# COMISION INTERAMERICANA DEL ATUN TROPICAL INTER-AMERICAN TROPICAL TUNA COMMISSION

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## Report for November-December 2011 IATTC\SPC tuna tagging cruise in the Central Equatorial Pacific Ocean

**Vessel:** *Ao Shibi Go*, commercial high-seas longline fishing vessel (65 foot, steel construction, single diesel), United States flag. Home port: Honolulu, HI. Owner: Tim Jones

**Cruise period:** 1 November to 16 December 2011

**Areas of operation:** Between the 9°N to 3°S on the 140°W meridian, and between 5°S to 8°N on the 155°W meridian (Figure 1).

### **Itinerary and observations:**

1 Nov Vessel departed from Pier 38, Honolulu, Hawaii at 1030 h, with IATTC scientists Kurt Schaefer (Cruise leader) and Dan Fuller aboard, along with Captain Tim Jones and three Micronesian crew members. Exited Honolulu harbor and set course for 9°N and 140°W.

**2-8 Nov** Running south-east at an average speed of about 6.5 knots. We experienced a consistent rough sea-state, with mostly 20 to 25 knots wind from the east northeast, and 5' to 15' swells. Spent time while traveling preparing all fishing and tagging equipment, including programming electronic archival tags, and working on a manuscript.

Arrived nearby the last reported location of the NOAA Tropical Atmosphere-Ocean (TAO) mooring at about 9°N 140°W at 1700 h (79.5°Fsst). Initially we were unable to locate the mooring, until about 1830 h, as the upper structure was gone and only the circular base flotation was present. Based on acoustic and trolling surveys we conducted, it was determined that there were no tunas present. Departed at 1900 h with course set for the TAO mooring at 5°N 140°W.

Running south at an average speed of about 6.0 knots. Much improved weather and sea-state, with 15 knots wind from the south-east, and 5' swells.

Arrived at the TAO mooring at 5°N 140°W about 0800 h (78.5°Fsst). Based on acoustic and trolling surveys, it was determined that there were no tunas present. Departed at 0830 h with course set for the TAO mooring at 2°N 140°W.

Arrived at the TAO mooring at 2°N 140°W at 0915 h (75.8°Fsst). There was a small aggregation of tunas present, based on acoustic and trolling surveys. We captured, tagged, and released 1 bigeye tuna (BET), and 3 yellowfin tuna (YFT)

with plastic dart tags (PDTs) (Table 1). Departed at 1010 h with course set for the TAO mooring at 0°N 140°W.

**13 Nov** 

Arrived at the TAO mooring at 0°N 140°W at 0430 h (75.6°Fsst). Based on acoustic and trolling surveys, it was determined that there was a relatively large aggregation of tunas present, including BET. We conducted fishing and tagging operations until 0630 h, for about 2 continuous hours following arrival until the fish stopped biting. We remained drifting nearby the TAO mooring for the day. We tried fishing with the danglers, trolling, and rods and reels from 1630 h to 1700 h, without success. We fished with hand lines and rods and reels from 1900 h to 2230 h, using chrome jigs, targeting tunas for tagging with archival tags (ATs). We tagged a total of 277 BET, and 2 YFT with PDTs (Table 1), and implanted 40 ATs in BET and 1 AT in YFT (Table 2) for the day. We remained nearby the mooring for the remainder of the night.

**14 Nov** 

Began fishing activities at 0430 h, trolling around TAO mooring at 0°N 140°W. We conducted fishing and tagging operations until 0845 h, for just over 4 hours, until the fish stopped biting. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1930 h to 2230 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 793 BET with PDTs (Table 1), and implanted 12 ATs in BET and 8 ATs in YFT (Table 2) for the day. We remained nearby the mooring for the remainder of the night.

**15 Nov** 

Began fishing activities at 0430 h, trolling around TAO mooring at 0°N 140°W. We conducted fishing and tagging operations until 0950 h, just over 5 hours, until the fish stopped biting. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 2000 h to 2145 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 984 BET, and 9 YFT with PDTs (Table 1), and implanted 5 ATs in YFT, and 3 ATs in SKJ (Table 2) for the day. We remained nearby the mooring for the remainder of the night.

**16 Nov** 

Began fishing activities at 0430 h, trolling around TAO mooring at 0°N 140°W. We conducted fishing and tagging operations until 0745 h, just over 3 hours, until the fish stopped biting. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1800 h to 2100 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 463 BET, and 21 YFT with PDTs (Table 1) for the day. We remained nearby the mooring for the remainder of the night.

**17 Nov** 

Began fishing activities at 0430 h, trolling around TAO mooring at 0°N 140°W. We conducted fishing and tagging operations until 0745 h, just over 3 hours, until the fish stopped biting. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1800 h to 2110 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 303 BET,

15 YFT, and 4 SKJ with PDTs (Table 1), and implanted 2 ATs in BET, 12 ATs in YFT, and 1 AT in SKJ (Table 2) for the day.

**18 Nov** 

At 0200 h we drifted away from the mooring with the deck lights on, and then deployed the parachute 30 minutes later at 0230 h, so as to drift away in the direction of current with the aggregation of tunas associated with the vessel. At 0600 h, about 6 nm south-west of the mooring, the tuna aggregation was observed to be associated with the drifting vessel. At 1200 h the vessel was about 14 nm south-west of the TAO mooring, with the aggregation still associated with the vessel. We fished with hand lines and rods and reels from 1815 h to 2100 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 51 BET, and 5 YFT with PDTs (Table 1), and implanted 3 ATs in BET, 3 ATs in YFT, and 1 AT in SKJ (Table 2) for the day.

**19 Nov** 

Began fishing activities at 0420 h, by disconnecting and dropping the parachute with floats attached, and then trolled around it for about 1 hour, until the fish dispersed. At about 0545 h, about 40 nm from the TAO mooring at 0°N 140°W, we set a course to return to that same TAO mooring to evaluate. We arrived at about 1220 h and following an acoustic survey were surprised to observe there to be a large aggregation of tunas present. We conducted fishing and tagging operations until 1430 h, for about 2 hours, until the fish stopped biting.

