

IBI-ROOS data management activities

Data exchange progress

Sylvie Pouliquen/ Marta de Alfonso
14 February 2012

IBI•ROOS
Iberia-Biscay-Ireland Regional Operational Oceanographic System

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Status on MoU signature

Signed	Potential members
<ol style="list-style-type: none">1. AZTI/Spain2. MeteoGAlia / Spain3. Euskalmet-Basque Météorological Agency / Spain4. I.E.O / Spain5. Ifremer /France6. Instituto Hidrografico /Portugal7. INTECMAR/ Spain8. IPIMAR / Portugal9. Irish Marine Institute/ Ireland10. IST / Portugal11. Mercator-Ocean/France12. SHOM/ France13. Météo-France/ France14. CNRS France15. Puertos Del Estado/Spain16. NERC / UK17. CETMEF/France18. MetOffice / UK	<ol style="list-style-type: none">1. Universidade dos Açores, Portugal2. Centre for Environment, Fisheries & Aquaculture Science (CEFAS)/UK3. Instituto de Meteorologia, Portugal



Status on Data Exchange Agreement

Signed	Potential members
<ol style="list-style-type: none">1. Ifremer /France2. MeteoGalicia / Spain3. Instituto Hidrografico /Portugal4. INTECMAR/ Spain5. SHOM/ France6. Puertos Del Estado/Spain7. Mercator-Ocean8. Euskalmet-Basque Météorological Agency / Spain9. AZTI10. Irish Marine Institute/ Ireland11. NERC / UK12. CETMEF/France13. I.E.O / Spain14. MetOffice / UK	<ol style="list-style-type: none">1. Universidade dos Açores, Portugal2. IPIMAR / Portugal3. IST / Portugal4. Météo-France/ France5. CNRS / France6. Centre for Environment, Fisheries & Aquaculture Science (CEFAS)/UK

IBI data portal. Status feb. 2012

- One ftp site with all the data (in Puertos).
- Mirror of the ftp site (in Ifremer) both synchronized.
- Real time data in daily files and monthly data.
- The same format and QC for all the data.
- For MyOcean: SST, SSS & sealev / once per day.
- For IBI-ROOS community:
 - SST, SSS, Waves, Wind, AtPr, AirTemp & sealev
 - Updates every three hours.



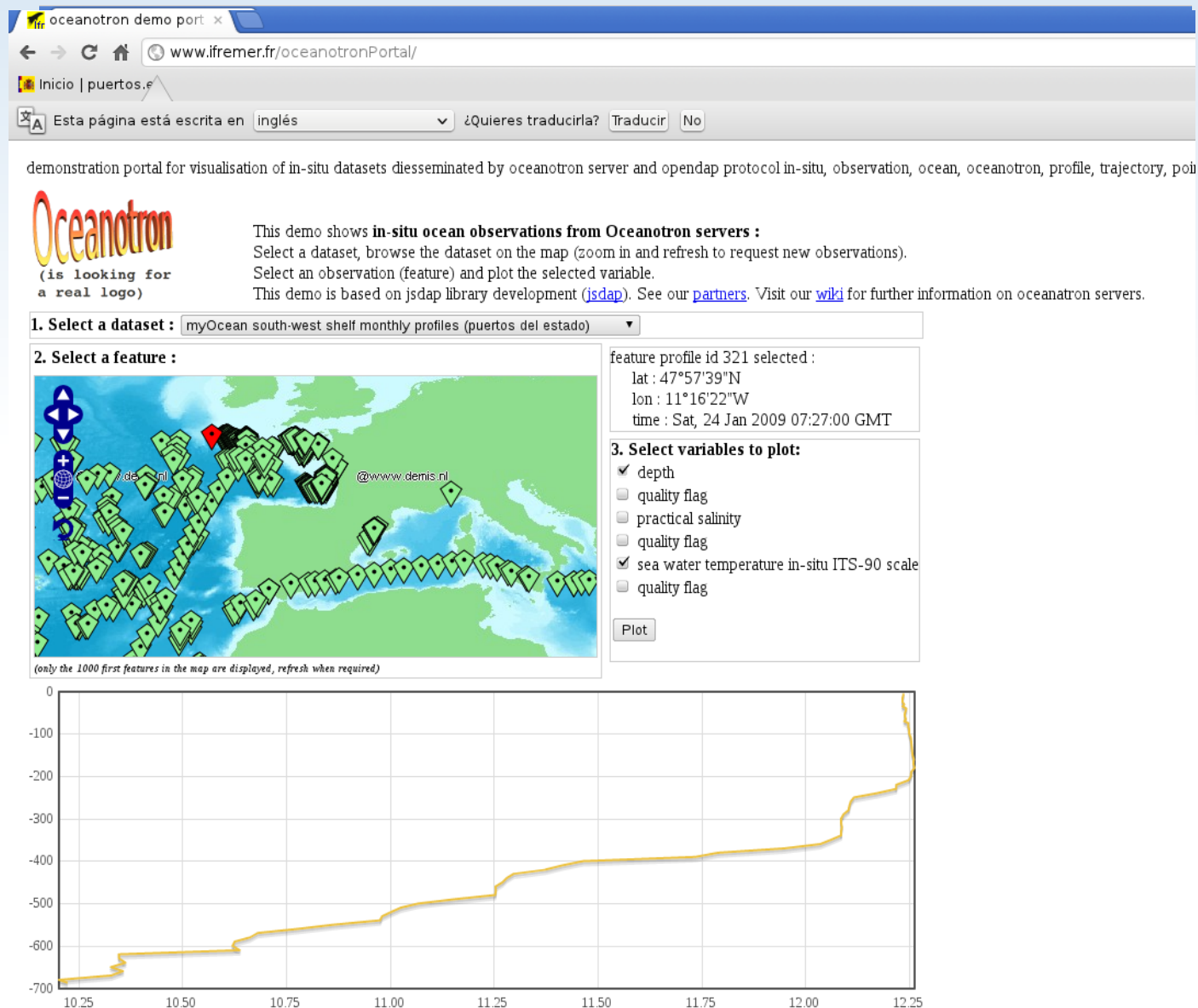
IBI data portal: working on...

- RTQC implementation at provider level.
- Bio-geo-chemical data.
- Collect data directly from providers: recently done for SHOM and POL/NOC tide gauges.
- Delayed mode data from 1990.

IBI data portal: New developments.

- New downloading & visualization tools: Oceanotron ready. New features in Fixed stations viewing service.
- Quality control in delay mode: Validation of data done comparing with nearby stations and other sources of data -> useful for providers?
- Monitoring the service: KPI's (Key Performance Indicators) -> very useful to control data flow, delay in data delivery and data quality.

