

Biogeochemical Time Series Stations - Pacific

International Ocean Carbon Coordination Project (www.ioccp.org)

Last updated: April 2016 (using last available data from March 2014)

Station Name	Observing Element	Location	Period of Operation	Observing Frequency	Biogeochemical EOVs (Sub-Variables) Measured	PI	Country
JMA	Ship-based	Transects along 137°E from 5-34°N and 165°E from 10-50°N	137°E transect: 1994- (1994-2002: irregular, 2003- : regular) 165°E transect: 2003-	137°E transect: 4 cruises/yr 165°E transect: 2 cruises/yr	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ P Si) Carbonate System (pCO ₂ DIC TA pH) Suspended Particulates (Chl-a) DOC	Masao Ishii, Yusuke Takatani	Japan
JAMSTEC	Ship-based	NW Pacific S1 (30°N, 145°E); K2 (47°N, 160°E), KNOT (44°N, 155°E)	S1: 2010-present; K2: 2001-present with some hiatuses; KNOT: 1997-present with hiatuses;	1-3 cruises/yr	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ NH ₄ P Si) Carbonate System (pCO ₂ DIC TA pH) Suspended Particulates (Chl-a Beam_Att POC+PIC-flux Bsi-flux) Carbon-13 DOC	Makio Honda	Japan
Ensenada	Ship-based	31.2° N, 116.0° W	2007-	6 cruises/yr	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ NH ₄ P Si) Carbonate System (DIC TA pH) Suspended Particulates (Chl-a POM) DOC	Eduardo Santamaria-del-Angel	Mexico

CalCOFI and CCE-LTER	Ship-based	southern and central California	1949-	4 cruises/yr	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ NH ₄ P Si) Carbonate System (pCO ₂ DIC TA) Suspended Particulates (Chl-a Beam_Att POM) DOC	Ralf Goericke	US
MBARI	Ship-based	36.83 N, 121.90 W	1989-	cruises ev. 2-3 weeks	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ NH ₄ P Si) Carbonate System (pCO ₂ DIC TA) Suspended Particulates (Chl-a Beam_Att POM)	Marguerite Blum	US
SPOT	Ship-based	33°.33' N, 118°.24' W	1998-	monthly cruises	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ NH ₄ P Si) Suspended Particulates (Chl-a Beam_Att POC+PIC-flux Bsi-flux)	Diane Kim	Australia
HOT	Ship-based	22.8° N, 158.0° W	1988-	10 cruises/yr	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ P Si) Carbonate System (pCO ₂ DIC TA pH) Suspended Particulates (Chl-a Beam_Att POM POC+PIC-flux Bsi-flux) DOC	Karin Bjorkman, Matt Church	US
Line P	Ship-based	SE/NW transect from 48.6° N, 125.5° W to 50° N, 145° W	1956-	2-3 cruises/year	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ NH ₄ P Si) Carbonate System (DIC TA pH) Suspended Particulates (Chl-a Beam_Att)	Kyle Simpson	Canada

Station Papa	Ship-based &	50°N, 145°W (P26 of Line P)	Mooring: 2007- Cruises: 1956-	2-3 cruises/yr (Line P, Fisheries and Oceans Canada) VOS cruises ev. other month Mooring: continuous	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ NH ₄ P Si) Carbonate System (pCO ₂ DIC TA pH) Suspended Particulates (Chl-a Beam_Att)	Adrienne Sutton	Canada
NEPTUNE Canada	Ship-based	NEPTUNE Canada Platform Array (5 instrumented sites along cabled observatory from west coast of Van Isle to regions beyond the continental slope)	2009-	2-3 cruises/yr	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ NH ₄ Si) Carbonate System (DIC TA pH) Suspended Particulates (Chl-a Beam_Att POM POC+PIC-flux Bsi-flux)	Damian Grundle	Canada
Nanwan Bay	Ship-based	21.93° N 120.77° E	1986-	quarterly cruises	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ P Si) Carbonate System (pH)	C.T.A. Chen ctchen@mail.nsysu.edu.tw	Taiwan
San Francisco Bay	Ship-based	Many stations along the San Francisco Bay	1968-	monthly cruises	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ NO ₂ NH ₄ P Si) Suspended Particulates (Chl-a)	James Cloern (jecloern@usgs.gov)	US
Santa Barbara Channel - Plumes and Blooms	Ship-based	NE/SW transect off Santa Barbara from 34.4°N, 119.8°W to 34.1°N, 120.0°W (7 stations)	1996-	monthly cruises	Dissolved Oxygen Inorganic Macronutrients (NO ₃ +NO ₂ P Si) Carbonate System (DIC TA) Suspended Particulates (Chl-a Beam_Att POM POC+PIC-flux Bsi-flux) DOC	Craig Carlson	US
Munida	Ship	Surface transect from 45.77°-45.84° S, 170.22°-171.54° E	1998-	6 cruises/yr	Inorganic Macronutrients (NO ₃ +NO ₂ P Si) Carbonate System (pCO ₂ DIC TA) Suspended Particulates (Chl-a)	Kim Currie	New Zealand

La Libertad	Ship	2.07°S, 81.08°W	1997	monthly	Suspended Particulates (Chl-a)	María Tapia	Ecuador
Manta	Ship	0.87°S, 80.82°W	1997	monthly	Suspended Particulates (Chl-a)	Christian Naranjo	Ecuador
IMARPE (Callao)	Ship	12.1° S - 77.2° W and Transect 12.1 - 12.2 ° S - 77.1 - 78.0 °W	20 years	4cruises/yr	Dissolved Oxygen Inorganic Macronutrients (NO3+NO2 NO2 P Si) Carbonate System (pCO2 DIC TA pH) Suspended Particulates (Chl-a POM POC+PIC-flux) DOC	Jesús Ledesma	Peru
COPAS	Ship + Mooring	36.5° S; 73.1° W	2002-	monthly- seasonal cruises	Dissolved Oxygen Inorganic Macronutrients (NO3+NO2 NO2 NH4 P Si) Suspended Particulates (Chl-a POM POC+PIC-flux) Carbon-13 DOC	Fabian Tapia	Chile
Eastern Australia	Ship	IMOS National Reference Station Network	variable, Long term sites: Maria: 1944- 2005, Hacking: 1941- 2004, Rottneest: 1951- 2001	quarterly- monthly (varies by station)	Dissolved Oxygen Inorganic Macronutrients (NO3+NO2 NO2 P Si) Carbonate System (pCO2 DIC TA) Suspended Particulates (Chl-a Beam_Att POC+PIC-flux)	Tom Trull	Australia