We discovered about 1500 h, that there were 2 TAO moorings present near the 0°N 140°W, within about 2 nm of one another. Thus, explaining the large aggregation present at a TAO mooring there, considering we had drifted the majority of the other aggregation away from the nearby TAO mooring. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1800 h to 2000 h, using chrome jigs, targeting tunas for tagging. There was a very strong west flowing current, perhaps up to 3 knots, and a large amount of deep-scattering layer prey organisms at the surface. The tunas were foraging on this prey under the lights of the boat, throughout the night. We tagged a total of 443 BET, 25 YFT, and 3 SKJ with PDTs (Table 1) for the day.

**20 Nov** 

Began fishing activities at 0430 h, trolling around TAO mooring #1 at 0°N 140°W. We conducted fishing and tagging operations until 0630 h, for about 2 hours, until the fish stopped biting. We ran to the other TAO mooring #2 which was 1.9 nm south-east and arrived about 0710 h. We determined there was a reasonable amount of tunas present and began fishing and tagging activities immediately. We departed TAO mooring #2 about 0900 h to return to TAO mooring #1. We remained drifting nearby TAO mooring #1 for the day. We fished with hand lines and rods and reels from 1800 h to 1915 h, using chrome jigs, targeting tunas for tagging. We tagged a total of 529 BET, 21 YFT, and 2 SKJ with PDTs (Table 1) for the day.

**21 Nov** 

At 0200 h we drifted away from the mooring with the deck lights on, and then deployed the parachute 30 minutes later at 0230 h, so as to drift away in the direction of current with the aggregation of tunas associated with the vessel. At 1000 h, about 22 nm west of the mooring, the tuna aggregation was observed to be associated with the drifting vessel. At 1300 h the vessel was about 30 nm west of the TAO mooring, and we set a course to return to evaluate the TAO moorings. Arriving about 1930 h we did an acoustic survey of both TAO moorings and noted there to be tunas present, but in much smaller quantities than previously. We departed about 2000 h with a course set for the TAO mooring at 2°S 140°W.

**22 Nov** 

Arrived at the TAO mooring at 2°S 140°W about 1100 h (75.9°Fsst). Based on acoustic and trolling surveys, it was determined that there were no tunas present. Departed at 1130 h with course set for the TAO mooring at 5°S 155°W. We finally have the wind and swell on the stern of the vessel and are looking forward to a smoother ride during the long transit to the west.

23-26 Nov

Running west towards the 155°W meridian, with an average speed of between 8 to 9 knots. There is a strong westward current pushing us along. The seas were relatively calm with 3'-6' swells, and 10 to 15 kts of easterly wind. Worked on a manuscript on our portable computers throughout the transit period. Sent an email on the 26<sup>th</sup> to notify authorities in Kiribati of our position, permit number, and intentions to be fishing and tagging within their waters. This was also done on a daily basis during the period of time we were operating with the waters of Kiribati.

**27 Nov** 

Arrived at the TAO mooring at 5°S 155°W at 0220 h (80.4°Fsst). There was no tuna school present, based on an acoustic survey. Departed at 0240 h with course set for Malden Island. Approaching Malden Island, located at about 4°06'S 155°55'W, at 0930 h. Spent the day fishing around the island and just offshore, trying to locate, catch, and tag SKJ with ATs. We were unsuccessful and departed about 1800 h with a course set for the TAO mooring at 2°S 155°W.

**28 Nov** 

Arrived at the TAO mooring at 2°S 155°W about 0930 h (79.9°Fsst). Based on acoustic and trolling surveys, it was determined that there was no tuna aggregation present. Departed at 0940 h with course set for the TAO mooring at 0° 155°W.

**29 Nov** 

Arrived at the TAO mooring at 0° 155°W about 0005 h (78.1°Fsst). Based on acoustic survey, it was determined that there was no tuna aggregation present. Departed at 0020 h with course set for the TAO mooring at 2°N 155°W. Arrived at the TAO mooring at 2°N 155°W about1640 h (80.0°Fsst). Based on acoustic and trolling surveys, it was determined that there was no tuna aggregation present. Departed at 1705 h with course set for the TAO mooring at 5°N 155°W.

**30 Nov** 

We spotted an unassociated school of SKJ, due to a large presence of terns and shearwaters on it, at about 0730 h, located about 3°32'N 155°59'W. We followed

the SKJ school while trolling around it with small lures, and catching and tagging SKJ with ATs, for about 4 h until 1120 h when we resumed our course towards the TAO mooring at 5°N 155°W. We tagged a total of 20 SKJ with ATs (Table 2) for the day.

1 Dec

Arrived at the TAO mooring at 5°N 155°W about 0610 h (82.6°Fsst). Based on acoustic and trolling surveys, it was determined that there was no tuna aggregation present. Departed at 0620 h with course set for the TAO mooring at 8°N 155°W.

2 Dec

Arrived at TAO mooring #1 at 8°N 155°W at 0750 h (83.2°Fsst). Based on acoustic and trolling surveys, it was determined that there was a very small aggregation of tunas present. We conducted fishing operations until 0815 h, but were unsuccessful in catching any tunas. We then ran to TAO mooring #2 at 8°N 155°W arriving at 0830 h and immediately began an acoustic and fishing survey. We determined that there was a small tuna aggregation present, including BET, and stopped fishing about 0945h when the fish stopped biting. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1830 h to 2130 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 84 BET, and 8 YFT with PDTs (Table 1) and implanted 3 ATs in BET for the day.

3 Dec

Began fishing activities at 0545 h, trolling around TAO mooring #2 at 8°N 155°W. We conducted fishing and tagging operations until 0930 h, for nearly 4 hours, until the fish stopped biting. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1900 h to 2200 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 119 BET, 18 YFT, and 2 SKJ with PDTs (Table 1), and implanted 6 ATs in BET and 2 ATs in YFT (Table 2) for the day.

