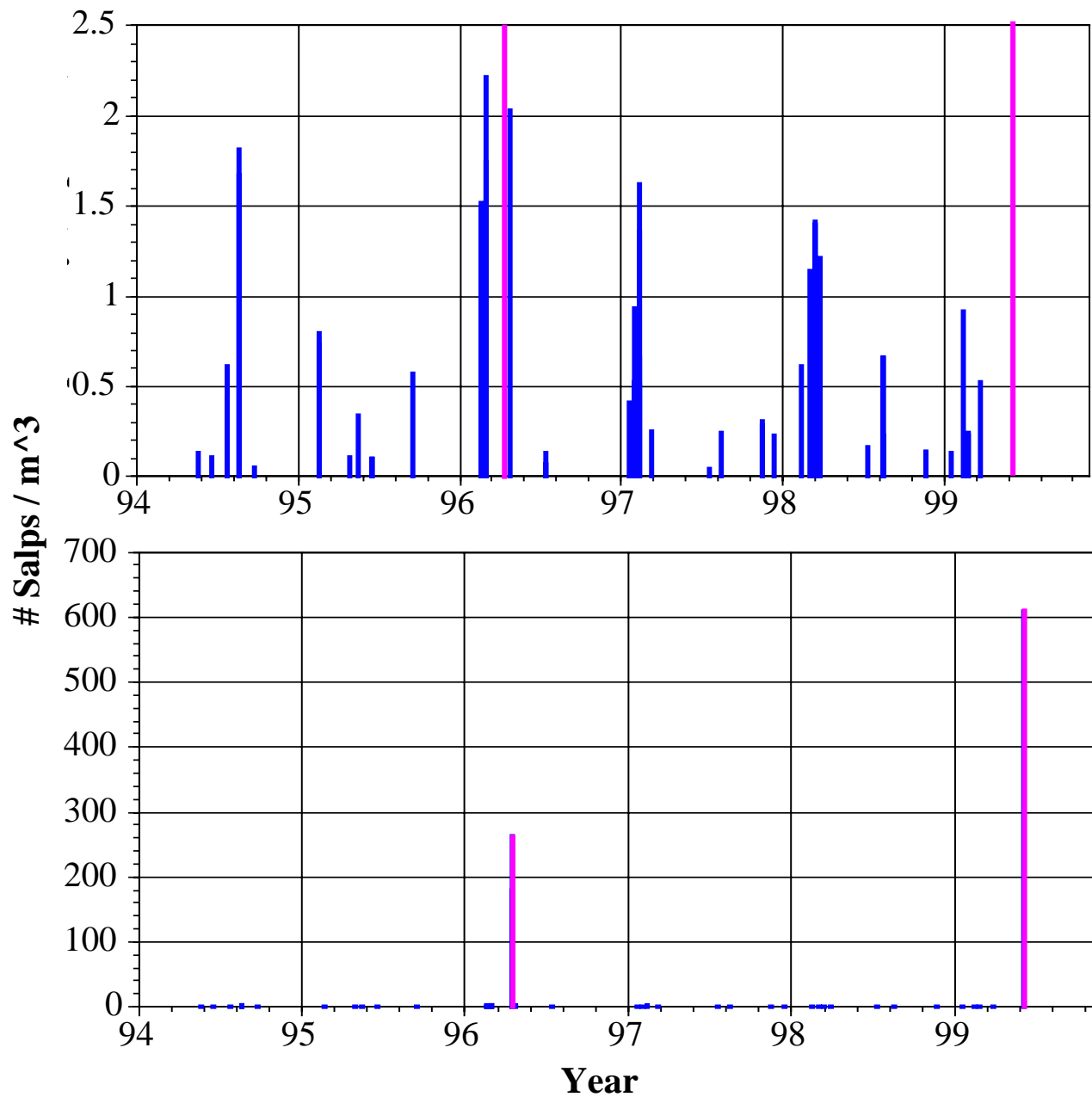
Commentary on Community Structure

Debbie Steinberg

Virginia Institute of Marine Science

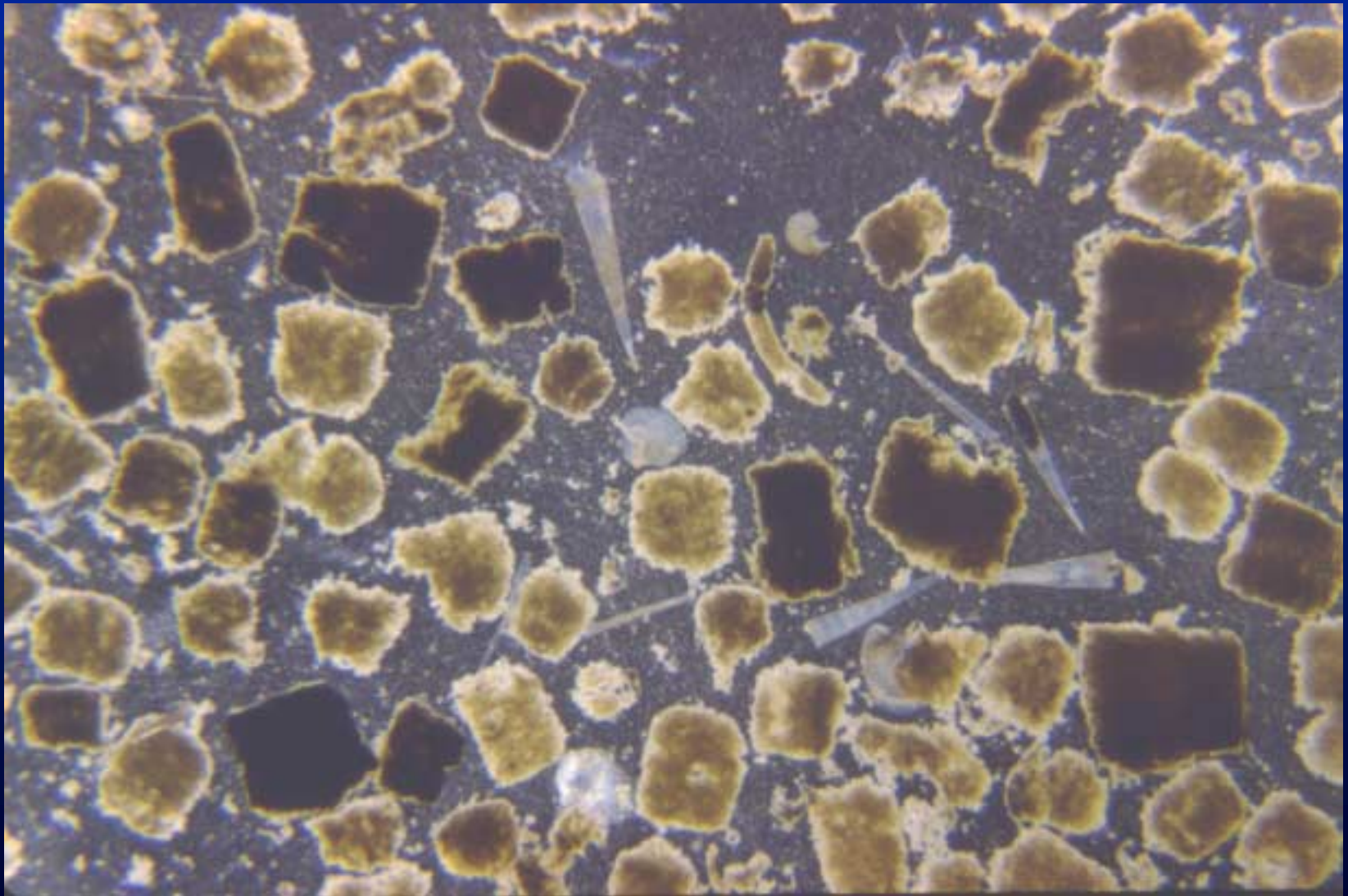
- Bloom dynamics and particle flux
- Twilight zone processes
 - Zooplankton & microbial community structure

Salp blooms at BATS



Steinberg & Madin
(in prep.)

