DOCUMENT SAC-08-INF A(c)

Report of scientific observer program from Chinese Taipei for tuna longline fishery in the convention area of Inter-American Tropical Tuna Commission in 2016

Chinese Taipei

Summary

This document provides summarized information of the deployment of scientific observers from Chinese Taipei in IATTC Convention Area in 2016. In 2016, there were 19 observation trips conducted by scientific observers from Chinese Taipei in the Convention Area with 12 observation trips' data retrieved. The complete information on our observers deployed will be updated next year.

Keywords

Longline, Chinese Taipei, Scientific observer, Tuna fisheries

Introduction

In accordance with Resolution C-11-08, this document provides summarized information of the deployment of scientific observers from Chinese Taipei on our tuna longline fishery in 2016. In 2016 there were 19 observation trips conducted on tuna longline vessels from Chinese Taipei with 12 observation trips data retrieved completely.

Training of the scientific observer

To collect the scientific information of tuna longline fishery, the scientific observer program of deep-sea tuna fisheries of Chinese Taipei was launched in 2001. Fisheries Agency (FA) is responsible for implementing the program and recruiting scientific observers.

The qualification for observers is college graduated or senior high school graduated, and they are required the ability to live and work at sea. Candidate observers who have passed the examination will have to take a 3-week training courses, and only those who pass the training program and medical check will be qualified and deployed as scientific observers.

Observer training program includes basic safety training for seafaring, operations of navigation devices, mini-log thermometer and VMS system, identification of tunas, tuna-like species, sea turtles, seabirds, sharks and marine mammals, sampling skill for muscle tissue, otolith, stomach content and gonad, and data collection for fishing activities, catches and locations. After the training program, they are required to undergo at sea training on a training ship for one week and have a test in identifying the tuna and tuna-like species at local fish market.

Results

i) Number of observation trip and coverage rate estimate

Table 1 shows the summary of observation trips conducted in IATTC Convention Area with data retrieved in 2016. The preliminary observer coverage rate in this year was estimated at 4.93% by number of fishing operations, 11,815 operation with 583 observed. After all observer trips data retrieved completely, the observer coverage rate in 2016 be going to reach 7.40%.

ii) Observation records

Observers are required to record detailed information of each catch, including bycatch, onboard and discard with species identification during working hours. They are also required to take photo on the bycatch species according to the requirement of our observer program. The list of species recorded compiled from observation data in 2016 is shown in Table 2.

iii) Operation distributions of observed tuna longliners

Operation distributions of observed tuna longliners from Chinese Taipei with observation data retrieved is shown in Fig 1.

iv) Supplement and update information

The summary information on observation data of 2015 and 2016 is presented in Table 3 with complete observation data of 2015.

Table 1. Summary of 12 observation trip with data retrieved in the IATTC Convention Area in 2016.

TRIP ID	Range of latitude	Range of longitude	Start date of operation	End date of operation	Number of operation observed	Number of hooks observervered
Trip1	12.2S-5N	145.2W-129W	2016/01/01	2016/02/27	40	124,015
Trip2	17.5S-17.5S	124.5W-124.4W	2016/01/02	2016/01/03	2	6,000
Trip3	17.6S-14.5S	133.5W-128W	2016/01/01	2016/03/03	45	170,300
Trip4	17.3S-15.2S	129.6W-122W	2016/01/01	2016/03/03	46	117,760
Trip5	31.5N-34.5N	148.2W-142.4W	2016/01/01	2016/01/08	7	25,296
Trip6	3N-5.2N	149.5W-149.1W	2016/02/21	2016/03/14	20	47,936
Trip7	34.4S-8.1S	149.6W-146.6W	2016/03/27	2016/05/15	21	79,920
Trip8	10.4S-3.4N	149.2W-145.2W	2016/06/08	2016/09/05	52	123,680
Trip9	13.1S-2S	148.3W-130.2W	2016/06/12	2016/12/24	152	447,661
Trip10	0.4S-4.4N	149.5W-121.6W	2016/05/18	2016/07/23	52	84,140
Trip11	15.6S-7.2S	134.6W-123.4W	2016/06/07	2016/11/10	122	352,320
Trip12	2.6S-2.2S	149.5W-148.5W	2016/11/24	2016/12/20	24	63,216
Total	-	-	-	-	583	1,642,244