4 Dec

The weather and sea-state have turned foul, as of this morning, and we are experiencing 8' swells, and about 30 knots of with from the east. It is actually too rough and dangerous to be walking around on deck trying to fish and tag tunas. We drifted nearby TAO mooring #2 throughout the day. We fished with hand lines and rods and reels from 1900 h to 2200 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 6 BET, and 2 YFT with PDTs (Table 1) and implanted 5 ATs in BET (Table 2) for the day.

5 Dec

Began fishing activities at 0545 h, trolling around TAO mooring #2 at 8°N 155°W. We conducted fishing and tagging operations until 0945 h, for about 4 hours, until the fish stopped biting. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1900 h to 2200 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 41 BET, 3 YFT, and 3 SKJ with PDTs (Table 1), and implanted 8 ATs in BET, 3 ATs in YFT, and 1 AT in SKJ (Table 2) for the day.

6 Dec

Began fishing activities at 0550 h, trolling around TAO mooring #2 at 8°N 155°W. We conducted fishing and tagging operations until 0830 h, for about 3 hours, until the fish stopped biting. Poor catch, very rough sea-state, 8' swells, and rain squalls. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1900 h to 2100 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged just 1 BET and 1 SKJ with ATs (Table 2) for the day.

7 Dec

Preparing at 0245 h to separate the tuna aggregation at TAO mooring #2 and take it with us associated with the vessel over to TAO mooring #1, which is about 3 nm south of current location. We cruised at a speed of about 2.5 knots, and observed tunas on the echo sounder following us. We arrived at TAO mooring #1 about 0505 h. We began fishing activities at TAO mooring #1 at 0545 h and continued until 1115 h, when the fish stopped biting entirely. The weather had improved; wind subsided, and swells now only about 4'. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1900 h to just 2000 h, using chrome jigs, targeting tunas for tagging with ATs. The weather unfortunately picked up again with high winds and rain squalls after sunset. We tagged a total of 3 BET, 7 YFT and 1 SKJ with PDTs (Table 1), and implanted 2 ATs in BET, 23 ATs in YFT, and 1 AT in SKJ (Table 2) for the day.

8 Dec

Began fishing activities at 0600 h, trolling around TAO mooring #1. We conducted fishing and tagging operations until 1130 h, for over 5 hours, until the fish stopped biting. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1900 h to 2200 h, using chrome jigs, targeting tunas for tagging with ATs. We tagged a total of 4 BET, 4 YFT and 1 SKJ with PDTs (Table 1), and implanted 4 ATs in BET and 11 ATs in YFT (Table 2) for the day.

9 Dec

Began fishing activities at 0545 h, trolling around TAO mooring #1. We conducted fishing and tagging operations until 1030 h, for nearly 5 hours, until the fish stopped biting. The fish were not coming to the vessel to bite trolled squids, danglers, or hand lines. We began using rods and reels with 60 to 100 lb. fluorocarbon leaders for trolling various small lures with skirts. Many of the fish captured were very small, less than 45 cm, and not suitable for implanting ATs due to eye and gill damage from hook damage. We remained drifting nearby the TAO mooring for the day. We fished with hand lines and rods and reels from 1900 h to 2130 h, using chrome jigs, targeting tunas for tagging with ATs. Very poor catch, with just 1 AT deployed in a BET. We tagged a total of 7 BET, 8 YFT, and 3 SKJ with PDTs (Table 1), and implanted 4 ATs in BET and 12 ATs in YFT (Table 2) for the day.

10 Dec

At 0220 h we drifted away from mooring #1, with the deck lights on, and then deployed the parachute 30 minutes later about 0250 h, so as to drift away in the direction of current with the aggregation of tunas associated with the vessel. At

0600 h, about 3 nm west of mooring #1, the tuna aggregation was observed to be associated with the drifting vessel and we began fishing operations, trolling around the parachute. At 0800 h the vessel was about 4 nm west of TAO mooring #1. The tuna aggregation was no longer associated with the vessel, so we set a course to return to evaluate both the TAO moorings. Arriving about 0910 h we did acoustic and fishing surveys at mooring #1 and noted there to be a very small tuna aggregation present, and significantly less than what we drifted away.

We ran over to TAO mooring #2, arrived at about 1100 h, and began an acoustic and fishing survey. There was a small tuna aggregation present and we deployed the last LAT2810 AT in a YFT, and deployed 2 more LAT2910PDA ATs in SKJ. We stopped fishing when the bite died about 1300 h and ran back to mooring #1 to evaluate further. No tunas caught at mooring #1, just some mahi and ono, so departed and ran back to mooring #2 arriving about 1545 h. We fished around mooring #2 until about 1800 h, and caught, tagged, and released a few very small SKJ less than 35cm FL with PDTs. Weather was very rough throughout the day, including fairly heavy continuous rain. We departed at 1830 h with a course set to return to port in Honolulu. We tagged a total of 12 BET, 9 YFT and 3 SKJ with PDTs (Table 1) and implanted 2 ATs in BET, 5 ATs in YFT, and 2 ATs in SKJ (Table 2) for the day.

11-15 Dec

Running north at an average speed of about 7 kts towards Honolulu. We experienced a couple of days of relatively calm weather, followed by a couple of days of rough weather, with 20 kts wind from the east, and 6'-8' seas.

16 Dec

Arrived in port in Honolulu and vessel was tied up at pier 38 at 0400 h. The charter was finished after the agreed upon 45 day period. All tagging equipment and personal gear were off loaded from the vessel before 1200 h. Tagging equipment was stored at POP at Pier 38, scheduled for pickup and shipment back to IATTC La Jolla.

#### **NARRATIVE SUMMARY:**

We were successful in catching, tagging and releasing 4120 BET (mean = 66.7 cm, range= 36-121 cm), 160 YFT(mean = 60.1 cm, range= 35-106 cm), and 22 SKJ (mean = 47.8 cm, range= 33-72 cm) with PDTs (Table 1) and 92 BET (mean = 66.1 cm, range= 42-126 cm), 85 YFT (mean = 60.7 cm, range= 42-111 cm), and 30 SKJ (mean = 65.0 cm, range= 46-73 cm) with ATs (Table 2) during the seventh central Pacific Ocean tagging cruise (CP7).

