Numerical simulations of larval dispersal

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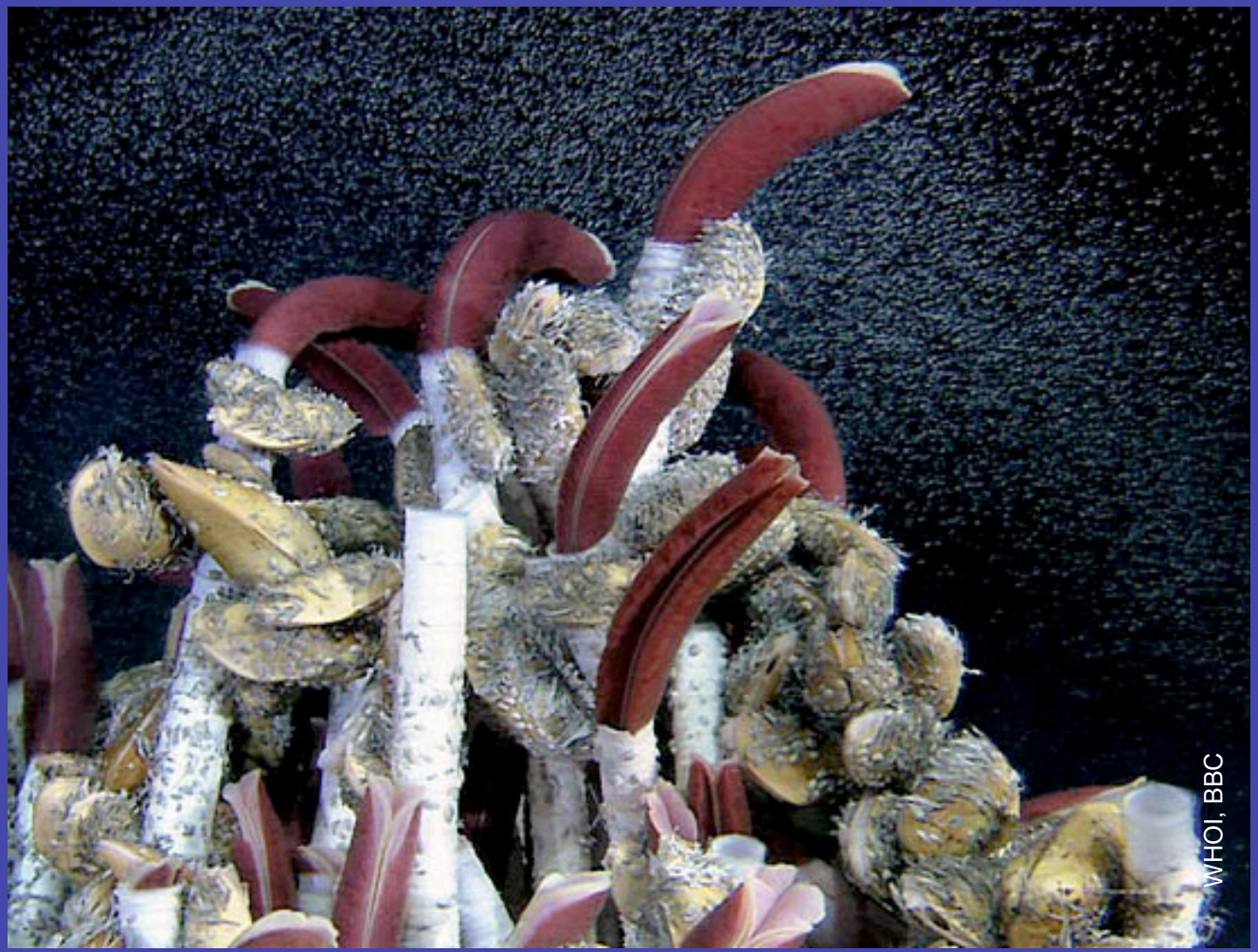