Table 2. List of species recorded compiled from the data of 12 observation trips in the IATTC Convention Area in 2016(Unit: Number of individual).

| Cruises Species	Trip1	Trip2	Trip3	Trip4	Trip5	Trip6	Trip7	Trip8	Trip9	Trip10	Trip11	Trip12	Total
ALB	0	25	1494	1054	173	0	1312	147	75	0	154	0	4434
BET	171	0	41	93	80	152	15	401	762	16	856	86	2502
YFT	19	0	28	29	2	22	9	117	304	25	78	11	625
SKJ	0	0	15	50	0	3	7	0	11	0	24	0	110
SWO	43	0	7	7	6	11	5	15	409	70	144	42	716
BUM	29	0	29	54	0	12	2	25	78	22	30	5	257
MLS	0	0	3	5	3	0	0	6	24	4	22	2	69
SSP	2	0	3	42	0	1	1	0	69	3	85	0	204
SFA	0	0	1	0	0	0	0	1	5	2	0	0	9
BIL	0	0	0	0	0	1	0	0	0	0	0	0	1
BSH	119	0	19	53	28	6	8	11	112	94	105	3	439
FAL	2	0	0	0	0	10	0	2	19	0	0	4	35
LMA	0	0	0	0	0	2	0	1	13	0	0	0	16
SMA	0	0	0	0	0	0	3	0	2	3	2	0	10
OCS	0	0	1	0	0	0	0	0	7	0	0	3	11
PTH	0	0	0	2	0	0	0	0	6	0	1	26	35
BTH	5	0	0	0	0	7	0	4	21	6	15	13	66
PSK	6	0	0	0	0	3	0	0	110	0	0	6	119
ISB	0	0	0	0	0	0	0	0	0	0	3	0	3
STI	0	0	8	0	0	6	0	0	3	63	0	0	80
PLS	18	0	0	153	0	0	51	0	104	0	0	5	313
ALX	64	0	77	486	0	0	58	41	46	17	40	5	770
BAR	0	0	0	0	0	0	4	0	5	0	0	0	9
BRZ	5	0	4	7	0	26	2	39	66	0	15	38	197
BUK	0	0	0	0	0	0	5	0	0	0	0	0	5
REL	0	0	0	0	0	0	1	0	0	0	0	0	1
DOL	0	0	0	0	0	0	2	1	14	0	18	1	36
LAG	0	0	1	2	28	1	30	0	29	0	35	0	126
LEC	2	0	1	3	0	1	19	31	245	3	197	6	506
