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HANDBOOKS FOR THE IDENTIFICATION OF YELLOWFIN AND BIGEYE TUNAS IN FRESH, FROZEN AND FRESH BUT LESS THAN IDEAL CONDITION

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Paper prepared by

Itano, D and S. Fukofuka,. with development and translation assistance from M. de Beer, Yamasaki, G., Lewis, A.D., Taquet, M., Merta, G.S., Andamari, R., Proctor, C., Saralde, R., Matsumoto, T., Kwoh, J.-R., Moon, D-Y, Choi, Y., Lu-Chen, JY, and the Interpretation and Translation Section of the Secretariat of the Pacific Community

Handbooks for the identification of yellowfin and bigeye tunas in fresh, frozen and fresh but less than ideal condition – versions available in English, French, Spanish, Bahasa Indonesia, Japanese, Korean, and Chinese

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Introduction

The collection, identification and enumeration of catch data from WCPO fisheries is a fundamental role of the Commission. Species-specific identification of target catch is essential for management purposes, particularly for species with differing life history parameters. The problem of species mixing in catch and effort statistics is particularly acute for juvenile yellowfin and bigeye tunas that are similar in appearance. The most significant problem remains with purse seine fisheries as these species, when young are marketed at the same low value which results in little incentive for fishermen or processors to separate by species.

In order to support the accurate reporting of yellowfin and bigeye catches in the region, three identification guides for the identification and differentiation of yellowfin and bigeye tuna at all life stages have been developed. These guides were produced by the Fishing Technology Working Group of the Standing Committee on Tuna and Billfish and continue to be supported by the efforts of the Fishing Technology SWG of the Scientific Committee. Three manuals have been produced in MS Powerpoint format to facilitate their use as training guides for observers, port samplers and fishermen.

The first to be produced: **Handbook for the identification of yellowfin and bigeye tunas in fresh condition** provides 27 pages of color photographs of both species ranging in size from 12 - >100 cm in pristine, fresh condition as may be seen by handline, troll and pole-and-line fishermen.

The second manual: **Handbook for the identification of yellowfin and bigeye tunas in brine frozen condition** was produced to show yellowfin and bigeye as they appear after having been frozen in brine onboard a typical tuna purse seine vessel. This guide is particularly useful for training port samplers that must be able to differentiate both species of all sizes after they have been frozen and may have lost their natural color and sustained considerable damage.

The third manual: **Handbook for the identification of yellowfin and bigeye tunas in fresh, but less than ideal condition** was produced in response to comments that the pictures from the first manual were “too good” and not representative of fish often seen on the deck of a purse seiner or at fresh fish unloading ports throughout the region. This version purposefully depicts both species in a range of sizes and condition that make them difficult to identify, e.g. discolored, smashed, missing fins, bent, etc. This handbook has proved very useful for the observer training purposes.

Translations

Various fishery agencies in the Pacific, Indian and Atlantic Oceans have expressed interest in using these materials to assist their national observer and port sampling programs. To date, the original English versions have been translated into French, Spanish, Bahasa Indonesia, Japanese, Korean, and Chinese (traditional).

Due to the size of these files, the Pelagic Fisheries Research Program has made all 18 language versions available in Adobe PDF format on a publicly accessible ftp site. To access this site, mouse click on this link or paste it into a web browser.

ftp://ftp.soest.hawaii.edu/PFRP/itano

Files can be uploaded and downloaded to this site. The file names appear as:

1_BE-YF ID Fresh_ENGLISH_v2.pdf
2_BE-YF ID Frozen_ENGLISH_v5.pdf
3_BE-YF ID Less Ideal_ENGLISH_v6.pdf
4_BE-YF ID Fresh_BAHASA_v1.pdf
5_BE-YF ID Frozen_BAHASA_v4.pdf
6_BE-YF ID Fresh _JAPANESE_v1.pdf
7_BE-YF ID FROZEN_JAPANESE_v1.pdf
8_BE-YF ID Less Ideal_JAPANESE_v2.pdf
9_BE-YF ID Fresh _FRENCH_v1.pdf
10_BE-YF ID Frozen_FRENCH_v1.pdf
11_BE-YF ID Less Ideal_FRENCH_v1.pdf
12_BE-YF ID Fresh _SPANISH_v3.pdf
13_BE-YF ID Frozen_SPANISH_v3.pdf
14_BE-YF ID Less ideal_SPANISH_v4.pdf
15_BE-YF ID Fresh_KOREAN_v1.pdf
16_BE-YF ID Frozen_KOREAN_v1.pdf
17_BE-YF ID Less Ideal_KOREAN_v1.pdf
18_BE-YF ID Fresh Less Ideal_CHINESE_traditional_v1.pdf

To access the much larger Powerpoint versions for training purposes, contact David Itano dgi@hawaii.edu for further instructions.

A complete listing of each version follows this page. The authors are seeking fishery agencies willing to support this effort by translating the guides into their native tongue for regional distribution.

Acknowledgements

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Versions of yellowfin – bigeye identification guides currently available.

