

Relevant reports for the EPO yellowfin tuna external review

The following is a list of documents that provide background information on the EPO yellowfin tuna assessment. The list under “MAIN DOCUMENTS” represent the core information that should be considered to understand the assessment. The remaining large list of documents provide information if a deeper understanding is desired about a particular subject. Most documents are available from the commission’s website using the links provided below. The main documents and the journal publications can be downloaded from OneDrive (an email will be sent with instructions). Additional presentations and documents will be produced specifically for the review and are not currently listed here.

The Stock Synthesis files and R4SS plots are available for the 2019 assessment. However, this is the assessment that was considered unreliable for management advice by the IATTC staff. An improved model with different fishery structure and assumptions will be presented at the review meeting. The files for this assessment will be made available in due course.

1. MAIN DOCUMENTS

Primary assessment documents

Documents in STATUS OF THE TUNA AND BILLFISH STOCKS IN 2018. IATTC Stock assessment Report 20.

Update assessment

1. Status of yellowfin tuna in the eastern Pacific Ocean in 2018 and outlook for the future by Carolina V. Minte-Vera, Haikun Xu and Mark N. Maunder..... 3

Stock Status indicators

2. Stock Status indicators for yellowfin tuna in the eastern Pacific Ocean by Carolina V. MinteVera, Haikun Xu and Mark N. Maunder 19

https://www.iattc.org/PDFFiles/StockAssessmentReports/_English/No-20-2019_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202018.pdf

Benchmark assessment

Documents in STATUS OF THE TUNA AND BILLFISH STOCKS IN 2015. IATTC Stock assessment Report 17.

3. Status of yellowfin tuna in the eastern Pacific Ocean in 2015 and outlook for the future by Carolina V. Minte-Vera, Alexandre Aires-da-Silva and Mark N. Maunder 97

https://www.iattc.org/PDFFiles/StockAssessmentReports/_Spanish/No-17-2018_Condicion%20de%20los%20stocks%20de%20atunes%20y%20peces%20picudos%20en%202015.pdf

REPORT ON THE TUNA FISHERY, STOCKS, AND ECOSYSTEM IN THE EASTERN PACIFIC OCEAN IN 2018

https://www.iattc.org/PDFFiles/FisheryStatusReports/English/No-17-2019_Tuna%20fishery,%20stocks,%20and%20ecosystem%20in%20the%20eastern%20Pacific%20Ocean%20in%202018.pdf

Stock Synthesis files

The stock synthesis files for running the assessment and the plots produced by R4SS are available at https://www.iattc.org/StockAssessments/2019/YFTWebsite/SS_output.html

Note that this is the assessment that was considered unreliable for management advice in 2019 by the IATTC staff. An improved model with different fishery structure and assumptions will be presented at the review meeting.

Documents from SAC 10

<https://www.iattc.org/Meetings/Meetings2019/SAC-10/10th-Meeting-Scientific-Advisory-CommitteeENG.htm>

Minte-Vera, C., Maunder, M.N., Aires-da-Silva, A., and Xu, H. 2019. EVALUATING INCONSISTENCIES IN THE YELLOWFIN ABUNDANCE INDICES. IATTC DOCUMENT SAC-10 INF-F

https://www.iattc.org/Meetings/Meetings2019/SAC-10/INF/English/SAC-10-INF-F_Evaluating%20inconsistencies%20in%20the%20yellowfin%20abundance%20indices.pdf

Hall, M. and Román, M.H. 2019. THE FISHERY ON FISH-AGGREGATING DEVICES (FADs) IN THE EASTERN PACIFIC OCEAN. IATTC DOCUMENT SAC-10-05

https://www.iattc.org/Meetings/Meetings2019/SAC-10/Docs/English/SAC-10-05_The%20fishery%20on%20FADs%20in%20the%20EPO.pdf

Documents related to the 2012 yellowfin review

Martell, S.J.D., de Bruyn, P., Davies, N.M., Ernst, B. 2013. Recommendations of the review panel on the IATTC assessment of yellowfin tuna. IATTC Special Report 20.

https://www.iattc.org/PDFFiles/SpecialReports/English/No-20-2013-MARTELL,%20STEVEN%20JD.%20Chair,%20PAUL%20DE%20BRUYN,%20NICK%20M.%20DAVIES%20and%20BILLY%20ERNST%20Panel%20Members_Recommendations%20of%20the%20review%20panel%20on%20the%20IATTC%20assessment%20of%20yellowfin%20tuna.pdf

INTRODUCTION TO THE REVIEW OF THE ASSESSMENT OF
YELLOWFIN TUNA IN THE EASTERN PACIFIC OCEAN, 2012

http://www.iattc.org/Meetings/Meetings2012/YFT-01/Docs/_English/YFT-01-01_Introduction-to-review-2012-DRAFT.pdf

2. FOR INFORMATION

Yellowfin 2012 review

<https://www.iattc.org/Meetings/Meetings2012/YFT-01/IATTC-YFT-External-Review-OctENG.htm>

Martell, S.J.D., de Bruyn, P., Davies, N.M., Ernst, B. 2013. Recommendations of the review panel on the IATTC assessment of yellowfin tuna. IATTC Special Report 20.

https://www.iattc.org/PDFFiles/SpecialReports/_English/No-20-2013-MARTELL,%20STEVEN%20JD.%20Chair,%20PAUL%20DE%20BRUYN,%20NICK%20M.%20DAVIES%20and%20BILLY%20ERNST%20Panel%20Members_Recommendations%20of%20the%20review%20panel%20on%20the%20IATTC%20assessment%20of%20yellowfin%20tuna.pdf

IATTC. 2012. Introduction to the review of the assessment of yellowfin tuna in the Eastern Pacific Ocean, 2012. IATTC Document YFT-01-01.

