Supplement of Earth Syst. Sci. Data, 17, 1173–1189, 2025
https://doi.org/10.5194/essd-17-1173-2025-supplement

Open Access Earth System Science Data

Supplement of

A 45-year hydrological and planktonic time series in the South Bight of the North Sea

David Devreker et al.

Correspondence to: David Devreker (david.devreker@ifremer.fr)

Table S1: Evolution of the monitoring of the different parameters (hydrological, biological and plankton) at the "Canal d'Amenée" sampling station of the Gravelines Nuclear Power Plant since 1978.

Parameter	Start date	End date	Frequency	Analyst	Method
TEMP	02/03/1978	26/11/1985	Monthly	SMW*	Reversing thermometer
	10/03/1986	29/12/1986	Weekly	SMW*	Reversing thermometer
	05/01/1987	27/12/2012	Weekly	Eurofins	*In situ* sensor
	03/01/2013	now	Weekly	Flandres Analyses	*In situ* sensor
SALI	07/02/1978	27/05/1986	Monthly	SMW*	Conductivity sensor
	29/05/1990	09/10/1995	2/year	IPLLN**	Conductivity sensor
	19/03/1996	27/09/2000	2/year	Ifremer PELAGOS	Conductivity sensor
	07/03/2001	25/09/2007	2/year	Ifremer LERBL	*In situ* sensor
	28/11/2007	17/12/2012	Monthly	Ifremer LERBL	*In situ* sensor
	03/01/2013	now	Weekly	Flandres Analyses	*In situ* sensor
TURB	29/03/2016	03/12/2018	Monthly	Flandres Analyses	Optical ISO 7027
	08/01/2019	now	Monthly	Flandres Analyses	*In situ* ISO 7027
OXYGENE	02/03/1978	18/06/1986	Monthly	SMW*	Winkler titration
	29/03/2016	now	Monthly	Flandres Analyses	Luminescence sensor
NH4	07/02/1978	20/09/1986	Monthly	SMW*	Aminot 1983 (spectro)
	01/07/1987	21/09/1988	2/year	IPLLN**	Aminot 1983 (spectro)
	27/11/1989	22/05/1991	Weekly	IPLLN**	Aminot 1983 (spectro)
	29/12/1997	27/12/2012	Weekly	Eurofins	NF T90-015-2 (spectro)
	03/01/2013	19/12/2018	Weekly	Flandres Analyses	NF T90-015-2 (spectro)
	01/01/2019	now	Weekly	Eurofins	Aminot 2007 (spectro)
NO3	07/02/1978	20/09/1986	Monthly	SMW*	Tréguer 1975 (spectro)
	27/11/1989	22/05/1991	Weekly	IPLLN**	Aminot 1983 (spectro)
	05/11/1999	27/12/2012	Weekly	Eurofins	NF EN ISO 13395 (spectro)
	03/01/2013	19/12/2018	Weekly	Flandres Analyses	NF EN ISO 13395 (spectro)
	01/01/2019	now	Weekly	Eurofins	Aminot 2007 (spectro)
NO2	07/02/1978	18/06/1986	Monthly	SMW*	Tréguer 1975 (spectro)
	27/11/1989	22/05/1991	Weekly	IPLLN**	Tréguer 1975 (spectro)
	03/11/2000	17/09/2001	Weekly	IPL***	Tréguer 1975 (spectro)
	29/10/2001	21/10/2003	Weekly	IPLLN**	Tréguer 1975 (spectro)
	02/07/2012	27/12/2012	Weekly	Eurofins	NF EN ISO 13395 (spectro)
	03/01/2013	19/12/2018	Weekly	Flandres Analyses	NF EN ISO 13395 (spectro)
	01/01/2019	now	Weekly	Eurofins	Aminot 2007 (spectro)
NO3+NO2	01/07/1987	21/09/1988	2/year	IPLLN**	Tréguer 1975 (spectro)
	29/12/1997	27/10/1999	Weekly	Eurofins	NF EN ISO 13395 (spectro)
	06/11/2002	21/10/2003	Weekly	IPLLN**	Tréguer 1975 (spectro)
	04/11/2008	27/10/2010	Weekly	Eurofins	NF EN ISO 13395 (spectro)
PO4	07/02/1978	18/06/1986	Monthly	SMW*	Tréguer 1975 (spectro)
	27/11/1989	22/05/1991	Weekly	IPLLN**	Tréguer 1975 (spectro)
	06/11/2002	21/10/2003	Weekly	IPLLN**	Tréguer 1975 (spectro)
	29/03/2016	26/12/2018	Monthly	Flandres Analyses	NF EN ISO 6878 (spectro)
	08/01/2019	now	Monthly	Eurofins	Aminot 2007 (spectro)
SIOH	07/02/1978	18/06/1986	Monthly	SMW*	Tréguer 1975 (spectro)
	27/11/1989	22/05/1991	Weekly	IPLLN**	Tréguer 1975 (spectro)
	29/03/2016	03/12/2018	Monthly	Flandres Analyses	NF T90-007 (spectro)
	08/01/2019	now	Monthly	Eurofins	Aminot 2007 (spectro)
CHLOROA	07/02/1978	20/09/1986	Monthly	SMW*	UNESCO 1966 (tri)
	16/04/1987	23/09/1987	3/year	IPLLN**	Lorenzen 1967 (mono)
	06/05/1988	21/09/1988	3/year	Ifremer LERBL	Lorenzen 1967 (mono)
	09/01/1989	28/10/1997	Weekly	Eurofins	UNESCO 1966 (tri)
	03/11/1997	26/10/1998	Weekly	Eurofins	Lorenzen 1967 (mono)
	02/11/1998	27/12/2012	Weekly	Eurofins	UNESCO 1966 (tri)
	03/01/2013	26/12/2018	Weekly	Flandres Analyses	UNESCO 1966 (tri)
	31/12/2018	now	Weekly	Flandres Analyses	Lorenzen 1967 (mono)
PHEO	07/02/1978	20/09/1986	Monthly	SMW*	Lorenzen 1967 (mono)
	06/05/1988	21/09/1988	3/year	Ifremer LERBL	Lorenzen 1967 (mono)
	09/01/1989	28/10/1997	Weekly	Eurofins	Méthode EDF (tri)
	03/11/1997	26/10/1998	Weekly	Eurofins	Lorenzen 1967 (mono)
	02/11/1998	27/12/2012	Weekly	Eurofins	Méthode EDF (tri)

