

# EURL-Fish work done in 2014

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EURL-Fish in 2014

## First year in Copenhagen.

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2



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Betina National Veneratory Institute



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Tine Iburg

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Betina National Venerative Institute





Troels Seche

Rundqvist



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6

EURL-Fish work program 2014

5 main objectives

- 1. Coordination and training
- 2. Proficiency test
- 3. Reagents and products .
- · 4. Scientific advice and activities
- 5. Missions

20 subgoals

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Susie Sommer Mikkelsen

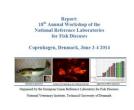


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# 1-1,1-2 Organise and prepare for the 18<sup>th</sup> Annual Meeting for the NRLs and produce a report from the Annual European Union Reference Laboratory for Fish Diseases

Meeting



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## 1-4 Facilitate and provide training in laboratory diagnosis: EURL training courses 2014

EURL course 1: Methods for implementation of surveillance procedures for listed fish diseases. (8/9-12/9 2014) EURL course 2: Real-time PCR for diagnostics and surveillance of Fish Diseases (15/9-17/9 2014)

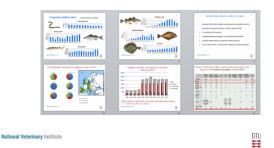
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11

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## 1-3 Collect and report data on the fish diseases situation in EU



2-1, 2-2 Prepare and report the Annual Interlaboratory Proficiency Test. PT1-2014 for identification of: VHSV, IHNV, EHNV, SVCV and

IPNV

and PT2 identification of: CyHV-3 (KHV) and ISAV

	Based on the law closeness of Audionan Turk 2014 for standing and within 2014 and 2014 of 2014 and 2014 (PTE). Bage Lid 19	
	Erropsen Union Enformers Laboratory for Fish Disasses	
	EURL for Fish Diseases	
	Report of the Inter-Laboratory Proficiency Test 2014	
	for identification and titration of	
	VHSV, IHNV, EHNV, SVCV and IPNV (PT1) and identification of	
	end seentmicetion of CyHV-3 (KHV) and ISAV (PT2)	
National Veterinary Institute	Organized by the European Dation Reference Laboratory for Falls Diseases, Institual Veteniary Technics, Forlands (University of Desmark, Cristianal Veteniary Technicage, Desmark	DTU
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# 3-1 Supply reference reagents to the NRLs in Member States

### Materials supplied by the EURL

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On request, the EURL supplies material to other laboratories in Member States and Third Countries to aid in the diagnosis and characterisation of fish diseases.



# G24 IHNV reference set from Jim Winton, et al. OIE Ref lab for IHN

#### Information for the IHNV G24 Reference set: 24 isolates of infectious hematopoietic necrosis virus USGS Western Fisheries Research Center, Seattle, Washington, USA

solate Name	teal. Year	Geographic source	Specific Location*	Host species?	Life stage	Passage
51394	1994	Washington USA	Baker Lake H.	sockeye	smolt	4
0412	2012	Washington USA	Cedar River	sockeye	inverile	3
181	1975	Orespon USA	Round Butte H.	steelhead	unknown	5+3
01W10	2010	Idaho USA	Dworshak H.	steelhead	juvenile	4
RUS	2000	Western Russia	Rybridg	R8-trout	juverile	5
8L/9	2001	Kernchatka,Ruada	Malkinskiy H.	sockeye	adult	5
.890	1960	Washington USA	Lewis River H.	Chinook	adult	57
ARAC	1982	Idaho USA	Hagerman V.	R8 trout	juverile	10
09-053	1990	Idaho USA	Hagerman V.	R8 trout	invenile	5
MC30	1991	Idaho USA	Hagerman V.	RBtrout	joverile	~5
Mer95	1995	Washington USA	Merwin H.	steelhead	stat	4
2::07	2007	Washington USA	Salmon River H.	steelhead	inverile	4
9000	2009	Idaho USA	Datorshek H.	steelhead	junecile	4
18	1991	California USA	Trinity H.	Chinock	Invenile	4
086	1990	California USA	Coleman H.	Chinook	adult	57
acv.	1966	California USA	Nimbus H.	Chinook	whit	\$7
80031	2000	California USA	Feather River H.	Chinook	inversite.	~5
0604/99	1999	Germany		R8-trout	unknown	5+2
217/A*	1989	Rely		R8 trout	unkrigent	5+2
32-2488	2002	Slovenia		RB-trout	unknown	5+2
ittNag06a	2005	Japan		R8 trout	unknoem	4
leuio2	2002	Korea		R8 trout	unknown	2
teshi206a	2005	Japan		R8-trout	unknowm	4
19v91	1991	Korea		R8-trout	unknown	5+2

*	8					
Name	Geno- eroup*	Sub- rroup*	midG USD*	Genbank Accessions for Genome Sequences*		
				tor genome sequences.		
813:94	U	Up	m6002U			
Cdr12		Up	mG050U			
R81		Uc	mG001U			
DW10		Uc	mG176U			
RU1		Up	mG143U			
RU9		Up	mG142U			
LR80	M	MN	mG007M			
WRAC		N54	re-G030M			
220-90		MB	m.G005M			
MC30		MC	mG119M			
Mer95		MD	mG111M			
Qts07		MD	mG150M			
DW09		MD	mG139M			
C18	L	1	m6138L			
Col80			mG130L			
SRCV			mG1406			
FR0031			m6011L			
DF04/99	E		na.			
217/A*			10.0			
02-248E			08			
RtNag06a	J	Nagano	02			
RtU902		Nagano	0.8			
RtShiz06a		Svizuoka	08			
RtPv91		Shinaka	Dia .			