Lennert-Cody, C.E., Maunder, M.N., Alexandre Aires-da-Silva. 2012. Exploring large-scale patterns in yellowfin tuna data from dolphin sets in the Eastern Pacific Ocean purse-seine fishery. IATTC Document YFT-01-02.

Lennert-Cody, C.E., Maunder, M.N., Aires-da-Silva, A., Pérez, A., Marrow, JDL. 2012. Poststratification of purse-seine port-sampling data from dolphin sets. IATTC Document YFT-01-02.

Maunder, M.N. and Aires-da-Silva, A. 2012. A review and evaluation of recruitment and the stock-recruitment relationship for the assessment and management of yellowfin tuna in the Eastern Pacific Ocean. IATTC Document. IATTC Document YFT-01-05.

Aires-da-Silva, A. and Maunder, M.N. 2012. An exploration of alternative methods to deal with time-varying selectivity in the stock assessment of yellowfin tuna in the Eastern Pacific Ocean. IATTC Document YFT-01-06.

Maunder, M.N. and Aires-da-Silva, A. 2012. A review and evaluation of natural mortality for the assessment and management of yellowfin tuna in the Eastern Pacific Ocean. IATTC Document YFT-01-07.

Maunder, M.N. and Aires-da-Silva, A. 2012. A review of historical EPO YFT stock assessment sensitivity analyses. IATTC Document YFT-01-08.

Bigeye 2019 review

<https://www.iattc.org/Meetings/Meetings2019/BET-02/ExternalReviewIATTCBigeyeTunaAssessmentENG.htm>

Punt, A.E. (Chair), Cadrin, S., Fu, D., Lorenzen, K., Methot, R., Piner, K., and Walter, J. Report from the 2nd REVIEW OF THE STOCK ASSESSMENT OF BIGEYE TUNA IN THE EASTERN PACIFIC OCEAN

IATTC. 2019. Modeling recruitment in the EPO bigeye tuna assessment. IATTC Document WSBET-02-01.

Minte-Vera, C., Lennert-Cody, C., Xu, H., Valero, J., Maunder, M., Schaefer, K. Fuller, D., Lopez, J., Oliveros-Ramos, R. and A. Aires-da-Silva. 2019. A stock structure for bigeye tuna in the Eastern Pacific Ocean. IATTC Document WSBET-02-02.

Minte-Vera, C., Xu, H., Vogel, N.W. Boster, J.E., Lennert-Cody, C., Maunder, M.N. and A. Aires-da-Silva. 2019. Data from longline fisheries. IATTC Document WSBET-02-03.

IATTC. 2019. Responses by the IATTC staff to the recommendation of the first external review of the bigeye stock assessment (2012). IATTC Document WSBET-02-04.

IATTC. 2019. Summary of purse-seine data available for bigeye tuna in the eastern Pacific Ocean. IATTC Document WSBET-02-05.

IATTC. 2019. Natural mortality used in the EPO bigeye assessment. IATTC Document WSBET-02-05.

IATTC. 2019. Growth used in the EPO bigeye tuna assessment. IATTC Document WSBET-02-07.

Valero, J.L., Maunder, M.N., Xu, H., Minte-Vera, C., Lennert-Cody, C. and A. Aires-da-Silva. 2019. Investigated potential causes of the misspecification-induced regime shift in recruitment in the EPS bigeye tuna assessment. IATTC Document WSBET-02-08

Valero, J.L., Maunder, M.N., Xu, H., Minte-Vera, C., Lennert-Cody, C. and A. Aires-da-Silva. 2019. Spatial stock assessment model options for BET in the EPO and beyond. IATTC Document WSBET-02-09.

Bigeye 2010 review

<https://www.iattc.org/Meetings/Meetings2010/BET-01/Bigeye-AssessmentMay2010ENG.htm>

Sibert, J.R., Harley, S.J., Ianelli, J.N. and A.E. Punt. 2012. External review of IATTC bigeye tuna assessment. IATTC Special Report 19. https://www.iattc.org/PDFFiles/SpecialReports/English/No-19-2012-SIBERT,%20JOHN%20R.%20Chair,%20SHELTON%20J.%20HARLEY,%20JAMES%20N.%20IANELLI%20and%20ANDRE%20E.%20PUNT%20Panel%20Members_External%20review%20of%20IATTC%20bigeye%20tuna%20assessment.pdf

Maunder, M.N., Aires-da-Silva, A. and C.E. Lennert-Cody. 2010. Summary of issues in the Eastern Pacific Ocean Bigeye Tuna Assessment. IATTC Document BET-01-01.

Lennert-Cody, C.E., Maunder, M.N., and Aires-da-Silva, A. 2010. Preliminary analysis of spatial-temporal pattern in bigeye tuna length-frequency distributions and catch-per-unit-effort trends. IATTC Document BET-01-02a.

Aires-da-Silva, A. and Maunder, M.N. 2010. An evaluation of spatial structure in the stock assessment of bigeye tuna in the Eastern Pacific Ocean. IATTC Document BET-01-02b.

