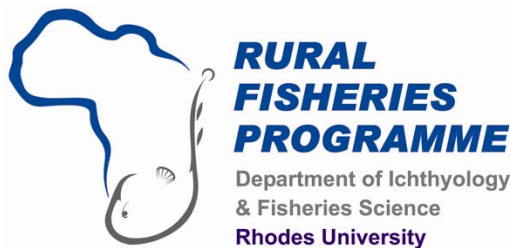


Final report: OIE Regional training for national OIE focal points for aquatic diseases

Grahamstown (South Africa), September 19 – 23 2011



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**RURAL
FISHERIES
PROGRAMME**

Department of Ichthyology
& Fisheries Science
Rhodes University

Final report: OIE Regional training for national OIE focal points for aquatic diseases

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Introduction

Aquaculture is the fastest growing animal production sector. It is estimated that 47% of all fish produced is from aquaculture. With increase in demand for fish and the decline of wild fisheries, aquaculture will continue to grow. Traditionally, Asia has been the leader of aquaculture. However, in the last few decades there has been consistent growth from other regions of the world.

Africa, has shown consistent growth in aquaculture. Countries such as Nigeria and Egypt, the largest catfish producer and the second largest producer of tilapia respectively, are examples of how aquaculture is growing on the continent. Many other African countries have initiated national programmes to develop and intensify aquaculture. However, with this intensification of aquaculture, the risk of fish diseases increases, and as such could undermine this sector.

The challenge for most all African countries is that fish health capacity is very limited. Veterinarians during their training receive very little fish health training and as such are not able to respond to this growing need. Furthermore, as aquaculture is a relatively new sector, state diagnostic and surveillance systems for fish health is not in place yet. There is therefore a need to train state veterinarians in fish health.

The fish health course developed at Rhodes University

The Rural Fisheries Programme (RFP), of the Department of Ichthyology & Fisheries Science (DIFS), Rhodes University developed a fish health course for state veterinarians in South Africa. The initial development of the course was funded by the South African Department of Agriculture, Forestry &

Fisheries. The week long course was designed to provide a basic introduction on fish health to state veterinarians. The course includes theory and practical sessions. The course was also approved by the South African Veterinary Council.



Participants to the fish health course

Collaboration between Rhodes University and the OIE to develop fish health capacity in Africa

Rhodes University and the OIE (Gaborone Office) began discussions a year prior to the course on providing a training course (and possibly other in the future) to assist in the training of the OIE focal point representatives in the Southern Africa / SADC region. The purpose of the course was to capacitate the OIE focal point representatives (most of which are trained veterinarians) on the basics of fish health.

The rationale of the course was that with a growing aquaculture sector in Africa, member countries would be required to provide the necessary fish health support and services to this sector. The course would expose them to the threats of fish diseases and to begin the discussion on how member countries could gear up to meet this demand.

For this particular course, as it was sponsored by the OIE, it would also include training on how the OIE processes with regards to reporting work.

Planning for the course

Planning of the course was shared by the OIE (Gaborone Office) and Rhodes University. The invitation of the delegates, international presenters, flights and other international requirements was undertaken by the OIE. The local logistics, such as airport transfers, accommodation, venue and course management was undertaken by Rhodes University.

There were a number of areas, where both Rhodes and the OIE shared responsibility, such as developing the course schedule (see appendix I).

A month prior to the course, a representative from the OIE visited Rhodes University to meet with the Rhodes team to assess progress. The venue of the course and accommodation were inspected and found to be suitable. The operational plans, such as airport transfers, catering, office management were presented and found to be adequate and in a suitable state of readiness.

There was also daily communication (through email) between the Rhodes team and the OIE office prior to the course to ensure that the planning for the course was on track and ready to host the meeting.



Delegates visiting the fish farm at Rhodes University

The course

Course participants: In total 33 participants from 13 countries attend the course. There were also representatives from the OIE office in Gaborone, the South African National Department of Agriculture and Rhodes University. This broad representation was useful in that it provided a wide view on experiences and country specific issues. The participants were able to respond to the course material and there seemed to be general consensus that the material was relevant to their needs. See Appendix II for a full list of the course participants

Course presenters: From Rhodes University, the main presenters were Dr David Huchzermeyer and Dr Horst Kaiser. From the OIE, Dr Gillian Mylrea and Dr Larry Hammell were the two main presenters. Rhodes participation included topics related to fish diseases in Africa and general principals of aquaculture with regards to fish health / stress. Dr Hammell topics related to epidemiology and Dr Mylrea on OIE processes (on reporting).