# 3-2 Production of antisera against selected isolates when necessary

In 2014 no new productions of antisera were needed and our stocks of supernatants from hybridoma cells producing monoclonal antibodies were sufficient for the year

# 3-3 Update and maintain a library of isolates of ISAV, VHSV and IHNV, KHV and EHNV

Several isolates of the listed viruses VHSV, IHNV and KHV were received and stored in our library during 2014.



# 3-4 Maintain a library of tissue material from fish infected with listed pathogens

Our repository of positive naturally infected tissue from VHSV, IHNV and IPNV infected fish, has been maintained, as well as organ material from negative controls.

Tissue material from Atlantic salmon and rainbow trout infected with piscine reovirus (PRV) and rainbow trout infected with virus Y have been stored as well



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# 4-1 Update the webpage for the EURL, www.eurlfish.eu

The EURL website (www.eurlfish.eu) is a notice board, where NRLs and other interested parties can access relevant information and previous reports concerning the activities coordinated by the EURL and relevant upcoming events in the Union.



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16

## 4-2 Update the diagnostic manuals for VHS, IHN, ISA, KHV disease, EHN and EUS on the EURL web page

- 2-day meeting was held in Cph on KHV sampling and diagnostic procedures.
- Significant changes from the former versions were accepted and recommended for inclusion in the final decision. Among changes were
- The splitting of sampling and diagnostic tests for diagnostic and surveillance purposes, respectively.
- Inclusion of real-time PCR as the method of choice for surveillance.
- Specification on how to define a CyHV-3 strain.

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4-3 Fishreflabnet: Maintain and further develop the 👘 interactive network with the NRLs, Fishreflabnet, in order to promote a more proactive data sharing and communication with and between reference laboratories in member states.

- A new e-mail group was created in 2012: VET-EURL with approximately 100 colleagues subscribing. Official communication and updates of interest to the scientific community are delivered periodically.
- Furthermore this tool is used for newsletters, scientific updates and announcements from the EURL Fish like announcements and invitations for the Annual Workshop or publication of content in the ampoules from the proficiency test or on the final Inter-laboratory Proficiency test report. In addition the e-mail group is used for announcing other workshops, training courses and conferences and new publications of interest for the NRL Fish network

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# 4-4 Identify and characterise selected isolates of listed viruses

 In 2014 a number of virus isolates, sera and other reagents were received for further characterisation at the EURL and for storing in our virus library

Member States and countries outside EU					
Material received	Laboratories	Units			
Diagnostic material for virology	6	56 samples			
Diagnostic material for PCR	8	67 samples			
Diagnostic material for bacteriology	1	1 sample			
PCR control material	1	2 sample			
Serum	1	88 samples			
Other material	0	0 samples			

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## 4-5 Update and expand <u>www.fishpathogens.eu</u> with more pathogens

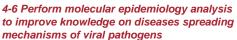
The new design of fishpathogens.eu has gone live. Furthermore the new betanoda database is now up and running with 59 isolate reports and 108 sequence reports. The sequence matcher function has been enhanced with color coding for each genotype and works in conjunction with all databases in fishpathogens.eu.

A new article "Fishpathogens.eu/noda: a free and handy online platform for Betanodavirus targeted research and data sharing" concerning the betanoda database has been accepted for publication in Journal of Fish Diseases.

A new database for SAV is being established in collaboration with the Norwegian Veterinary institute



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 Bang Jensen, Annette Kjær Ersbøll, Henrik Korsholm, Helle Frank Skall and Niels Jørgen Olesen (2014) Spatio-temporal risk factors for Viral Haemorrhagic Septicaemia (VHS) in Danish aquaculture. Diseases of Aquatic Organisms 109: 87– 97

5-1 Missions: Organizing missions to

relevant laboratories. Missions will focus on NRLs where on-site communication would

be beneficial. As collaboration with NRLs in

3rd countries from where EU is importing

5-2 Attending missions, international meetings and conferences in order to be updated on emerging and listed fish

large amount of fish

4-7 Real-time PCR: Assessment and standardisation of real-time PCR tests for the diagnosis, identification and typing of the listed non-exotic fish diseases.

4-8 Emerging diseases: In collaboration with specialised experts WW to review selected emerging fish diseases in Europe and assess their potential listing as exotic or non-exotic diseases

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20th Annual Workshop 2016

- · When?
- · Where?



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diseases.