The distributions of PDT and AT deployments in equatorial waters on both the 140°W and 155°W meridians, along with those deployed during the previous 2011 tagging cruise (CP6) on both the 170°W and 180°W meridians, was an ideal experimental design. The data from past and future PDT and AT recoveries, as a result of successful deployments throughout the central Pacific tagging experiments, should provide some very interesting and useful information on movements, growth, exploitation, behavior, and habitat utilization of tunas in the equatorial central Pacific.

In addition to deployments of Wildlife Computers MK9 ATs, we deployed the latest generation of LOTEK Wireless LAT2810 and LAT2910PDA ATs. Considering the small size of the LAT2810 ATs, and the objective to implant them in the peritoneal cavity of tunas, but recognizing from past experiences that tunas can easily shed them, we developed a new surgical procedure specifically for those tags, to hopefully minimize such shedding. The LAT2910PDA tags were designed for implantation into the dorsal musculature, and to be retained in a similar manner to that of PDT tags, by including a plastic anchor attached to a shaft protruding from the nose of the tag body, so as to be hooked around a pterygiophore at the base of the second dorsal fin. We have documented these attachment methodologies and produced videos during this cruise, and provided them to LOTEK Wireless to make available to the public through their website.

#### **RECOMMENDATIONS:**

Future BET tagging cruises to the equatorial central Pacific aboard chartered vessels departing from Hawaii, and utilizing the dangler and short line fishing methods employed during this last cruise, appear to have a fairly high probability of being successful, if they adhere to the following considerations. The selection of a Captain competent in this unique style of fishing is one of the most important considerations, along with a suitable vessel. The crew should consist of three experienced fisherman in this style of fishing, and there should be two scientists aboard to conduct tagging activities at two separate tagging stations. The vessel should have the fuel capacity to be able to operate between the 140°W and 155°W and 5°N and 5°S, throughout a minimum 6 week charter period. Should an objective be to also conduct tagging activities further to the east such as along the TAO mooring array on the 125°W meridian, an extra 2 weeks would be required. In addition, there are specific types of fishing gear including lines, lures, and hooks which should be carried aboard, as they can have a profound impact on the fishing success, including obtaining specimens in suitable condition for tagging.

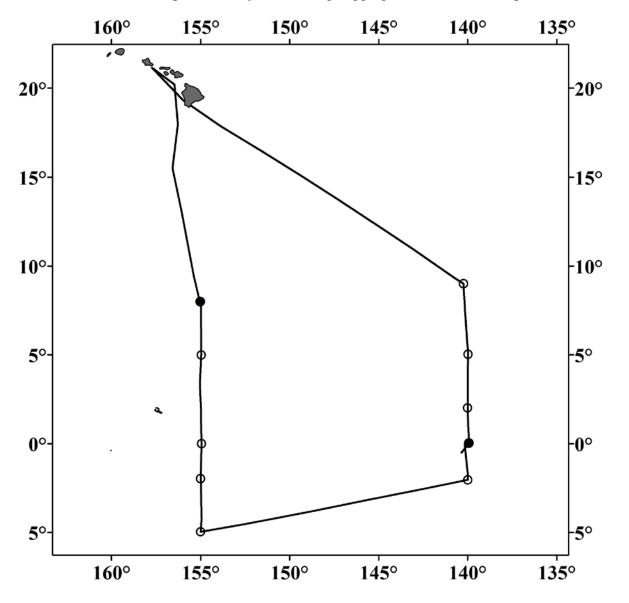
Obtaining information from NOAA regarding the timing for the servicing of the TAO moorings appears to be fairly important. It is best to try to schedule such tuna tagging cruises as these, which are dependent on finding tuna aggregations associated with these moorings, either before the moorings are serviced or at least 6 weeks thereafter. The tuna aggregations will sometimes remain at the moorings if they are only being serviced. However, when the moorings are replaced, and sometimes relocated, this has been observed to sometimes disperse the associated tuna aggregations.

For safety concerns, the vessel should have the computer equipment and software aboard to receive daily weather updates and any advisories from NOAA, since this area can be subject to tropical storms and hurricanes.

Efforts should be made to further improve the fishing, tagging, and release techniques, based on observations and experience gained during all past CPO cruises, so as to improve the potential survivorship of the fish released with PDTs and ATs and make those operations more efficient.

In addition, one objective of CP7 was to attempt to deploy up to 200 LAT2910PDA tags in SKJ during the cruise. However, although a considerable amount of strategic planning was implemented, including purchases of a small skiff along with various types of suitable lures, we were only able to deploy 30 LAT2910PDAs in SKJ during this cruise. As observed during CP3, and again during CP7, although SKJ are abundant within the mixed species tuna aggregations associated with the TAO moorings in this area, we would rarely catch them. The best success we had in catching SKJ specimens for implanting LAT2910PDA tags was targeting some unassociated SKJ schools we located, due to the presence of bird schools associated with them. It is thus recommended that should the tagging of SKJ with ATs be an objective on future cruises to the CPO, while utilizing this type of vessel and fishing techniques, that time should be spent searching for and targeting unassociated SKJ schools during daylight hours.

**Figure 1.** Cruise track for IATTC/SPC collaborative tagging cruise 1143 during November 1 to December 16, 2011. The open circles represent buoys visited and the solid circles represent buoys where large aggregations of tuna were present.



**Table 1.** Summary of tagging operations during IATTC/SPC collaborative tagging cruise 1143, November 1 to December 16, 2011.

