

FINAL REPORT



Aquatic Animal Health Subprogram: the development of media tools to increase the awareness of aquatic animal diseases

Wayne Tindall

June 2005

FRDC Project No. 2003/645



Australian Government
Department of Agriculture,
Fisheries and Forestry



Australian Government
Fisheries Research and
Development Corporation



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NON TECHNICAL SUMMARY

FRDC 2003/645 Aquatic Animal Health Subprogram: the development of media tools to increase the awareness of aquatic animal diseases

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OBJECTIVES

1. To create an interactive resource on aquatic animal disease emergencies. This includes research, production, distribution options and promotion of the final kit.
2. To create a resource that is a valuable aid for learning institutions, students, veterinarians, aquaculture practitioners and government agencies.
3. To create a web-based support mechanism that can facilitate ongoing information updates.
4. To create critical awareness on 'aquatic animal health issues' and the availability of the resources mentioned above by way of a 12 monthly animated newsletter.

OUTCOMES ACHIEVED TO DATE

Outcomes achieved to date include:

- a) The provision of a comprehensive interactive CD, web-based and print-based resource for Australian aquaculture practitioners, trainers and students allowing instant access to valuable case study and data driven information on "aquatic animal health in Australia".
- b) An on-going "on-line" resource that allows the FRDC to continue to update the material above by way of a unique 'software application'. This benefits trainers of the subject matter and those located in remote areas.
- c) An ongoing "on-line" discussion forum where questions and answers can be fielded by parties interested in the project and interested in the subject matter. This benefits all interested parties and provides an ongoing BULLETIN BOARD where difficult and or specific information can be discussed in a non threatening manner.
- d) Response to the above by aquaculture practitioners, trainers, students and government agencies has been extremely positive with the attached website being used to facilitate the launching of further CD-Rom material and the on going web-based emails accruing a large database of interested individuals and organisations.

The Disease Watch website can be found at:

www.disease-watch.com.au

ACKNOWLEDGEMENTS

This awareness kit was fully funded by the FRDC.

The total project was overseen by FRDC Aquatic Animal Health Subprogram Steering Committee with Iain East and Eva-Maria Bernoth nominated as “content matter experts” to ‘sign off’ all content.

A large number of individuals and organisations gave of their time and their knowledge to assist the producer in initial outlines and final content.

The following is a credits list that reflects this co-operation and the respective input each person has made.

Assistance and Interviews

Barbara Nowak - University of Tasmania School of Aquaculture	(for interview and file footage)
Brian Jeffriess - Tuna Boat Owners Association	(for interview and file footage)
Graham Pike - RecFish Australia	(for interview and file footage)
Kevin Ellard - Primary Industries, Water & Environment, Tasmania	(for interview, extended hospitality and use of stills)
Paul Hardy Smith – Panaquatic Health Solutions	(for interview and use of stills)
Russ Neal - Australian Seafood Industry Council	(for interview and file footage)

Interviewees

Brett Swan - Gold Coast Marine Aquaculture, QLD
Murray Zipf - Rocky Point Prawn Farm, QLD
Bruce Zippel - Oyster Farmer - Smoky Bay SA
Colin Johnston - Aquatic Animal Health, Primary Industries & Resources South Australia, Adelaide, SA
Graham Martin - Saltas Pty Ltd, Hobart, TAS
Leigh Owens - James Cook University, Townsville, QLD
Mark Crane - AAHL Fish Diseases Laboratory at CSIRO Livestock Industries, Geelong VIC
Michael Borowitzka - Murdoch University, WA

Ray Tynan - Oyster Farmer - Pambula Lake, NSW

Robert Adlard - Queensland Museum, QLD

Ron Morrison - Southern Ocean Trout, TAS

Ron Stagg - FRS Marine Laboratory - Aberdeen,
Scotland, UK

Simon Bennison - National Aquaculture Council, ACT

Client Assistance

Eva-Maria Bernoth - Aquatic Animal Health,
Office of the Australian Chief Veterinary Officer (for extraordinary knowledge and vision)

