



**SOUTH WEST INDIAN OCEAN FISHERIES
PROJECT
(SWIOFP)**



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CALL FOR APPLICATIONS FOR MSC GRANTS

The South West Indian Ocean Fisheries Project (SWIOFP) invites prospective Masters Students in the fields of marine and fisheries science to apply for grants for full-time research projects in the following areas: data management, crustaceans, pelagics, demersal resources and biodiversity in the Western Indian Ocean region. A total of 10 grants are available per country, each for a 2-year period (first university registration in 2010, or in 2011). All the research must be completed by end of 2012. Grants will be awarded on a competitive basis, taking into consideration the requirements stated below, the academic merits of the applicants, and the relevance of project proposals to the needs of SWIOFP.

It is the intention of the SWIOFP project to promote capacity building and support fisheries science training and development in the WIO region. The main task of the research student will therefore be to undertake research of a specific topic that meets the objectives of the South West Indian Ocean Fisheries Project that are based on topics identified in a regional gap analysis. Suggested topics on each of the areas are given herein.

Before SWIOFP can accept an application, an assessment will be made of the acceptability of the proposed research topic. For this assessment to be made you need to draw up a detailed research which should be submitted with an application letter through your respective SWIOFP National Focal Point. The Regional Management Unit (RMU) will undertake further processing and evaluation through a scientific panel made up of the NMUs, the Regional Component Coordinators (RCCs) and independent experts.

Requirements are as follows:

- Applications and supporting documents must be either in English, French or Portuguese
- Applicants must be citizens or permanent residents of one of the SWIOFP countries (South Africa, Mozambique, Tanzania, Kenya, Madagascar, Seychelles, Mauritius, Comoros or France)
- A BSc (Honours) or equivalent 4-year degree in biological / environmental sciences is a minimum requirement. (applicant must be able to supply a certified full academic record if asked).

- A letter from a recognized University, preferably in the SWIOFP region, stating that the applicant fulfils all entry requirements. Preference will be given to students who register at their domestic universities unless where such an option does not exist

A letter from an appropriate academic supervisor at the above University or associated institution, taking responsibility for the academic supervision and logistic support of the applicant for the period of the grant

- If relevant, a letter from the head of the institution where the candidate will be based, indicating the institution's approval of the candidate's registration for the degree, and including the provision of necessary research facilities and logistic support for the project.
- A declaration indicating the employment status of the applicant during the two-year study phase.
- A Curriculum Vitae (CV) showing personal and contact details, academic progress, work experience, and research interests
- A 2-page project proposal, outlining how the applicant will address any one of the projects listed below, and how this would assist SWIOFP in achieving its line objectives. Additional information on the Component of SWIOFP is available on the following web-site (www.swiofp.net), and applicants are required to familiarize themselves with the information, and the objectives of the project, before drafting their proposal.
- Students who receive grants, and the university / institution where they will be based will be required to sign an agreement with SWIOFP and its national institution, with clauses on conduct, access to project data, intellectual property rights, expected academic performance and project outputs (i.e. a thesis and publications in the primary literature).
- The funds for support will be managed by the RMU in close consultation with the respective NMUs. Grants are USD 10 000 per year for 2 years to cover living expenses and tuition fees. Operational costs (i.e. sampling trips, consumables, costs incurred through sample or data analysis, equipment, travel) are provided by the SWIOFP project to which the MSc is attached.

Instructions for applicants

Only **one** application per student will be accepted in duplicate with **one** copy submitted by email to each of the following two addresses as determined from the list provided:

- a) Your own country's National Focal Point
- b). The respective Component Coordinators, depending on your research topic

Thus, only **one** application should be submitted to **one** of the following addresses in each table:

Table 1: SWIOFP National Focal Points

South Africa	Dr Andy Cockcroft	cockcrof@deat.gov.za
Mozambique	Ms Nilza Dias	nmdias30@hotmail.com
Tanzania	Ms Joyce Kulekana	kulekana3@yahoo.com
Kenya	Dr Renison Ruwa	kruwa@kmfri.co.ke
Madagascar	Mr Mamy Ramanantsoa	ram_mamy1@yahoo.fr
Mauritius	Mr S Soondron	ssoondron@mail.gov.mau
Seychelles	Mr Vincent Lucas	vlucas@sfa.sc
Comoros	Mr Rachid Ben-Massoundi	ben-massound59@yahoo.fr
France	Dr Francis Marsac	francis.marsac@ird.fr

