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IMPORTANT INFORMATION FROM THE WORKSHOP AND STANDING COMMITTEE GUIDELINES:

All members of a standing committee need to have **individual membership of ISAG** throughout the time of service. If new committee members are not ISAG members when elected it is necessary to become so as soon as possible. Non-members will be removed from the committees.

The workshop Chair has to compile the report of the workshop and then circulate it to the members of the Standing Committee for any comment and revision. The report then has to be emailed to the ISAG secretary within the noted deadline.

PLEASE EMAIL A WORD VERSION AND A SIGNED PDF VERSION OF THIS REPORT TO THE ISAG

SECRETARY: ISAGsecretary@assochq.org

DEADLINE AUGUST 31st 2023

A draft of this report will be available to all ISAG members on the ISAG web. Workshop participants are allowed to comment and may ask for revision. Such a request for revision has to be given including relevant reasons and arguments. The Secretary will send these requests to the Chair for dispute in the Standing Committee. The Standing Committee has to answer the Secretary within two weeks. If no comments from participants have been received within this time, the report is considered to be approved and published on the ISAG web.

For more information please see the committee guidelines and comparison test rules at www.isag.us.



Genetics and Genomics of Aquaculture Species

Organised by a Standing Committee: YES/NO

Meeting information

Date: Thursday, July 6

Time: 2:00 PM - 5:30 PM

Number of participants: 40

Chair

Name: Francesca Bertolini

Affiliation: Technical University of Denmark, Lyngby, Denmark

Contact email: francesca.bertolini3@unibo.it

Co-Chair (optional)

Name: María Saura

Affiliation: Institute of Marine Research IIM-CSIC, Vigo, Spain

Contact email: msaura@iim.csic.es



Agenda

| 2:00 PM | 89946 | Invited Workshop Presentation: Epigenomic and microbiome signatures of early rearing conditions in aquaculture. Sofia Consuegra*, Department of Biosciences, School of Biosciences, Geography, and Physics, Swansea University, Wales, UK. | | |
|---------|-------|---|--|--|
| 2:30 PM | 89812 | A high-density genetic linkage map and QTL mapping for growth traits in South African abalone (Haliotis midae). T Tshilate*1, E Ishengoma2, and C Rhode1, 1Department of Genetics, Stellenbosch University, Stellenbosch, South Africa, 2Mkwawa University College of Education, University of Dar es Salaam, Iringa, Tanzania. | | |
| 2:45 PM | 89641 | A technology for producing all-female progenies of the Flathead grey mullet by selecting sex-reversed males. Lior David*1, Guy Hirsch1, Itay Oz1, Dor Agiv1, Evgenia Marcos-Hadad1, Ayana Bennet-Perlberg2, Alon Naor2, and Boaz Ginzbourg3, 1The Hebrew University of Jerusalem, Rehovot, Israel, 2, Israel Ministry of Agriculture and Rural Development, Dor, Israel, 3Dagon Fish Hatchery, Kibbutz Maagan-Michael, Israel. | | |
| 3:00 PM | 89454 | Atlantic salmon miRNAs associated with smolitification and sea-water adaptation. R Andreassen*1, A Shwe1, S Ramberg1, A Krasnov2, and TKK Østbye2, 1Oslo Metropolitan University, Oslo, Norway, 2Nofima (Norwegian Institute of Food, Fisheries and Aquaculture Research), Ås, Norway. | | |
| 3:15 PM | 89850 | Construction of a high-density genetic linkage map using 2b-RAD sequencing in dusky kob (Argurosomus japonicus). TK Jackson and C Rhode*, Stellenbosch University, Stellenbosch, South Africa. | | |
| 3:30 PM | | Tea/Coffee Break, Exhibition and Poster Viewing. | | |
| 4:00 PM | 89849 | Population genetics of two Critically Endangered rhino rays from the Southwest Indian Ocean region. MJ Groeneveld*1, JD Klein¹, RH Bennett², ME Bond³, DA Ebert⁴,⁵, KS Gledhill⁶, S Jaquemet⁻, JJ Kiszka³, AHH Macdonald⁶, BQ Mann⁶, J Nevill¹o, AS Price¹, M van Staden¹, BE Wueringer¹¹¹,¹², AE Bester- van der Merwe¹, ¹Department of Genetics, Stellenbosch University, Stellenbosch, South Africa, ²Wildlife Conservation Society, ³Institute of Environment, Department of Biological Sciences, Florida International University, Florida, USA, ⁴Pacific Shark Research Center, Moss Landing Marine Laboratories, Moss Landing, USA, ⁵South African Institute for Aquatic Biodiversity, Grahamstown, South Africa, ⁶Fish Ecology Lab, University of Technology Sydney, Broadway, Sydney, Australia, ¬UMR Entropie, Université de La Réunion, La Réunion, France, ⁶School of Life Sciences, University of KwaZulu-Natal, Westville, South Africa, ⁶Oceanographic Research Institute, Durban, South Africa, ¹oEnvironment Seychelles, Mahé, Seychelles, ¹¹Sharks And Rays Australia, Bungalow, Queensland, Australia, ¹²Department of Biological Sciences, Faculty of Science and Engineering, Macquarie University, Macquarie Park, New South Wales, Australia. | | |