Iain East - Agriculture, Fisheries and Forestry
- Australia (for the many contacts, understanding and
tireless effort in content & project
management)

Michael Parolin
Fisheries Research and Development Corporation (for sound advice and helping to keep the
project on track)

Kristy Nelson – Agriculture, Fisheries and Forestry
- Australia (for helping to keep the project on track)

Advice and Footage

Dave Ryan – Fisheries Victoria (For advice and file footage)

Peter Rankin - Ocean Wave Seafoods (For advice)

Brett McCallum - Pearl Producers
Association (For advice)

Martin Breen -
Australian Prawn Farmers Association (For advice)

Pheroze Jungalwalla - TASSAL (For advice)

Shane Raidal - Murdoch University (For advice)

SUMMARY

In May 2003, the Fisheries Research and Development Corporation (FRDC) requested tenders to research, produce, distribute and promote a comprehensive training and awareness kit for aquatic animal disease emergencies. The primary audience was current and future aquaculture workers and the people who routinely visit aquaculture sites (vets, government advisers and many others). Just as important, however, is the huge number of recreational and sport fishers who are ideally placed to spot and report sick or dead fish at a very early stage. There were also a number of secondary audiences throughout the wider fisheries industry.

Big Time Media was the successful tenderer and contracted with the FRDC to achieve the above goals with the following proposed delivery system:

- A CD-Rom delivery platform holding all the required video clips.
- A supporting web-site holding valuable text, graphic and video data that can be upgraded at anytime by tools developed for the FRDC.
- A supporting DISCUSSION FORUM located on the web-site for users to ask questions and discuss key issues.
- A set of speaker's notes for trainers in the field.
- A set of 'printable' notes located on the CD-Rom and the web-site (again updateable from the Web).

Filming was undertaken on location at:

- Tasmania
- Port Lincoln, South Australia
- Queensland
- NSW
- Exmouth, WA
- Fremantle, WA
- Geelong, VIC
- Canberra

BTM attended two briefing meetings and two consultative committee meetings in Canberra with the FRDC.

The following outputs have been delivered to the FRDC as the final outcome of this project.

- Research of all content ensuring it conforms to relevant TAFE, Seafood Training Australia training competencies and other relevant State and Commonwealth community and classroom education standards.
- Writing all video scripts and engaging key interviewees to become involved in the projects.
- Filming all sequences around Australia.
- Sourcing additional video material on behalf of FRDC.
- Editing all video sequences and posting them on the Web for comment by all key players.
- Creating graphics and bullet points for all video scripts
- Creating the design for the front CD-Rom cover
- Creating (royalty free) music for all video clips
- Getting all video clips signed off - from Eva-Maria Bernoth and Iain East
- Recording professional voice overs
- Authoring all the interactive elements of the CD-Rom

- Creating graphics and content (including links) for the associated web-site and getting 'sign off' for the site - from Eva-Maria Bernoth and Iain East.
- Creating all final RESOURCE DOCUMENTS in PDF format and placing them on the CD-Rom and the web-site for updating and downloading.
- Purchase of Macromedia "CONTRIBUTE" software with licence key to enable FRDC to update the web-site as they wish.
- Replication of 400 CD-Roms and 100 VHS copies of the video clips.
- Delivery of all video assets on DVD for the FRDC archives.
- Delivery of all video assets on SP Betacam for the FRDC archives.

KEYWORDS

Training, Awareness Kit, Aquatic Animal Disease Emergencies, CD-Rom, Web-based, Video Clips, e-Newsletter.

BACKGROUND

In May 2003, the Fisheries Research and Development Corporation requested tenders to research, produce, distribute and promote a comprehensive training and awareness kit for aquatic animal disease emergencies.