Animations

Temperature cross-section

2D Plan view – 10mab release

2D cross section – 10mab release

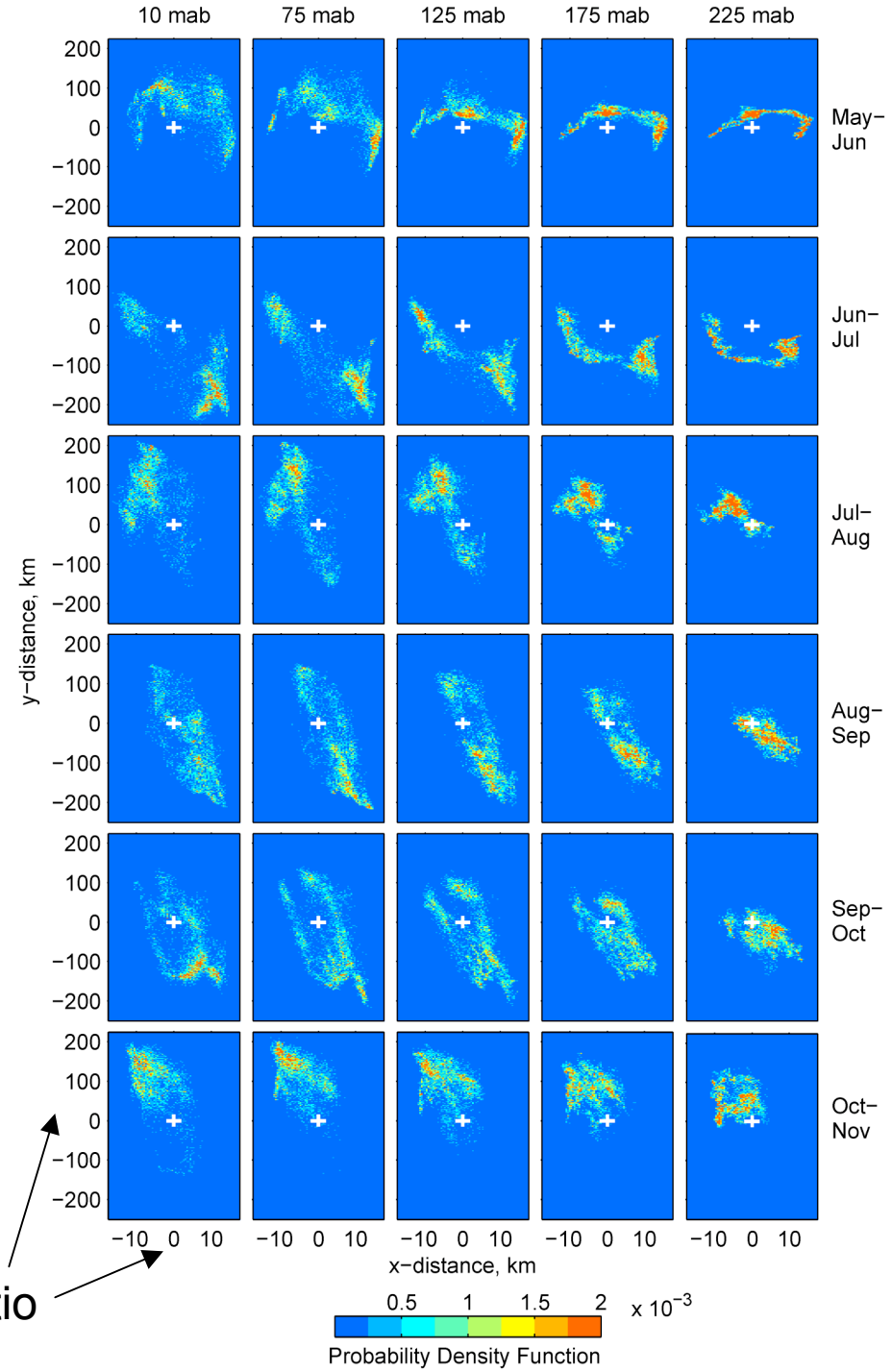
2D cross section – 225mab release

3D simulation – 10mab release

[Satellite altimetry]

Particle Positions After 30 Days:

Probability Density Functions



Note aspect ratio

Conclusions

Retention is sensitive to vertical position (behavior)

3-fold variation in time-mean retention

range: 1% (10mab) to 3% (225mab)

Retention is time-dependent

up to 10-fold variation in monthly mean retention

Dispersal distance is sensitive to vertical position

10 mab: ±200km along-ridge

225 mab: ±100km along-ridge

Flank currents play a major role in larval dispersal