

# H2O QC Report: Hawaiian Archipelago 2016

The file used in this QC routine is: ESD\_NCRMP\_H2O\_2016\_HI.csv

QC run at: 2021-03-09 15:43:30 HST

Number of samples in data file: 202

## Check the data ranges

Fields with NA values for min and max do not contain any data for this data set.

	Min	Max
LATITUDE_DEC	19.05712	28.50699
LONGITUDE_DEC	-178.3891	-154.8055
TIMESTAMP_UTC	2016-07-14 20:18:00	2016-09-27 20:05:00
YEAR_UTC	2016	2016
MONTH_UTC	7	9
DAY_UTC	1	29
TIME_UTC	00:01:00	23:57:00
YEARDAY_UTC	196.85	271.84
DEPTH_METER	0.9	16.8
PRESSURE_DB_CTD	1.005	17.493
PRESSURE_DB_CALCULATED	NA	NA
TEMPERATURE_ITS90_CTD	24.7048	28.5345
TEMPERATURE_ITS90_SCS	NA	NA
TEMPERATURE_ITS90_BEST	24.7048	28.5345
SALINITY_PSS78_CTD	30.5665	35.4970
SALINITY_PSS78_BOTTLE	34.9461	34.9461
SALINITY_PSS78_SCS	NA	NA
SALINITY_PSS78_BEST	30.5665	35.4970
DIC_UMOL_KG	1908.7	2020.3
TALK_UMOL_KG	2151.4	2315.3
PH_TS_CALCULATED	7.873034	8.098742
PCO2_UATM_CALCULATED	357.9645	592.2390
ARAGONITE_SAT	2.568375	3.858289

Check the missions, dates, and number of samples associated with each island.

LOCATIONCODE	CRUISE_ID	EXPOCODE	NO.SAMPLES	TIMESTAMP_UTC.range
FFS	HA1606_NWHI	33HL20160825	19	2016-09-01 21:39:00, 2016-09-27 20:05:00
HAW	HA1606_MHI	33HL20160712	25	2016-08-07 20:54:00, 2016-08-16 00:30:00
KAH	HA1606_MHI	33HL20160712	6	2016-07-14 20:18:00, 2016-08-21 23:19:00
KAU	HA1606_MHI	33HL20160712	12	2016-07-23 21:28:00, 2016-07-27 22:26:00

(continued)

LOCATIONCODE	CRUISE_ID	EXPOCODE	NO.SAMPLES	TIMESTAMP_UTC.range
KUR	HA1606_NWHI	33HL20160825	25	2016-09-12 21:27:00, 2016-09-15 21:37:00
LAN	HA1606_MHI	33HL20160712	9	2016-07-18 21:35:00, 2016-08-12 21:40:00
LIS	HA1606_NWHI	33HL20160825	33	2016-09-17 20:22:00, 2016-09-22 07:00:00
MAI	HA1606_MHI	33HL20160712	8	2016-07-14 21:26:00, 2016-08-13 23:03:00
MOL	HA1606_MHI	33HL20160712	12	2016-07-17 20:05:00, 2016-07-20 22:18:00
NII	HA1606_MHI	33HL20160712	6	2016-07-28 21:02:00, 2016-07-29 22:38:00
OAH	HA1606_MHI	33HL20160712	25	2016-08-17 21:45:00, 2016-08-24 18:09:00
PHR	HA1606_NWHI	33HL20160825	22	2016-09-06 22:08:00, 2016-09-11 23:19:00

## Check for NULLs in all metadata fields

“No” signifies that no NULL data exist. “Yes” signifies that NULL values are present.

