Contents

1 Protocol Template

MIOP protocol template

1.1 AUTHORS

PREPARED BY All authors known to have contributed to the preparation of this protocol, including those who filled in the template.	AFFILIATION	ORCID (visit https://orcid.org/ to register)	DATE
Content Cell	Content Cell	Content Cell	yyyy-mm-dd
Content Cell	Content Cell	Content Cell	yyyy-mm-dd

1.2 PROTOCOL REVISION RECORD

Version numbers start at "1.0.0" when the protocol is first completed and will increase when changes that impact the outcome of the procedure are made (patches: 1.0.1; minor changes: 1.1.0; major changes: 2.0.0). Please store all versions in the gDrive folder designated to your institute.

VERSION	RELEASE DATE This is the date when a given protocol version was finalised	DESCRIPTION OF REVISIONS Please include a brief description of what was changed relative to the previous version
1.0.0	yyyy-mm-dd	Initial release
Content Cell	Content Cell	Content Cell

1.3 RELATED PROTOCOLS IN YOUR FOLDER

This is a list of other protocols deposited in your folder which should be known to users of this protocol. For example, if you create a derivative or altered protocol, you would link to the original protocol in the section below. Please include the link to each related protocol. Also include the version number of that protocol when you linked to it.

PROTOCOL NAME AND LINK	VERSION The version of the protocol you linked to	RELEASE DATE This is the date corresponding to the version listed to the left
Content Cell	Content Cell	yyyy-mm-dd
Content Cell	Content Cell	yyyy-mm-dd

1.4 RELATED EXTERNAL PROTOCOLS

This is a list of other protocols that are not in your folder which should be known to users of this protocol. These include, e.g., kit manuals. Please upload all relevant external protocols to Appendix A and link to them here.

EXTERNAL PROTOCOL NAME AND LINK	ISSUER / AUTHOR Please note who authored the protocol (this may also be a company name)	ACCESS DATE This is the date you downloaded or scanned the protocol and uploaded it.
Content Cell	Content Cell	yyyy-mm-dd
Content Cell	Content Cell	yyyy-mm-dd

1.5 ACRONYMS AND ABBREVIATIONS

ACRONYM / ABBREVIATION	DEFINITION
Content Cell	Content Cell

1.6 GLOSSARY

SPECIALISED TERM	DEFINITION
Content Cell	Content Cell
Content Cell	Content Cell

2 BACKGROUND

This document describes the required protocol to conduct insert name of the method/protocol.

2.1 Summary

Insert a short description of the background for the method/protocol (e.g. why and for which purpose do you perform water sampling). Please provide a brief summary of your method including, as appropriate, a brief description of what techniques your best practice is about, which ocean environments or regions it targets, the primary sensors covered, what type of data/measurements/observing platform it covers, limits to its applicability.

2.2 Method description and rationale

Insert a short description of the functioning principal of the methodology used in the protocol (i.e. how does the method work?). Please note that this is different from the step-by-step description of the protocol procedure. Insert a short statement explaining why the specific methodology used in the protocol has been selected (e.g. it is highly reproducible, highly accurate, procedures are easy to execute etc....).

2.3 Spatial coverage and environment(s) of relevance

If applicable, please specify the region where the protocol is applied. For regional term guidance see here. If applicable, please indicate here the environment(s) of relevance for the protocol, e.g. Abyssal plain. Select from the ENVO terminology.

3 PERSONNEL REQUIRED

Insert the number of technicians, data managers, and scientists required for the good execution of the procedure

3.1 Safety

Identify hazards associated with the procedure and specify protective equipment and safety training required to safely execute the procedure

3.2 Training requirements

Specify technical training required for the good execution of the procedure.

3.3 Time needed to execute the procedure

Specify how much time is necessary to execute the procedure.

4 EQUIPMENT

DESCRIPTION e.g. filter	PRODUCT NAME AND MODEL Provide the official name of the product	MANUFACTURER Provide the name of the manufacturer of the product.	QUANTITY Provide quantities necessary for one application of the standard operating procedure (e.g. number of filters).	REMARK For example, some of the consumable may need to be sterilized, some commercial solution may need to be diluted or shielded from light during the operating procedure.
Durable equipment				
Content Cell	Content Cell	Content Cell	Content Cell	Content Cell
Content Cell	Content Cell	Content Cell	Content Cell	Content Cell
Consumable equipment				
Content Cell	Content Cell	Content Cell	Content Cell	Content Cell
Content Cell	Content Cell	Content Cell	Content Cell	Content Cell
Chemicals				
Content Cell	Content Cell	Content Cell	Content Cell	Content Cell
Content Cell	Content Cell	Content Cell	Content Cell	Content Cell

5 STANDARD OPERATING PROCEDURE

In the following SOP, please use the exact names of equipment as noted in the table above.

5.1 Protocol

Provide a step-by-step description of the protocol. The identification of difficult steps in the protocol and the provision of recommendations for the execution of those steps are encouraged.

Preparation

Please specify the preparatory actions you took before you collected the samples and note what equipment was needed to do so (e.g. disinfection of work surfaces, preparations to the equipment you intend to use later on).

1. Step 1
2. Step 2

5.1.1 PCR

Please specify the actions you took to amplify the previously extracted DNA and the equipment and primers you used (ingredients for the PCR reaction, number of triplicates, PCR cycle parameter)

1. Step 1

PCR Primer Name	Direction	Sequence (5' -> 3')
content	forward	content
content	reverse	content

2. Step 2
3. Step 3

PCR step	Temperature	Duration	Repetition
content	content	content	content
content	content	content	content

5.1.2 Quality control, PCR clean-up

Please specify the actions you took to confirm the quality of the PCR output, to clean up the PCR output and the equipment you used (e.g. agarose gel to confirm quality, purification of PCR products).

1. Step 1
2. Step 2

5.2 Quality control

Describe and explain criteria used to validate results of the standard operating procedure.

5.3 Basic troubleshooting guide

Identify known issues associated with the procedure, if any. Provide troubleshooting guidelines when available.

6 REFERENCES

Insert all references cited in the document. Please insert full DOI address when available, e.g. http://doi.dx.org/10.1007/s11258-014-0404-1

7 APPENDIX A: DATASHEETS

Link templates (e.g. preformatted spreadsheets) used to record measurements and report on the quality of the data as well as any documents such as manufacturer specifications, images, etc that support this protocol. Please include a short note describing the document's relevance.