All of the presenters were specialists in their field and as such provided technically sound presentations.



Participants during the practical session

Course highlights: The field trip to Rhodes University fish farms (both in Grahamstown and in Port Alfred), were highly appreciated. For a number of the participants it was their first time to visit a fish farm to this experience provided a valuable insight on how a farm operates.

The participants enjoyed the practical session, where live fish were presented to them for dissection and to perform basic screening for external / internal parasites. Working with fresh specimens of fish in a lab was an enjoyable experience and provided a practical aspect to fish health.

Meeting with the Vice Chancellor of Rhodes University: An evening event was organised where the Vice Chancellor of Rhodes University, Dr Saleem Badat welcomed the participants to the campus and indicated the commitment of the university to develop fish health in Africa. Dr Molomo, on behalf of the OIE responded by thanking the VC and indicated that the OIE would be looking forward to an ongoing engagement with Rhodes.

General feedback from the participants and the OIE: The general feedback from the participants, was that they appreciated the course and felt that it was relevant to the needs of Africa and were looking forward to further courses. The participants were also happy with the logistics of the course (accommodation, catering, transport and the venue).



A discussion between the participants

Recommendations

The course was successful, however, there can always be improvements.

For the future, it is proposed that:

1. For each country, two participants are invited. One participant would be decided by the country. The other participant would be decided by the OIE office and Rhodes University. The reason is that when countries send delegates to these courses, there is little consistency as to who comes (as this is decided by the country and out of OIE influence). When OIE and Rhodes decide who can come on the course, the appropriate person can be invited.
2. In future, there needs to be more time spent in the laboratory. The practical session engages the course participants in a much stronger way than lectures. Maybe even up to 30 – 40% of the course could be doing practical sessions.
3. There needs to be more time spent on the general principals of aquaculture, and possibly less time on OIE processes. To understand fish health, it is important to understand fish husbandry and its relationship to fish stress and then how stress links to fish health.

Finances

The course was conducted within budget. The university Finance Department (Research Office) managed the funds and have submitted a financial report (see appendix III).

Conclusion

The course was successful in that it was well received by the participants and there did not seem to be logistic related issues. The participants voiced their need for further training courses. In fact, the last day of the course coincided with the reporting of white spot syndrome virus Mozambique. This highlighted the need to strengthen fish health services / capacity in Africa.

Appendix 1. The course itinerary



Provisional programme

September 19 th : Structure and operation of the OIE, the OIE list of diseases, the Aquatic Code		
Time	Theme : Structure and operation of the OIE, the OIE and aquatic animal health	
08:30 - 09:00	Brief opening ceremony	Michael Botlhe Modisane, Chief Director Animal Production and Health (DAFF) Marosi Molomo, Vice-President of the OIE Regional Commission for Africa (Delegate from Lesotho) Ric Barnard, Dean of the Faculty of Sciences (RU)
09:00 - 09:20	How do we build capacity in developing fish health services in Africa?	Qurban Rouhani
09:20 - 09:40	General presentation of the OIE and the rights and responsibilities of OIE focal points for aquatic animal diseases	P. Bastiaensen
09:40 - 10:00	Disease transmission in aquatic environments, as opposed to terrestrial animals	Larry Hammell
10:00 - 10:30	Morning break - Coffee/Tea	
10:30 - 11:00	Overview of the OIE tools pertaining to aquatic animal health management, the quality of veterinary services (VS) and aquatic animal health services(AAHS) and legislation.	P. Bastiaensen
11:00 - 11:15	Outcomes of the OIE Global Conference on Aquatic Animal Health Programmes, held in Panama (June 2011)	Gillian Mylrea
11:15 - 11:30	Discussion	
Time	Theme : The OIE Aquatic Animal Health Code : horizontal chapters	
11:30 - 11:50	The OIE Aquatic Animal Health Code : general overview and definitions (glossary)	P. Bastiaensen
11:50 - 12:10	The OIE Aquatic Animal Health Code : criteria for listing, recent additions and delisting, reporting requirements and reported diseases in the SADC region and in Africa.	Gillian Mylrea
12:10 - 12:30	The OIE Aquatic Animal Health Code : surveillance (S 1.4) (<i>Guide for aquatic animal health surveillance</i>)	Larry Hammell
12:30 - 13:00	Discussion	