OIL	0	0	0	0	0	0	0	1	0	0	0	0	1
WAH	1	0	44	66	0	3	6	0	75	2	33	0	229
OTH	0	0	1	0	0	11	3	0	0	0	0	0	15
DIX	0	0	0	0	0	0	1	0	0	0	0	0	1
FRM	0	0	0	0	0	0	0	0	0	0	0	1	1
LKV	0	0	0	0	0	0	0	0	3	0	0	0	3
MOX	1	0	1	0	0	0	0	0	25	0	2	0	28
SSQ	0	0	0	0	0	0	0	0	0	0	0	2	2
TQW	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	487	25	1778	2106	320	278	1545	843	2642	330	1859	259	11985
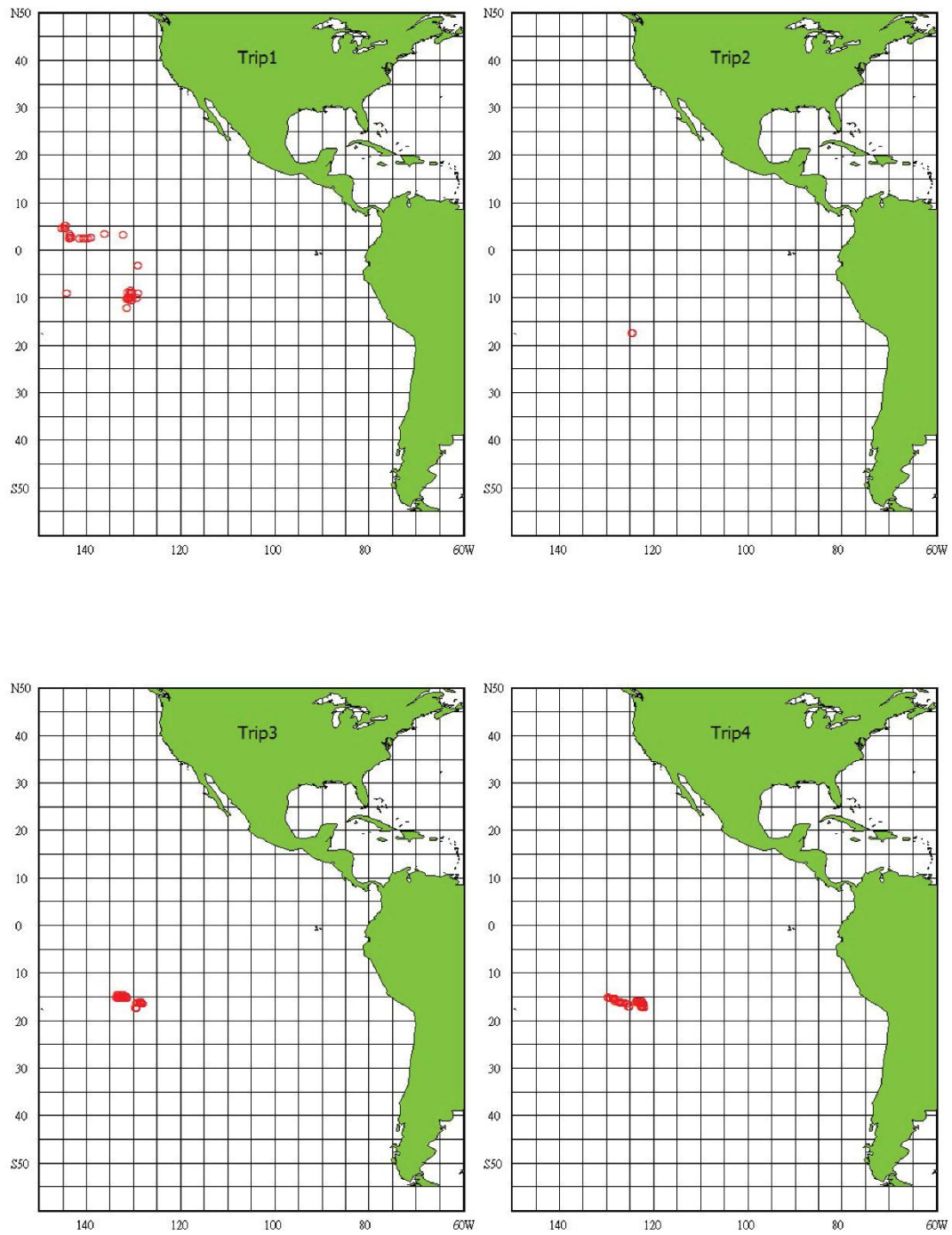
Fig 1. The operation locations of observed tuna longliners from Chinese Taipei with data retrieved in Inter-American Tropical Tuna Convention Area in 2016.
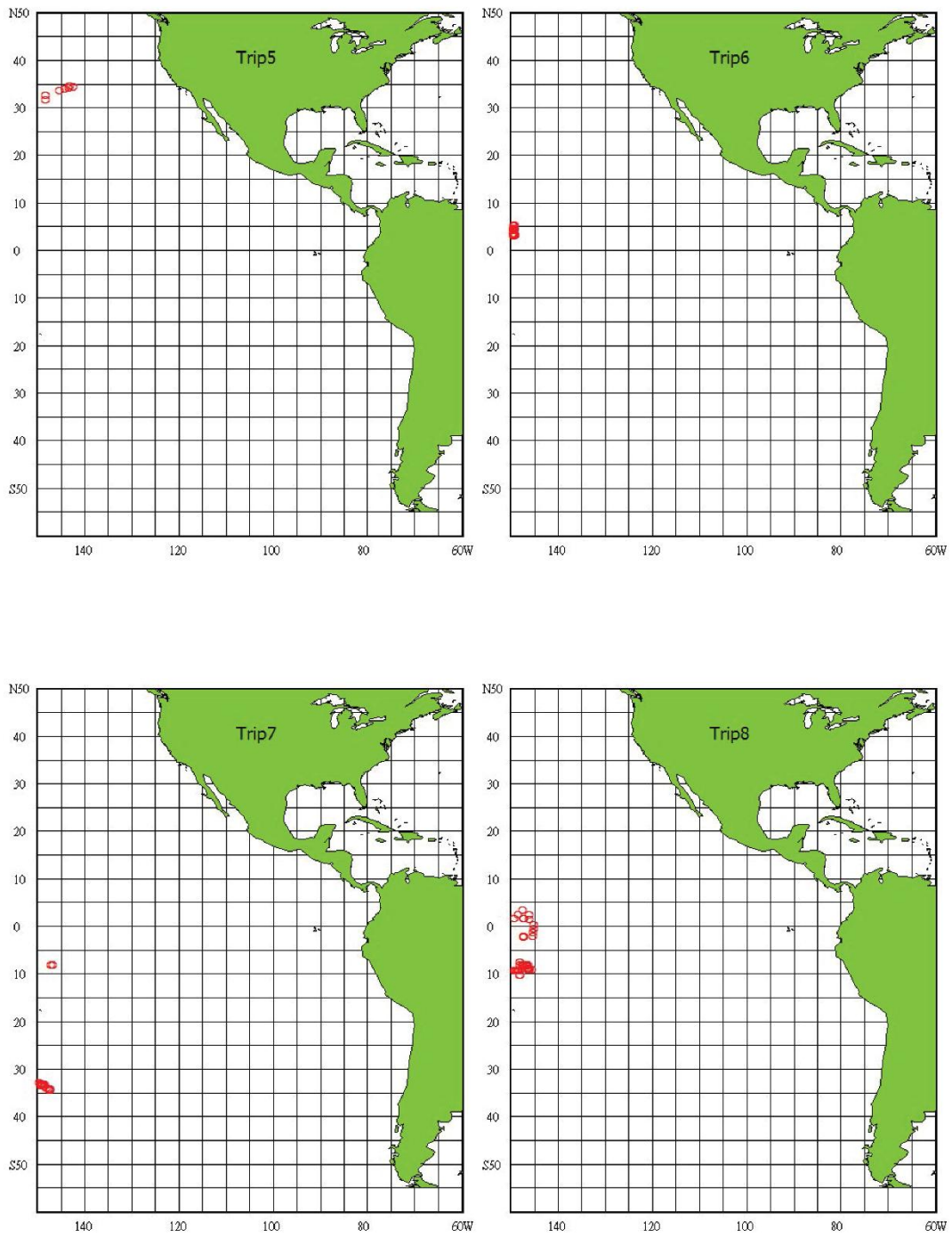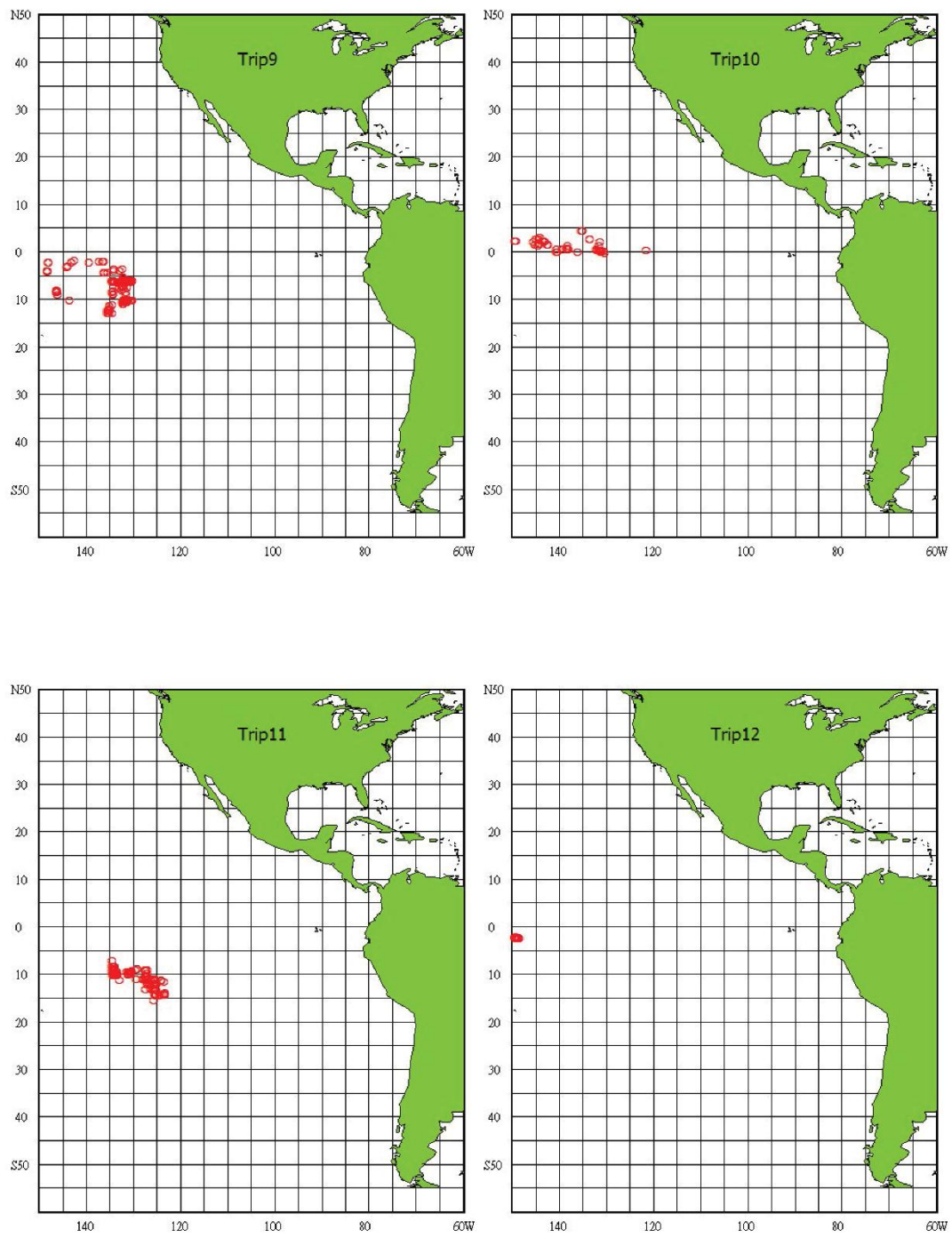
Fig.1 cont.