Date	Latitude	Longitude	Species	Tag Type	Number
12-Nov-2011	2°00.5 N	140°00.4 W	BET	PDT	1
12-Nov-2011	2°00.5 N	140°00.4 W	YFT	PDT	3
13-Nov-2011	0°00.9 N	139°54.9 W	BET	PDT	277
13-Nov-2011	0°00.9 N	139°54.9 W	BET	AT	40
13-Nov-2011	0°00.9 N	139°54.9 W	YFT	AT	1
13-Nov-2011	0°00.9 N	139°54.9 W	YFT	PDT	2
14-Nov-2011	0°01.5 S	139°54.8 W	BET	PDT	793
14-Nov-2011	0°01.5 S	139°54.8 W	BET	AT	12
14-Nov-2011	0°01.5 S	139°54.8 W	YFT	AT	8
15-Nov-2011	0°01.5 S	139°54.8 W	BET	PDT	984
15-Nov-2011	0°01.5 S	139°54.8 W	SKJ	AT	3
15-Nov-2011	0°01.5 S	139°54.8 W	YFT	AT	5
15-Nov-2011	0°01.5 S	139°54.8 W	YFT	PDT	9
16-Nov-2011	0°01.3 S	139°54.7 W	BET	PDT	463
16-Nov-2011	0°01.3 S	139°54.7 W	YFT	PDT	21
17-Nov-2011	0°01.8 S	139°55.7 W	BET	PDT	303
17-Nov-2011	0°01.8 S	139°55.7 W	BET	AT	2
17-Nov-2011	0°01.8 S	139°55.7 W	SKJ	AT	1
17-Nov-2011	0°01.8 S	139°55.7 W	SKJ	PDT	4
17-Nov-2011	0°01.8 S	139°55.7 W	YFT	AT	12
17-Nov-2011	0°01.8 S	139°55.7 W	YFT	PDT	15
18-Nov-2011	0°23.4 S	140°14.8 W	BET	PDT	51
18-Nov-2011	0°23.4 S	140°14.8 W	BET	AT	3
18-Nov-2011	0°23.4 S	140°14.8 W	SKJ	AT	1
18-Nov-2011	0°23.4 S	140°14.8 W	YFT	AT	3
18-Nov-2011	0°23.4 S	140°14.8 W	YFT	PDT	5
19-Nov-2011	0°00.8 S	139°56.7 W	BET	PDT	443
19-Nov-2011	0°00.8 S	139°56.7 W	SKJ	PDT	3
19-Nov-2011	0°00.8 S	139°56.7 W	YFT	PDT	25
20-Nov-2011	0°02.1 S	139°54.9 W	BET	PDT	529
20-Nov-2011	0°02.1 S	139°54.9 W	SKJ	PDT	2
20-Nov-2011	0°02.1 S	139°54.9 W	YFT	PDT	21
30-Nov-2011	3°31.7 N	154°59.0 W	SKJ	AT	20
2-Dec-2011	7°54.7 N	154°59.3 W	BET	PDT	84
2-Dec-2011	7°54.7 N	154°59.3 W	BET	AT	3
2-Dec-2011	7°54.7 N	154°59.3 W	YFT	PDT	8
3-Dec-2011	7°58.4 N	155°00.3 W	BET	PDT	119
3-Dec-2011	7°58.4 N	155°00.3 W	BET	AT	6
3-Dec-2011	7°58.4 N	155°00.3 W	SKJ	PDT	2
3-Dec-2011	7°58.4 N	155°00.3 W	YFT	AT	2
3-Dec-2011	7°58.4 N	155°00.3 W	YFT	PDT	18
4-Dec-2011	8°00.2 N	155°00.2 W	BET	PDT	6
4-Dec-2011	8°00.2 N	155°00.2 W	BET	AT	5
4-Dec-2011	8°00.2 N	155°00.2 W	YFT	PDT	2
5-Dec-2011	8°00.2 N	155°00.5 W	BET	PDT	41
5-Dec-2011	8°00.2 N	155°00.5 W	BET	AT	8

Date	Latitude	Longitude	Species	Tag Type	Number
5-Dec-2011	8°00.2 N	155°00.5 W	SKJ	AT	1
5-Dec-2011	8°00.2 N	155°00.5 W	SKJ	PDT	3
5-Dec-2011	8°00.2 N	155°00.5 W	YFT	AT	3
5-Dec-2011	8°00.2 N	155°00.5 W	YFT	PDT	3
6-Dec-2011	7°58.9 N	155°00.1 W	BET	AT	1
6-Dec-2011	7°58.9 N	155°00.1 W	SKJ	AT	1
7-Dec-2011	7°57.2 N	154°58.9 W	BET	PDT	3
7-Dec-2011	7°57.2 N	154°58.9 W	BET	AT	2
7-Dec-2011	7°57.2 N	154°58.9 W	SKJ	AT	1
7-Dec-2011	7°57.2 N	154°58.9 W	SKJ	PDT	1
7-Dec-2011	7°57.2 N	154°58.9 W	YFT	AT	23
7-Dec-2011	7°57.2 N	154°58.9 W	YFT	PDT	7
8-Dec-2011	7°57.2 N	154°58.5 W	BET	PDT	4
8-Dec-2011	7°57.2 N	154°58.5 W	BET	AT	4
8-Dec-2011	7°57.2 N	154°58.5 W	SKJ	PDT	1
8-Dec-2011	7°57.2 N	154°58.5 W	YFT	AT	11
8-Dec-2011	7°57.2 N	154°58.5 W	YFT	PDT	4
9-Dec-2011	7°56.8 N	154°59.2 W	BET	PDT	7
9-Dec-2011	7°56.8 N	154°59.2 W	BET	AT	4
9-Dec-2011	7°56.8 N	154°59.2 W	SKJ	PDT	3
9-Dec-2011	7°56.8 N	154°59.2 W	YFT	AT	12
9-Dec-2011	7°56.8 N	154°59.2 W	YFT	PDT	8
10-Dec-2011	7°59.9 N	154°59.7 W	BET	PDT	12
10-Dec-2011	7°59.9 N	154°59.7 W	BET	AT	2
10-Dec-2011	7°59.9 N	154°59.7 W	SKJ	AT	2
10-Dec-2011	7°59.9 N	154°59.7 W	SKJ	PDT	3
10-Dec-2011	7°59.9 N	154°59.7 W	YFT	AT	5
10-Dec-2011	7°59.9 N	154°59.7 W	YFT	PDT	9

PDT = Plastic Dart Tag
AT = Archival Tag

**Table 2.** Summary of the 56 Wildlife Computers Mk9, 101 LOTEK LAT 2910, and 50 LOTEK LAT 2810 archival tag deployments during IATTC/SPC collaborative tagging cruise 1143, November 1 to December 16, 2011.