Initially it was thought that the kit would comprise:

- One broadcast quality video of 5 minutes duration.
- One broadcast quality video of 8 minutes duration
- Three PowerPoint/multimedia presentations
- Supporting documentation such as handouts and speaker's notes

The FRDC thought that the project may require the following:

- a) all research, scripting, pre-production, production and post-production
- b) identifying all appropriate and key end-users and liaising and consulting with them in the production process
- c) delivery of 200 completed kits to end-users
- d) promotion of the kits to end-users including 10 monthly email/print bulletins and/or press releases
- e) seeking broadcast of parts or all of the video programs on pay and free-to-air television programming
- f) servicing and working with a small consultative committee that will guide the project team
- g) ensuring that the kit contents link with relevant TAFE, Seafood Training Australia training competencies and other relevant State and Commonwealth community and classroom education standards
- h) clearing all video materials for copyright within Australia and overseas, in all media, in perpetuity
- i) producing appropriate clearance information for broadcasters and distributors

The successful tender was required to demonstrate:

- A proven track record in producing successful broadcast quality programming and corporate videos and creative, effective training and awareness programs using other media
- A commitment to technical accuracy and to industry and community group liaison and consultation
- Cost-effective and time-effective solutions.

The primary audience was current and future aquaculture workers and the people who routinely visit aquaculture sites (vets, government advisers and many others). Just as important, however, is the huge number of recreational and sport fishers who are ideally placed to spot and report sick or dead fish at a very early stage. There were also a number of secondary audiences throughout the wider fisheries industry.

It was requested that the videos and supporting presentations and print material must be suitable for broadcast and for showing at fishing clubs, school and community group meetings, etc.

The FRDC required that the successful tenderer should assume the following for costing purposes:

- The videos and other presentation material will be produced concurrently.
- Using a professional television crew and filming on broadcast standard video equipment. Our preference is for SP Betacam
- Allow for filming on location in:
 - ❑ Tasmania
 - ❑ Port Lincoln, South Australia
 - ❑ Central Victoria
 - ❑ Northern Queensland
 - ❑ Darwin or Broome, WA
 - ❑ Geelong, VIC
- Allow for attendance at two briefing meetings and two consultative committee meetings in Canberra.
- Allow for editing to be completed on broadcast standard equipment, AVID or equivalent
- Allow for delivery of completed videos on SP Betacam, with master and safety copy and 200 VHS dubs of each video.
- Allow for 200 CDs including video CD conversion of the videos and PowerPoint presentations.
- Allow for conversion of the videos to video CD and a format suitable for broadband delivery
- Allow for archival storage of source footage, and master tapes.

Big Time Media was the successful tenderer and contracted with the FRDC to achieve the above goals with the following proposed delivery system:

- A CD-Rom delivery platform holding all the required video clips.
- A supporting web-site holding valuable text, graphic and video data that can be upgraded at anytime by tools developed for the FRDC.
- A supporting DISCUSSION FORUM located on the web site for users to ask questions and discuss key issues.
- A set of speaker's notes for trainers in the field.
- A set of 'printable' notes located on the CD-Rom and the web-site (again updateable from the Web).

NEED

Australia earns over \$2 billion annually from fisheries and aquaculture production. In addition, recreational and sport fishing is a pastime for 3 million Australians who spend \$3.5 billion annually in pursuit of their fishing. The value of our commercial and recreational fisheries is enhanced by our freedom from many fish diseases that cause problems overseas. In an effort to maintain this state of relative freedom from disease, the FRDC identified a need for the development of a comprehensive training and awareness kit for aquatic animal disease emergencies and ascertained that it should loosely follow the guidelines set out below.

- Why do we care? – (because we have a strong industry, a healthy product, and a healthy recreational environment.)
- Examples of disease from overseas of the threat and impact – (especially in the form of a case study that we can learn from).
- What we can all do to reduce the risk? – (a comprehensive “What can I do” section) needs to be developed that each practitioner can relate to and work through systematically.
- What to look for and who to call - (a comprehensive “Who to call” section needs to be developed that each practitioner can relate to and work through systematically.
- Disease signs, prevention, first steps and other sector specific content for workers – larger organisations can customise this for their own needs.
- Diseases of concern are:
 - Diseases of finfish
 - Diseases of crustaceans
 - Diseases of molluscs
- For practitioners, the ‘disease emergencies section’ should include:
 - Who to call
 - What samples to take
 - Operational steps to reduce disease risk
 - What happens next – introducing control module
- Key disease signs – external and internal
- What samples to take for laboratory investigation
 - Blood sampling
 - Gill smear
 - Tissues for histology
 - Sampling for bacteriology
 - Sampling for virology
 - Water sampling
 - Water temperature records
 - Treatment options
- Operational steps to reduce disease risk.