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Table 3. Summary of observation data for 2015 and 2016

Fishing year	2015	2016*
Total catches of the longline fleet (T)	14,975 MT	17,005 MT
Total fishing days in the year of the longline fleet	10,252	11,815
Percent coverage of fishing effort by observers (considered as fishing days)	9.18%	4.93%
Total catch by vessels with observers on board	627	343
Species composition of catches in vessels with observers on board	**WEIGHT**:ALB(46.10%),BET(25.60%),YFT(6.15%),SWO(8.12%),BUM(6.31%),MLS(0.58%),SKX(3.74%),OTH(3.41%) **NUMBER**:ALB(62.27%),BET(14.03%),YFT(4.89%),SWO(3.98%),BUM(2.43%),MLS(0.31%),SKX(3.52%),OTH(8.56%)	**WEIGHT**:ALB(25.74%),BET(39.79%),YFT(6.46%),SWO(11.87%),BUM(6.16%),MLS(1.21%),SKX(4.07%),OTH(4.71%) **NUMBER**:ALB(42.30%),BET(24.73%),YFT(5.96%),SWO(6.91%),BUM(2.70%),MLS(0.66%),SKX(4.47%),OTH(12.27%)
Number of vessels with observers on board	19	12
Number of sea turtles caught incidentally on trips with observers	3	2
Sea turtles caught incidentally were released?	2	2
Number of sharks caught in trips with observers	1,442	862
Number of OCS released in trips with observers	31 (1 dead, 6 alive and 24 unknown)	11 (3 dead, 3 alive and 5 unknown)
Number of rays captured on trips with observers	468	411
Number of billfishes captured in trips with observers	1,749	1,330
Number of hooks used on fishing trips with observer	2,715,444	1,642,244
Type of hooks used.	J hook:12% circle hook:36% Other type:52%	J hook:4% circle hook:30% Other type:67%

* The data of 2016 is still in preliminary for observer data being not retrieved completely.