Archival Tag Number	Species	Date	Latitude	Longitude	Fork Length	<b>Fishing Method</b>
1190193	BET	13-Nov-2011	0°00.9 N	139°54.9 W	76	Rod and Reel
1190191	BET	13-Nov-2011	0°00.9 N	139°54.9 W	57	Rod and Reel
1190190	BET	13-Nov-2011	0°00.9 N	139°54.9 W	73	Rod and Reel
1190189	BET	13-Nov-2011	0°00.9 N	139°54.9 W	89	Rod and Reel
1190188	BET	13-Nov-2011	0°00.9 N	139°54.9 W	70	Rod and Reel
1190187	BET	13-Nov-2011	0°00.9 N	139°54.9 W	69	Rod and Reel
1190186	BET	13-Nov-2011	0°00.9 N	139°54.9 W	72	Rod and Reel
1190185	BET	13-Nov-2011	0°00.9 N	139°54.9 W	79	Rod and Reel
1190184	BET	13-Nov-2011	0°00.9 N	139°54.9 W	79	Rod and Reel
1190183	BET	13-Nov-2011	0°00.9 N	139°54.9 W	67	Rod and Reel
1190182	BET	13-Nov-2011	0°00.9 N	139°54.9 W	64	Rod and Reel
1190175	BET	13-Nov-2011	0°00.9 N	139°54.9 W	77	Rod and Reel
1190174	BET	13-Nov-2011	0°00.9 N	139°54.9 W	71	Rod and Reel
1190173	BET	13-Nov-2011	0°00.9 N	139°54.9 W	76	Rod and Reel
1190172	BET	13-Nov-2011	0°00.9 N	139°54.9 W	74	Rod and Reel
1190167	BET	13-Nov-2011	0°00.9 N	139°54.9 W	65	Rod and Reel
1190166	BET	13-Nov-2011	0°00.9 N	139°54.9 W	76	Rod and Reel
1190165	BET	13-Nov-2011	0°00.9 N	139°54.9 W	78	Rod and Reel
1190164	BET	13-Nov-2011	0°00.9 N	139°54.9 W	76	Rod and Reel
1190163	BET	13-Nov-2011	0°00.9 N	139°54.9 W	74	Rod and Reel
1190162	BET	13-Nov-2011	0°00.9 N	139°54.9 W	70	Rod and Reel
1190161	BET	13-Nov-2011	0°00.9 N	139°54.9 W	74	Rod and Reel
1190160	BET	13-Nov-2011	0°00.9 N	139°54.9 W	72	Rod and Reel
1190159	BET	13-Nov-2011	0°00.9 N	139°54.9 W	82	Rod and Reel
1190158	BET	13-Nov-2011	0°00.9 N	139°54.9 W	78	Rod and Reel
1190157	BET	13-Nov-2011	0°00.9 N	139°54.9 W	66	Rod and Reel
1190154	BET	13-Nov-2011	0°00.9 N	139°54.9 W	73	Rod and Reel
1190153	BET	13-Nov-2011	0°00.9 N	139°54.9 W	74	Rod and Reel
1190152	BET	13-Nov-2011	0°00.9 N	139°54.9 W	70	Rod and Reel
1190151	BET	13-Nov-2011	0°00.9 N	139°54.9 W	67	Rod and Reel
1190148	BET	13-Nov-2011	0°00.9 N	139°54.9 W	70	Rod and Reel
1190147	BET	13-Nov-2011	0°00.9 N	139°54.9 W	74	Rod and Reel
1190146	BET	13-Nov-2011	0°00.9 N	139°54.9 W	72	Rod and Reel
1190145	BET	13-Nov-2011	0°00.9 N	139°54.9 W	77	Rod and Reel
1190143	BET	13-Nov-2011	0°00.9 N	139°54.9 W	73	Rod and Reel
1190141	BET	13-Nov-2011	0°00.9 N	139°54.9 W	71	Rod and Reel
1190140	BET	13-Nov-2011	0°00.9 N	139°54.9 W	80	Rod and Reel
1190139	BET	13-Nov-2011	0°00.9 N	139°54.9 W	73	Rod and Reel
1190138	BET	13-Nov-2011	0°00.9 N	139°54.9 W	62	Rod and Reel
1090366	BET	13-Nov-2011	0°00.9 N	139°54.9 W	72	Rod and Reel
1190149	YFT	13-Nov-2011	0°00.9 N	139°54.9 W	87	Rod and Reel