Oceanotron viewing tool



Oceanotron OPeNDAP server

DODS Directory for:

<http://www.ifremer.fr/oceanotron/OPeNDAP/>

INS_CORIOLIS_GLO_TS_NRT_OBS_PROFILE_LATEST: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
INS_CORIOLIS_GLO_TS_NRT_OBS_POINTSERIES_LATEST: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
INS_CORIOLIS_GLO_TS_NRT_OBS_POINTSERIES_ARCHIVE: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
INS_CORIOLIS_GLO_TS_NRT_OBS_TRAJECTORIES_LATEST: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
INS_CORIOLIS_GLO_TS_NRT_OBS_TRAJECTORIES_ARCHIVE: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
OCEANSITES-CIS-2010: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
OCEANSITES_CIS_POINTSERIES: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
OCEANSITES_CCE1_POINTSERIES: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
OCEANSITES_MOVE_POINTSERIES: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
OCEANSITES_PAP_POINTSERIES: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
OCEANSITES_ANTARES_POINTSERIES: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
OCEANSITES_ANTARES_PROFILE: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
OCEANSITES_ExM3A_PROFILE: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)
OCEANSITES_DYFAMED_PROFILE: [DDS](#) [DAS](#) [Information](#) [HTML Data Request Form](#)

DODS Dataset Access Form

Tested on Netscape 4.61 and Internet Explorer 5.00.

Action:

Data URL:

Global Attributes:

name: "INS_CORIOLIS_GLO_TS_NRT_OBS latest profiles"
doc_external_link: "http://www.oceansites.org/data/index.html"
version: "DODS/3.2"
owner: "server manager"
contact: "server manager email"

Sequence location

Variables:

☐ **id: 32 bit Integer**

_id =

☐ **lon: 32 bit Real**

lon =

☐ **lat: 32 bit Real**

lat =

☐ **time: 64 bit Real**

time =

☐ **position qc: 32 bit Real**

position_qc =

☐ **time qc: 32 bit Real**

IBI•ROOS

Iberia-Biscay-Ireland Regional Operational Oceanographic System

IBI fixed stations viewing service

<http://myodata.puertos.es>



MyOcean Project - IBI region (SWS)

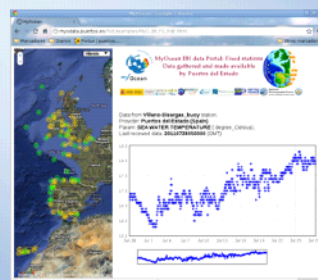
Fixed Stations Viewing Service

Data gathered and made available by Puertos del Estado

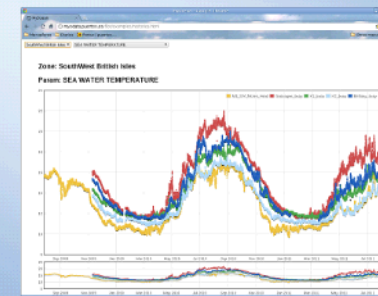
Map of all the stations



Real Time Data Viewing Service Access



Delayed Mode Data Viewing Service Access

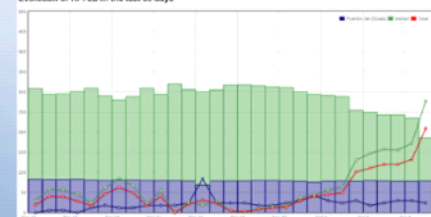


Last Data Received From Every Station

Station	Parameter	Value	Unit	Time	Quality	Comment
Estación 1	Temperature	15.2	°C	2013-07-17 12:00:00	1	
Estación 2	Salinity	35.2	PSU	2013-07-17 12:00:00	1	
Estación 3	Depth	10.5	m	2013-07-17 12:00:00	1	
Estación 4	Current	0.5	m/s	2013-07-17 12:00:00	1	
Estación 5	Wave	1.2	m	2013-07-17 12:00:00	1	
Estación 6	Wind	10.5	m/s	2013-07-17 12:00:00	1	
Estación 7	Pressure	1013.2	hPa	2013-07-17 12:00:00	1	
Estación 8	Humidity	75.2	%	2013-07-17 12:00:00	1	
Estación 9	Cloud	5	%	2013-07-17 12:00:00	1	
Estación 10	Visibility	10.0	km	2013-07-17 12:00:00	1	
Estación 11	Direction	135	°	2013-07-17 12:00:00	1	
Estación 12	Speed	1.5	m/s	2013-07-17 12:00:00	1	
Estación 13	Height	1.5	m	2013-07-17 12:00:00	1	
Estación 14	Period	8.0	s	2013-07-17 12:00:00	1	
Estación 15	Direction	135	°	2013-07-17 12:00:00	1	
Estación 16	Speed	1.5	m/s	2013-07-17 12:00:00	1	
Estación 17	Height	1.5	m	2013-07-17 12:00:00	1	
Estación 18	Period	8.0	s	2013-07-17 12:00:00	1	
Estación 19	Direction	135	°	2013-07-17 12:00:00	1	
Estación 20	Speed	1.5	m/s	2013-07-17 12:00:00	1	

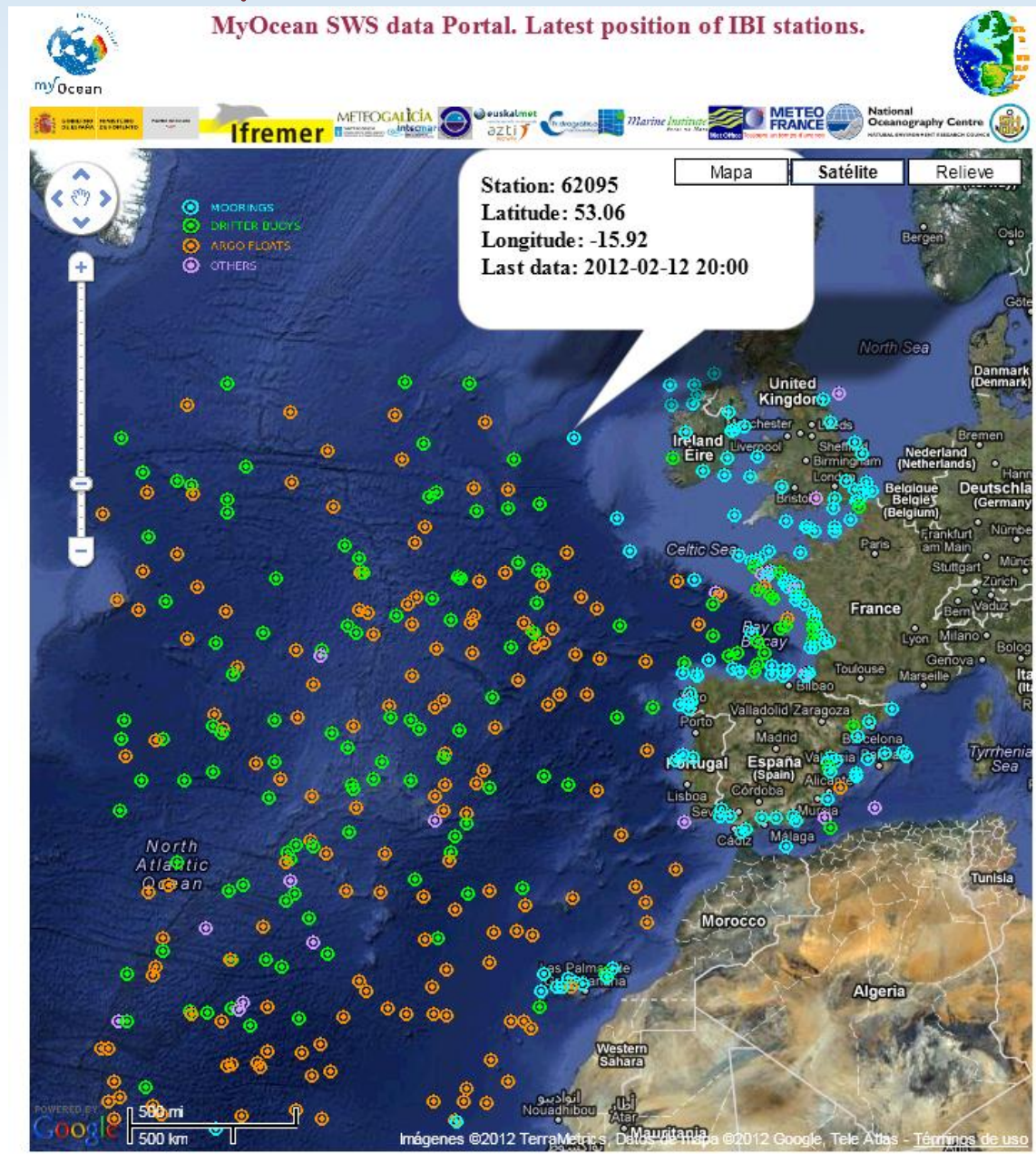
Monitoring the Service: Key Performance Indicators