Aires-da-Silva, A. and Maunder, M.N. 2010. Sensitivity analysis of bigeye stock assessment to alternative growth assumptions. IATTC Document BET-01-03.

Maunder, M.N. and Aires-da-Silva, A. 2010. Investigation of catch-per-unit-of-effort data used in the Eastern Pacific Ocean bigeye assessment model. IATTC Document BET-01-04.

Aires-da-Silva, A., Maunder, M.N., and Lennert-Cody, C.E. 2010. An investigation of the longline fishery length-frequency residual pattern in the stock assessment of bigeye tuna in the Eastern Pacific Ocean. IATTC Document BET-01-05.

Aires-da-Silva, A., Maunder, M.N., and Tomlinson, P.K. 2010. An investigation of the trend in the estimated recruitment for bigeye tuna in the Eastern Pacific Ocean. IATTC Document BET-01-06.

Maunder, M.N., Lennert-Cody, C.E., Aires-da-Silva, A., Bayliff, W.H., Tomlinson, P.K., and Schaefer, K.M. 2010. Summary of data available for bigeye tuna in the Eastern Pacific Ocean and its use in stock assessment. IATTC Document BET-01-07.

Other workshops

Workshop to improve the longline indices of abundance of bigeye and yellowfin tunas in the eastern Pacific Ocean - 11-15 February, 2019 - La Jolla, California, USA

<https://www.iattc.org/Meetings/Meetings2019/OTM-30/WorkshopImproveLonglineIndicesENG.htm>

Workshop to evaluate bigeye and yellowfin tuna ageing methodologies and growth models in the Pacific Ocean - 23-25 January, 2019 - La Jolla, California, USA

<https://www.iattc.org/Meetings/Meetings2019/OTM-28/WorkshopEvaluateBigeyeYellowfinENG.htm>

3. Other relevant documents

Stock Assessment Report documents

Stock Assessment Report 17 consists of the following background documents, prepared for the 7th meeting of the IATTC Scientific Advisory Committee in 09-13 May 2016.

https://www.iattc.org/PDFFiles/StockAssessmentReports/_Spanish/No-17-2018_Condicion%20de%20los%20stocks%20de%20atunes%20y%20peces%20picudos%20en%202015.pdf

1. Changes in longline size-frequency data and their effects on the stock assessment models for yellowfin and bigeye tunas by Carolina V. Minte-Vera, Alexandre Aires-da-Silva, Keisuke Satoh, and Mark N. Maunder 3

11. Application of harvest control rules for tropical tunas in the eastern Pacific Ocean by Mark N. Maunder and Richard B. Deriso..... 373

Stock Assessment Report 16 consists of the following background documents, prepared for the 6th meeting of the IATTC Scientific Advisory Committee in 11-15 May 2015.

<https://www.iattc.org/PDFFiles/StockAssessmentReports/ Spanish/No-16-2015 Condicion%20de%20los%20stocks%20de%20atunes%20y%20peces%20picudos%20en%202015.pdf>

5. Oceanographic conditions in the EPO and their effects on tuna fisheries by Michael G. Hinton 68

Stock Assessment Report 15 consists of the following background documents, prepared for the 5th meeting of the IATTC Scientific Advisory Committee in 12-16 May 2014 and a document from 87th Meeting (resumed) 27-29 October 2014.

<https://www.iattc.org/PDFFiles/StockAssessmentReports/ English/No-15-2014 Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202013.pdf>

9. Stock status indicators for fisheries of the eastern Pacific Ocean by Michael G. Hinton, Mark N. Maunder, Nick Vogel, Robert Olson, Cleridy Lennert, Alexandre Aires-de-Silva, and Martin Hall 142

11. Proposal for biomass and fishing mortality limit reference points based on reduction in recruitment by Mark N. Maunder and Rick B. Deriso..... 193

Stock Assessment Report 14 consists of the following background documents, prepared for the 4th meeting of the IATTC Scientific Advisory Committee in 29 April-03 May 2013.

<https://www.iattc.org/PDFFiles/StockAssessmentReports/ English/No-14-2014 Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202012.pdf>

2. Analysis of large-scale spatial patterns in yellowfin tuna catch data from purse-seine and longline fisheries by Cleridy E. Lennert-Cody, Mark N. Maunder and Alexandre Aires-da-Silva 19

4. Analysis of Japanese longline operational-level catch and effort data for bigeye tuna in the eastern Pacific Ocean by Cleridy E. Lennert-Cody, Hiroaki Okamoto and Mark N. Maunder 186

7. Reference points and harvest rate control rules by Mark N. Maunder and Richard B. Deriso..... 252

8. Kobe II strategy matrix for the bigeye and yellowfin tuna stocks of the eastern Pacific Ocean in 2012 by Carolina V. Minte-Vera, Mark N. Maunder and Alexandre Aires-da-Silva..... 259

This report consists of seven background documents on tunas, reference points and in-port sampling prepared for the Scientific Advisory Committee of the Inter-American Tropical Tuna Commission (IATTC), held in La Jolla, California, USA, on 15-18 May 2012.

https://www.iattc.org/PDFFiles/StockAssessmentReports/English/No-13-2012_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202011.pdf

6. Reference points, decision rules, and management strategy evaluation for tunas and associated species in the eastern Pacific Ocean by Mark N. Maunder 107

7. Progress report on the development of poststratified estimators of total catch for the purse-seine fishery port-sampling data by Cleridy E. Lennert-Cody, Mark N. Maunder, Patrick K. Tomlinson, Alexandre Aires-da-Silva, Alejandro Pérez..... 121