Archival Tag Number	Species	Date	Latitude	Longitude	Fork Length	Fishing Method
A0744	BET	14-Nov-2011	0°01.5 S	139°54.8 W	75	Rod and Reel
A0737	BET	14-Nov-2011	0°01.5 S	139°54.8 W	72	Rod and Reel
A0730	BET	14-Nov-2011	0°01.5 S	139°54.8 W	60	Rod and Reel
A0722	BET	14-Nov-2011	0°01.5 S	139°54.8 W	67	Rod and Reel
A0721	BET	14-Nov-2011	0°01.5 S	139°54.8 W	89	Rod and Reel
A0717	BET	14-Nov-2011	0°01.5 S	139°54.8 W	69	Rod and Reel
A0709	BET	14-Nov-2011	0°01.5 S	139°54.8 W	79	Rod and Reel
A0704	BET	14-Nov-2011	0°01.5 S	139°54.8 W	85	Rod and Reel
A0703	BET	14-Nov-2011	0°01.5 S	139°54.8 W	68	Rod and Reel
A0692	BET	14-Nov-2011	0°01.5 S	139°54.8 W	70	Rod and Reel
990315	BET	14-Nov-2011	0°01.5 S	139°54.8 W	70	Rod and Reel
990298	BET	14-Nov-2011	0°01.5 S	139°54.8 W	67	Rod and Reel
990296	YFT	14-Nov-2011	0°01.5 S	139°54.8 W	67	Rod and Reel
1190051	YFT	14-Nov-2011	0°01.5 S	139°54.8 W	84	Rod and Reel
1090342	YFT	14-Nov-2011	0°01.5 S	139°54.8 W	70	Rod and Reel
1090064	YFT	14-Nov-2011	0°01.5 S	139°54.8 W	89	Rod and Reel
1090051	YFT	14-Nov-2011	0°01.5 S	139°54.8 W	74	Rod and Reel
1090013	YFT	14-Nov-2011	0°01.5 S	139°54.8 W	77	Rod and Reel
1090012	YFT	14-Nov-2011	0°01.5 S	139°54.8 W	73	Rod and Reel
0990499	YFT	14-Nov-2011	0°01.5 S	139°54.8 W	77	Rod and Reel
A0673	SKJ	15-Nov-2011	0°01.5 S	139°54.8 W	73	Rod and Reel
A0645	SKJ	15-Nov-2011	0°01.5 S	139°54.8 W	68	Rod and Reel
A0552	SKJ	15-Nov-2011	0°01.5 S	139°54.8 W	58	Rod and Reel
990289	YFT	15-Nov-2011	0°01.5 S	139°54.8 W	71	Rod and Reel
1190067	YFT	15-Nov-2011	0°01.5 S	139°54.8 W	100	Rod and Reel
1090400	YFT	15-Nov-2011	0°01.5 S	139°54.8 W	76	Rod and Reel
1090357	YFT	15-Nov-2011	0°01.5 S	139°54.8 W	75	Rod and Reel
1090075	YFT	15-Nov-2011	0°01.5 S	139°54.8 W	80	Rod and Reel
A0547	BET	17-Nov-2011	0°01.8 S	139°55.7 W	124	Rod and Reel
A0685	BET	17-Nov-2011	0°01.7 S	139°55.4 W	126	Rod and Reel
A0591	SKJ	17-Nov-2011	0°01.8 S	139°55.7 W	71	Rod and Reel
A0711	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	72	Rod and Reel
A0691	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	78	Rod and Reel
A0666	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	55	Rod and Reel
A0655	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	58	Rod and Reel
A0635	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	89	Rod and Reel
A0632	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	84	Rod and Reel
A0628	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	70	Rod and Reel
A0601	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	73	Rod and Reel
A0575	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	79	Rod and Reel
A0560	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	80	Rod and Reel
A0555	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	49	Rod and Reel
A0500	YFT	17-Nov-2011	0°01.8 S	139°55.7 W	93	Rod and Reel
A0677	BET	18-Nov-2011	0°23.4 S	140°14.8 W	119	Rod and Reel
A0604	BET	18-Nov-2011	0°23.4 S	140°14.8 W	121	Rod and Reel

Archival Tag Number	Species	Date	Latitude	Longitude	Fork Length	Fishing Method
A0540	BET	18-Nov-2011	0°23.4 S	140°14.8 W	121	Rod and Reel
A0584	SKJ	18-Nov-2011	0°23.4 S	140°14.8 W	48	Rod and Reel
A0689	YFT	18-Nov-2011	0°23.4 S	140°14.8 W	71	Rod and Reel
A0620	YFT	18-Nov-2011	0°23.4 S	140°14.8 W	83	Rod and Reel
A0533	YFT	18-Nov-2011	0°23.4 S	140°14.8 W	111	Rod and Reel
A0730	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	68	Dangler
A0728	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	66	Dangler
A0725	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	67	Dangler
A0723	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	70	Dangler
A0701	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	67	Dangler
A0688	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	67	Dangler
A0670	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	68	Dangler
A0669	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	66	Dangler
A0650	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	70	Dangler
A0647	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	65	Dangler
A0609	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	66	Dangler
A0585	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	69	Dangler
A0572	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	65	Dangler
A0570	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	69	Dangler
A0565	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	69	Dangler
A0548	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	65	Dangler
A0515	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	68	Dangler
A0512	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	70	Dangler
A0509	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	68	Dangler
A0501	SKJ	30-Nov-2011	3°31.7 N	154°59.0 W	68	Dangler
A0718	BET	2-Dec-2011	7°54.7 N	154°59.3 W	52	Rod and Reel
A0713	BET	2-Dec-2011	7°54.7 N	154°59.3 W	49	Rod and Reel
A0608	BET	2-Dec-2011	7°54.7 N	154°59.3 W	58	Rod and Reel
A0720	BET	3-Dec-2011	7°58.4 N	155°00.3 W	47	Rod and Reel
A0717	BET	3-Dec-2011	7°58.4 N	155°00.3 W	44	Rod and Reel
A0596	BET	3-Dec-2011	7°58.4 N	155°00.3 W	48	Rod and Reel
A0528	BET	3-Dec-2011	7°58.4 N	155°00.3 W	45	Rod and Reel
A0503	BET	3-Dec-2011	7°58.4 N	155°00.3 W	45	Rod and Reel
A0696	BET	3-Dec-2011	7°59.7 N	154°59.3 W	49	Dangler
A0721	YFT	3-Dec-2011	7°58.4 N	155°00.3 W	58	Rod and Reel
A0693	YFT	3-Dec-2011	7°58.4 N	155°00.3 W	57	Rod and Reel
A0690	BET	4-Dec-2011	8°00.2 N	155°00.2 W	45	Rod and Reel
A0641	BET	4-Dec-2011	8°00.2 N	155°00.2 W	47	Rod and Reel
A0592	BET	4-Dec-2011	8°00.2 N	155°00.2 W	48	Rod and Reel
A0587	BET	4-Dec-2011	8°00.2 N	155°00.2 W	45	Rod and Reel
A0529	BET	4-Dec-2011	8°00.2 N	155°00.2 W	46	Rod and Reel
A0606	BET	5-Dec-2011	7°59.3 N	154°59.3 W	44	Rod and Reel
A0566	BET	5-Dec-2011	7°59.3 N	154°59.3 W	46	Rod and Reel
A0663	BET	5-Dec-2011	8°00.2 N	155°00.5 W	45	Dangler
A0630	BET	5-Dec-2011	8°00.2 N	155°00.5 W	45	Dangler