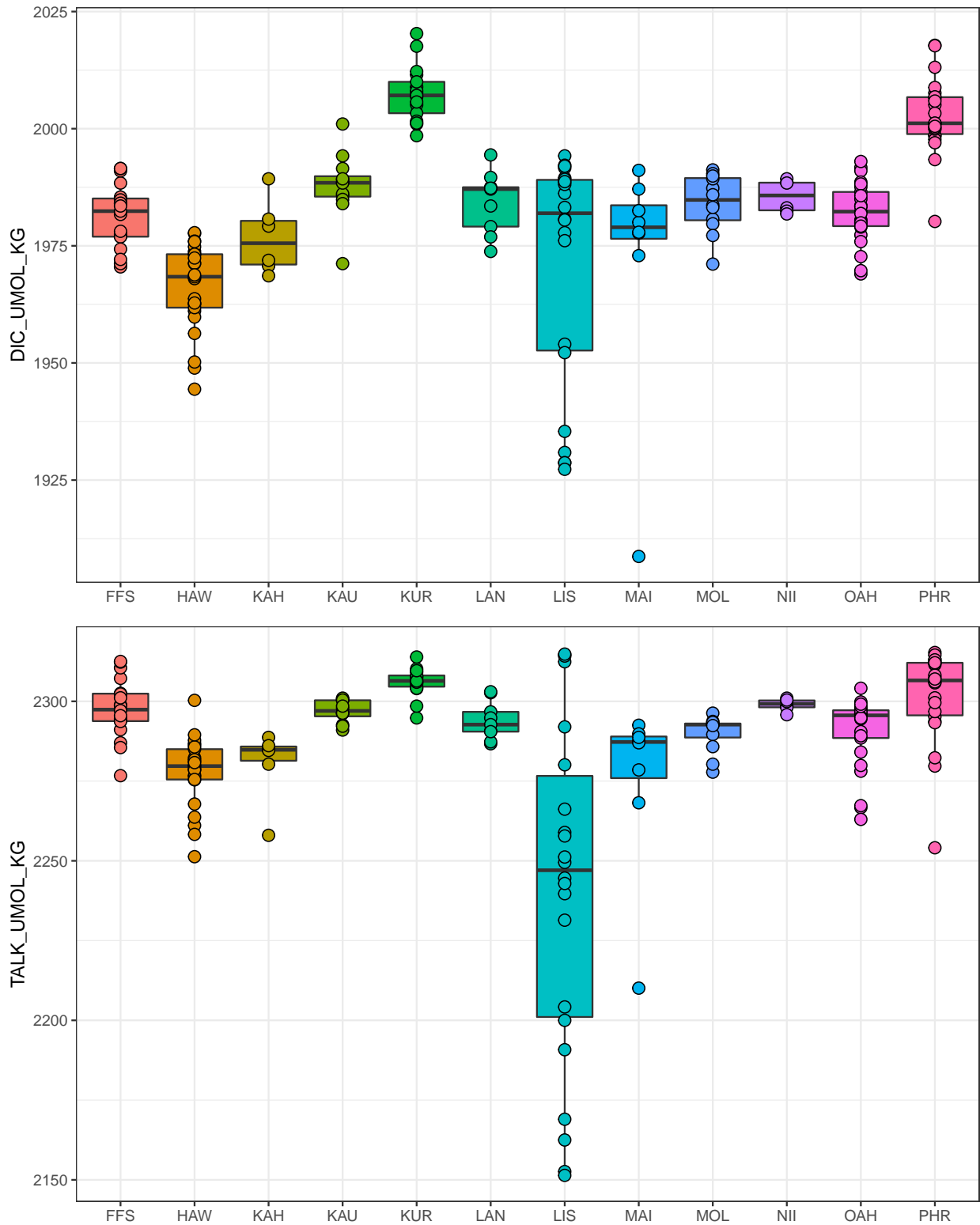
	Contains NULLs?
EXPOCODE	No
CRUISE_ID	No
STATION_ID	No
CAST_NUMBER	No
SAMPLE_ID	No
YEAR_UTC	No
MONTH_UTC	No
DAY_UTC	No
TIME_UTC	No
YEARDAY_UTC	No
LATITUDE_DEC	No
LONGITUDE_DEC	No
DEPTH_METER	No
CTDCASTID_ESD	No
ASSOC_OCC_SITEID	Yes
REGION	No
REGIONCODE	No
LOCATION	No
LOCATIONCODE	No
SURVEY_DESIGN	No
SAMPLE_FREQUENCY	No
TEMPERATURE_ITS90_BEST_ORIGIN	No
SALINITY_PSS78_BEST_ORIGIN	Yes
TIMESTAMP_UTC	No