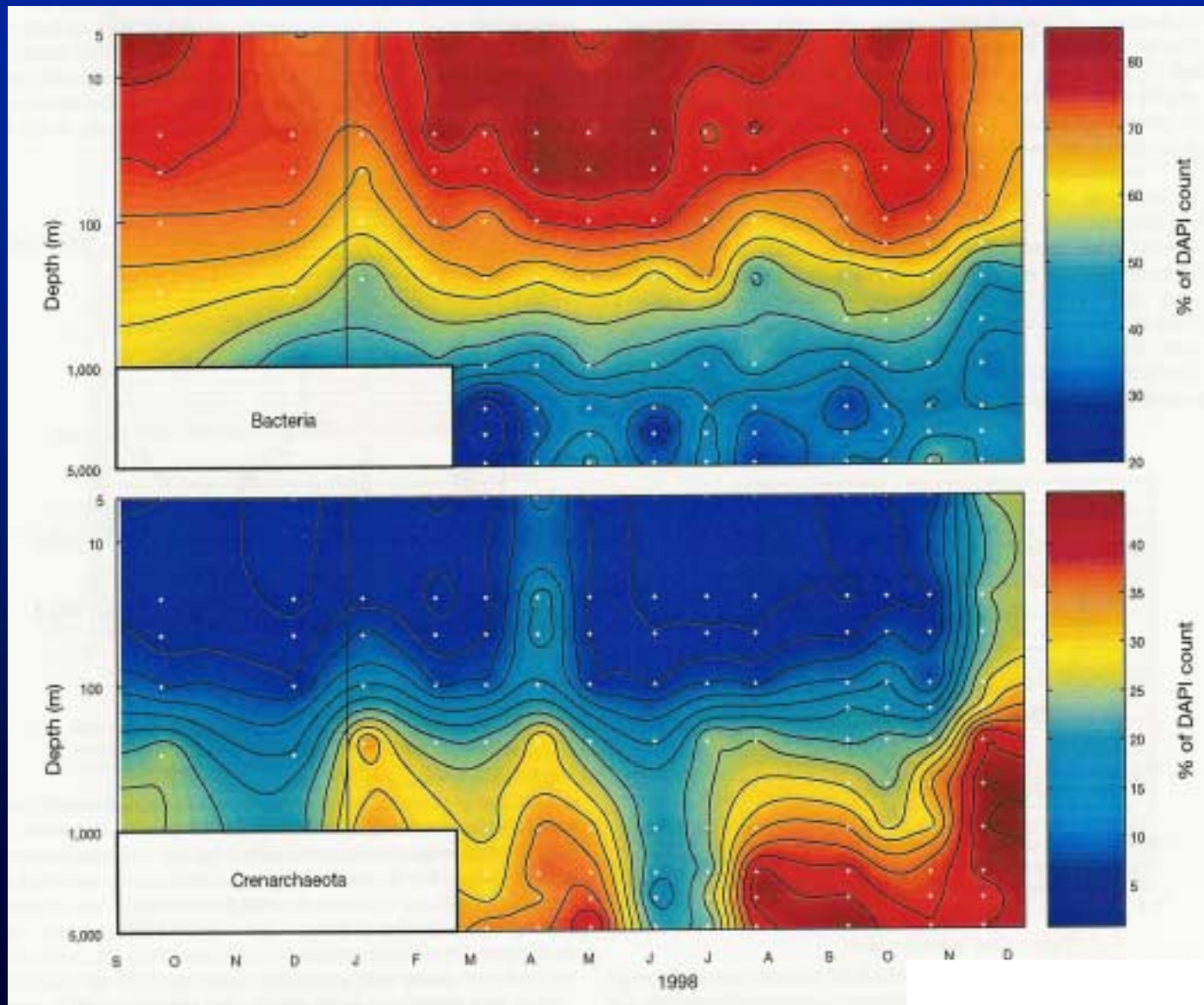
3200 m trap contents, June 1999



QuickTime™ and a
Cinepak decompressor
are needed to see this picture.

