

72nd TUNA CONFERENCE AGENDA

Tuesday, 24 May 2022

12:00 Welcome and Introduction

SESSION 1: Tagging (Moderator: Kim Holland)

12:10 Depth preference and catchability of billfish in the eastern tropical Pacific determined using pop-up satellite archival tags – **Hannah Blondin**, Danielle Haulsee, Elliott Hazen, and Larry B. Crowder

12:25 Two decades of electronic tagging efforts for Blue Marlin and Sailfish in the Eastern Tropical Pacific – **Danielle Haulsee**, Hannah Blondin, Ryan Logan, Andre Boustany, Taylor Chapple, John Dean, Michael Domeier, Eric Hoffmayer, Nicole Nasby-Lucas, Eric Orbesen, Robbie Schallert, Virginia Shervette, George Shillinger, Mahmood Shivji, Derke Snodgrass, Jamie Walker, Bradley Wetherbee, Elliott Hazen, and Larry B. Crowder

12:40 Multi-year Tracking of Striped Marlin Reveals Residency in the East Pacific Ocean – **Chi Hin Lam**, Nicole Nasby-Lucas, Sofia Ortega-Garcia, Paxson Offield and Michael L. Domeier

SESSION 2: Life History (Moderator: Owyn Snodgrass)

13:00 Review of research activities conducted at the IATTC's Ashotines Laboratory from 2021-2022 – **Susana Cusatti**, Daniel Margulies, Vernon Scholey, Yole Buchalla, Enrique Mauser

13:15 Quantifying Trophic Linkage Between Pelagic and Coral Reef Habitats Using DNA Barcoding in Hawaiian Populations of the Epipelagic Predator, Mahi-Mahi (*Coryphaena spp.*) – **Nan Himmelsbach**, Molly Timmers, Raymond Boland, Jonathan Whitney

13:30 Hunting behavior and estimated energy expenditure by a solitary sailfish during prey pursuit and capture – **Ryan K. Logan**, Sarah M. Luongo, Jeremy J. Vaudo, Bradley M. Wetherbee, Mahmood S. Shivji

13:45 Histological sampling and historical data show no evidence of Pacific bluefin tuna reproduction in the southern California Current system - Heidi Dewar, **Owyn Snodgrass**, Barbara Muhling and Kurt Schaefer

POSTER SESSION: Life History

14:00 Age and Growth Estimation of Striped Marlin (*Kajikia audax*) through the Use of Otoliths and Spines in Baja California Sur: Preliminary Results – **Worbis-Badias Mariana**, Ulianov Jakes-Cota, Sofía Ortega-García and Rubén Rodríguez-Sánchez

SESSION 3: Bycatch Research (Moderator: Melissa Cronin)

- 14:15** Reducing shark bycatch in tuna fisheries: adaptive spatio-temporal management options for the eastern Pacific Ocean – **Guillermo Ortuño Crespo**
- 14:30** Harnessing Stakeholder Knowledge for the Collaborative Development of Mobulid Bycatch Mitigation Strategies in Tuna Fisheries – **Melissa Cronin**, Donald A. Croll, Martin A. Hall, Nerea Lezama-Ochoa, Jon Lopez, Hilario Murua, Jefferson Murua, Victor Restrepo, Stefany Rojas-Perea, Joshua D. Stewart, Jennifer L. Waldo, Gala Moreno
- 14:45** Using environmental DNA to reconstruct target and by-product catch composition for fisheries vessels – **Madeline E. Green**, B.D. Hardesty, P. Craw, B. Deagle and C. Wilcox
- 15:00** Vulnerability assessment of shark bycatch in EPO tuna fisheries using the EASI-Fish approach – **Shane Griffiths**, Leanne Fuller, Joanne Potts, and Simon Nicol

POSTER SESSION: Bycatch Research

- 15:15** Investigating the Potential of Helicopter-Vessel Communication for Bycatch Avoidance in Tuna Purse Seine Fisheries – **Jennifer L. Waldo**, Ernesto Altamirano, Donald A. Croll, Marta Diaz Palacios, Nerea Lezama-Ochoa, Jon Lopez, Gala Moreno, Stefany Rojas-Perea, Melissa R. Cronin

15:20 Close Day One

Wednesday, 25 May 2022

12:00 Open Day Two

SESSION 4: FADs (Moderator: Gala Moreno (moderator to be confirmed))

- 12:00** Impact of the density of Fish Aggregating Devices on tuna behavior from an individual-based model – **Amaël Dupaix**, Jean-Louis Deneubourg, Laurent Dagorn, Manuela Capello
- 12:15** Echosounder Buoys in Tropical Tuna Purse Seine Fishery – **Jon Uranga**, Manuella Capello, Yannick Baidai; Maitane Grande, Jon Lopez, Gala Moreno, Hilario Murua, Josu Santiago
- 12:30** The Jelly-FAD A Paradigm Shift in Biodegradable FAD Technology: Benefits and Challenges – **Gala Moreno**, Joaquín Salvador, Iker Zudaire, Jefferson Murua, Hilario Murua, Jon Uranga, Maitane Grande, Victor Restrepo
- 12:45** Modeling Drifting FAD Trajectories Arriving at Essential Habitats for Marine Turtles – **Lauriane Escalle**, Joe Scutt Phillips, Alexandre Aires da Silva, Raquel Corniuk, John Hampton, Jon Lopez, Jennifer Lynch, Andrew McWhirter, Hilario Murua, Victor Restrepo, Sarah-Jeanne Royer, Yonnat Swimmer, Gala Moreno