- What happens next – introducing control module.
- For all audiences - what to expect – introducing control program and AQUAVETPLAN. This should include the basics of:
 - Movements
 - What is up-stream?
 - What is down-stream?
- Systems (AQUAVETPLAN)
 - Closed
 - Semi-closed
 - Semi-open
 - Open
- For other stakeholders the content should address:
 - Local Disease Control Centre – basic structure
 - Control measures, e.g.:
 - Emergency harvest
 - Compulsory slaughter
 - Disposal/Disinfection
- For owners/workers/vets the content should address:
 - Specific control principles for your production system
 - Larger organisations can customise this for their own situations.

There is a great need to pass on this valuable information to aquaculture practitioners, trainers, students and government agencies.

OBJECTIVES

Prior to the initiation of this project it was perceived that, while State/Territory, as well as Commonwealth, legislation is well-developed for the management of traditional stock animal diseases, legislation has not addressed adequately issues concerning aquatic animal diseases and their control.

After direction from the Aquatic Animal Health Committee and support from FRDC, the project investigators visited each State/Territory to discuss, with those officials responsible for managing aquatic animal disease outbreaks, the current status of State legislation, whether the legislation is appropriate and whether the State has adequate resources and legislative support to manage effectively aquatic animal disease emergencies.

In this way, strengths and weaknesses of each State/Territory with regard to aquatic animal disease preparedness were identified for further consideration by the local authorities.

Because of these findings, it was decided that a comprehensive awareness kit should be developed to address these concerns.

The key objectives of the 'Awareness Kit' project were to:

- Create a significant raising of the profile of aquatic animal disease issues.
- Create a resource that practitioners, veterinarians, students and government officials can use on a 'day by day' basis.
- Ensure that the chosen 'delivery medium' is appropriate to those in the field.
- Ensure that the information can be updated in a timely manner.
- Ensure that the information is relevant to the needs of the end users.
- Ensure that larger organisations can customise the material for their own variations
- Ensure that the KEY MAIN MESSAGES are conveyed i.e. "It's your industry/environment, act responsibly, report suspicious events".
- Heighten awareness of disease
- Improve hygiene practice
- Maintain market access and high prices through avoidance of disease
- Make sure that all appropriate and key end-users are consulted and included in media production process
- Ensure a timely and efficient delivery method of sending end users the completed kits is devised.
- Ensure that the kits are promoted to end users including 12 monthly email/print bulletins and/or press releases
- Seek broadcast of parts or all of the video programs on pay and free-to-air television programming

- Make sure that the producer works closely with a small consultative committee to guide the project team
- Ensure that the kit contents link with relevant Tafe, Seafood Training Australia training competencies and other relevant State and Commonwealth community and classroom education standards
- Clear all video materials for copyright within Australia and overseas, in all media, in perpetuity
- Produce appropriate clearance information for broadcasters and distributors(if the need arises)

“A disease free environment means healthy fish which means a quality product which leads to ready market access and premium prices (and thus higher profits)”.

The following audience must be targeted:

- Aquaculture industry
- Vets
- Recreational fishers
- Vet students\educators
- General public

METHODS

The methods undertaken by the producer were:

- Development of an ON-LINE FORUM where all interested parties could have input into the content (especially the video scripts) as they were being developed.
- The placement of all video clips on an on-line server for all stakeholders to download and comment on prior to sign off by FRDC.
- A CD-Rom delivery platform holding all the required video clips.
- A supporting web-site holding valuable text, graphic and video data that can be upgraded at anytime by tools developed for the FRDC to do this at any time.
- A supporting DISCUSSION FORUM located on the web-site for users to ask questions and discuss key issues.
- A set of speaker's notes for trainers in the field.
- A set of 'Printable' notes located on the CD-Rom and the web-site (again, updateable from the Web).
- A 12 Monthly e-Newsletter distributed to a growing number of stakeholders.