Monitoring SWS Service
Evolution of KPI-2b in the last 30 days



IBI fixed stations viewing service

IBI platforms (active feb/2012)

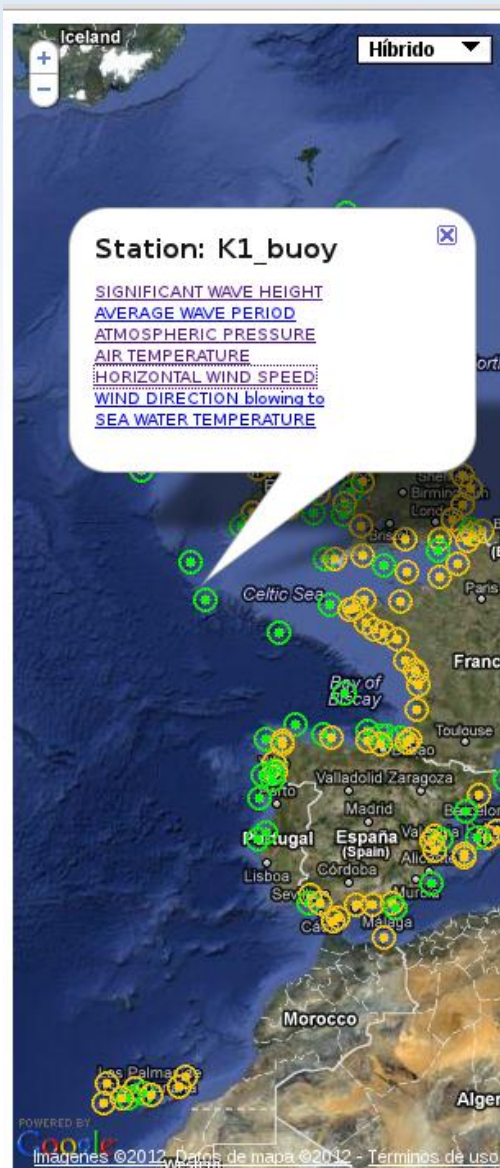


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IBI fixed stations viewing service

Real time viewing service



MyOcean IBI data Portal: Fixed stations
Data gathered and made available
by Puertos del Estado

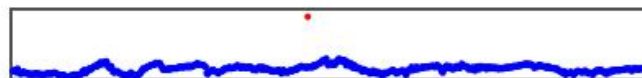
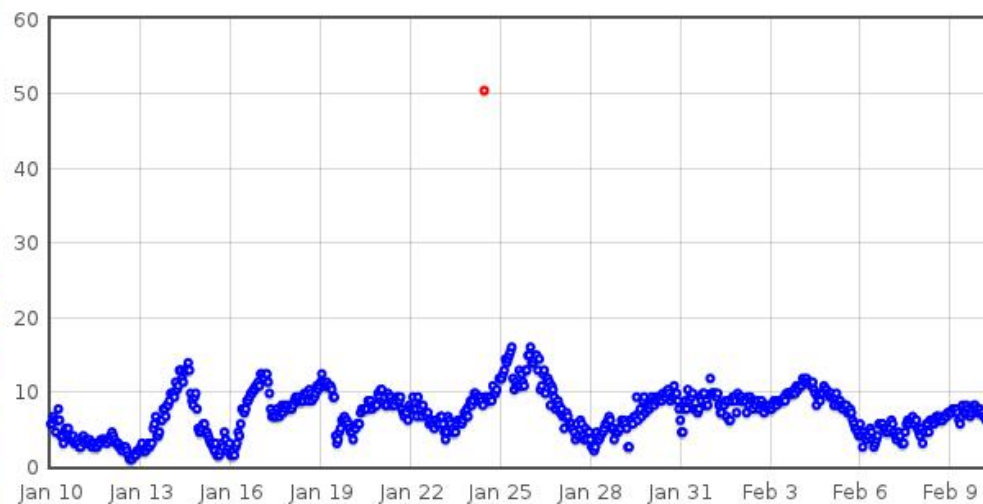


Data from K1_buoy station.

Provider: **UKMO/MeteoFrance (UK/France).**

Param: **HORIZONTAL WIND SPEED (meter/second).**

Last received data: **20120210090000 (GMT)**



IBI fixed stations viewing service

Last data received table.

