

Staff name	Arni Magnusson
Division	FAME
Purpose of trip	WCPFC Scientific Committee SC20 (Manila), then work session with Nick Davies (Matapouri)
Travel dates	11-31 August 2024
Where visited	Manila (Philippines) and Matapouri (New Zealand)

Key people met	Membership of the WCPFC, collaborating scientists,
	SPC member country delegations, Nick Davies

List of trainees if training	
provided	

Link to evaluation report analysis if training or workshop with evaluations done	
Links to presentations or other key docs presented	https://meetings.wcpfc.int/node/23118 https://meetings.wcpfc.int/node/23360
	https://github.com/PacificCommunity/ofp-sam-transition-plan

Is follow up needed? (if so, then with whom)	No
What was accomplished?	SC20: Raised awareness, engagement, and guidance from WCPFC SC around the next-generation P123 scoping project.  Work with Nick Davies: Technical and detailed discussions on the needs and options for future tuna and billfish assessments, elaborating on the required work, collaborations, and an examination of supporting technologies.



#### Reflective observations Lessons learned Conclusions

SC20: The SPC team was happy with the high level of interest and engagement from WCPFC SC around the next-generation scoping project. Transitioning all SPC assessments from MULTIFAN-CL to the next assessment platform(s) is likely to be a long and somewhat costly journey, with many unknowns, possible setbacks, and difficult choices. As WCPFC SC is the client and recipient of our stock assessment work, it's important to build and nurture a shared ownership and decision-making throughout this journey.

Work with Nick Davies: In the weeks and months before I arrived in New Zealand, Nick and I had enjoyed conversations on the topic during online meetings of the stock assessment team and via email. For this in-person collaborative work session, we anticipated to focus primarily on technical aspects of the next-gen scoping project, examining supporting technologies such as TMB and RTMB. Although we did spend some of our time on that, we ended up focusing at least as much on the strategic level of the project. It was valuable to put in writing some of our discussions and analyses of the needs and options for future SPC tuna and billfish assessments. This reflects how we are conducting the scoping project, producing advice for WCPFC and SPC on the strategic decisions to be made, based on examinations and findings at the technical level.



<u>Part B. Description/other information</u> (content and detail determined by programmes)

#### SC20 in Manila (14-21 August)

I arrived in Manila on 12 August, attended SC20 and related team meetings, and flew out of Manila on 21 August.

The main goal for the next-generation P123 scoping project at SC20 was to raise awareness, engagement, and guidance from the SC members. This was achieved, based on the plenary comments and questions from several country delegations following the presentation, as well as chats during coffee and lunch breaks.

In the project report and presentation, SPC invited the SC to have a discussion on how the scoping project should be conducted and the specific prioritization of possible tasks for the scoping project. This discussion took place by convening an informal small group (ISG) during one of the coffee breaks, where the following three priority tasks were recommended:

- Move the swordfish assessment to Stock Synthesis: relatively simple compared to other SSP assessments.
- Move the next striped marlin assessment to Stock Synthesis: also relatively simple.
- Explore a variety of models for a simplified single-region yellowfin tuna dataset: ALSCL, Casal, Gadget, MFCL, sbt, Stock Synthesis, WHAM + Length.

A fourth task was indicated as a lower priority, if time and resources allow:

• Explore the possibility of enhancing the tagging module in Stock Synthesis.

The US delegation was especially engaged in discussions related to the next-gen P123 scoping project at SC20, both in plenary and in the margins of the meeting. The NOAA lab in Honolulu can commit staff time to collaborate in technical work related to the project and offers other forms of support, such as hosting and attending workshops.



#### **Work with Nick Davies in Matapouri (23-30 August)**

I arrived in Auckland on 22 August and drove to Matapouri that evening. After the work session was completed, I drove from Matapouri to Auckland on 31 August.

The work session was dynamic and did not follow a strict predefined schedule, but we visited the following focus topics in our discussions, explorations, and written deliverables:

#### Friday 23 August

SC20 outcomes and the general direction of the scoping project. Topics and tasks to prioritize in the following week.