Parameter	Start date	End date	Frequency	Analyst	Method
	03/01/2013	26/12/2018	Weekly	Flandres Analyses	Méthode EDF (tri)
	31/12/2018	now	Weekly	Flandres Analyses	Lorenzen 1967 (mono)
FLORTOT	07/02/1978	20/09/1986	Monthly	Ifremer LERBL	Microscope (Utermöhl, 1958)
	06/05/1988	06/05/1988	1/year	Ifremer LERBL	Microscope (Utermöhl, 1958)
	09/01/1989	now	Weekly	Ifremer LERBL	Microscope (Utermöhl, 1958)
AINDVSNP	17/08/1978	24/09/1985	Monthly	Ifremer PELAGOS	Binocular microscope
	13/04/1986	21/09/1988	Seasonal	Ifremer PELAGOS	Binocular microscope
	09/05/1989	11/10/2005	Monthly	Ifremer PELAGOS	Binocular microscope
	23/11/2005	04/10/2006	Monthly	SMW*	Binocular microscope
	15/11/2006	now	Monthly	Ifremer LERBL	Binocular microscope

* Station Marine de Wimereux

** Institut Pasteur de Lille - Laboratoire Santé, Environnement Durables Littoral Nord – Gravelines

*** Institut Pasteur de Lille – Service des Eaux

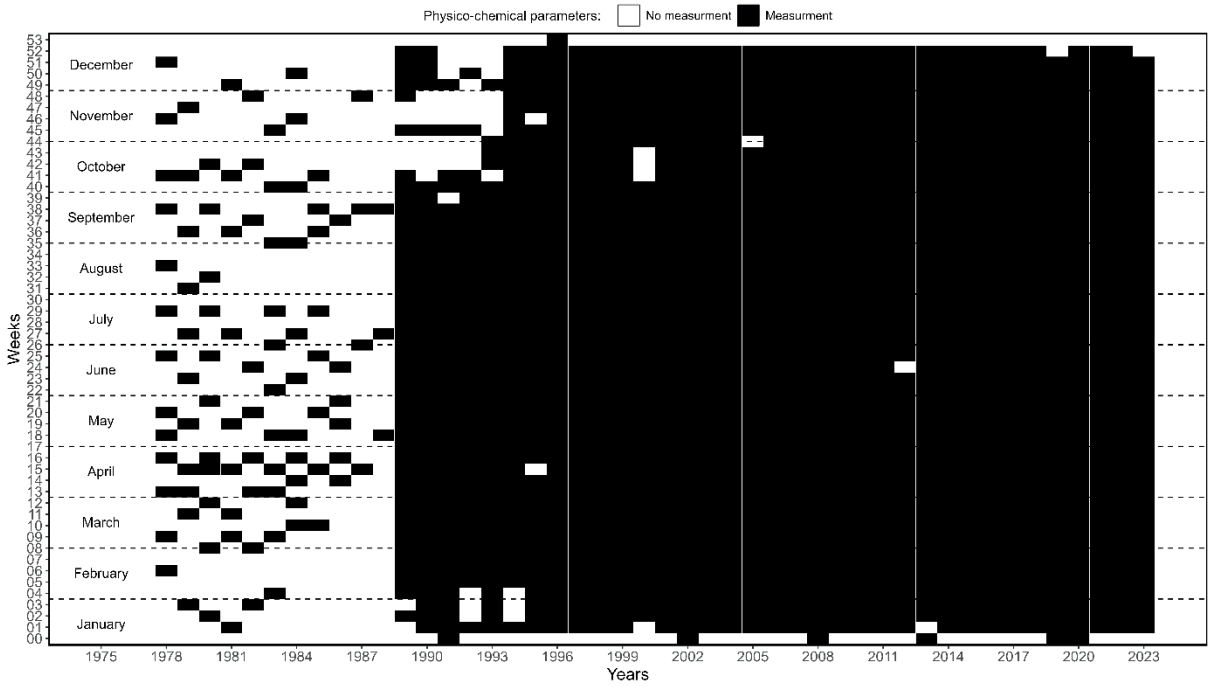

Figure S1: Distribution of physico-chemical samples (all parameters together) at the "Canal d'Amenée" station during the IGA survey. The black squares indicate months with at least one sample collected, while the white squares represent months without sampling.