RESULTS

The following 'results' have been delivered to the FRDC as the final outcome of this project:

- Research of all content ensuring it conforms to relevant TAFE, Seafood Training Australia training competencies and other relevant State and Commonwealth community and classroom education standards.
- Writing all video scripts and engaging key interviewees to become involved in the projects.
- Filming all sequences around Australia.
- Sourcing additional video material on behalf of FRDC.
- Editing all video sequences and posting them on the Web for comment by all key players.
- Creating graphics and bullet points for all video scripts
- Creating the design for the front CD ROM cover
- Creating (royalty free) music for all video clips
- Getting all video clips signed off by FRDC
- Recording professional voice over
- Authoring all the interactive elements of the CD-Rom
- Creating graphics and content (including links) for the associated web-site and getting 'sign off' for the site from FRDC.
- Creating all final RESOURCE DOCUMENTS in PDF format and placing them on the CD-Rom and the web-site for updating and downloading.
- Purchase of Macromedia "CONTRIBUTE" software with licence key to enable FRDC to update the web-site as they wish.
- Replication of the final request of 400 CD-Roms and 100 VHS copies of the video clips.
- Delivery of all video assets on DVD for the FRDC archives.

NOTES:

- To date, 8 newsletters have been despatched to a growing database of interested names developed by Big Time Media.
- It was agreed by both parties that a sum of \$4,281 be retained by FRDC for the completion of 12 by monthly e-newsletters to be written and despatched by Big Time Media.
- In July 2005, it was verbally agreed with Alistair Herfort from FRDC that the last 4 newsletters should be sent out quarterly due to time constraints from FRDC staff members.
- Big Time will continue to work with Alistair Herfort from FRDC on the remaining four quarterly newsletters.

BENEFITS& ADOPTION

The following groups stand to benefit greatly from the awareness kits:

- Veterinarians
- Students
- Aquaculture practitioners & business owners
- Those wishing to enter aquaculture study
- Those wishing to enter the industry as enterprise owners or workers
- Government officials and other workers
- Researchers in aquaculture practices
- Recreational fishers
- Training institutions
- State/Territory Government aquatic animal veterinarians/pathologists (aquatic animal health specialists)
- Research and testing labs
- Overseas investigators wishing to obtain an ‘Australian perspective’.

The use of the kit will vary depending on the person receiving the kit. Uses will include:

- Increased self awareness (veterinarians in practice, aquaculture companies)
- Increase public awareness (recreational fishers, general public)
- Provide content for teaching/training courses (lecturers, university/tertiary students)

Given the general introductory nature provided in the video clips, video, the main use will tend to be increased awareness of health issues amongst aquaculture industry staff and vets involved in the industry.

The “Call to Action” that the kits are designed to trigger is: *“It’s your industry/environment, act responsibly, and report suspicious events”*.

Adoption of the key messages that are contained in this kit will provide:

- Heightened awareness of disease
- Improved hygiene practice
- Maintain market access and high prices through avoidance of disease

The benefit this kit brings to the target audience identified above is:

- It gives an introduction to aquaculture in Australia (some new, some old, vast potential)
- Makes the general public aware that Australia is relatively free of disease in aquaculture/fisheries
- A better understanding of disease in aquaculture overseas
- It promotes the possibility of a disease-free environment, which means healthy fish which in turn means a quality product. This leads to a ready market access and premium prices (and thus higher profits)
- For recreational fishers – this means more and bigger fish in the river
- Everyone has a role to play (specific messages for each target group)

FURTHER DEVELOPMENT

One party that was interested in this project and approach was the ABC Landline program.

The producer had already successfully negotiated with the ABC and a filming session was arranged to coincide with the launch of Disease-Watch in Canberra.