This report consists of seven background documents on tunas, swordfish, port sampling, and the Kobe plots prepared for the Scientific Advisory Committee of the Inter-American Tropical Tuna Commission (IATTC), held in La Jolla, California, USA, on 09-12 May 2011.

https://www.iattc.org/PDFFiles/StockAssessmentReports/English/No-12-2012_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202010.pdf

5. Poststratified estimators of total catch for the purse-seine fishery port-sampling data by Cleridy E. Lennert-Cody, Mark N. Maunder, Patrick K. Tomlinson, Alexandre Aires-da-Silva, Alejandro Pérez, y Marti McCracken..... 178

6. Evaluation of the Kobe plot and Strategy matrix and their application to tuna in the eastern Pacific Ocean..... 191

This report consists of seven background documents on tunas, striped marlin, and in-port sampling, prepared for the first meeting of the Scientific Advisory Committee of the Inter-American Tropical Tuna Commission (IATTC), held in La Jolla, California, USA, on 31 August-3 September 2010. The document on striped marlin has been extensively revised for this report.

https://www.iattc.org/PDFFiles/StockAssessmentReports/English/No-11-2011_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202009.pdf

6. The IATTC program for in-port sampling of tuna catches by Cleridy E. Lennert-Cody 255

This report consists of revised versions of six background documents on tunas and one species of billfish prepared for the 10th Stock Assessment Review Meeting of the Inter-American Tropical Tuna Commission (IATTC), held in Del Mar, California, USA, on 9-12 May 2009.

https://www.iattc.org/PDFFiles/StockAssessmentReports/_English/No-10-2010_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202008.pdf

Preliminary estimation of age- and sex-specific natural mortality of bigeye tuna in the eastern Pacific Ocean by applying a cohort analysis with auxiliary information to tagging data by Mark N. Maunder, Alexandre Aires-da-Silva, Richard Deriso, Kurt Schaefer, and Daniel Fuller..... 253

Evaluation of aspects of the current IATTC port-sampling design and estimation procedures for catches of tunas by purse seiners and pole-and-line vessel by Cleridy E. Lennert-Cody and Patrick K. Tomlinson 279

This report consists of four Background Papers on tunas prepared for the 78th meeting of the Inter-American Tropical Tuna Commission (IATTC), held in Panama, R.P., on 23-27 June 2008. These include data through 2007. Until recently these Background Papers were published, with minor modifications, in the Annual Reports of the IATTC. However, to make the IATTC staff's assessments widely available as soon as possible, they are now being published in a new series, the Stock Assessment Reports.

https://www.iattc.org/PDFFiles/StockAssessmentReports/_English/No-9-2009_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202007.pdf

Stock structure of bigeye, yellowfin, and skipjack tunas in the eastern Pacific Ocean by Kurt M. Schaefer 203

This report consists of four Background Papers on tunas prepared for the 77th meeting of the Inter-American Tropical Tuna Commission (IATTC), held in Panama, R.P., on 23-27 June 2008. These include data through 2007. Until recently these Background Papers were published, with minor modifications, in the Annual Reports of the IATTC. However, to make the IATTC staff's assessments widely available as soon as possible, they are now being published in a new series, the Stock Assessment Reports.

https://www.iattc.org/PDFFiles/StockAssessmentReports/_English/No-8-2007_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202006.pdf

Using indicators of stock status when traditional references points are not available:

evaluation and application to skipjack tuna in the eastern Pacific Ocean by

Mark N. Maunder and Richard B. Deriso.....229

This report consists of two Background Papers on tunas prepared for the 74th meeting of the Inter-American Tropical Tuna Commission (IATTC), held in Busan, Republic of Korea, on 26-30 June 2006. These include data through 2005. Until recently these Background Papers were published, with minor modifications, in the Annual Reports of the IATTC. However, to make the IATTC staff's assessments widely available as soon as possible, they are now being published in a new series, the Stock Assessment Reports.

https://www.iattc.org/PDFFiles/StockAssessmentReports/_English/No-7-2007_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202005.pdf

A novel method to estimate relative abundance from purse-seine catch-per-set data using known abundance of another species by Mark N. Maunder and Simon D. Hoyle283

Stock Assessment Report 4 consists of slightly-modified versions of four Background Papers on tunas and billfishes prepared for the 70th meeting of the IATTC, held in Antigua, Guatemala, on June 24-27, 2003. Most of these include data through 2002.

https://www.iattc.org/PDFFiles/StockAssessmentReports/_English/No-4-2004_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202002.pdf

Sampling the tuna catches of the eastern Pacific Ocean for species composition and length-frequency distributions by Patrick K. Tomlinson 311

This report consists of seven Background Papers on tunas and billfishes prepared for the 68th meeting of the Inter-American Tropical Tuna Commission (IATTC), held in San Salvador, El Salvador, on June 19-21, 2001. Most of these include data through 2000. Until recently these Background Papers were published, with minor modifications, in the Annual Reports of the IATTC. However, to make the IATTC staff's assessments widely available as soon as possible, they are now being published in a new series, the Stock Assessment Reports.

https://www.iattc.org/PDFFiles/StockAssessmentReports/_English/No-2-2002_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%202000.pdf

Progress on sampling the eastern Pacific Ocean tuna catch for species composition and length frequency distributions by Patrick K. Tomlinson 339

