

**2019 NF-POGO Visiting Fellowship for
Ship-board Training**

Fellowship Report

Name of Trainee: Laurencia Guzman

Name of Supervisor (Parent Institution): Mari Carmen Garcia-Martinez

Supervisor (Host Institution): Instituto Español de Oceanografía, Málaga.

Dates of Training: September 17 – November 28.

Section A

(To be completed by the fellow and returned to the POGO Secretariat)

Please note that this form will be passed on to the host and parent supervisor and when complete will be made publicly available on the [OTP](#) website;

1) Please provide a brief description of activities during the training period:

During the preparation on land before the cruise, I analyzed several samples of phytoplankton by flow cytometry, then I learned to process them and update their databases. Later, during the cruise, I was in charge of carrying out the pH analysis with two different methodologies. On one hand, carry out the measurements with a spectrophotometer and in parallel analyze the samples with a continuous pH meter. This was done with the intention of comparing both equipment and helping to mount the pH measurement method in RADMED. Likewise, I was in charge of updating the digital form of the general sampling, of capturing the samples for alkalinity and CIT, helping to fix the oxygen samples, and learned to process the CTD profiles.

After the cruise, perform the pH calculations, for which you previously process the CTD data (to obtain the salinity data). Compare the methodologies and develop a pH measurement protocol suitable for RADMED measurements. In addition, I helped with the updating of the databases and learned to use the ODV program, with which I made several contour maps of phytoplankton both superficial and vertical transept.

2) What applications of the training received do you envision at your parent institution?

The participation in the RADMED cruise has been extremely helpful for me since I have learned different methods of sampling, analysis and data processing. By participating in this cruise, with such a large sampling area and so many stations, I have acquired a new vision in terms of sampling planning, time and personnel management and problem solving ... In Fundacion La Salle this new one will be very useful vision since I will be able to propose innovative and feasible work dynamics that will facilitate the work and in turn improve the quality of the data.

3) Please provide your comments on the Fellowship Programme.

In my opinion, the Fellowship Programme is an invaluable opportunity to learn and develop as a professional in high-quality work environments, such as the Instituto Español de Oceanografía.

PRINT NAME

Date:

Section B

(To be completed by host supervisor and returned to the POGO Secretariat)

Please note that this form will be passed on to the parent supervisor and trainee and when complete will be made publicly available on the [OTP](#) website;

1) Please provide your comments on the performance of the trainee.

Laurencia Guzmán has been working very hard during her stay at Spanish Institute of Oceanography (IEO) (Oceanographic Centre of Malaga). She has demonstrated her knowledge in marine monitoring programmes and her previous experience at Fundación La Salle has been very useful for both her and RADMED team.

She has learned our sampling methods and we also have learned from her about the methodologies used in her parent institution.

During the month previous to the cruise, she was involved in the preparation of the materials, and she also learned how to use a flow cytometer to determine the abundance of pico and nanoplankton communities and to count microphytoplankton by inverted microscopy.

Laurencia also started to collaborate with our colleague in Palma de Mallorca in order to set the final protocols for the measurement of pH. For that purpose, Laurencia was trained to be the responsible on board of those measurements by two different methods.

During the cruise, she also participated in the rest of the sampling procedures (CTD, oxygen, nutrients, zooplankton, phytoplankton, alkalinity)

After the cruise, Laurencia learned how to use ODV software and she has been preparing data and obtaining figures and results for future works.

2) Is this exchange likely to lead to future collaboration with the trainee's parent institution? If so please give example(s) of how this collaboration may be pursued.

This exchange is a fantastic starting point for future collaborations with Fundación La Salle. We are really interested in having Laurencia again with us, in order to finish setting up methodologies in which she is an expert, and help her to deepen in the different techniques we use at IEO

3) Please provide your comments on the Fellowship Programme.

In my opinion this type of programme allows international collaborations that would not otherwise be possible. It is a fantastic way to establish contacts with other researchers working in similar lines of research, and to compare different working methodologies.

PRINT NAME María del Carmen García Martínez

Date: 11/12/2019

SECTION C

(To be completed by parent supervisor and returned to the POGO Secretariat)

Please note that this form will be passed on to the host supervisor and trainee and when complete will be made publicly available on the [OTP](#) website;

1) Do you agree with the above comments and do you have any additional feedback you wish to provide?

Yes, I agree with the comments made above.

The realization of these practices is a unique experience for professionals who wish to continue on this path of oceanography.

PRINT NAME Jaimie Rojas-Marquez

Date: 18-12-2019