13:00 Special session: Electronic monitoring (Conductor: Craig Heberer)
(To be detailed soon)

15:30 Close Day Two

Thursday, 26 May 2022

12:00 Open Day Three

SESSION 5: Feeding and Movement Ecology (Moderator: Suzy Kohin)

12:00 Spatio-temporal Distribution of Juvenile Oceanic Whitetip Shark Incidental Catch in the Western Indian Ocean – **Leire Lopetegui-Eguren**, Jan Jaap Poos, Haritz Arrizabalaga, Gency Guirhem, Hilario Murua, Nerea Lezama-Ochoa, Shane Griffiths, Jon Ruiz Gondra, Philippe S. Sabarros, Jose Carlos Báez, Maria José Juan-Jordá

12:15 A population in decline? Examining habitat use, temporal changes, and knowledge gaps for basking sharks (*Cetorhinus maximus*) in the California Current Ecosystem– **Alexandra G. McInturf**, Barbara Muhling, Joseph J. Bizzarro, Nann A. Fänge, David A. Ebert, Damien Caillaud and Heidi Dewar

12:30 Movements and population dispersal of the dolphinfish (*Coryphaena hippurus*) across the Eastern Tropical Pacific inferred from carbon and nitrogen stable isotope analysis– **Sergio A. Briones-Hernández**, Ulianov Jakes-Cota, Fernando R. Elorriaga-Verplancken, Felipe Galván-Magaña, John M. Logan, John O’Sullivan, Esteban Elias, José Miguel Carvajal, Joanna Alfaro-Shigueto, Sofía Ortega-García

12:45 Risk and Reward in Foraging Migrations of North Pacific Albacore Determined from Estimates of Energy Intake and Movement Costs – **Barbara A. Muhling**, Stephanie Snyder, Elliott L. Hazen, Rebecca E. Whitlock, Heidi Dewar, Jong-Yeon Park, Charles A. Stock and Barbara A. Block

13:00 Juvenile Albacore Tuna (*Thunnus alalunga*) foraging ecology varies with environmental conditions in the California Current Large Marine Ecosystem – **Catherine F. Nickels**, Elan J. Portner, Owyn Snodgrass, Barbara Muhling, and Heidi Dewar

13:15 Pacific bluefin tuna, *Thunnus orientalis*, exhibits a flexible feeding ecology in the Southern California Bight - **Elan J Portner**, Owyn Snodgrass, Heidi Dewar

13:30 Feeding ecology of broadbill swordfish (*Xiphias gladius*) in the California Current - **Antonella Preti**, Stephen M. Stohs, Barbara Muhling, Gerard T. DiNardo, Camilo Saavedra, Ken MacKenzie, Leslie R. Noble, Catherine S. Jones and Graham J. Pierce

POSTER SESSION: Feeding and Movement Ecology

13:45 Development of a Genotyping-in-Thousands by sequencing (GT-seq) panel to evaluate stock structure and sex-specific distribution patterns of Albacore Tuna (*Thunnus alalunga*) in the Pacific Ocean – **Kathleen G. O’Malley**, David. I. Dayan, Cristin K. Fitzpatrick, Nathan Campbell, Geoffrey Walker, Felix Vaux

13:50 Evaluating the reliance of tuna and swordfish on forage species in the ocean's twilight zone using compound-specific stable isotope analysis – **Ciara Willis**, Kayla Gardner, Walt Golet, Leah Houghton, Simon Thorrold

SESSION 6: Data Collection (Moderator: Nadya Mamoozadeh (moderator to be confirmed))

14:00 Tun-AI: tuna biomass estimation with Machine Learning models trained on oceanography and echosounder FAD data – Daniel Precioso, Manuel Navarro-García, **Kathryn Gavira-O'Neill**, Alberto Torres-Barrán, David Gordo, Victor Gallego-Alcalá, David Gómez-Ullate

14:15 Future technological applications for data collection in the Atlantic highly migratory species pelagic longline fleet – **Ian Miller**, Brad McHale

14:30 Harnessing Advances in Artificial Intelligence and Genomics to Enable Scalable and Field-deployable Species Identification Capabilities - **Mariah Meek**, Nadya Mamoozadeh, Shannon O'Leary, David Portnoy, and Nihar Mahapatra

14:45 Advancing Tropical Tuna Fisheries Science with Biogeochemical ARGO (BGC-ARGO) - **Michael P. Seki**

15:00 Harvesting ship navigation radar to provide low-cost data on vessel activity at sea - **Chris Wilcox**, Adrien Ickowicz, Christian Moeseneder and Leslie A Roberson

15:15 Business meeting

15:30 Close Day Three – Final remarks