Useful to detect "out of order" stations

LAST DATA RECEIVED

Name	Timestamp	VAVH	VAVT	VDIR	ATMP	AIRT	WSPD	WDIR	HCSP	CDIR	TEMP	PSAL
Cortegada_platform	2012- 02- 10 12:00:00					7.7					10	23.96
Rande_platform	2012- 02- 10 12:00:00					6.3					10.98	33.34
Illas_Cies_buoy	2012- 02- 10 12:00:00					8.8	2.5	28			12.64	34.7
AGuarda_buoy	2012- 02- 10 12:00:00					9	1.7	328			12.01	
Donostia_buoy	2011- 11- 05 09:00:00	2.3	8.1	301	1004.2	13.5	0	284	0.02	188	18.48	35.74
Matxitxako_buoy	2012- 02- 10 03:00:00	1.5	9.1	307	1034	6.4	3.8	353	0.09	141	5	35.74
Bilbao_buoy	2012- 02- 10 12:00:00	1.4	5.8	304		7	5.9		0.15	318	13	35.7
Santander-AGL_buoy	2012- 02- 10 12:00:00	1.5	6.4	307	1032	8	3.3	208	0.19	208	13	35.86
Cabo_de_Penas_buoy	2012- 02- 10 12:00:00	1.3	7.2	309	1032	7.7			0.04	312	12.7	35.57
Estaca_de_Bares_buoy	2012- 02- 10 12:00:00	1.9	6.4	298	1032	9.6	5.9	253		107	12.8	
Villano-Sisargas_buoy	2012- 02- 10 12:00:00	2.3	5.3	56	1030	9.6	10.5	214	0.14	250	13.1	35.82
Silleiro_buoy	2012- 02- 10 12:00:00	1.9	6.1	295	1028	9.2	5.6	194	0.06	28	13.4	35.88
Cadiz_buoy	2012- 02- 10 12:00:00	0.7	5	273	1025	10.1	3.3	149	0.19	143	15.3	36.3
Gran_Canaria_buoy	2012- 02- 10 12:00:00	2.7	6.3	25	1026	16.2	8	278			18.1	
Tenerife_buoy	2012- 02- 10 12:00:00	1.2	5	79	1025	16.8	11.7		0.1	146	18.9	
Monican01	2012- 02- 10 12:00:00	1.6	6.8	321	1027.4	10.9	5.4	190			14.45	
Monican02	2012- 02- 10 12:00:00	1.6	6.8	315	1027.6	10.2	6.6	198			13.91	
Raia01	2011- 05- 31 08:00:00	3.8	7.4	194	1021.7	17.8	2.1	213			10	
M2_E_of_Lambay	2012- 01- 31 10:00:00	1.4	4.3				15.5	281			9.2	
M3_SW_Mizen Head	2011- 12- 10 14:00:00	3.2	7				16	50			12	
M4_Donegal_Bay	2011- 06- 03 12:00:00						2	80			12.2	
M5_South_East	2012- 02- 10 11:00:00	1.3	7				6	280			9.6	
M6	2012- 02- 10 11:00:00	2.5	7				11	140			10.6	
Gascogne_buoy	2012- 02- 10 12:00:00	1.7			1032.8	7.4	5.7	250			12.7	
K1_buoy	2012- 02- 10 12:00:00	2.3	8		1032.8	10.9	5.7	20			12.2	
62052_buoy	2012- 02- 05 15:00:00	1.6	5				11.8					

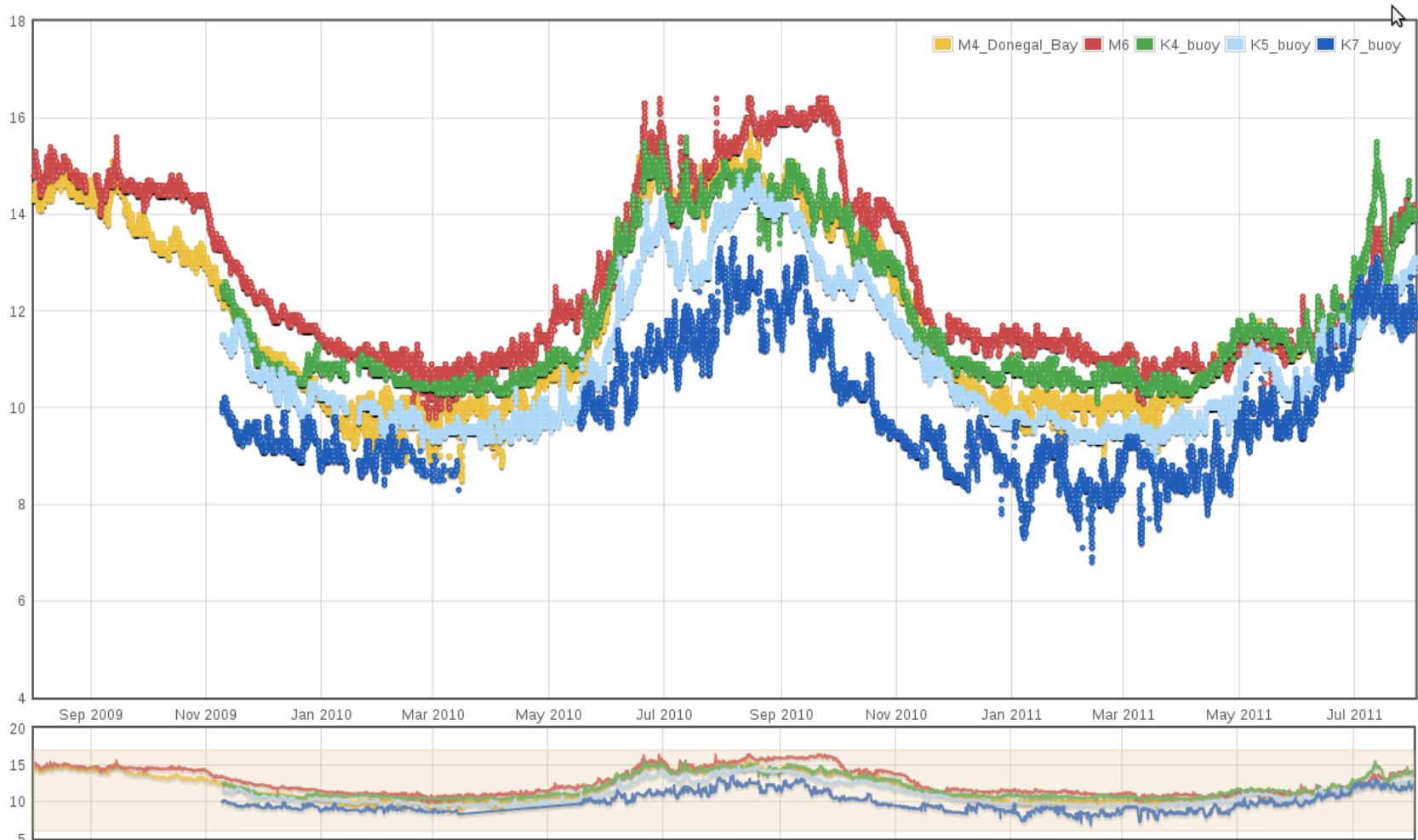
IBI fixed stations viewing service

Delayed mode viewing service (last 2 years)

Useful for data validation: nearby stations.