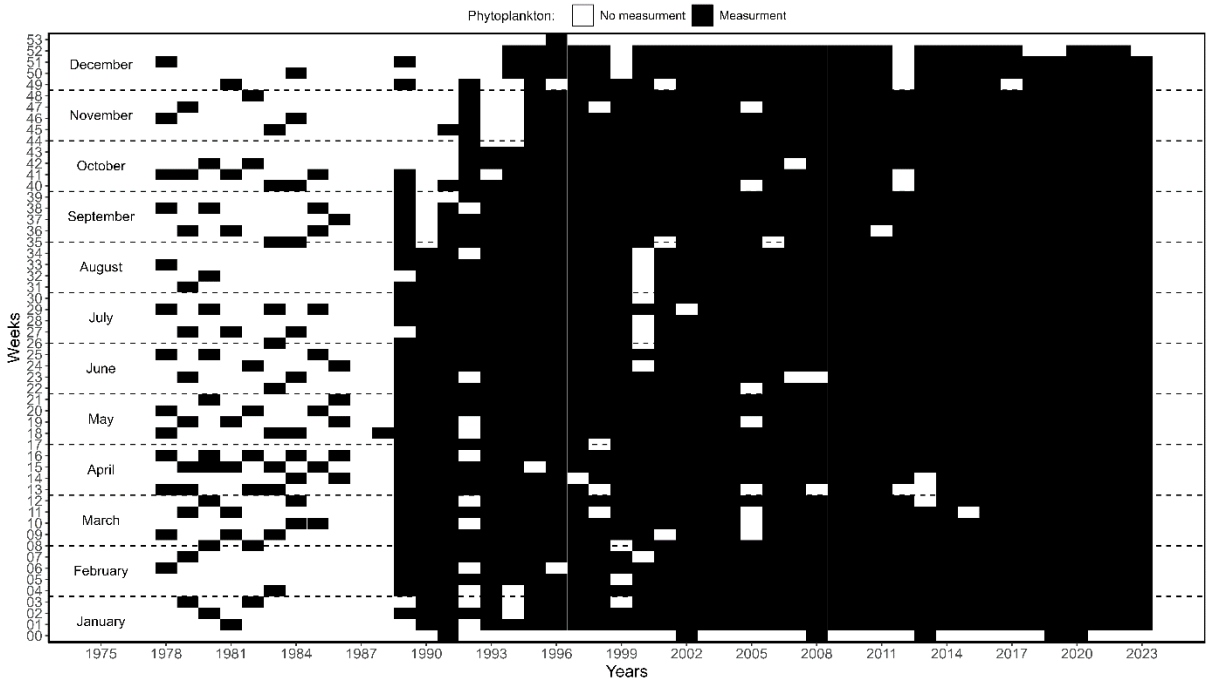

Figure S2: Distribution of phytoplankton samples at the "Canal d'Amenée" station during the IGA survey. The black squares represent months with at least one sample collected, while the white squares indicate months without sampling.

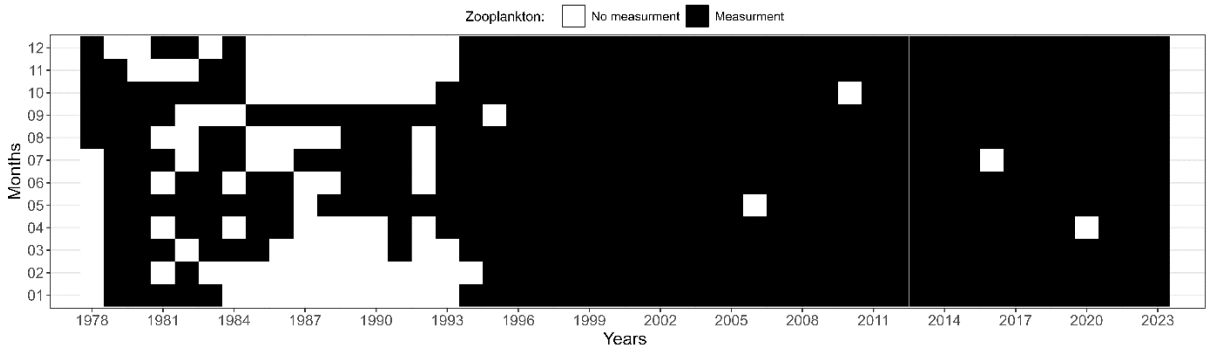

Figure S3: Distribution of zooplankton samples at the "Canal d'Amenée" station during the IGA survey. The black squares indicate months with at least one sample collected, while the white squares represent months without sampling.