#### Monday 26 August

Age-length structure, potential importance in stock assessments. Gadget as the main platform using age-length structure, now written in TMB. MFCL tagging module, each release group becomes a parallel population.

#### Tuesday 27 August

Simulation study, examining the importance of age-length structure. Operating model implementation, online meeting with Jeremy McKenzie (NZ). Required resources and timeline for a simulation study.

#### Wednesday 28 August

Needs and options for future SPC tuna and billfish assessments.

Multi-criteria decision making: scientific quality, beginner friendly, widely used.

FIMS could be the only option that can score high in all criteria.

Tuna RFMOs could collaborate and contribute tuna modules to FIMS.

RTMB is a new and interesting paradigm, but both FIMS and Gadget use TMB.

#### Thursday 29 August

Sparse matrix calculations, Matrix package, TMB, RTMB.
Parallel computations, OpenMP library.
RTMB code design, modularity, maintenance, reusing code in different assessments.

#### Friday 30 August

RTMB code design, stock assessment applications from Michigan State University. Wrap-up and write-up.



All notes and files from the workshop are found on the <u>project repository</u> on GitHub.

Before and after the Manila/Matapouri work trip, I was on home leave traveling with my wife and son, as well as my mother who joined us from Iceland. My vacation time was put on pause when we flew from Tbilisi (Georgia) on 11 August to Manila, and resumed when we flew from Auckland to Queenstown on 31 August. The theme of our home leave trip was to seek mountain ranges and cooler climates. It was a privilege and joy to work at Nick's and Silvia's eco-friendly home in the forest, where we worked literally off the (New Zealand electricity) grid. My family and I rented a cabin in the same forest, and our after-work dinners and nature walks with Nick and Silvia were both enjoyable and inspiring.

#### Part C. Attestation (other stuff)

All travel went as expected. I rented an apartment (Airbnb) close to the SC20 venue in Manila and a forest house (Booking.com) near Matapouri. The daily drive to Nick's place was on a steep and scenic gravel road.

For travel over the weekend (Sun 11 Aug and Sat 31 Aug) I am claiming 1 day travel compensation leave.

For non-working weekends in Manila (Sun 18 Aug) I am claiming 0.25 days.

For days worked during weekends and public holidays (NC holiday 15 Aug, Sat 17 Aug) I am claiming 2 days in lieu.

#### <u>Tickets and boarding passes</u>

11 Aug: Tbilisi – Manila (Qatar Airways)

Dear <b>Dr Arni Magnusson</b> ,		E-TICKET RECEIPT
Thank you for choosing Qatar Airways.	Booking Reference	V927OH
We look forward to welcoming you onboard.	Ticket Number	157-2328187436

Flight / Operated By	Departs / Arrives	Class	Fare Basis	Travel Not Valid	Special Services
QR256 Qatar Airways Confirmed	TBS (TBS), Tbilisi International Airport Sun, 11 Aug 2024 14:15  DOH (DOH), Hamad International Airport Sun, 11 Aug 2024 16:20	ECONOMY (S) Baggage Allowance 30 Kg	SJR2R1SO	Before - 11-Aug-24 After -	08F
QR934 Qatar Airways Confirmed	DOH (DOH), Hamad International Airport Sun, 11 Aug 2024 18:05 MNL (MNL), Ninoy Aquino International Mon, 12 Aug 2024 08:25	ECONOMY (S) Baggage Allowance 30 Kg	SJR2R1SO	Before - 11-Aug-24 After -	23A



#### 21 Aug: Manila - Auckland (Qantas)

Passenger Information			
Passenger Name	Frequent Flyer No.		
Dr Arni Magnusson	QF1963329089 Frequent Flyer Bronze		
Mrs Maria Jose Bravo Devet	QF1964221608 Frequent Flyer Bronze		
Mstr Ulfur Cedar Arnason (Child)	QF1964221749 Frequent Flyer Bronze		