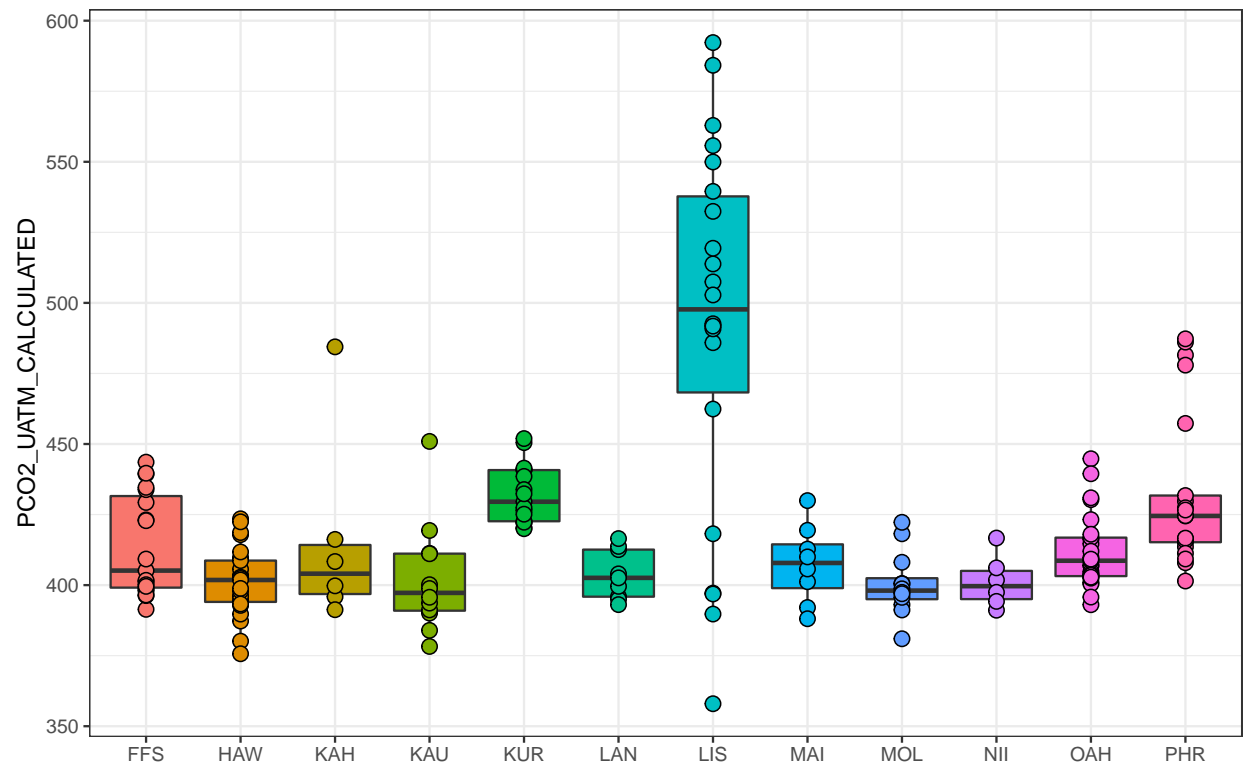
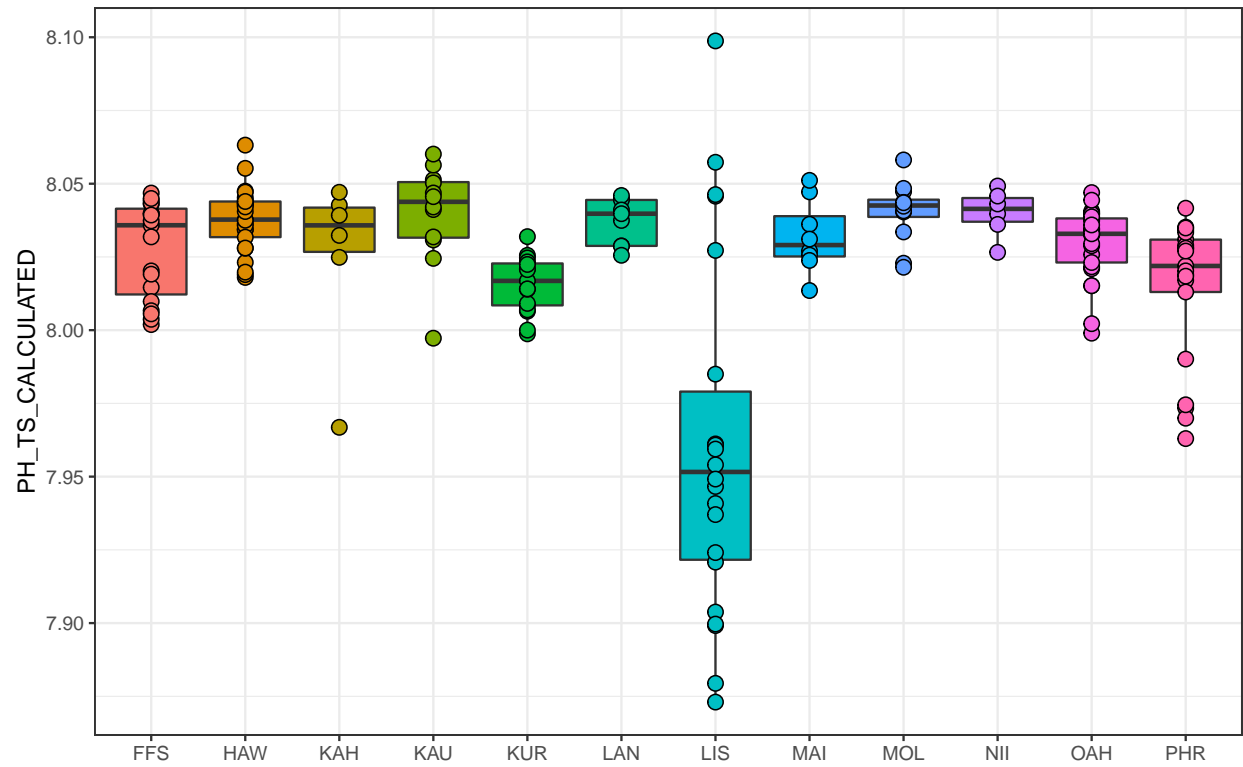
## Check for NULLs in all data fields