Table 2: SWIOFP Regional Component Coordinators (RCC)

RCC 1 – Data management	Harrison Ong'anda	honganda@kmfri.co.ke
RCC 2- Crustaceans	Johan Groeneveld	jgroeneveld@ori.org.za
RCC 3– Demersal resources	Hassan Mhitu	mhitu@yahoo.co.uk
RCC 4– Pelagic fishes	Vincent Lucas	vlucas@sfa.sc
RCC 5- Biodiversity	Mira Hurbungs	mhurbungs@mail.gov.mu

The SWIOFP project holds the right not to make grant awards and applications that do not fulfil the requirements will not be considered.

Closing date

The closing date for applications is Tuesday the 15th of December 2009.

Component 1 – Data Management and Information: Proposed Research Projects

[Under preparation]

Component 2 – Crustaceans: Proposed Research Projects

The project list below must be read in conjunction with the “Regional data gap-analysis for Component 2 (Crustaceans) for SWIOFP”. The document is posted on <http://www.swiofp.net>. Please note that project proposals that address key issues other than those below will also be considered, based on their relevance to SWIOFP objectives.

1. Genetic population studies of shallow-water lobsters *Panulirus homarus* and *P. ornatus* over a wide geographical range in the South West Indian Ocean – are they a single stock or structured into separate populations? The study will source samples from sites in several SWIOFP countries to determine if shallow-water lobsters are a shared resource, or whether recruitment takes place on a more local scale.
2. Genetic population studies of deep-water lobster populations in the South West Indian Ocean, using micro-satellites. The study will expand on a previous analysis of mtDNA fragments. Aims are to further resolve the weak structure found between South African and Mozambican populations of *Palinurus delagoae*, sample and identify the deep-water *Palinurus* species occurring off southern Madagascar, and resolve larval recruitment of *P. barbarae* off Walters Shoals on the Madagascar Ridge.
3. Genetic population studies of langoustines important to deep-water trawl fisheries in South Africa, Mozambique, Madagascar, Tanzania and Kenya to determine whether they consist of a single regional population or more than one subpopulation. The study must also clarify whether two putative species, *Metanephrops mosambicus* and *M. andamanicus* from Kenya are synonymous, and if not, where the geographical / population boundaries lie. The study can rely on MtDNA and/or microsatellites.
4. Genetic population studies of deep-water prawns *Haliporoides triarthrus*, *Aristaeomorpha foliacea* and *Aristeus antennatus* to assess stock identity relative to international boundaries (i.e. are stocks shared between countries?), as a precursor to considering the development of regional or sub-regional management strategies.
5. Genetic population studies of shallow-water prawns *Penaeus indicus*, *P. monodon*, and *Metapenaeus monoceros* to assess stock identity relative to approximate nursery areas (i.e. estuaries) and international boundaries. The project should expand on previous studies on the group in the region.
6. Fisheries biology (i.e. distribution, exploitation, abundance, biology, stock status, management) of
 - a. deep-water lobsters and crabs;
 - b. langoustines;
 - c. deep-water prawn stocks; with the aim of providing information for the development of regional or sub-regional fisheries management strategies. Any species or group of species relevant to the SWIOFP objectives can be selected by the applicant. Also, any site(s) within the SWIOFP region can be selected.
7. Estimation of targeted catch and bycatch catch rates in prawn trawl fisheries, and testing the efficiency of various Bycatch Reduction Devices (BRDs), Turtle Excluder Devices (TEDs) and combinations thereof. The logistics of this project are complex and the sampling at sea will likely only take place late in 2010 or 2011 – thus a first registration of 2011 is suggested.
8. A retrospective analysis of historical information on Crustacean Fisheries in the SWIOFP region: identification, validation and calibration of usable long-term datasets as base-line abundance indices.