Your Itinerary					
Date	Flight Number	Departing	Arriving	Status	Flight Information
21 Aug 24	QF20	Manila Ninoy Aquino 8:35PM Terminal 3	Sydney 6:40AM 22 Aug 24 Terminal 1	Economy Confirmed	Est journey Time: 08:05 Non-Stop Aircraft Type: Airbus Industrie A330
22 Aug 24	QF143	Sydney 8:55AM Terminal 1	Auckland 2:00PM 22 Aug 24 Terminal I	Economy Confirmed	Est journey Time: 03:05 Non-Stop Aircraft Type: Boeing 737

#### 8 Sep: Auckland - Noumea (Aircalin)



#### NZ visa (58.00 NZD)

#### New Zealand Electronic Travel Authority E6974389 request received

1 message

 $\label{lem:no-reply} \textbf{gweb.immigration.govt.nz} < \textbf{no-reply@web.immigration.govt.nz} > \textbf{To: thisisarni@gmail.com}$ 

Wed, Aug 21, 2024 at 2:14 AM



Status: Pending Name: Arni Magnusson Passport number: A3730068 NZeTA reference number: E6974389

Thank you for your application for a New Zealand Electronic Travel Authority (ETA). The Pending status indicates it is currently being processed. The next step will be to let you know whether your NZeTA has been issued or refused. This is normally within 72 hours but on occasion may take longer.

Please do not attempt to travel to New Zealand until we approve your NZeTA.

#### **Purchase Summary:**

New Zealand Electronic Travel Authority fee*: International Visitor Conservation and Tourism Levy:	\$23.00 NZD \$35.00 NZD
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TOTAL	\$58 00 NZD



#### Rental car to reach Matapouri and Nick's house (Europear 22-31 Aug)

Booking.com: Car and basic protection = 545.34 EUR Europear premium insurance = 538.20 NZD

#### Booking.com

#### Your car rental booking

Booking number
760853192 

Genius

Ford Everest or similar

L' Automatic

4 doors

5 seats

Europear

Supplied by Europear

#### Pick-up and drop-off

O Thu, Aug 22 · 3:00 PM

**Auckland International Airport** 9 days

O Sat, Aug 31 · 3:00 PM

**Auckland International Airport** 

#### Price Breakdown

 Car hire charge
 €483.31

 10% off car rental price\*
 -€48.33

 Because you're a genius member
 €110.36

 Protection
 €110.36

 \* Applies to cost of car only
 Amount paid
 € 545.34

Europear 1/1	Europcar IRD NO: 8 Website:	Al Agreement No PO Box 53145, Auckland, N 80-610-270 / Licence No: 021 www.europcar.co.nz Assistance: 0800 625 035	Z	F E	Reservations: 0800 ECAU-Reservation: Queries: 0800 866	800 115 @europcar.com	
Personal Data Driver/Conducteur MR MARIAJOSE BRAVODEVE	-	Rental Conditions Tariff:RT1PD4NZ-RTIME NZ Contract 55402321	Z AREA 1 I	POA 4+ DAY	S	Currency NZD	New Zealand Dollar
Main Driver ID  23 RUE EMILE LEGRAND	130124557	Charges	No	Unit	Unit Price	Total Amt	Total Amount inc GST & Charges
CEDEX 98800 NOUMEA NEW CALEDONIA		Basic Protection Premium protectio Road Assist Cover Premium Loc Schg Payment Card Fee VI	9 9 9 1 1.95 %	Day Day Day Rental	40.00 7.00 45.00	360.00 63.00 45.00	414.00 72.45 51.75
Billing Address BOOKING.COM TR LTD GB855	53640291 349007	GST EC Tour Vchr 76085319 Authoris. VISA 486796XXXXX Date:22/08/2024 04:58 / Auth Nb (Total Estimated Chgs/ Deposit)	15 % 9/9/PFAR X8617 Exp:0 or005800 / T	0926		697.36 NZD 5059	

Premium insurance: 414.00 + 72.45 + 51.75 = 538.20 NZD