Zone: NorthWest British Isles

Param: SEA WATER TEMPERATURE

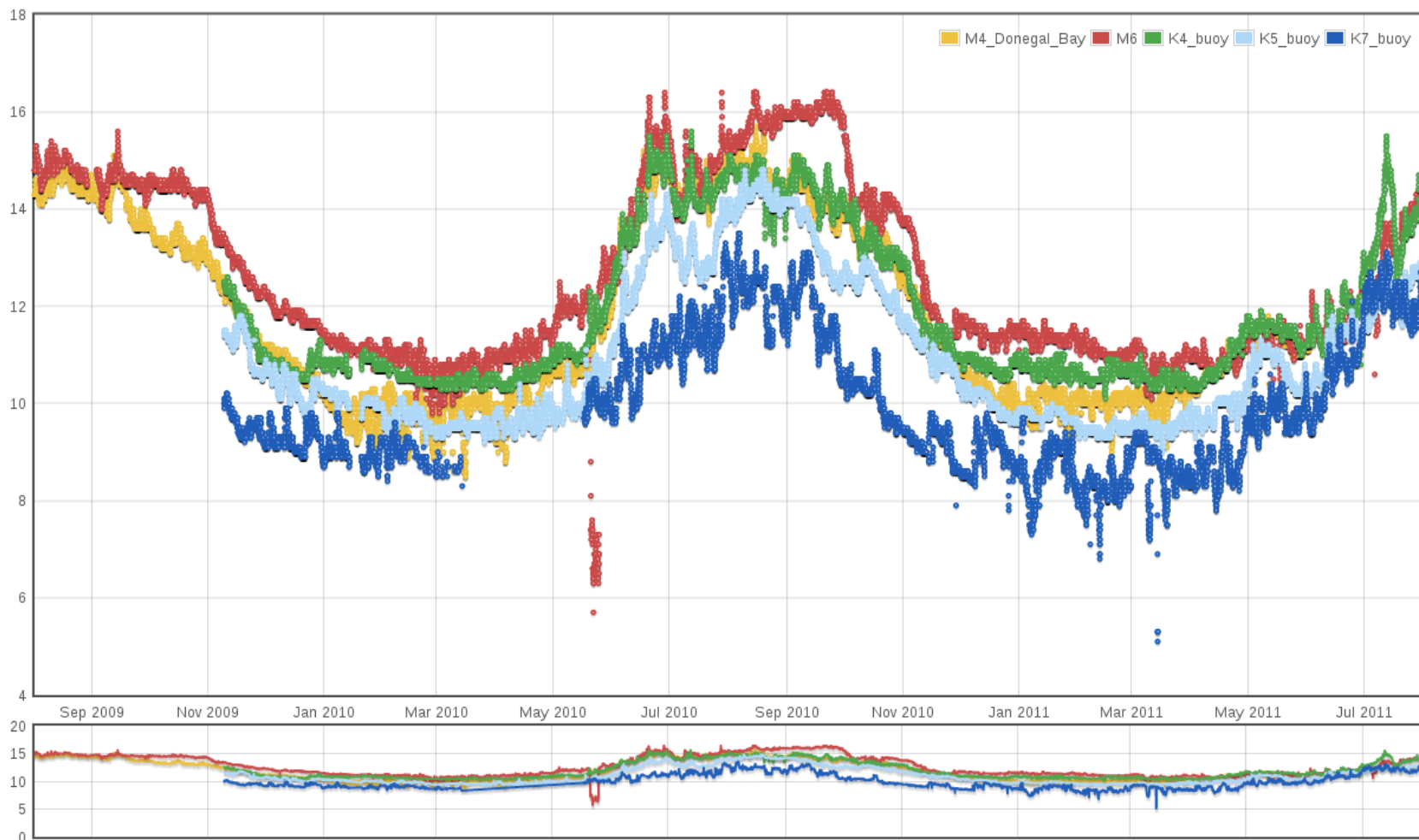


Data validation

Same data before "data cleaning"

Zone: NorthWest British Isles

Param: SEA WATER TEMPERATURE

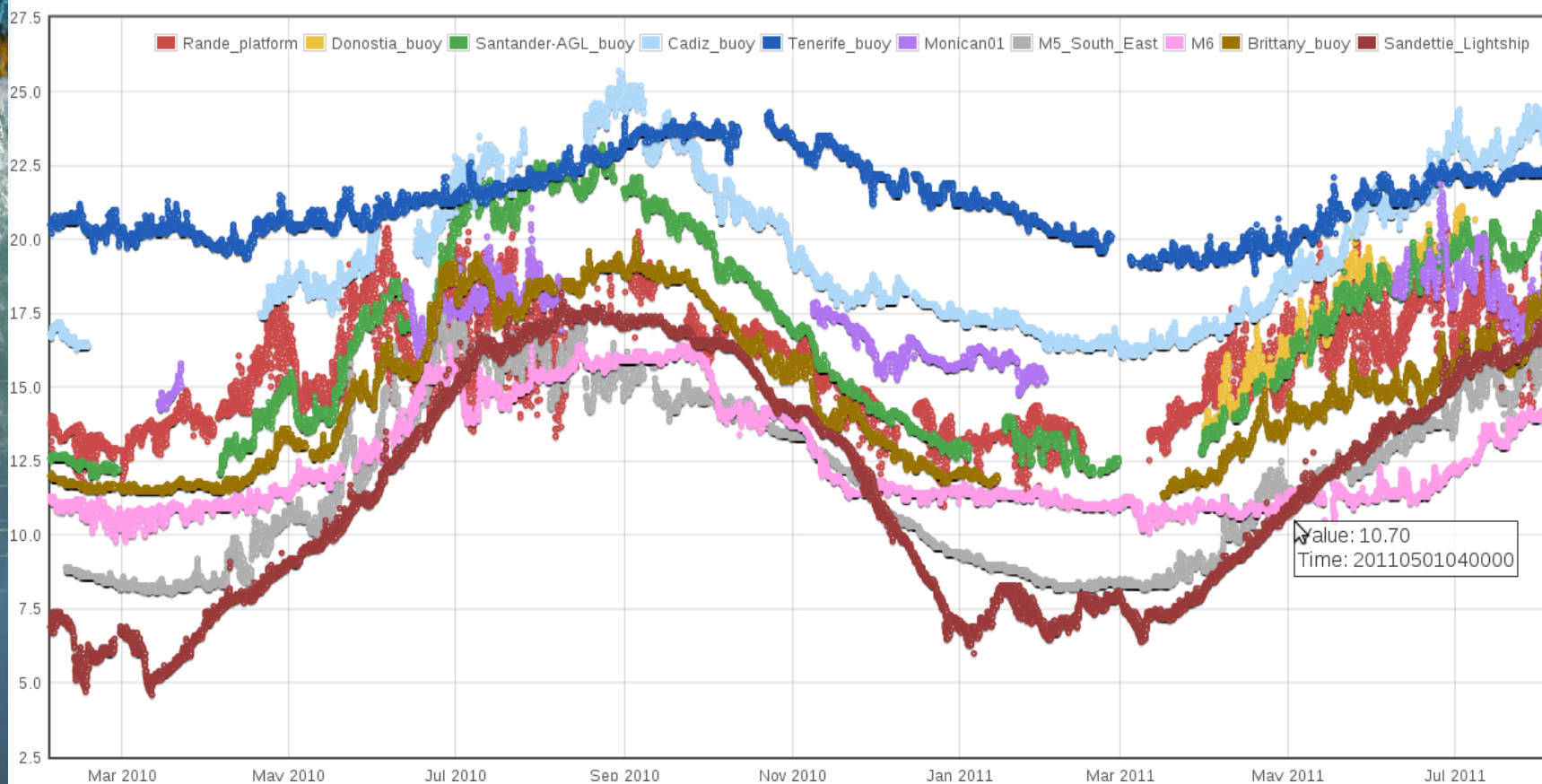


IBI fixed stations viewing service

Other useful graphs?