1) Itano, D.G.**. Handbook for the identification of yellowfin and bigeye tunas in fresh condition. English version 2.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA.

2) Itano, D.G.**. Handbook for the identification of yellowfin and bigeye tunas in brine frozen condition. English version 5.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA.

3) Fukofuka, S. & D. Itano. **Handbook for the identification of yellowfin and bigeye tunas in fresh, but less than ideal condition. English version 6.** Pelagic Fisheries Research Programme, Honolulu, Hawaii, USA; Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia.

4) Itano, D.G.**.** with translation by G.S. Merta and C.H. Proctor. **Bahasa Indonesia version of: Handbook for the identification of yellowfin and bigeye tunas in fresh condition. Indonesian version 1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; Research Institute of Marine Fisheries, Jakarta Indonesia,; CSIRO Division of Marine and Atmospheric Research, Hobart, Australia.

5) Itano, D.G.**.** with translation by G.S. Merta and C.H. Proctor. **Bahasa Indonesia version of: Handbook for the identification of yellowfin and bigeye tunas in brine frozen condition. Indonesian version 1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; Research Institute of Marine Fisheries, Jakarta Indonesia; CSIRO Division of Marine and Atmospheric Research, Hobart, Australia.

6) Itano, D.G.**.** with translation by T. Matsumoto. **Japanese language version of: Handbook for the identification of yellowfin and bigeye tunas in fresh condition. Japanese version 1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA.; National Research Institute of Far Seas Fisheries, Shimizu, Japan.

7) Itano, D.G.**.** with translation by T. Matsumoto. **Japanese language version of: Handbook for the identification of yellowfin and bigeye tunas in brine frozen condition. Japanese version 1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; National Research Institute of Far Seas Fisheries, Shimizu, Japan.

8) Fukofuka, S. & D. Itano with translation by T. Matsumoto. **Japanese language version of: Handbook for the identification of yellowfin and bigeye tunas in fresh, but less than ideal condition. Japanese version 1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; National Research Institute of Far Seas Fisheries, Shimizu, Japan.

9) Itano, D.G.**.** with translation by M. Taquet. **French language version of: Handbook for the identification of yellowfin and bigeye tunas in fresh condition. French v1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; IFREMER, La Réunion – France.

10) Itano, D.G.**.** with translation by SPC. **French language version of: Handbook for the identification of yellowfin and bigeye tunas in brine frozen condition. French version 1.**

Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; Interpretation and Translation Section, Secretariat of the Pacific Community, Noumea, New Caledonia.

11) Fukofuka, S. & D. Itano with translation by SPC. **French language version of: Handbook for the identification of yellowfin and bigeye tunas in fresh, but less than ideal condition. French version 1.** Pelagic Fisheries Research Programme, Honolulu, Hawaii, USA; Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia., Interpretation and Translation Section, SPC, Noumea, New Caledonia.

12) Itano, D.G.**.** with translation by R. Sarralde. **Spanish language version of: Handbook for the identification of yellowfin and bigeye tunas in fresh condition. Spanish version 3.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; Instituto Espaňol de Oceanografĩa, Tenerife, Spain.

13) Itano, D.G.**.** with translation by R. Sarralde. **Spanish language version of: Handbook for the identification of yellowfin and bigeye tunas in brine frozen condition. Spanish version 3.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; Instituto Espaňol de Oceanografĩa, Tenerife, Spain.

14) Fukofuka, S. & D. Itano with translation by R. Sarralde. **Spanish language version of: Handbook for the identification of yellowfin and bigeye tunas in fresh, but less than ideal condition. Spanish version 4.** Pelagic Fisheries Research Programme, Honolulu, Hawaii, USA; Oceanic Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia; Instituto Espaňol de Oceanografĩa, Tenerife, Spain.

15) Itano, D.G.**.** with translation by D-Y Moon and Y. Choi. **Korean language version of: Handbook for the identification of yellowfin and bigeye tunas in fresh condition. Korean version 1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; National Fisheries Research & Development Institute, Busan, Korea; Coastal Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia.

16) Itano, D.G.**.** with translation by D-Y Moon and Y. Choi. **Korean language version of: Handbook for the identification of yellowfin and bigeye tunas in brine frozen condition. Korean version 1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; National Fisheries Research & Development Institute, Busan, Korea; Coastal Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia.

17) Itano, D.G.**.** with translation by D-Y Moon and Y. Choi. **Korean language version of: Handbook for the identification of yellowfin and bigeye tunas in fresh, but less than ideal condition. Korean version 1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; National Fisheries Research & Development Institute, Busan, Korea; Coastal Fisheries Programme, Secretariat of the Pacific Community, Noumea, New Caledonia.

18) Fukofuka, S. & D. Itano with translation by JY Lu-Chen. **Chinese language version of: Handbook for the identification of yellowfin and bigeye tunas in fresh, but less than ideal condition. Chinese version 1.** Pelagic Fisheries Research Program. JIMAR. University of Hawaii, USA; University of Hawaii, Center for Interpretation and Translation Studies, Honolulu, Hawaii, USA.