Component 3 –Demersal: Proposed Research Projects

1. Collection of species composition/abundance information, and biological/genetic studies of prioritized species in the surveys. The prioritized species are: *Pagellus bellottii natalensis*, *Cheimirus nufar*, *Argyrosomus japonicus*, *Johnius fuscolineatus* and *Pomadasys kaakan* for South Africa, *Chrysoblephus puniceus*, *Polysteganus coeruleopunctatus*, *Argyrops spinifer* and *Lutjanus sanguineus* for Mozambique. Other species include, *Nemipterus bipunctatus*, *Trichiurus lepturus*, *Lutjanus fulviflamma* and *Pomadasys maculatum* for Tanzania and *Lutjanus bohar*, *Pristipomoides fulviflamma*, *Pristipomoides multidentis* and *Pristipomoides zonatus* of Kenya. *Polysteganus baisacci*, *Variola albimarginata*, *Lethrinus mahsena* and *Lethrinus nebulosus* for Mauritius and *Otolithes ruber*, *Johnius dorsalis*, *Johnius belengeri*, *Aprion virescens* and *Gymnocranius grandolis* of Madagascar. Species of Seychelles are *Epinephelus chlorostigma*, *Epinephelus morrhua*, *Lutjanus sebae*, *Apharaeus rutilans* and *Seriola rivoliana*. Other species are *Etelis carbunculus*, *Etelis coruscans* and *Lethrinus rubrioperculatus* of Comoros.
2. Genetic/ and biological studies of fish from trap surveys from all SWIO countries.
3. Genetic/ and biological studies of reef fishes using multi-gear surveys i.e line fishing and drop-line in all SWIO countries.
4. Studies of demersal trawl surveys of Kenya, Tanzania, Mozambique, Madagascar and South Africa.
5. Fisheries biology (i.e. distribution, exploitation, abundance, biology, stock status, management) of deep-water fish species with the aim of providing information for the development of regional or sub-regional fisheries management strategies.
6. Small-scale fisheries surveys in all countries except South Africa, focused on the prioritized species, aimed at quantifying catches and at determining size structure of the populations.
7. Assessment of deep-water demersal fisheries in the WIO.
8. A retrospective analysis of historical information on demersal fishes in the SWIOFP region: identification, validation and calibration of usable long-term datasets as base-line abundance indices.

Component 4 – Pelagic: Proposed Research Projects

The project list below must be read in conjunction with the “Regional data gap-analysis for Component 4 (Pelagic fishes) for SWIOFP”. The document is posted on <http://www.swiofp.net>. Please note that project proposals that address key issues other than those below will also be considered, based on their relevance to SWIOFP objectives.

1. The biology and fisheries of small epipelagic tuna / tuna-like species (i.e. *Euthynnus affinis*, *Sarda orientalis*, *Scomberomorus commerson*) with reference to future national or regional management initiatives. Projects in this category will use data from port sampling, observers at sea, instrumented long-line surveys. Project proposals can be for national waters, or cover a broader area in the SWIO.
2. Assessment of the habitat, behaviour (incl. migrations), biology and fisheries for medium / large pelagic fishes, and the efficiency of fishing gear, using data from instrumented long-line surveys, observer data, commercial records and port monitoring. Individual projects to be developed for the following species or species-groups:
 - 2.1. Swordfish (*Xiphias gladius*)
 - 2.2. Bigeye tuna (*Thunnus obesus*)
 - 2.3. Pelagic sharks (several species; bycatches / target catches in long-line fisheries)
 - 2.4. Subsurface medium pelagic fishes (mainly bycatches of long-line fisheries, i.e., oilfish, escolar, lancetfish)
3. Gear optimization in longline fisheries, using data from instrumented long-line surveys.
4. Mitigation against predation of hooked fishes by sharks and marine mammals during fisheries operations using long-line fishing gear. Data analysis to be based on instrumented long-lines, observer data, and commercial fishing records.
5. The development and assessment of fisheries for medium / large pelagic fishes around anchored FADs (Fish Aggregating Devices). Projects dependent on the locations of FADs, and should include species composition, catch and fishing effort, movement of fishes and resident times around FADs.

Component 5 – Biodiversity Mainstreaming and Fisheries Management: Proposed Research Projects

[Under preparation]