Zone: SWS Area

Param: SEA WATER TEMPERATURE



KPI's: Key Performance Indicators

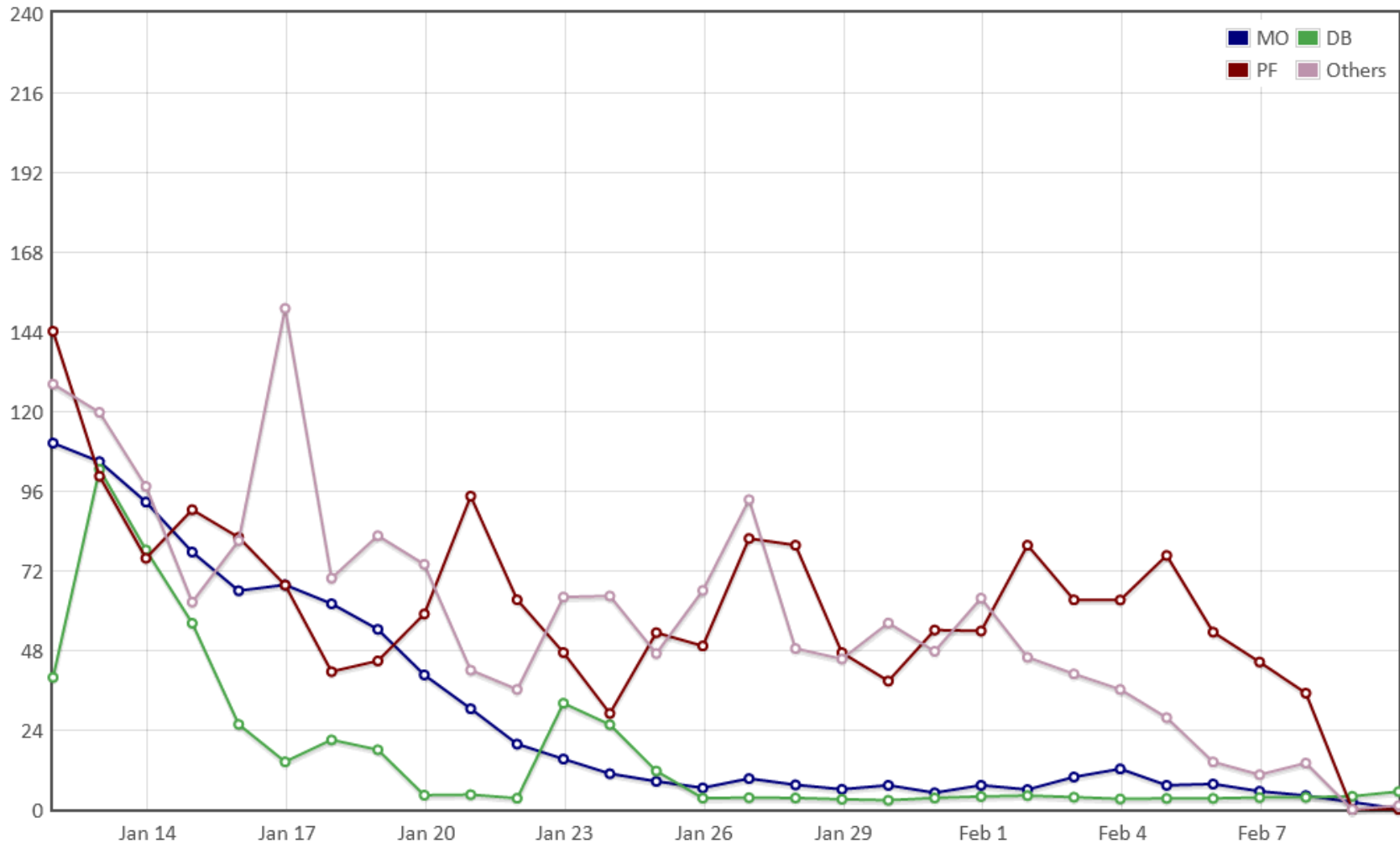
- KPI-1: Data availability. Delay in hours between date of observation and date of first delivery to users.
- KPI-2: Input data coverage. Monitoring platform availability per day by type of platform or by Production Unit (Puertos-Ifremer).
- KPI-4: Data quality. Percentage of data without quality flag, with "good data" flag or "bad data" flag.

KPI-1: Data availability.

Last 30 days of data.