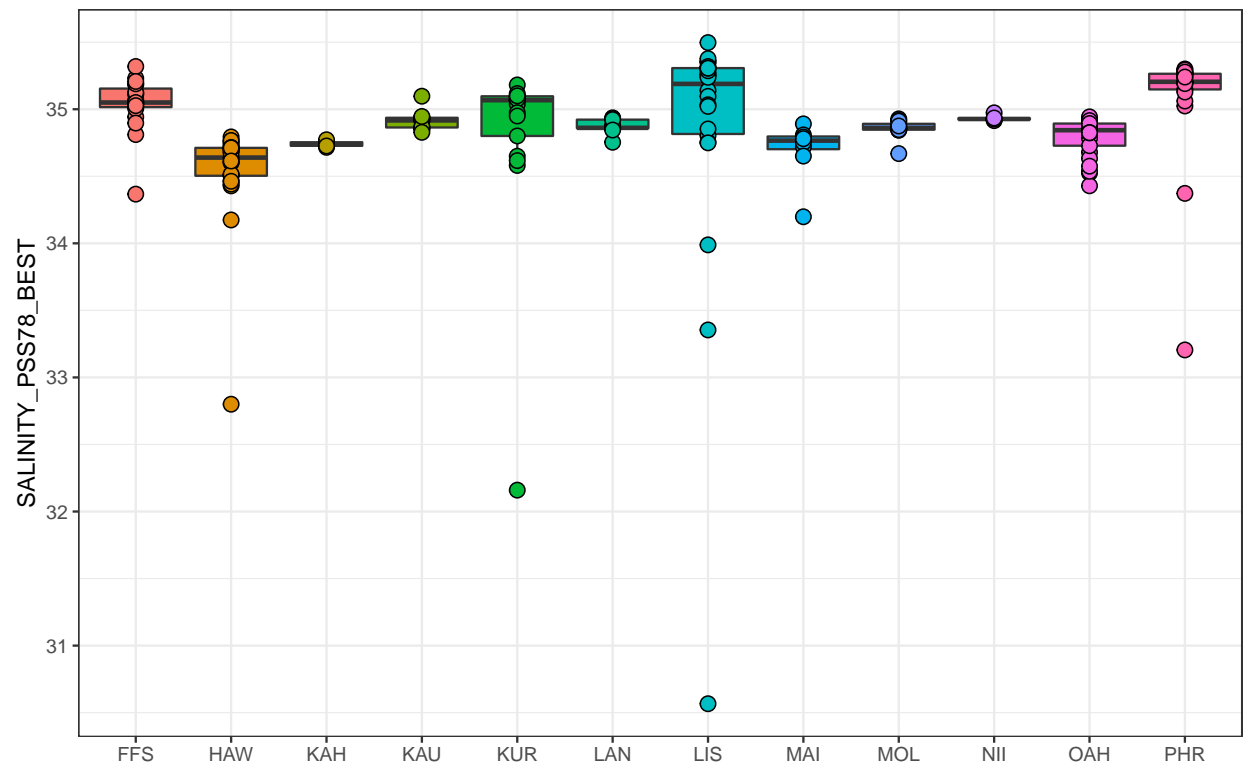
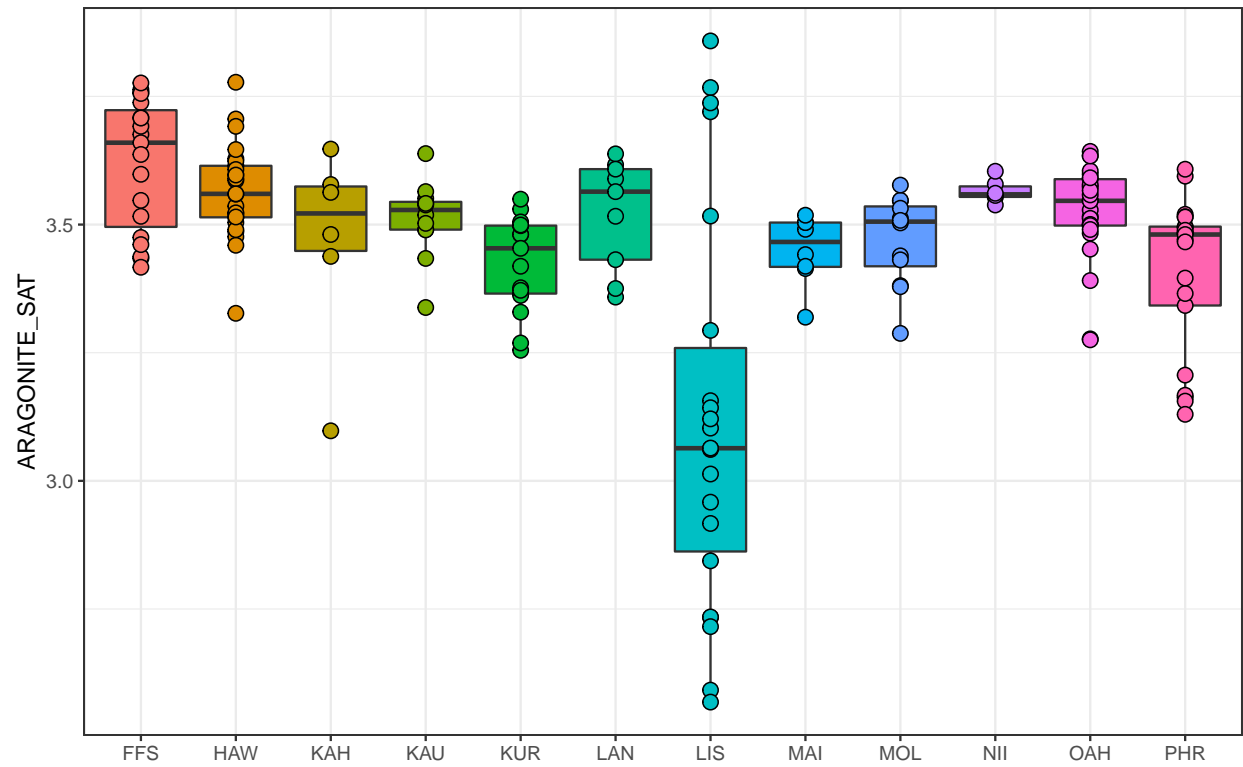
“No” signifies that no NULL data exist. “Yes” signifies that NULL values are present. NULL values may be present in TA or DIC if the sample was unable to be analyzed for either parameter, or in any of the temperature or salinity fields if these variables were not measured using the method specified in the field name. Any sample missing TA and/or DIC will not have values for pH, pCO<sub>2</sub>, and ARAGONITE\_SAT.