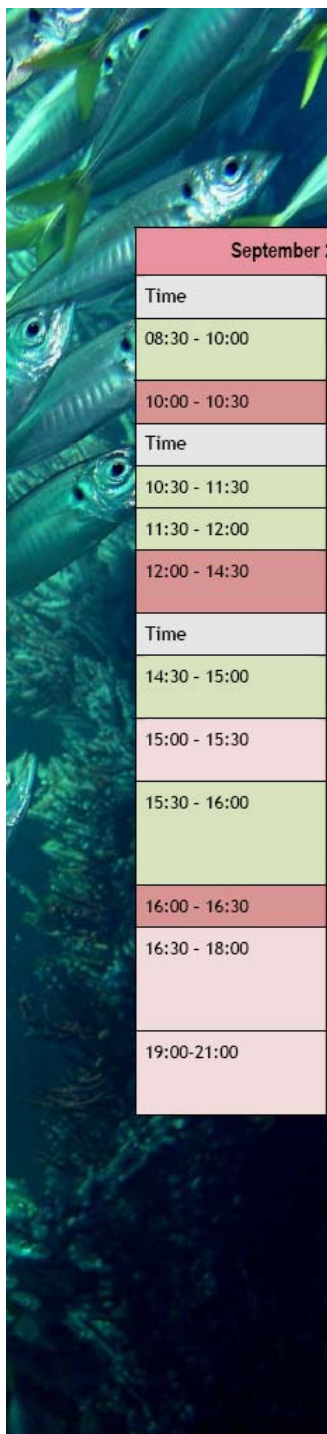


13:00 - 14:00	Lunch	
Time	Theme : Epidemiological and biosecurity principles in aquaculture	
14:00 - 14:30	Sampling from fish farms : guiding principles	Larry Hammell
14:30 - 15:00	Practical biosecurity at farm level and prioritizing risk	D. Huchzermeyer
15:00 - 15:30	Prevalence, incidence or absence of disease/infection	Larry Hammell
15:30 - 16:00	Discussion	
16:00 - 16:30	Afternoon Break Tea/Coffee	
16:30 - 17:00	Early detection and diagnostic test performance in apparently healthy fish	Larry Hammell
17:00 - 17:30	Risk factors affecting clinical disease	Larry Hammell
17:30 - 18:00	Studies to identify risk factors	Larry Hammell
19:00-21:00	Welcome Reception at the Vice Chancellor's Dining Room	Hosted by : Dr. Saleem Badat, Vice –Chancellor and Prof. Pete Clayton, Deputy Vice-Chancellor

 Covered by the RU DIFS.

 Covered by the OIE.





September 20 th : The aquaculture industry, industry diseases, toxins, food safety		
Time	Theme : Introduction to aquaculture	
08:30 - 10:00	Introduction to aquaculture : recognition of common aquaculture fish species and their environmental needs	Horst Kaiser
10:00 - 10:30	Morning Break Tea/Coffee	
Time	Theme : The OIE Aquatic Animal Health Code : disease chapters	
10:30 - 11:30	Common diseases of koi, trout & tilapia	D. Huchzermeyer
11:30 - 12:00	Significant fish diseases not occurring in southern Africa	Horst Kaiser
12:00 - 14:30	Visit to Rhodes University fish farm (and discussions on aquaculture - at the farm) followed by lunch	
Time	Theme : Toxicology, pollution and food safety	
14:30 - 15:00	Protocols for investigating suspected pollution - related fish mortalities	D. Huchzermeyer
15:00 - 15:30	The OIE Aquatic Animal Health Code : prudent use of antimicrobials	Gillian Mylrea
15:30 - 16:00	Antimicrobial use in aquaculture (<i>presentation to the World Veterinary Congress side symposium on "Lessons learned and future approaches on the use of antimicrobials"</i>)	D. Huchzermeyer
16:00 - 16:30	Afternoon Break Tea/Coffee	
16:30 - 18:00	Working group session 1 : The OIE Aquatic Animal Health Code : contribution of OIE focal points to standard setting (practical exercise using the last available report of the AAHSC)	Gillian Mylrea P. Bastiaensen Larry Hammell
19:00-21:00	Braai/Barbecue	Hosted by DIFS HoD: Prof. Warwick Sauer