It may be that the strategy can be 're-presented' to the ABC for consideration. It was always in the marketing strategy put forward by Big Time, and as mentioned above one that was successfully negotiated. It took considerable effort to convince the ABC to do this story. However, it still has 'life' and perhaps can be put forward again.

E-Learning: the next step

The content developed for this awareness kit is of a sophisticated nature and has been developed with longevity in mind.

One of the greatest needs that has been highlighted from the producer's point of view is the need for ongoing training in many of the areas highlighted in this AWARENESS package. It is, after all, just that - an awareness package designed to provoke discussion and get users moving along the road to more IN DEPTH information and learning.

The producer has many years experience in "re-purposing" existing and developing new content to be delivered in an e-Learning mode using the Internet and CD-Rom technology (for those unable to connect or with unreliable connections).

This content is ideal "generic lead-in material" for more 'in-depth' information to be disseminated to practitioners, students, veterinarians and others right across Australia.

As a recipient of an AusIndustry award for innovation in e-Learning platform development, the producer of Disease Watch strongly recommends that an approach along these lines be considered as an ideal way to 'keep in touch' with those in the field and those who are currently attempting to provide on going 'up to the minute' information.

A learning platform of this nature could in fact generate considerable revenue on an on-going basis as a growing number of existing data-base members and new ones subscribe to such a system.

This deserves further exploration.

PLANNED OUTCOMES

Planned outcomes of this project:

- There has been a significant raising of the profile of aquatic animal disease issues.
- There is now a 'one-stop shop' for practitioners, veterinarians, students and government officials who can use it on a 'day by day' basis.
- There is now an information deliver system that is appropriate and relevant to the needs of the end-users including those in the field.
- The information contained on the CD-Rom/Web can be updated in a timely manner.
- Larger organisations can customise the material for their own needs
- The KEY MAIN MESSAGES required in the 'call for tender' have been conveyed i.e. "It's your industry/environment, act responsibly, report suspicious events".
- Heightened awareness of disease
- Improved hygiene practice
- Maintain market access and high prices through avoidance of disease
- All appropriate and key end-users have been consulted and have been included in media production process
- A timely and efficient delivery method of sending end users the completed kits is in place
- The kits are being promoted to end users via a 12 monthly email/print bulletins and/or press releases
- Broadcasters have been found to put the story to air. This however was 'put on hold' and now requires further work.

CONCLUSION

To date, the feedback from the kits that have been produced, as well as the e-newsletters and the speaker's notes, has been positive.

The Web Site FORUM is under-utilised and may require another marketing PUSH to alert members to its availability for Q&A

The producers have had no negative feedback about the content, the videos or the distribution format.

The time taken to pass information to Big Time for the monthly e-newsletters has proven to be a problem for FRDC, and the remaining four as from July 2005 will be dispatched quarterly at FRDC's request.

INTELLECTUAL PROPERTY

All intellectual property contained in the awareness kit has been cleared.

All copyright contained in the:

- Written content
- Video filming performed by Big Time Media
- Graphics and animations
- Code for the CD-Rom and the web-site
- Stills for the Web Site/CD-Rom/PDFs
- Music
- Voice overs and
- Content contained in the monthly newsletter

remains the property of FRDC.

The following people supplied background footage and or stills that have assisted in the making of the video clips and have offered the use of this footage and these stills for the duration of the project. The copyright of this footage and stills however rests with those who offered it. The copyright owners of the file footage and stills used as a supplement to the principal filming undertaken by Big Time Media are:

Barbara Nowak - University of Tasmania School of Aquaculture	(file video footage)
Brian Jeffriess - Tuna Boat Owners Association	(file video footage)
Graham Pike - RecFish Australia	(file video footage)
Paul Hardy Smith – Panaquatic Health Solutions	(use of stills)
Russ Neal - Australian Seafood Industry Council	(file video footage)
Dave Ryan – Fisheries Victoria	(file video footage)
Big Time Media	(file video footage)



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