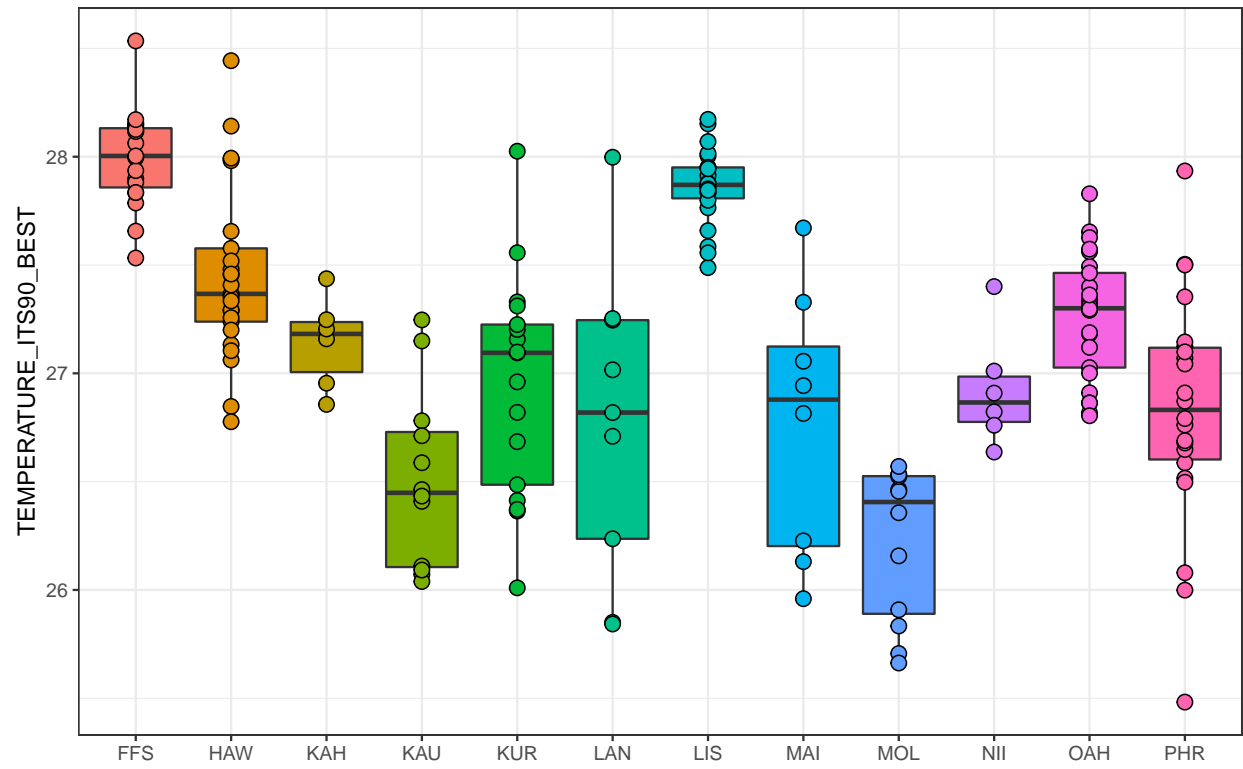
	Contains NULLs?
PRESSURE_DB_CTD	No
PRESSURE_DB_CALCULATED	Yes
TEMPERATURE_ITS90_CTD	No
TEMPERATURE_ITS90_CTD_FLAG	No
TEMPERATURE_ITS90_SCS	Yes
SALINITY_PSS78_CTD	Yes
SALINITY_PSS78_CTD_FLAG	Yes
SALINITY_PSS78_BOTTLE	Yes
SALINITY_PSS78_BOTTLE_FLAG	Yes
SALINITY_PSS78_SCS	Yes
DIC_UMOL_KG	No
DIC_UMOL_KG_FLAG	No
TALK_UMOL_KG	No
TALK_UMOL_KG_FLAG	No
TEMPERATURE_ITS90_BEST	No
SALINITY_PSS78_BEST	Yes
PH_TS_CALCULATED	Yes
PCO2_UATM_CALCULATED	Yes
ARAGONITE_SAT	Yes

Sample data by island:









Diel suite plots:

