Oral Presentations

Monday
Co-ordinated Treatments and Sustainable Production

10:30 The role of the management cell in sea lice control in Ireland
F. Kane*, D. Jackson, P. O'Donohoe, T. Mc Dermott, S. Kelly and A. Drumm

10:45 Evaluation of organised delousing in a small ecosystem
K. Eliasen*,

11:00 The surveillance and control programme for resistance to chemotherapeutants in Lepeophtheirus salmonis in Norway
R. Grøntvedt, P.A. Jansen*, A. Tarpai, K.O. Helgesen, T.E. Horsberg

11:15 The effect of synchronized fish farm fallowing: experiences from Hardangerfjord 2010-2013
R.M. Serra-Llinares*, P.A. Bjørn, U. Lindstrøm, I.A. Johnsen, A.D. Sandvik, R. Nilsen, B. Finstad, J. Skardhamar, A.D. Sandvik, L. Asplin.

11:30 Sea lice in Chile: historical analysis of surveillance and control programs
R. Ibarra*, A. Tello, J. Campisto and M. H. Medina

11:45 Coordinated sea lice (Caligus rogercresseyi) control plan in Chile 2013-2014
O. Gárate, J. Leal, A. Cariman, A. Guzmán, D. Woywood*

12:00 Evaluating the effect of delousing treatment coordination on the sea lice abundance in southern Chile
G.A. Arriagada*, H. Stryhn, R. Vanderstichel, E.E. Rees, J. Sanchez, J.L. Campistó, R. Ibarra, M. Medina, S. St-Hilaire.

New Tools and Approaches for Integrated Pest Management I

1:15 In-feed solutions for sea lice control: additional tools for integrated pest management
Simon Wadsworth*, Stanko Skugor, Helle Holm, Ragna Heggebo, Jorge Pino, Anne Kari Osmo

1:30 Effects of in feed masking compounds on olfactory and immune response genes of Caligus rogercresseyi settlement in Atlantic salmon (Salmo salar)
Jorge Pino*, Andrés Quiroz, Christopher Hawes, Simon Wadsworth, Gustavo Núñez-Acuña and Cristian Gallardo-Escárate

1:45 Effects of anti-attachment bioactive compounds on the inhibition of frontal filament development in Caligus rogercresseyi copepodids
Jorge Pino Marambio*, Christopher Hawes, Veronica Osorio, Tirza Valenzuela, Simon Wadsworth

2:00 Effects of a salmon semiochemical on infestation by Lepeophtheirus salmonis copepodids in salmon smolts: Preliminary results
P. Pageat* and C. Delfosse

2:15 Evidence of the effect of S.C.A.I.S. (Sealice Copepodid Attachment Inhibiting Semiochemical) on the infesting behavior of Lepeophtheirus
C. Delfosse* and P. Pageat

2:30 Sequential treatment of Atlantic salmon (Salmo salar) with SLICE® (emamectin benzoate) and hydrogen peroxide for the control of salmon lice
D. Morris*, C. Gould , B. Roy , D. Bassett , D. Cockerill

2:45 Improvements in sealice tarpaulin treatment technology using PARAMOVE® (50% Hydrogen Peroxide)
R. Strom*, I.Armstrong, H. Mitchell, P. Astudillo

New Tools and Approaches for Integrated Pest Management II

3:30 Quantitative genetics of susceptibility of Atlantic salmon to the salmon louse
B. Gjerde*

3:45 Changing the host-parasite dynamic with fish farming: behavioural interaction of salmon and sea lice in a cage environment
S. Bui*, F. Oppedal, L.H. Stien, T. Dempster

4:00 Host-parasite mismatch reduces sea lice infestation in farmed salmon through snorkel cage designs
F. Oppedal*, L.H. Stien, S. Bui and T. Dempster

4:15 Shielding skirt for prevention of salmon lice (Lepeophtheirus salmonis) infestation on Atlantic salmon (Salmo salar L.) In cages – effects on cage and cage environment
A.M. Lien*, K. Frank

4:30 Plankton nets as a preventive tool to reduce sea lice (Lepeophtheirus salmonis) infestations in salmon farming
R.N. Grøntvedt*, M.B. Næs, A.B. Kristoffersen and B. Johansen

4:45 Lumpfish: Optimizing the use of a new cleaner fish
A. Johannesen* and R. Arge

5:00 Delousing efficiency of farmed ballan wrasse (Labrus bergylta) against Lepeophtheirus salmonis infecting Atlantic salmon post-smolts
E. Leclercq* and H. Migaud

