DATA SET SUMMARY (EDMED)

Project : MAST/MTP II - MATER

Data set name : DYNAPROC

CRUISE OR MOORING : CRUISE

LABORATORY in charge of : Laboratoire d'Océanographie Biologique et Ecologie du Plancton marin

LOBEPM BP 28 06234 Villefranche/mer FRANCE

DOMAINS/KEYWORDS :

PHYSICAL OCEANOGRAPHY ex :
- SUBSURFACE HYDROGRAPHY (T,S)
- CURRENTS, DRIFT, DISPERSION
- SURFACE HYDROGRAPHY (EG T,S)
- OPTICAL PROPERTIES OF SEA WATER

INORGANIC CHEMISTRY
- DISSOLVED GASES
- NUTRIENTS
- RADIO-ISOTOPES

MARINE BIOLOGY
- BENTHOS
- ORGANIC/BIO-CHEMISTRY
- MARINE BIOLOGY
- BULK CHEMISTY (EG PH, TCO2)
- PRODUCTIVITY, BIOMASS
- PIGMENTS (EG CHLOROPHYLL), LIGHT
- PLANKTON
- FISHES
- DEEP SEA ECOLOGY/FAUNA
- MICROBIOLOGY

OTHER DATA
- MARINE SNOW
- Particles

TIME-PERIOD :

May 1995

GEOGRAPHIC-COVERAGE :

Ligurian Sea (28 NM 123° off Cap Ferrat)

MEASUREMENT TYPE : (W P F S O B)

W: sea water P : water column particles F : settling particles near the sediment S : sediment O : pore water

OBSERVED PARAMETERS :

(units have to be consistent with the International System of Units described in the project Data Manual)

Files *.Re1 :

Particles > 202 µm ESD

NAME	UNIT	FORMAT
pressure	Decibars	Scientific
# particules / liter		
Mean Length	mm	
Mean Surface	mm2	
Mean ESD *	mm	
Total Volume *	Ppm	
Total Dry Weight *	microg/l	
Median ESD *	mm	
DSE S.D.*	S.D.	
Spherical Surface *	mm2	
Ratio (Length/ESD)*		

* calculated values

Files *.His :

NAME	UNIT	FORMAT
Volume of analysed sea water	liter	Scientific
Depth of sample	Dbars	
# particles 3 pixels surface (92 µm ESD)		
# particles 4 pixels surface		
# particles 5 pixels surface		
……		
# particles 150 pixels surface		

Usefull equations :

$Y = 0.00139\ x^{1.430}$ x = Surface (pixels) Y = Surface (mm^2)
See Lars Stemmann thesis for values limitation.

$L = 0.835\ l^{0.123}$ l = Lengh (pixels) L = Lengh (mm)

INSTRUMENTS (separate forms to describe the instruments) :

Underwater Video Profiler (U.V.P. 2a)

DESCRIPTION (240) :

Version 2a of the UVP. Built for the study of MARINE SNOW and ZOOPLANKTON.

TECHNICAL CHARACTERISTICS (240) :

1000 m operational depth

In situ recordings at 25 Hz

1 CCD V700E Sony camera (adjustable lens)

Marine snow mode with structured lights.

92 µm ESD lower limit detection.

> 202 µm ESD lower limit of size measurements.

Zooplankton mode with 150 W, 300 W or 400 W spots

COMMENTS (120)

INSTRUMENT TYPE (circle the main type) :

In situ Sensor (default) **Transmitter/Receiver** **On board recorder**

Drifter **Towed platform** **Expendable sensor**

OTHER ATTACHED EQUIPEMENT (in case of complex multi sensor:Paltform equipment) (10) :SBE19 – SBE911 (according to the cruise)

VOLUME/NUMBER OF PROFILES : 40 (Total) 26(marine snow) 14(Zooplankton)

AVAILABILITY :

RESPONSIBLE SCIENTIST : GORSKY Gabriel

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Email : **gorsky@ccrv.obs-vlfr.fr**

BIBLIOGRAPHICAL REFERENCES (METHODOLOGY) :

Alldredge, A. L. (1979) The chemical composition of macroscopic aggregates in two neritic seas. Limonoly Oceanography, 24(5) : 855-866.

Alldredge, A. L. and M. W. Silver (1988) Characteristics, Dynamics and significance of marine snow. Progress in Oceanography, 20 : 41-82.

Chester, R. and H. Stoner (1974) The distribution of particulate organic carbon and nitrogen in some surface waters of the world ocean. Marine chemistry, 2 : 263-275.

Gorsky, G., Aldorf, C., Picheral, M., Kage, M., Garcia,Y. and J. Favole (1992) Vertical distribution of suspended aggregates determined by a new Underwater Video Profiler. Ann. Inst. oceanogr., Paris, 68 (1-2): 275-280.

Gorsky, G., Picheral, M. and L. Stemmann (in press) Use of the Underwater Video Profiler for the Study of Aggregate Dynamics in the North Mediterranean. Estuarine, Coastal and Shelf Science.

Picheral, M., Grisoni, J-M., Stemmann, L. and G. Gorsky (1998) Underwater Video Profiler for the "in situ" study of suspended particulate matter. OCEANS 98, 28 September- 1 October, IEEE/OES conference, Nice, p. 171-174.

Picheral, M., Stemmann. L. et G. Gorsky (1995) Système multiparamètrique pour la mesure et la quantification de la matière particulaire en suspension dans la colonne d'eau. 3e Colloque Européen Des Capteurs pour l'Environnement, Grenoble, 30-31 Mars 1995. pp. 162-165.

Stemmann, L. (1998) Analyse spatio-temporelle de la matière particulaire. Thèse Doctorale, Université Paris 6, pp 178.

Stemmann, L., Picheral, M. and G. Gorsky. (in press) Diel changes in the vertical distribution of suspended particulate matter in the NW Mediterranean Sea investigated with the Underwater Video Profiler. Deep-Sea Research.

STATIONS LOCATION

(preference is an ASCII file on ftp or attached document)

StationsDynaproc.xls file.