This report consists of seven Background Papers on tunas and billfishes prepared for the 67th meeting of the Inter-American Tropical Tuna Commission (IATTC), held in San Salvador, El Salvador, on June 19-21, 2001. Most of these include data through 2000. Until recently these Background Papers were published, with minor modifications, in the Annual Reports of the IATTC. However, to make the IATTC

staff's assessments widely available as soon as possible, they are now being published in a new series, the Stock Assessment Reports.

https://www.iattc.org/PDFFiles/StockAssessmentReports/English/No-1-2001_Status%20of%20the%20tuna%20and%20billfish%20stocks%20in%201999.pdf

Production model analysis of yellowfin tuna in the eastern Pacific Ocean by Patrick K. Tomlinson..... 320

SAC Documents

(many of these get turned into Stock Assessment Report documents)

Haikun Xu, Cleridy E. Lennert-Cody, Mark N. Maunder, and Carolina Minte-Vera. SPATIOTEMPORAL DYNAMICS OF THE DOLPHIN-ASSOCIATED PURSE-SEINE FISHERY FOR YELLOWFIN TUNA IN THE EASTERN PACIFIC OCEAN. DOCUMENT SAC-09-09. https://www.iattc.org/Meetings/Meetings2018/SAC-09/PDFs/Docs/English/SAC-09-09-EN_Spatial-tempora-modeling-of-yellowfin-CPUE-data.pdf

Maunder, M.N., Thorson, J.T., Lee, H.H., Kai, M., Chang, S.K., Kitakado, T., Albertsen, C.M., Lennert-Cody, C.E., Aires-da-Silva, A.M., Piner, K.R. THE NEED FOR SPATIAL-TEMPORAL MODELING OF CATCH-PER-UNIT-EFFORT DATA WHEN USED TO DERIVED INDICES OF RELATIVE ABUNDANCE TO INCLUDE IN STOCK ASSESSMENT MODELS. DOCUMENT SAC-08-05d

https://www.iattc.org/Meetings/Meetings2017/SAC-08/PDFs/Docs/English/SAC-08-05d_Spatial-temporal-modeling-of-CPUE-data.pdf

Juan L. Valero, Mark N. Maunder, Alexandre M. Aires-da-Silva, Carolina Minte-Vera, Jiangfeng Zhu. LIMIT REFERENCE POINTS IN MARINE RESOURCE MANAGEMENT AND THEIR APPLICATION FOR TUNA AND BILLFISH STOCKS DOCUMENT SAC-08-05e(ii).

[https://www.iattc.org/Meetings/Meetings2017/SAC-08/PDFs/Docs/English/SAC-08-05e\(ii\)_Review-of-limit-reference-points.pdf](https://www.iattc.org/Meetings/Meetings2017/SAC-08/PDFs/Docs/English/SAC-08-05e(ii)_Review-of-limit-reference-points.pdf)

Marlon H Román, Cleridy E. Lennert-Cody, Mark N. Maunder, Alexandre Aires-da-Silva, and Nickolas W. Vogel. A REVIEW OF FISHERY DATA AVAILABLE FOR SMALL PURSE-SEINE VESSELS, WITH EMPHASIS ON FADs. DOCUMENT SAC-08-06a

https://www.iattc.org/Meetings/Meetings2017/SAC-08/PDFs/Docs/English/SAC-08-06a_A-review-of-fishery-data-available-for-small-purse-seine-vessels-with-emphasis-on-FADs.pdf

Keisuke Satoh, Carolina V. Minte-Vera, Nickolas W. Vogel, Alexandre Aires-da-Silva, Cleridy E. Lennert-Cody, Mark N. Maunder, Hiroaki Okamoto, Koji Uosaki, Takayuki Matsumoto, Yasuko Semba and

Tomoyuki Ito. AN EXPLORATION INTO JAPANESE SIZE DATA OF TROPICAL TUNA SPECIES BECAUSE OF A PROMINENT SIZE-FREQUENCY RESIDUAL PATTERN IN THE STOCK ASSESSMENT MODEL. DOCUMENT SAC-07-03d.

https://www.iattc.org/Meetings/Meetings2016/SAC-07/PDFs/Docs/English/SAC-07-03d_Correction-of-longline-length-frequency-database.pdf

Carolina V. Minte-Vera, Alexandre Aires-da-Silva, Keisuke Satoh, and Mark N. Maunder. CHANGES IN LONGLINE SIZE-FREQUENCY DATA AND THEIR EFFECTS ON THE STOCK ASSESSMENT MODELS FOR YELLOWFIN AND BIGEYE TUNAS. DOCUMENT SAC-07-04a

https://www.iattc.org/Meetings/Meetings2016/SAC-07/PDFs/Docs/English/SAC-07-04a_Sensitivity-of-the-bige-eye-and-yellowfin-models-to-changes-in-size-frequency-data.pdf

A simple model for age-structured natural mortality based on changes in sex ratios

<https://www.iattc.org/Meetings/Meetings2003/May/English/SWG-4-Age-structured-natural-mortality.pdf>

IATTC Bulletins

MATSUMOTO, TAKAYUKI, and WILLIAM H. BAYLIFF. 2008. A review of the Japanese longline fishery for tunas and billfishes in the eastern Pacific Ocean, 1998-2003.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-24-No-1-2008-MATSUMOTO,%20TAKAYUKI,%20and%20WILLIAM%20H.%20BAYLIFF_A%20review%20of%20the%20Japanese%20longline%20fishery%20for%20tunas%20and%20billfishes%20in%20the%20eastern%20Pacific%20Ocean,%201998-2003.pdf