5:15 Natural sea lice mitigation at an Atlantic salmon (Salmo salar) farm in British Columbia, Canada, using cultured filter-feeding bivalves
A. Byrne*, C.M. Pearce, S.F. Cross, S.R.M. Jones and S.M.C. Robinson

Tuesday
Epidemiology, Modeling and Analysis

9:00 Towards an assessment of regional salmon lice infection pressure
L. Asplin*, P.A. Bjørn, I.A. Johnsen, A.D. Sandvik, J. Skardhamar, J. Albretsen, B. Ådlandsvik, M.S. Myksvoll, R. Nilsen, R. M. Serra-Llinares and U. Lindstrøm

9:15 The predictability of sea lice density in Norwegian fjords
Anne D. Sandvik*, Jofrid Skarðhamar, Pål-Arne Bjørn, Lars Asplin, Serra Rosa Maria Llinares and Ingrid A. Johnsen

9:30 Using a biologically assessed sea lice transport model to determine dispersal characteristics for informing management
N.K.G. Salama*, C.C. Pert, A.G. Murray, I.S. Wallace, J. Dunn, J.G. Fraser, B. Rabe and C.M. Collins

9:45 Modeling dispersion of Caligus rogercresseyi from 102 salmon farm sites in Chile using a 3D hydrodynamic model (SINMOD) and displaying the results in an innovative user-friendly interface
J.E. Unibazo*, Ø. Knutsen and D. Slagstad

10:00 Modelling the influence of wild salmon on the evolution of resistance to chemotherapeutants in sea lice (Lepeophtheirus salmonis)
G. F. McEwan*, M. L. Groner, C. W. Revie, M. D. Fast

Sea Louse Biology I

11:00 The salmon louse life cycle: How did two chalimus stages become four chalimus stages?
C. Eichner, L.A. Hamre*, R. Skern-Mauritzen and F. Nilsen

11:15 Use of RAD sequencing to isolate a sex-specific SNP marker in the salmon louse *Lepeophtheirus salmonis* (Krøyer, 1837)
S. N. Carmichael, M. Bekaert, J. B.Taggart, J.H. Ireland, H. R. L. Christie, D. I. Bassett, J. E. Bron, P. J. Skuce, K. Gharbi, R. Skern-Mauritzen, A. Sturm*

11:30 Characterization of sex determination genes in salmon louse, Lepeophtheirus salmonis
M. Furne, C. M. A. Caipang, R. Skern-Mauritzen

11:45 Assessing the use of ATP as a condition index in the sea louse, Lepeophtheirus salmonis, in the Bay of Fundy
S.M.C. Robinson*, T.R. Lander, K.P. Ang

12:00 Nuclear receptors in salmon lice, Lepeophtheirus salmonis
R. Male*, M. Dondrup, I. Tolås, M. Khatri, K. Gravdal, P. Battachan, F. Nilsen

12:15 Characterization of salmon louse Lepeophtheirus salmonis, genes containing fibronectin type II domains
E. Harasimczuk, F. Nilsen, A. C. Øvergård, S. Grotmol, H. Kongshaug, S. Dalvin

Sea Louse Biology II

1:30 Digestion and reproduction are inhibited by RNA interference mediated knockdown of LsKDELR and LsCOPB2 in the salmon louse
C. Trösße*, F. Nilsen and S. Dalvin

1:45 Identification of an intracellular cystatin in L. salmonis subsp. salmonis and its putative role the digestive process and immune responses
C.M.A. Caipang, S. Mæhle, E.P. Garcia and R. Skern-Mauritzen*

2:00 Molecular characterisation of the ecdysone receptor (EcR) in the salmon louse, Lepeophtheirus salmonis
L. Sandlund* , F. Nilsen, R. Male, H. Kongshaug, S. Grotmol and S. Dalvin

2:15 Identification and characterisation of Halloween genes in sea lice: investigating a novel group of drug targets
C.M. McNair*, J.H. Ireland, Q. Zhong, S.J. Monaghan and J.E. Bron

2:30 Molecular characterization of a salmon louse (Lepeophtheirus salmonis) chitinase using RNA interference in planktonic stages
C. Eichner, E. Harasimczuk, S. Grotmol, F. Nilsen, S. Dalvin*

2:45 The ABC gene family of the salmon louse (*Lepeophtheirus salmonis*)
S.N. Carmichael, J. Heumann, J.E. Bron, M. Bekaert and A. Sturm*