INTERNATIONAL SOCIETY FOR ANIMAL GENETICS

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| 4:15 PM 89317 | Genetic variation in disease resistance traits in hybrid striped bass. Jason Abernathy* ¹ , Miles Lange ¹ , Bradley Farmer ² , Matt McEntire ² , and Steve Rawles ² , ¹ United States Department of Agriculture, Agricultural Research Service, Auburn, AL, USA, ² United States Department of Agriculture, Agricultural Research Service, Stuttgart, AR, USA. | |
| 4:30 PM 89831 | Multi-functional genomic analyses identify causal gene and variants modulating viral nervous necrosis resistance in European seabass. Robert Mukiibi*¹, Luca Peruzza², Carolina Penaloza³, Massimiliano Babbucci², Rafaella Franch², Matteo Freguglia⁵, Stanis Laureau⁵, Giulia Dalla Rovere², Daniela Bertotto², Serena Ferraresso², Costas Tsigenopoulos⁴, Ross D Houston³, Luca Bargelloni², and Diego Robledo¹, ¹The Roslin Institute and Royal (Dick) School of Veterinary Studies, The University of Edinburgh, Edinburgh, United Kingdom, ¹Department of Comparative Biomedicine and Food Science, University of Padova, Padova, Italy, ³Benchmark Genetics, 1 Pioneer Building, Edinburgh Technopole, Edinburgh, United Kingdom, ⁴Institute of Marine Biology, Biotechnology and Aquaculture (IMBBC), Hellenic Centre for Marine Research (H.C.M.R.) Crete, P.O.Box 2214, Gournes Pediados 715 00 Heraklion, Crete, Greece, ⁵Valle Cà Zuliani Società Agricola s.r.l., Conselice (RA), Italy, Rovigo, Italy. | |
| 4:45 PM 89632 | Utilizing of genetic evaluation system using genomic information of the Korean flatfish population. DH Lee*1, JM Kang1, YJ Chung1, SH Lee1, YK Kim2, JW Park3,1, D Lee3, J Kim3, HR Yang3, JH Lee3, and SH Lee1, 1Chungnam National University, Yuseong-gu, 34134, Daejeon, Republic of Korea, 2Quantomic research & solution, Yuseong-gu, 34134, Daejeon, Republic of Korea, 3Fish Genetics and Breeding Research Center, Geoje, 53334, Republic of Korea. | |
| 5:00 PM 89326 | Whole-genome sequencing data provide a landscape picture of genetic variability in sea cucumber species. Francesca Bertolini* ¹ , Anisa Ribani ¹ , Valeria Taurisano ¹ , Arnold Rakaj ² , Alessandra Fianchini ² , Fabrizio Capoccioni ³ , Domitilla Pulcini ³ , Samuele Bovo ¹ , and Luca Fontanesi ¹ , ¹ Department of Agricultural and Food Sciences, Division of Animal Sciences, University of Bologna, Viale Giuseppe Fanin 46, 40127, Bologna, Italy, ² Department of Biology, University of Rome Tor Vergata, Via Cracovia 1, 00133 Rome, Italy, ³ Centro di ricerca "Zootecnia e Acquacoltura", Consiglio per la Ricerca in Agricoltura e l'Analisi dell'Economia Agraria (CREA), 00015, Monterotondo (Rome), Italy. | |
| | Ricerca in Agricoltura e l'Analisi dell'Economia Agraria (CREA), 00015, | |

Summary of the meeting

The invited workshop presentation by Sofía Consuegra evoked a lot of interest in the audience. It was very successful and a fruitful discussion arose. In general, the session proceeded normally, with all the talks going on time and all of them with questions.



All the committee members were in line with the election terms. Francesca Bertolini left the position of Committee chair of Genetics and Genomics of Aquaculture Species (although she continues being member of the committee), position that will now be held by María Saura. The position of co-chair will be held by Lior David. Sofía Consuegra, Jason Abernathy and Diego Robledo manifested their interest in becoming also members of the committee.

Regarding the organization of the conference, different suggestions were proposed:

- All participants of the session give a talk, in such a way that the poster sessions are replaced by flash talks of about 5 minutes. Poster sessions were lasting too long.
- Possibility of using screens for the poster session in a similar way then ISAG Utah 2016.
- Organise the sessions in an alternative way so that there is less overlapping among them (collapse some topics, rethink the organization of the conference). This however would not involve the aquaculture session, based in is a hotspot topic with an important interest in terms of research and industry.
- Regarding the plenary talks, move one of the two presentations to the afternoon with a maximum duration of 45 min including questions so that the morning is more light.

New Committee chair

Chair: María Saura

Term of service (add years of first and second term of service): 2017-2020; 2020-2025

Affiliation: Institute of Marine Research IIM-CSIC (Vigo, Spain)

E-mail address: msaura@iim.csic.es

New Committee co-chair (optional)

Co-chair: Lior David

Term of service (add years of first and second term of service): 2021-2025

Affiliation: The Hebrew University of Jerusalem, Rehovot, Israel

E-mail address: lior.david@mail.huji.ac.il

Note: One term runs for two bi-annual conferences (i.e. four years)



New Committee members

| Other committee members | First term of service (from year to year) | Second term of service (from year to year) | Email address |
|-------------------------|---|--|-------------------------------|
| Sofía Consuegra | 2023-2027 | | s.consuegra@swansea.ac.uk |
| Diego Robledo | 2023-2027 | | Diego.Robledo@roslin.ed.ac.uk |
| Jason Abenathy | 2023-2027 | | Jason.Abernathy@usda.gov |
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COMPARISON TEST (2020-2021) NO

SIGNATURE

Chair Co-chair