KPI-1: Data availability

Delay in hours between date of observation and date of first delivery to users

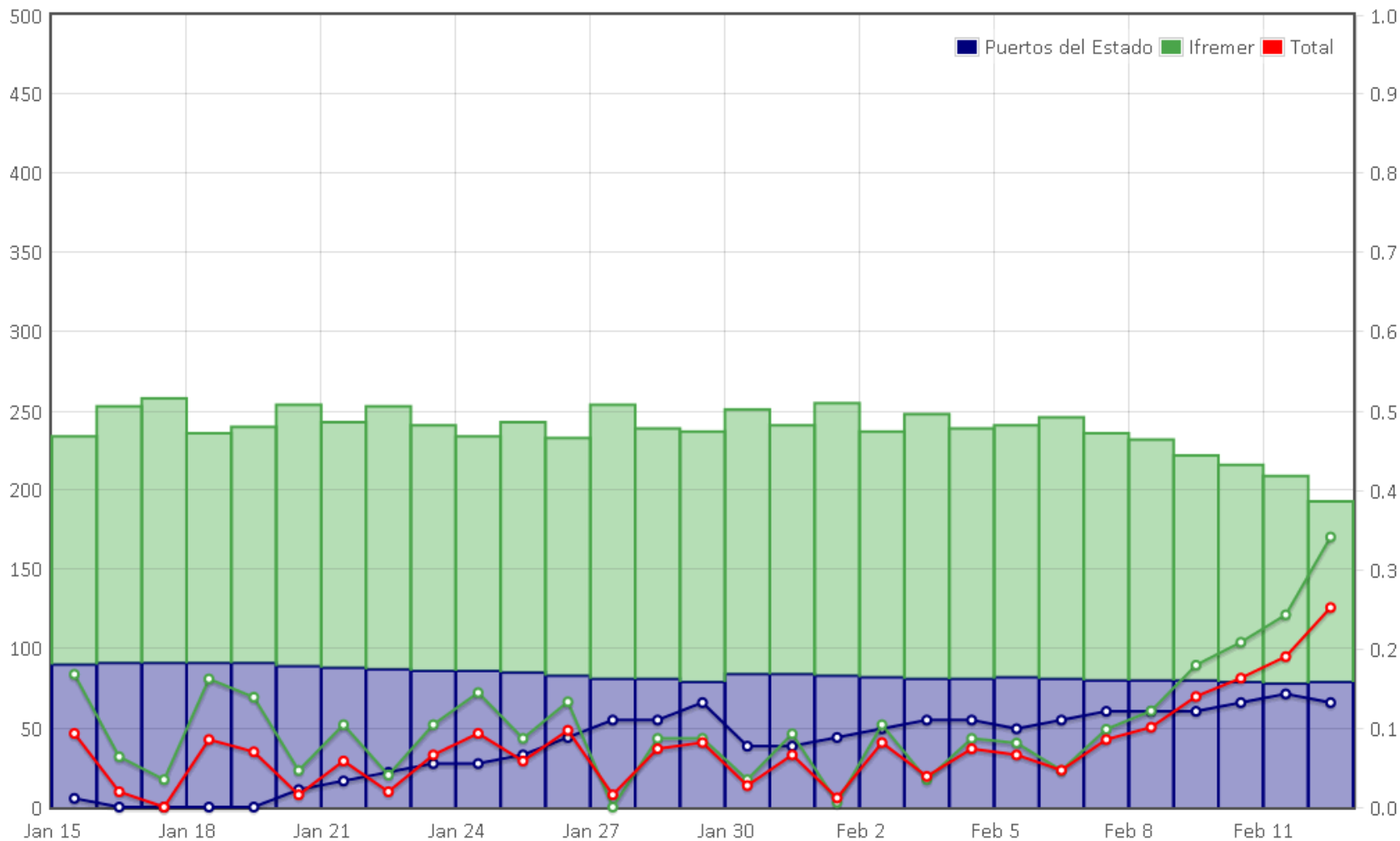


KPI-1: Data coverage by PU.

Last 30 days of data.

KPI-2a: Input data coverage

Monitoring platform availability per day by Production Unit

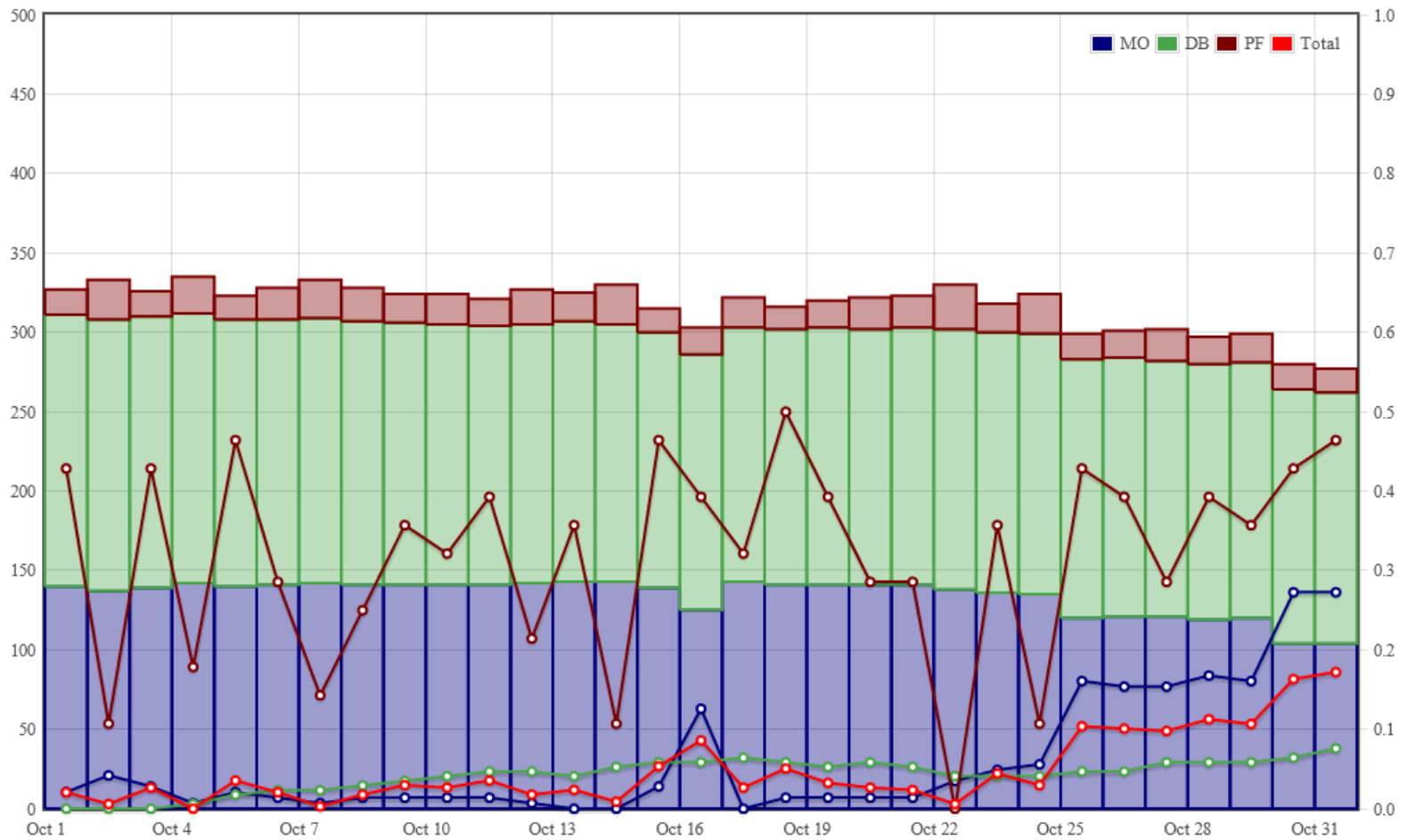


KPI-1: Data coverage by type of Platform.

October - 2011 (~330 stations)