3:00 Recent advances in the production and implementation of farmed ballan wrasse (*Labrus bergylta*) in the Scottish salmon industry
E. Leclercq, B. Grant, A. Chalaris, A. Davie and H. Migaud*

Sea Louse Biology III

3:45 LiceBase: Model organism database and functional genomics tools for the sea lice research community
M. Dondrup*, C. Andreetta, I. Jonassen, F. Nilsen

4:00 Sublethal threshold of Caligus rogercresseyi (Boxshall & Bravo 2000) on the physiological response of the host Salmo salar (Linnaeus 1758)
M.P. González*, L. Vargas-Chacoff and S.L. Marín

4:15 Caligus rogercresseyi transcriptome: Novel insights for key biological processes during the lifecycle of the salmon louse
C. Gallardo-Escárate, V. Valenzuela-Muñoz, G. Núñez-Acuña, J. Chávez-Mardones, W. Maldonado-Aguayo, A. T. Gonçalves, R. Farlora, D. Valenzuela-Miranda

4:30 Microarray profiling in skin revealed protective mechanisms mediated by feeding plant derived anti-lice bioactives against salmon lice in Atlantic salmon
H. Holm, S. Wadsworth, A.K. Osmo, A. Krasnov, Ø. Evensen, S.Skugor*

4:45 Development of bacterial ‘microbiome-markers’ for salmon microbiota mediated resistance against infection with sea louse, Lepeophtheirus salmonis
S. Leadbeater*, N. Derome, M. Llewellyn, K. P. Ang, F. Powell and J. Elliot

5:00 Detection and quantification of planktonic Lepeophtheirus salmonis by real-time PCR
A. Mols-Mortensen*, G. á Norði, E. Danielsen, Á. Jacobsen, D.H. Christiansen and R. Skern

Thursday

Use of Chemotherapeutants, Modes of Action, Targets, and Resistance I

9:00 Screening of pharmaceutical compounds for effect on preadult salmon lice
S.M. Aaen* and T.E. Horsberg

9:15 Are laboratory bioassays an efficient tool for monitoring Caligus rogercresseyi (Boxshall & Bravo 2000) sensitivity to antiparasitics: Weaknesses and strengths
S.L. Marín*, R. Ibarra, M.H. Medina

9:30 Trends in the success of pyrethroid and organophosphate bath treatments against Caligus rogercresseyi in the Chilean salmon industry
A. Tello*, P. Artacho, R. Ibarra and M. H. Medina

9:45 First report of hydrogen peroxide resistance in salmon lice (Lepeophtheirus salmonis) in Norway
K.O. Helgesen*, H. Romstad, S.M. Aaen and T.E. Horsberg

10:00 Emamectin benzoate field data from Norway from spring 2011 until spring 2014
K. Ulven*, B. Lygren

Use of Chemotherapeutants, Modes of Action, Targets, and Resistance II

10:45 Avermectin treatment for Lepeophtheirus salmonis and effects on salmon immunophysiology
M.D. Fast*, K.E. Fitzpatrick, S.L. Purcell, S.C. Johnson, S. Wadsworth, S.K. Whyte

11:00 Emamectin benzoate resistant Salmon lice (Lepeophtheirus salmonis) show changes in ligand-gated ion channel expression
S.N. Carmichael, J.E. Bron, J.B. Taggart, J.H. Ireland, M. Bekaert, S.T.G. Burgess, P.J. Skuce, A.J. Nisbet, K. Gharbi & A. Sturm*

11:15 Transcriptomics of emamectin benzoate responses in resistant Atlantic and sensitive Pacific salmon lice Lepeophtheirus salmonis
B.J.G. Sutherland*, J.D. Poley, O.O. Igboeli, J.R. Jantzen, M.D. Fast, B.F. Koop, S.R.M. Jones

11:30 Global gene expression analysis of copepodid sea lice (Lepeophtheirus salmonis) drug responses using in vitro bioassays
J.D. Poley*, B.J. Sutherland, S.K. Whyte, O.O.Igboeli, S.L. Purcell, K.E. Fitzpatrick, B.F. Koop, M.D. Fast

11:45 Identification of the mechanism behind resistance against organophosphate (azamethiphos) in salmon lice (Lepeophtheirus salmonis)
KP. Kaur*, K. O. Helgesen, M. J. Bakke, T. E. Horsberg

12:00 Azamethiphos resistance – Frequency of resistance alleles in Norwegian salmon
KP. Kaur, S.M. Aaen, K. O. Helgesen, V. Aspehaug, T. E. Horsberg*

