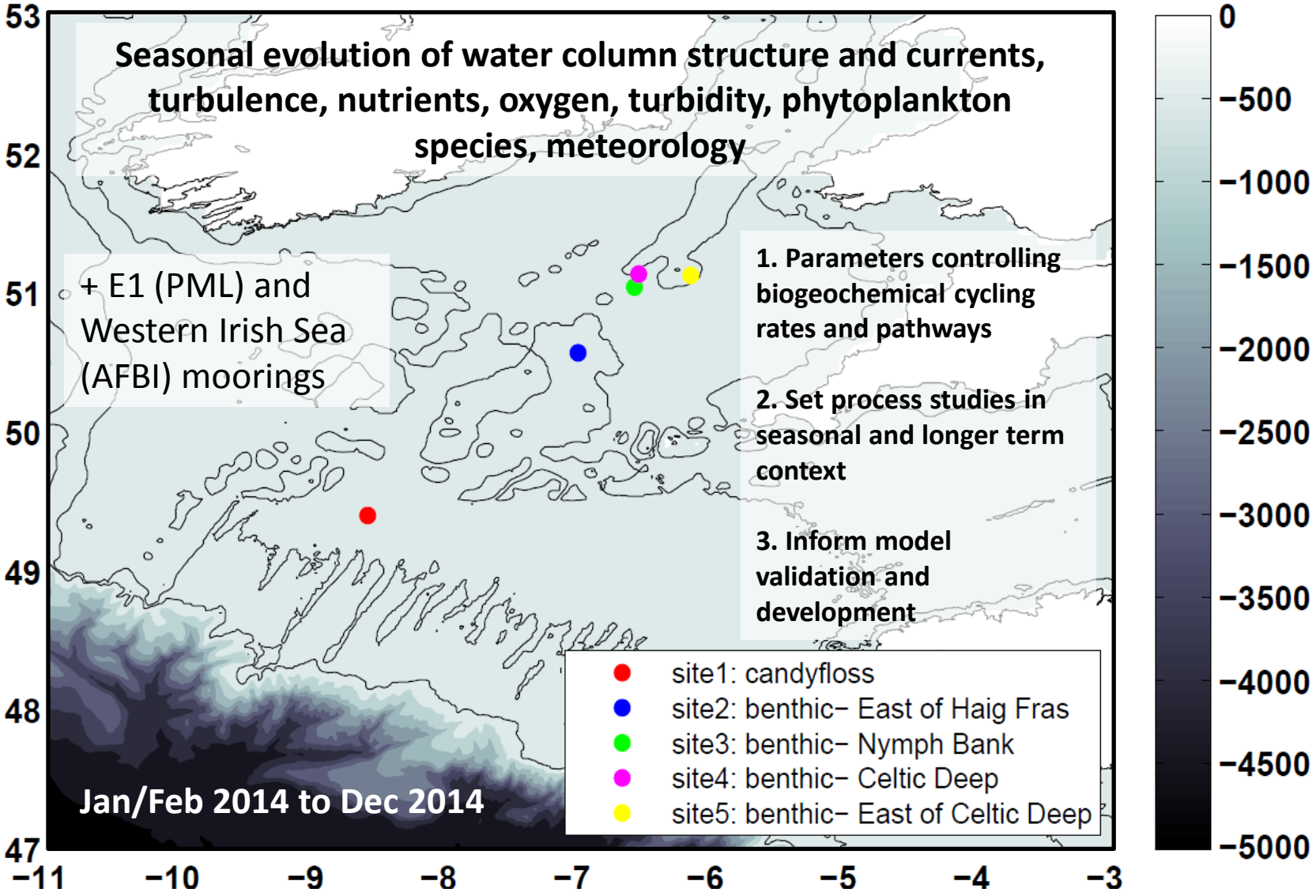
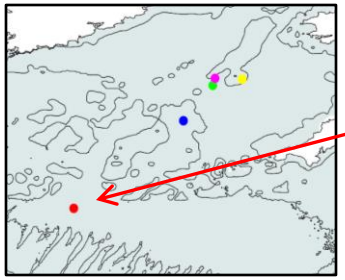
Celtic Sea Long Term Moorings

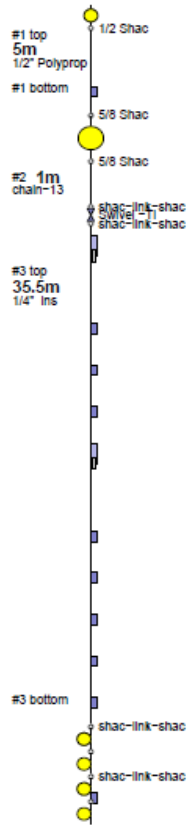
(Presented by Jo Hopkins on behalf of WPs 1 and 2)





Site 1 – Central Celtic Sea (WP1)

(Jo Hopkins, Matthew Palmer, Tom Rippeth, Dave Sivyer, MetOffice, Claire Mahaffey and others…)

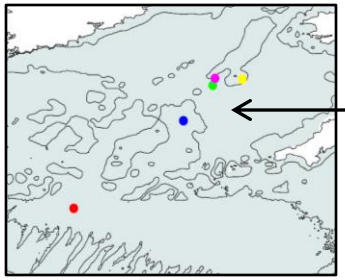


- Temperature chain
  - Top-to-bottom every 2.5-10 m, 5 min sampling

- ADCPs
  - Full water column currents every 2.5 minutes, 2 m bins
  - High freq. ADCPs for bottom boundary layer and surface-pycnocline turbulence estimates

- Cefas Smartbuoy (1-2m)
  - Surface T, S, Chl, OBS, oxygen
  - PAR in-air
  - 50 port water sampler at surface (2-3 days) (nutrients & phytoplankton species)
  - 48 port water sampler at 100 m (2-3 days) (nutrients and DOM)

- Metoffice ODAS Buoy
  - Wind
  - Air-pressure, humidity
  - Air and sea temperature
  - Spectral wave measurements



Sites 2 to 5 (WP2)

Site 4 (Celtic Deep)

- Cefas Smartbuoy (1-2 m)
  - Surface T, S, Chl, OBS, oxygen
  - PAR in-air
  - 50 port water sampler at surface (2-3 days) (nutrients and phytoplankton species)
- Cefas Mini-lander (bottom)
  - Nearbed T, S, Chl, OBS, oxygen every 30 mins
  - High freq. ADCP – bottom 40 m of currents

Sites 2, 3 and 5

- Cefas Mini-lander
  - Nearbed T, S, Chl, OBS, oxygen every 30 mins
  - High freq. ADCP – bottom 40 m of currents

Underpinning physical measurements (WP1)

Jo Hopkins, Matthew Palmer

Processing of basic ships physics data from all SSB cruises

Data streams	
CTD**	T, S, chl-a, oxygen, beam attenuation and transmission, PAR
VM-ADCPs (150 & 75 kHz)	Full water column currents
Navigation	Latitude-longitude, depth
Meteorology	Air temperature, wind, pressure, humidity, PAR, TIR
Surface underway**	SST, salinity, Chl fluorescence

Calibrated channels will rely on calibration samples being collected

Other physics support and data

Gliders (WP1 and WP3)	CTD, oxygen, chl, CDOM, and turbidity
Turbulence glider (WP1)	CTD, TKE dissipation (Ɛ) and turbulent eddy diffusivity (Kz)
Short term CTD & Chl-a timeseries (WP1)	High resolution water column structure from process stations (a) Towed temperature-fluorometer chain (b) Wirewalker mooring at Site 1 (T, S, Chl, CDOM)