OKAMOTO, HIROAKI, and WILLIAM H. BAYLIFF. 2003. A review of the Japanese longline fishery for tunas and billfishes in the eastern Pacific Ocean, 1993-1997.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-22-No-4-2003-OKAMOTO,%20HIROAKI,%20and%20WILLIAM%20H.%20BAYLIFF_A%20review%20of%20the%20Japanese%20longline%20fishery%20for%20tunas%20and%20billfishes%20in%20the%20eastern%20Pacific%20Ocean,%201993-1997.pdf

MARGULIES, DANIEL, JEANNE B. WEXLER, and collaborators. 2001. Early life history studies of yellowfin tuna, *Thunnus albacares*.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-22-No-1-2001-MARGULIES,%20DANIEL,%20JEANNE%20B.%20WEXLER,%20and%20collaborators_Early%20life%20history%20studies%20of%20yellowfin%20tuna,%20Thunnus%20albacares.pdf

SCHAEFER, KURT M. 1999. Comparative study of some morphological features of yellowfin (*Thunnus albacares*) and bigeye (*Thunnus obesus*) tunas.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-21-No-7-1999-SCHAEFER,%20KURT%20M_Comparative%20study%20of%20some%20morphological%20features%20of%20yellowfin%20Thunnus%20albacares%20and%20bigeye%20Thunnus%20obesus%20tunas.pdf

UOSAKI, KOJI, and WILLIAM H. BAYLIFF. 1999. A review of the Japanese longline fishery for tunas and billfishes in the eastern Pacific Ocean, 1988-1992.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-21-No-6-1999-UOSAKI,%20KOJI,%20and%20WILLIAM%20H.%20BAYLIFF_A%20review%20of%20the%20Japanese%20longline%20fishery%20for%20tunas%20and%20billfishes%20in%20the%20eastern%20Pacific%20Ocean,%201988-1992.pdf

SCHAEFER, KURT M. 1998. Reproductive biology of yellowfin tuna (*Thunnus albacares*) in the eastern Pacific Ocean.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-21-No-5-1998-SCHAEFER,%20KURT%20M_Reproductive%20biology%20of%20yellowfin%20tuna%20Thunnus%20albacares%20in%20the%20eastern%20Pacific%20Ocean.pdf

HINTON, MICHAEL G., and HIDEKI NAKANO. 1996. Standardizing catch and effort statistics using physiological, ecological, or behavioral constraints and environmental data, with an application to blue marlin (*Makaira nigricans*) catch and effort data from Japanese longline fisheries in the Pacific.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-21-No-6-1999-UOSAKI,%20KOJI,%20and%20WILLIAM%20H.%20BAYLIFF_A%20review%20of%20the%20Japanese%20longline%20fishery%20for%20tunas%20and%20billfishes%20in%20the%20eastern%20Pacific%20Ocean,%201988-1992.pdf

WILD, A. 1994. An evaluation of length-frequency sampling procedures and subsequent data analysis for purse seine-caught yellowfin tuna in the eastern Pacific Ocean.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-21-No-1-1994-WILD,%20A_An%20evaluation%20of%20length-

[frequency%20sampling%20procedures%20and%20subsequent%20data%20analysis%20for%20purse%20Oseine-caught%20yellowfin%20tuna%20in%20the%20eastern%20Pacific%20Ocean.pdf](https://www.iattc.org/PDFFiles/Bulletins/English/Vol-20-No-6-1992-TOMLINSON,%20PATRICK%20K.,%20SACHIKO%20TSUJI,%20and%20THOMAS%20P.%20CALKINS_Length-freq%20estimation%20for%20yellowfin%20tuna%20caught%20by%20commercial%20fishing%20gear%20in%20the%20EPO.pdf)

TOMLINSON, PATRICK K., SACHIKO TSUJI, and THOMAS P. CALKINS. 1992. Length-frequency estimation for yellowfin tuna (*Thunnus albacares*) caught by commercial fishing gear in the eastern Pacific Ocean.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-20-No-6-1992-TOMLINSON,%20PATRICK%20K.,%20SACHIKO%20TSUJI,%20and%20THOMAS%20P.%20CALKINS_Length-freq%20estimation%20for%20yellowfin%20tuna%20caught%20by%20commercial%20fishing%20gear%20in%20the%20EPO.pdf

NAKANO, HIDEKI, and WILLIAM H. BAYLIFF. 1992. A review of the Japanese longline fishery for tunas and billfishes in the eastern Pacific Ocean, 1981-1987.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-20-No-5-1992-NAKANO,%20HIDEKI,%20and%20WILLIAM%20H.%20BAYLIFF_A%20review%20of%20the%20Japanese%20longline%20fishery%20for%20tunas%20and%20billfishes%20in%20the%20eastern%20Pacific%20Ocean,%201981-1987.pdf

PUNSLY, RICHARD, and HIDEKI NAKANO. 1992. Analysis of variance and standardization of longline hook rates of bigeye (*Thunnus obesus*) and yellowfin (*Thunnus albacares*) in the eastern Pacific Ocean during 1975-1987.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-20-No-4-1992-PUNSLY,%20RICHARD,%20and%20HIDEKI%20NAKANO_Analysis%20of%20variance%20and%20standardization%20of%20longline%20hook%20rates%20of%20BET%20and%20YFT%20in%20the%20EPO%20during%201975-1987.pdf