Sea Lice in Wild and Farmed Fish Populations

1:15 Public perceptions and framing of salmon louse issues in Norway, the U.K. and Canada
M. Solberg, S. Dalvin*

1:30 Where are all the sea lice? Searching the wild fish of Cobscook Bay
A. Jensen, M. Pietrak*, S. Barker, G. Zydlewski and I. Bricknell

1:45 Where are all the sea lice? A first glance at sentinel fish in Cobscook Bay
C. Frederick*, M. Pietrak, S. Barker, D. Brady and I. Bricknell

2:00 Identifying variations in the potential infestation pressure from sea lice on wild salmonids in a Scottish salmonid aquaculture region
C.C. Pert*, S.J. Middlemas, C.M. Collins, D. Baum and N.K.G. Salama

2:15 Seasonal changes in the abundance of planktonic *Lepeophtheirus salmonis* and *Caligus elongatus* in a fish farming region in the Faroe Islands
G. á Norði*, K. Eliasen, E. Danielsen, K. Simonsen

2:30 Biology and ecology of sea lice on wild and farmed salmonids in the Strait of Georgia and Johnstone Strait, British Columbia, Canada
S.C. Johnson*, C-E.M. Neville, M. Trudel, and S.R.M. Jones

2:45 Occurrence of sea lice (Copepoda: Caligidae) on marine fishes from Jaramijo, an area with potential for sea-cage aquaculture in Ecuador
F.N. Morales-Serna*, P. Loor-Andrade, V. Caña-Bozada, G.B. Mera-Loor, and E.J. Fajer-Ávila

Friday
Host Immune Responses and Sea Louse Immuno-modulation

8:00 Recombinant vaccine efficacy trials against infectious larval salmon lice stages following intraperitoneal immunisation of Atlantic salmon with 9 vaccine candidates
S.J. Monaghan, C.M. McNair, H.C. McDonald, J.H. Ireland, S. Hamilton, D. Knox, W. Roy, K.D. Thompson, A. Adams, R.H. Richards, P.D. Smith, D. Bassett, C. Matthew, A. Preston, F. Groves, S. Boyd, T. Kanellos, D. Asper, J.E. Bron

8:15 Unravelling the acquired immune response to larval sea lice infections: a serological approach
S.J. Monaghan*, C.M. McNair, C. Metochis, K.D. Thompson, A. Adams, H.C. McDonald, S. Hamilton, D. Knox, R. Richards, P.D. Smith, W. Roy, T. Kanellos, D. Asper, J.E. Bron

8:30 Secretory / excretory products of *Lepeophtheirus salmonis* regulate salmon leukocyte migration in vitro
J.L. Piesz*, I.R. Bricknell, Hernan Pizarro, S.E. Barker

8:45 Tissue models for studying host-parasite interactions with salmon lice *Lepeophtheirus salmonis* (Copepoda, Caligidae)
H.C. McDonald*, A.P. Shinn, K.D. Thompson, K.F. Muir, S.J. Monaghan, C.M. McNair, R.H. Richards, D.P. Knox, S. Hamilton, D. Asper, T. Kanellos, J.E. Bron

9:00 Characterization and knock-down of a putative prostaglandin E synthase found in *Lepeophtheirus salmonis*
C. Eichner*, A. Øvergård, F. Nilsen, S. Dalvin

9:15 Increased susceptibility to infectious salmon anemia virus (ISAv) in *Lepeophtheirus salmonis* – infected Atlantic salmon
S.E. Barker*, J. Covello, D. Bouchard, W. Wolters, S. Purcell, M. Fast, I.R. Bricknell

9:30 Transcriptomic evidence for host-specific feeding responses of *Lepeophtheirus salmonis*
L.M. Braden*, B.J.G. Sutherland, B.F. Koop, S.R.M. Jones

9:45 Profiling the effects of plant derived anti-lice bioactives on salmon louse and Atlantic salmon
S. Skugor*, H. Holm, A.K. Osmo, T. Utne, A. Krasnov, Ø. Evensen, S. Wadsworth

10:00 Development of a vaccine against sea lice
Yamila Carpio González, Claudia García Castillo, Juana Maria Lugo González, Jannel Acosta Alba, Liliana Basabe Tuero, Antonio Morales, Reynold Morales, Osmany Rodrigo, Fidel Herrera, Janet Velazquez, Alexis Machin, Yeny Leal, Mario Pablo Estrada*