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September 21 st : The Aquatic Manual, fish pathology, pharmacology, diagnosis		
Time	Theme : Anatomy, physiology, endocrinology and pharmacology of fish	
08:30 - 09:30	Anatomy & physiology of fish	Horst Kaiser
09:30 - 10:15	Pharmacology : general principles	D. Huchzermeyer
10:15 - 10:45	Pharmacology : clinical trials for drugs and for vaccines	Larry Hammell
10:45 - 11:15	Morning Break Tea/Coffee	
11:15 - 12:00	Chemical water treatment methods (in aquaculture)	Horst Kaiser
12:00 - 13:00	Fish Endocrinology	Horst Kaiser
13:00 - 14:00	Lunch	
Time	Theme : The OIE Aquatic Animal Health Manual	
14:00 - 14:15	The OIE Aquatic Animal Health Manual : general overview	Gillian Mylrea
14:15 - 14:30	The OIE Aquatic Animal Health Manual : recommendations applicable to specific diseases: general introduction (§ 2.0)	P. Bastiaensen
14:30 - 15:00	The OIE Aquatic Animal Health Manual : Diseases of fish: general information and sampling (§ 2.3)	D. Huchzermeyer
15:00 - 15:30	Internet resources on fish health	P. Bastiaensen Qurban Rouhani
15:30 - 16:00	Afternoon Break Tea/Coffee	
Time	Theme : Diagnostic approach & histopathology	
16:00 - 18:00	Practicals in laboratory : diagnostic approach & histopathology	D. Huchzermeyer



September 22 nd : Legislation and certification for trade		
Time	Theme : Certification for trade	
08:30 - 09:00	The OIE Aquatic Animal Health Code : commodity-based trade and certification	Gillian Mylrea
09:00 - 09:30	Protocols for disease free certification of koi & trout for export	D. Huchzermeyer
Time	Theme : Veterinary legislation	
09:30 - 10:00	Epizootic ulcerative syndrome (EUS) : a case example of interest to legislative issues	Kevin Christison
10:00 - 10:30	Morning Break Tea/Coffee	
10:30 - 11:30	Koi herpes virus (KHV) and Epizootic ulcerative syndrome (EUS) : case examples of interest to legislative issues	D. Huchzermeyer
11:30 - 13:00	Working group session 2 : compliance of national legislation with the OIE Guidelines on Veterinary Legislation	P. Bastiaensen
13:00 - 14:00	Lunch	
14:00 - 18:00	Field trip to Port Alfred to visit Rhodes University Mariculture Research Facility	Qurban Rouhani
18:00-20:00	Dinner at Port Alfred	



September 23 rd : Parasitology, nutrition and intensive aquaculture		
Time	Theme : Parasitology, nutrition and intensive aquaculture	
08:30 - 09:15	Parasitology	D. Huchzermeyer
09:15 - 10:00	Fish health in intensive aquaculture systems	Horst Kaiser
10:00 - 10:30	The relationship between nutrition and fish health	D. Huchzermeyer
10:30 - 11:00	If prevention is better than cure - then how do we stop fish getting sick ? The relationship between stress and fish health.	Horst Kaiser
11:00 - 11:30	Morning Break Tea/Coffee	
11:30 - 12:30	Feedback session for participants	P. Bastiaensen Qurban Rouhani
12:30 - 13:00	Closing ceremony	Michael B. Modisane Marosi Molomo Qurban Rouhani Other guest of honour
13:00 - 14:00	Lunch	
14:00	Shuttles depart for Port Elizabeth airport	

Appendix II. The Participant list



**OIE Sub-Regional Training Seminar
Diseases of finfish
for OIE Focal Points for aquatic animals**

www.rr-africa.oie.int

Department of Ichthyology and Fisheries Science
Rhodes University, Grahamstown, South Africa
September 19 - 23, 2011



With the financial support of the "Better Training for Safer Food" programme of the European Union (DG-SANCO)

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