Archival Tag Number	Species	Date	Latitude	Longitude	Fork Length	Fishing Method
A0579	BET	5-Dec-2011	8°00.2 N	155°00.5 W	45	Dangler
A0576	BET	5-Dec-2011	8°00.2 N	155°00.5 W	51	Dangler
A0514	BET	5-Dec-2011	8°00.2 N	155°00.5 W	43	Dangler
A0502	BET	5-Dec-2011	8°00.2 N	155°00.5 W	46	Dangler
A0726	SKJ	5-Dec-2011	8°00.2 N	155°00.5 W	58	Dangler
A0695	YFT	5-Dec-2011	8°00.2 N	155°00.5 W	52	Dangler
A0656	YFT	5-Dec-2011	8°00.2 N	155°00.5 W	48	Dangler
A0506	YFT	5-Dec-2011	8°00.2 N	155°00.5 W	57	Dangler
A0706	BET	6-Dec-2011	7°58.9 N	155°00.1 W	57	Dangler
A0518	SKJ	6-Dec-2011	7°58.9 N	155°00.1 W	64	Dangler
A0720	BET	7-Dec-2011	7°51.2 N	154°58.5 W	51	Rod and Reel
A0580	BET	7-Dec-2011	7°57.2 N	154°58.9 W	42	Dangler
A0715	SKJ	7-Dec-2011	7°57.2 N	154°58.9 W	54	Dangler
A0739	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	57	Dangler
A0733	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	53	Dangler
A0729	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	46	Dangler
A0728	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	52	Dangler
A0724	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	53	Dangler
A0723	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	56	Dangler
A0718	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	45	Dangler
A0716	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	55	Dangler
A0712	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	63	Dangler
A0698	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	57	Dangler
A0693	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	54	Dangler
A0691	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	51	Dangler
A0642	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	45	Dangler
A0640	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	45	Dangler
A0636	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	45	Dangler
A0597	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	52	Dangler
A0597	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	57	Dangler
A0577	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	45	Dangler
A0562	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	46	Dangler
A0561	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	45	Dangler
A0546	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	53	Dangler
A0544	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	46	Dangler
A0510	YFT	7-Dec-2011	7°57.2 N	154°58.9 W	47	Dangler
A0699	BET	8-Dec-2011	7°56.2 N	155°00.5 W	53	Rod and Reel
A0505	BET	8-Dec-2011	7°56.2 N	155°00.5 W	49	Rod and Reel
A0504	BET	8-Dec-2011	7°56.2 N	155°00.5 W	43	Rod and Reel
A0538	BET	8-Dec-2011	7°57.2 N	154°58.5 W	46	Dangler Dangler
A0695	YFT	8-Dec-2011	7°56.2 N	155°00.5 W	<del>7</del> 0	Rod and Reel
A0731	YFT	8-Dec-2011	7°57.2 N	154°58.5 W	50	Dangler
A0719	YFT	8-Dec-2011 8-Dec-2011	7°57.2 N	154°58.5 W	48	Dangler
A0719 A0719	YFT	8-Dec-2011 8-Dec-2011	7°57.2 N	154°58.5 W	53	Dangler
A0714	YFT	8-Dec-2011 8-Dec-2011	7°57.2 N	154°58.5 W	43	Dangler
AU/14	111	0-DCC-2011	1 31.2 IN	134 30.3 W	43	Dangiei

Archival Tag Number	Species	Date	Latitude	Longitude	Fork Length	<b>Fishing Method</b>
A0714	YFT	8-Dec-2011	7°57.2 N	154°58.5 W	50	Dangler
A0710	YFT	8-Dec-2011	7°57.2 N	154°58.5 W	59	Dangler
A0702	YFT	8-Dec-2011	7°57.2 N	154°58.5 W	58	Dangler
A0690	YFT	8-Dec-2011	7°57.2 N	154°58.5 W	51	Dangler
A0629	YFT	8-Dec-2011	7°57.2 N	154°58.5 W	49	Dangler
A0593	YFT	8-Dec-2011	7°57.2 N	154°58.5 W	44	Dangler
A0694	BET	9-Dec-2011	7°57.1 N	155°00.2 W	53	Rod and Reel
A0740	BET	9-Dec-2011	7°56.8 N	154°59.2 W	57	Rod and Reel
A0697	BET	9-Dec-2011	7°56.8 N	154°59.2 W	54	Rod and Reel
A0525	BET	9-Dec-2011	7°56.8 N	154°59.2 W	45	Rod and Reel
A0735	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	55	Rod and Reel
A0729	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	57	Rod and Reel
A0716	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	54	Rod and Reel
A0708	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	51	Rod and Reel
A0707	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	56	Rod and Reel
A0703	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	44	Rod and Reel
A0657	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	51	Rod and Reel
A0581	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	44	Rod and Reel
A0549	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	49	Rod and Reel
A0531	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	47	Rod and Reel
A0530	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	51	Rod and Reel
A0508	YFT	9-Dec-2011	7°56.8 N	154°59.2 W	42	Rod and Reel
A0738	BET	10-Dec-2011	7°58.5 N	155°01.9 W	51	Rod and Reel
A0725	BET	10-Dec-2011	7°58.5 N	155°01.9 W	50	Rod and Reel
A0658	SKJ	10-Dec-2011	7°59.9 N	154°59.7 W	60	Rod and Reel
A0611	SKJ	10-Dec-2011	7°59.9 N	154°59.7 W	46	Rod and Reel
A0743	YFT	10-Dec-2011	7°59.9 N	154°59.7 W	60	Rod and Reel
A0732	YFT	10-Dec-2011	7°59.9 N	154°59.7 W	74	Rod and Reel
A0726	YFT	10-Dec-2011	7°59.9 N	154°59.7 W	53	Rod and Reel
A0711	YFT	10-Dec-2011	7°59.9 N	154°59.7 W	52	Rod and Reel
A0701	YFT	10-Dec-2011	7°59.9 N	154°59.7 W	51	Rod and Reel