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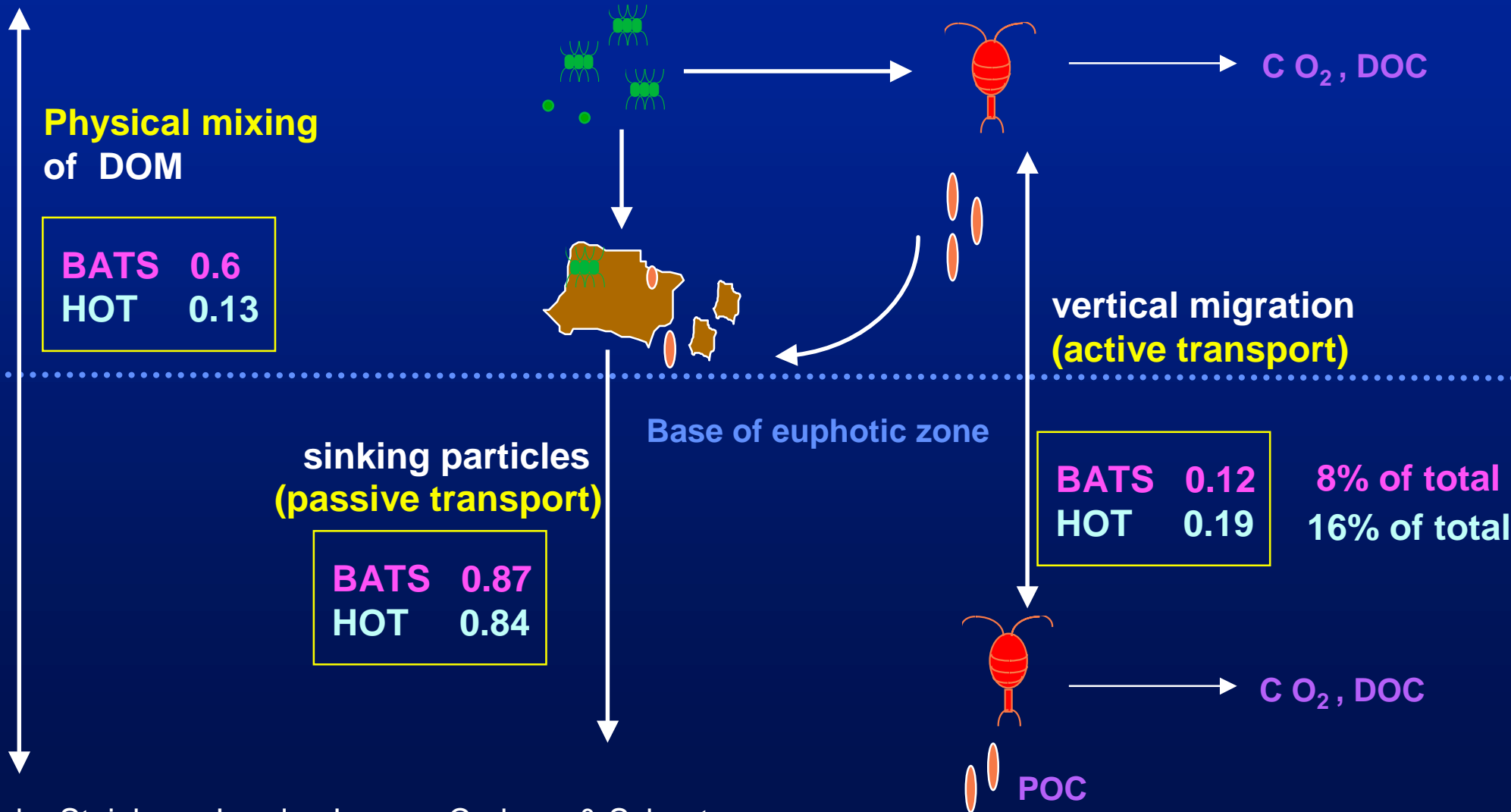
Vertical distribution of prokaryotic cell abundance at HOT



Mean annual C export terms

BATS & HOT

(mol C m⁻² y⁻¹)



Migratory active dissolved flux vs. passive POC flux

Location	Migrating biomass (mg C/ m ²)	Migratory flux (% mean POC flux)	Reference
BATS	85	13	Steinberg et al. (2000)
Subtropical & Tropical Atlantic	-	9	Longhurst et al. (1990)
BATS	191	44	Dam et al. (1995)
North Atlantic	(5-480)	(25-52)	Morales (1999)
HOT	142	19	Al-Mutairi & Landry (2001)
<u>Eq. Pacific</u>			
March/April-	96	24	Zhang & Dam (1997)
October-	155	33	
Oligotrophic-	47	10	LeBorgne & Rodier (1997)
HNLC area-	53	5	

Conclusions

- **Even rare shifts in community structure can have remarkable effects**
- **Just beginning to understand communities and processes below euphotic zone**
- **Likely to have significant impact on remineralization length scale, cycling of elements**