SCHAEFER, KURT M. 1992. An evaluation of geographic and annual variation in morphometric characters and gill-raker counts of yellowfin tuna, *Thunnus albacares*, from the Pacific Ocean.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-20-No-3-1992-SCHAEFER,%20KURT%20M_An%20evaluation%20of%20geographic%20and%20annual%20variation%20in%20morphometric%20characters%20and%20gill-raker%20counts%20of%20YFT,%20Thunnus%20albacares,%20from%20the%20Pacific%20Ocean.pdf

PUNSLY, RICHARD G., and RICHARD B. DERISO. 1991. Estimation of the abundance of yellowfin tuna, *Thunnus albacares*, by age groups and regions within the eastern Pacific Ocean.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-20-No-2-1991-PUNSLY,%20RICHARD%20G.,%20and%20RICHARD%20B.%20DERISO_Estimation%20of%20the%20abundance%20of%20YFT,%20Thunnus%20albacares,%20by%20age%20groups%20and%20regions%20within%20the%20EPO.pdf

SCHAEFER, KURT M. 1989. Morphometric analysis of yellowfin tuna, *Thunnus albacares*, from the eastern Pacific Ocean.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-19-No-5-1989-SCHAEFER,%20KURT%20M_Morphometric%20analysis%20of%20yellowfin%20tuna,%20%20Thunnus%20albacares,%20from%20the%20eastern%20Pacific%20Ocean.pdf

PUNSLY, RICHARD. 1987. Estimation of the relative annual abundance of yellowfin tuna, *Thunnus albacares*, in the eastern Pacific Ocean during 1970-1985.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-19-No-3-1987-PUNSLY,%20RICHARD_Estimation%20of%20the%20relative%20annual%20abundance%20of%20yellowfin%20tuna,%20Thunnus%20albacares,%20in%20the%20eastern%20Pacific%20Ocean%20during%201970-1985.pdf

MIYABE, NAOZUMI, and WILLIAM H. BAYLIFF. 1987. A review of the Japanese longline fishery for tunas and billfishes in the eastern Pacific Ocean, 1971-1980.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-19-No-1-1987-MIYABE,%20NAOZUMI,%20and%20WILLIAM%20H.%20BAYLIFF_A%20review%20of%20the%20Japanese%20longline%20fishery%20for%20tunas%20and%20billfishes%20in%20the%20EPO,%201971-1980.pdf

WILD, A. 1986. Growth of yellowfin tuna, *Thunnus albacares*, in the eastern Pacific Ocean based on otolith increments.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-18-No-6-1986-WILD,%20A_Growth%20of%20yellowfin%20tuna,%20Thunnus%20albacares,%20in%20the%20eastern%20Pacific%20Ocean%20based%20on%20otolith%20increments.pdf

ALLEN, ROBIN, and RICHARD PUNSLY. 1984. Catch rates as indices of abundance of yellowfin tuna, *Thunnus albacares*, in the eastern Pacific Ocean.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-18-No-4-1984-ALLEN,%20ROBIN,%20and%20RICHARD%20PUNSLY_Catch%20rates%20as%20indices%20of%20abundance%20of%20yellowfin%20tuna,%20Thunnus%20albacares,%20in%20the%20eastern%20Pacific%20Ocean.pdf

PUNSLY, RICHARD G. 1983. Estimation of the number of purse-seiner sets on tuna associated with dolphins in the eastern Pacific Ocean during 1959-1980.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-18-No-3-1983-PUNSLY,%20RICHARD%20G_Estimation%20of%20the%20number%20of%20purse-seiner%20sets%20on%20tuna%20associated%20with%20dolphins%20in%20the%20eastern%20Pacific%20Ocean%20during%201959-1980.pdf

ORANGE, CRAIG J., and THOMAS P. CALKINS. 1981. Geographical distribution of yellowfin and skipjack tuna catches in the eastern Pacific Ocean, and fleet and total catch statistics, 1975-1978.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-18-No-1-1981-ORANGE,%20CRAIG%20J.,%20and%20THOMAS%20P.%20CALKINS_Geographical%20distribution%20of%20yellowfin%20and%20skipjack%20tuna%20catches%20in%20the%20eastern%20Pacific%20Ocean.pdf

WILD, A., and T.J. FOREMAN. 1980. The relationship between otolith increments and time for yellowfin and skipjack tuna marked with tetracycline.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-17-No-7-1980-WILD,%20A.,%20and%20T.J.%20FOREMAN_The%20relationship%20between%20otolith%20increments%20and%20time%20for%20yellowfin%20and%20skipjack%20tuna%20marked%20with%20tetracycline.pdf

BAYLIFF, WILLIAM H. 1979. Migrations of yellowfin tuna in the eastern Pacific Ocean as determined from tagging experiments initiated during 1968-1974.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-17-No-6-1979-BAYLIFF,%20WILLIAM%20H_Migrations%20of%20yellowfin%20tuna%20in%20the%20eastern%20Pacific%20Ocean%20as%20determined%20from%20tagging%20experiments%20initiated%20during%201968-1974.pdf

SUZUKI, Z., P.K. TOMLINSON, and M. HONMA. 1978. Population structure of Pacific yellowfin tuna.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-17-No-5-1978-SUZUKI,%20Z.,%20P.K.%20TOMLINSON,%20and%20M.%20HONMA_Population%20structure%20of%20Pacific%20yellowfin%20tuna.pdf