Monitoring SWS Service

Evolution of KPI-2a in 201110

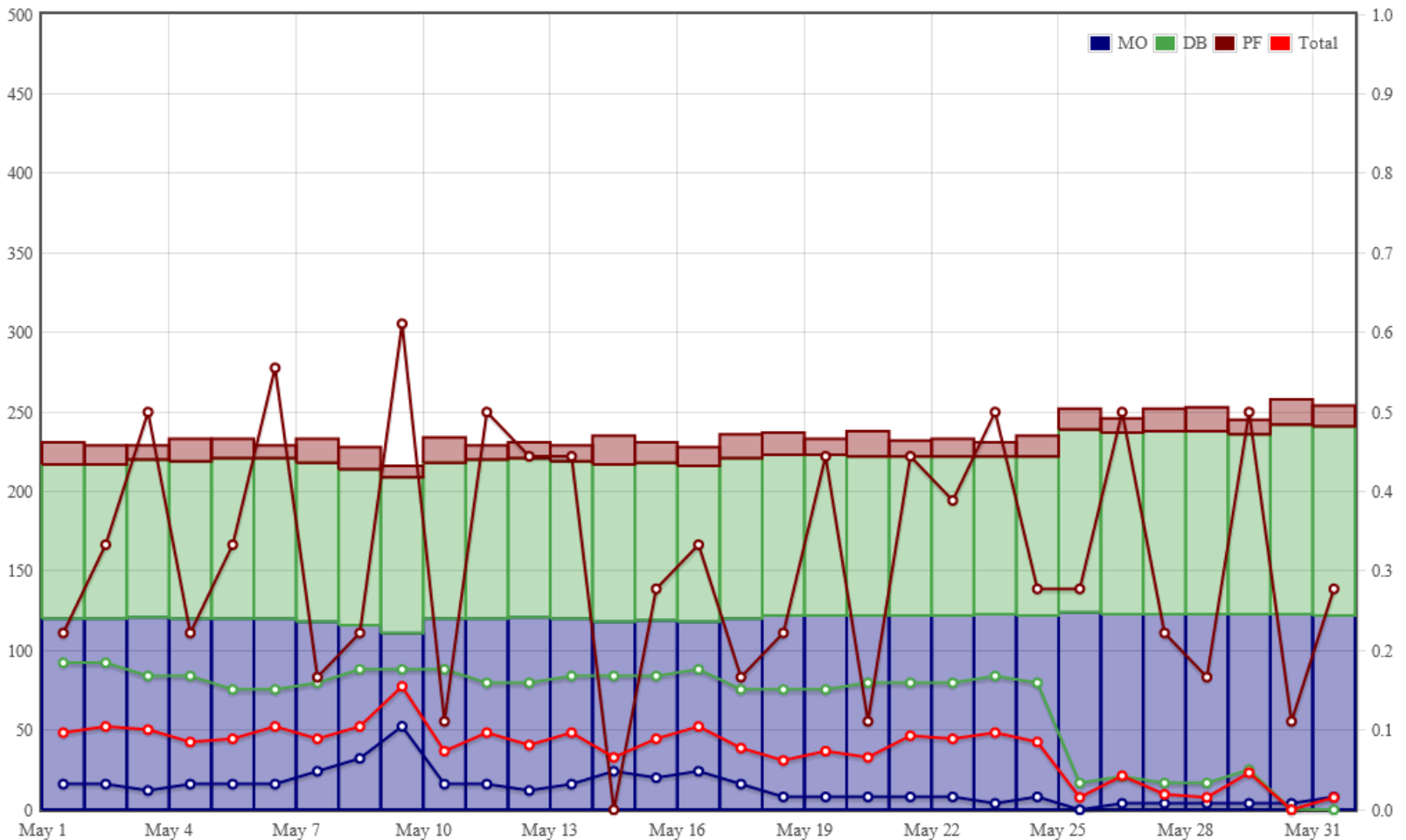


KPI-1: Data coverage by type of Platform.

May - 2010 (~240 stations)

Monitoring SWS Service

Evolution of KPI-2a in 201005



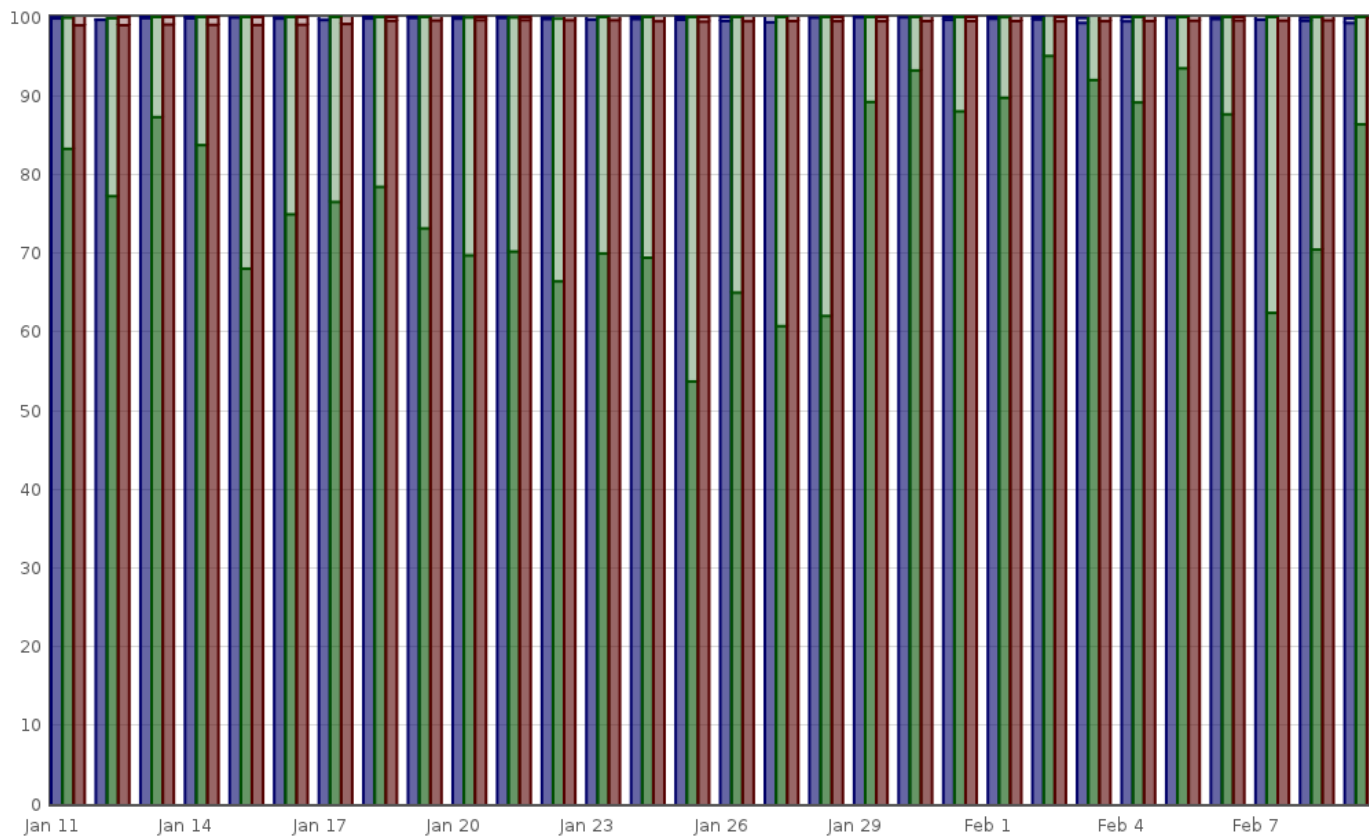
KPI-4: Data quality

(SST / SSS / Sea Level)

Monitoring SWS Service

Evolution of KPI-4. **TEMP** (blue color) **PSAL** (green color) **SLEV** (red color)

Good data (qc =1,2) in dark colors and bad data (qc!=1,2) in light colors



With the stack plugin, you can have Flot stack the series. This is useful if you wish to display both a total and the constituents it is made of. The only requirement is that you provide the input sorted on x

Next Steps

- Include more Data providers especially Biogeochemical data
- Include Historical data (1990-2012)
- Monitor the scientific quality on a quarterly basis (MyOcean II)