FRANCIS, ROBERT C. 1977. TUNPOP: a simulation of the dynamics and structure of the yellowfin tuna stock and surface fishery of the eastern Pacific Ocean.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-17-No-4-1977-FRANCIS,%20ROBERT%20C_TUNPOP%20a%20simulation%20of%20the%20dynamics%20and%20structure%20of%20the%20yellowfin%20tuna%20stock%20and%20surface%20fishery%20of%20the%20EPO.pdf

KNUDSEN, PHYLLIS FARRINGTON. 1977. Spawning of yellowfin tuna and the discrimination of subpopulations.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-17-No-2-1977-KNUDSEN,%20PHYLLIS%20FARRINGTON_Spawning%20of%20yellowfin%20tuna%20and%20the%20discrimination%20of%20subpopulations.pdf

CALKINS, THOMAS P. 1975. Geographical distribution of yellowfin and skipjack tuna catches in the eastern Pacific Ocean, and fleet and total catch statistics, 1971-1974.

https://www.iattc.org/PDFFiles/Bulletins/English/Vol-17-No-1-1975-CALKINS,%20THOMAS%20P_Geographical%20distribution%20of%20YFT%20and%20SKJ%20catches%20in%20the%20EPO,%20and%20fleet%20and%20total%20catch%20statistics,%201971-1974.pdf

Additional earlier IATTC Bulletins can be found at <https://www.iattc.org/BulletinsENG.htm>

Journal publications

Xu, H., Lennert-Cody, C. E., Maunder, M. N., Minte-Vera, C. V. 2019. Spatiotemporal dynamics of the dolphin-associated purse-seine fishery for yellowfin tuna (*Thunnus albacares*) in the eastern Pacific Ocean. *Fisheries Research*, 213, 121-131.

<https://www.sciencedirect.com/science/article/pii/S016578361930013X>

Maunder, M.N., Deriso, R.B., Schaefer, K.M., Fuller, D.W., Aires-da-Silva, A.M., Minte-Vera, C.V., Campana, S.E. 2018. The growth cessation model: a growth model for species showing a near cessation in growth with application to bigeye tuna (*Thunnus obesus*). *Marine Biology* (2018) 165:76.

<https://link.springer.com/article/10.1007%2Fs00227-018-3336-9>

Lennert-Cody, C.E. Moreno, G., Restrepo, V., Román, M.H., Maunder, M.N. 2018. Recent purse-seine FAD fishing strategies in the eastern Pacific Ocean: what is the appropriate number of FADs at sea? *ICES Journal of Marine Science* 75 (5), 1748-1757.

<https://academic.oup.com/icesjms/article/75/5/1748/4976455>

Minte-Vera, C.V., Maunder, M.N., Schaefer, K.M., Aires-da-Silva, A.M. 2018. The influence of metrics for spawning output on stock assessment results and evaluation of reference points: An illustration with yellowfin tuna in the eastern Pacific Ocean. *Fisheries Research*.

<https://www.sciencedirect.com/science/article/pii/S0165783618302637>

Minte-Vera, C. V., Maunder, M. N., Aires-da-Silva, A. M., Satoh, K., Uosaki, K. Get the biology right, or use size-composition data at your own risk. 2017. *Fisheries research*. 192: 114-125

<https://www.sciencedirect.com/science/article/pii/S0165783617300231>

Francis, C., Aires-da-Silva, A., Maunder, M. N., Schaefer, K. M., Fuller, D. W. 2016. Estimating fish growth for stock assessments using both age-length and tagging-increment data. *Fisheries Research*, 180: 113-118.

<https://www.sciencedirect.com/science/article/pii/S0165783615001915>

Zhu, J., Maunder, M. N., Aires-da-Silva, A. M., Chen, Y. 2016. Estimation of growth within Stock Synthesis models: Management implications when using length-composition data. *Fisheries Research*, 180: 87-91.

<https://www.sciencedirect.com/science/article/pii/S0165783615300953>

Aires-da-Silva, A., Maunder, M.N., Schaefer, K.M., Fuller, D.W. 2015. Improved growth estimates from integrated analysis of direct aging and tag-recapture data: an illustration with bigeye tuna (*Thunnus obesus*) of the eastern Pacific Ocean with implications for management. *Fisheries Research*, 163: 119-126.

<https://www.sciencedirect.com/science/article/pii/S016578361400126X>

Wang, S. P., Maunder, M. N., Piner, K. R., Aires-da-Silva, A. Lee, H. H. 2014. Evaluation of virgin recruitment profiling as a diagnostic for selectivity curve structure in integrated stock assessment models. *Fisheries Research*, 158: 158-164.

<https://www.sciencedirect.com/science/article/pii/S0165783613003032>

Maunder, M. N., Deriso, R. B. 2013. A stock-recruitment model for highly fecund species based on temporal and spatial extent of spawning. *Fisheries Research*, 146: 96-101.

<https://www.sciencedirect.com/science/article/pii/S0165783613001021>

Lennert-Cody, C.E., Minami, M., Tomlinson, P.K., Maunder, M.N. 2010. Exploratory analysis of spatial-temporal patterns in length-frequency data: An example of distributional regression trees. *Fisheries Research* 102 (2010) 323–326.

<https://www.sciencedirect.com/science/article/pii/S0165783609003166>