



The 60th Hawaiian International Billfish Tournament (HIBT) kicked off on July 29, 2019 with seven tags generously sponsored for deployment on blue marlin.

The first tag of the event was deployed on July 29, 2019 on an estimated 160 lb (73 kg) blue marlin by Dr. Barbara Block alongside *Second Offense* with Captain Kevin Hibbard after being reeled in by Mitchell Firestein. The second tag of the event was deployed two days later, on July 31, 2019 on a 175 lb (79 kg) blue marlin by Tom Seibler after a quick fight with Steve Philps on *Miss Mojo* with Captain Shawn Rotella.

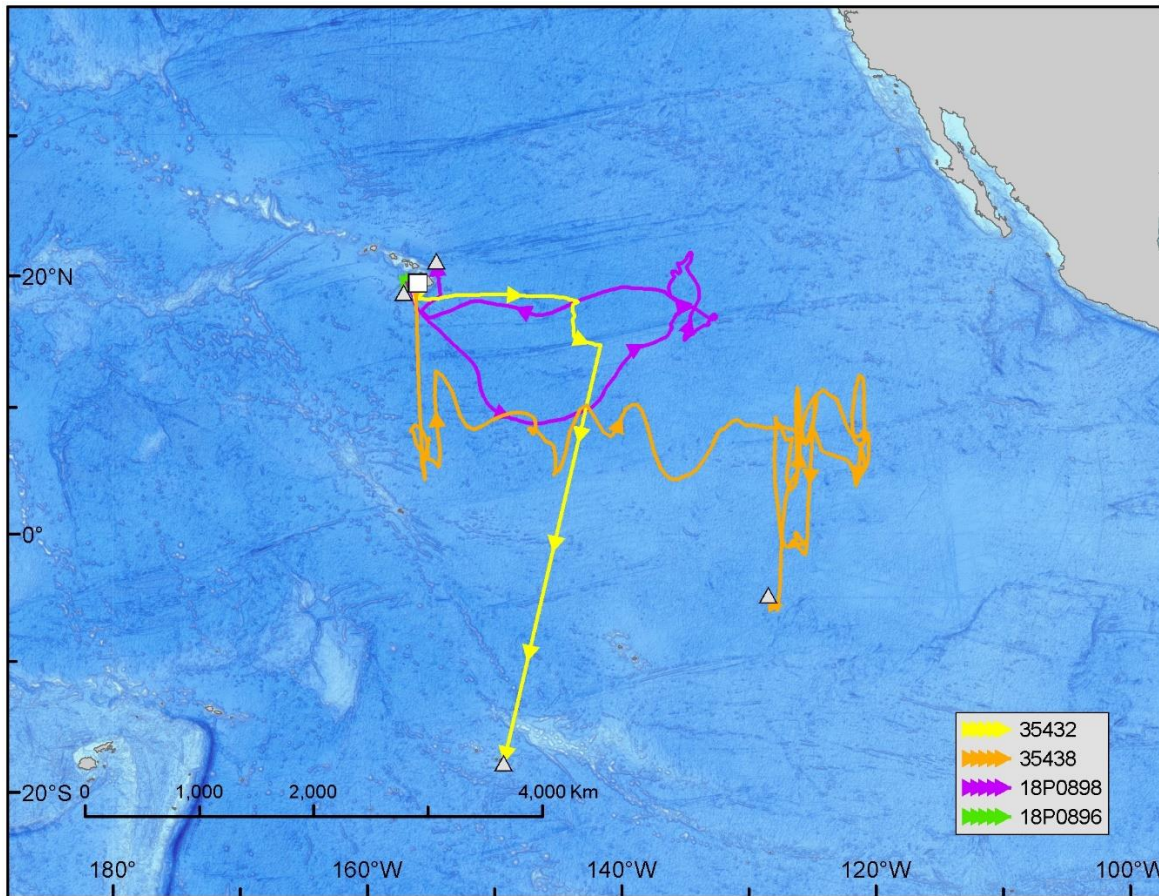
The third tag of the event was deployed on August 11, 2019 on a 140 lb (64 kg) blue marlin alongside Marlin Magic II by Captain Marlin Parker after being reeled in by Mark Zmijewski. The fourth tag of the event was deployed on August 19, 2020 on a 110 lb (50 kg) blue marlin alongside *Northern Lights* by Captain Kevin Nakamuru after a brief fight with Dan Diez. The fifth tag of the event was deployed on September 26, 2019 on a 120 lb (54 kg) blue marlin alongside *Northern Lights* II by Captain Kevin Nakamaru after being reeled in by Ken Corday.

The following day, on September 27, 2019, the sixth tag of the event was deployed on a 130 lb (59 kg) blue marlin alongside Marlin Magic II by Captain Marlin Parker after a short fight with Kristi Nahadocon. The seventh and final tag of the event was deployed on October 6, 2019 on a 110 lb (50 kg) blue marlin alongside *Northern Lights* by Captain Kevin Nakamaru.

*The total estimated distance is based on the length of a “best-guess” track calculated using light and sea surface temperature measurements from the tag and a complex mathematical algorithm. Since each location along the track potentially has significant error associated with it, the IGMR instead uses the reliable and more precise linear distance (the point of tag deployment determined by GPS to the point of tag pop-up determined by Argos satellites) to establish IGMR results and winners

Kona, USA 2019 Deployments											
Tag	Boat	Fish	Species	Tagged	Reported	Days at Large	Distance (nm)	Est. Wt. (lbs)	Est. Wt. (kg)	Angler	Tagger
18P0879	Second Offense	1	Blue Marlin	7/29/2019	Did Not Report			160	73	Mitchell Firestein	Barb Block
18P1138	Miss Mojo	2	Blue Marlin	7/31/2019	8/5/2019	5	49	175	79	Steve Philps	Tom Seibler
35438	Marlin Magic II	3	Blue Marlin	8/11/2019	4/11/2020	244	2181	140	64	Mark Zmijewski	Marlin Parker
35432	Northern Lights	4	Blue Marlin	8/19/2019	12/1/2019	104	2245	110	50	Dan Diez	Kevin Nakamaru
18P0898	Northern Lights II	5	Blue Marlin	9/26/2019	5/27/2020	244	123	120	54	Ken Corday	Kevin Nakamaru
18P1131	Marlin Magic II	6	Blue Marlin	9/27/2019	Did Not Report			130	59	Kristi Nahadocon	Marlin Parker
18P0896	Northern Lights	7	Blue Marlin	10/6/2019	10/26/2019	20	78	110	50		Kevin Nakamaru

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The tag on Fish 2 (tag #18P1138) was the first to surface on August 5, 2019, 5 days after deployment and 49 nautical miles (nm), taking fourth place in the event. Four days after deployment, the tag went quickly to 1,640 m (5,380 ft) where the tag released and went back to the surface indicating a mortality event. Due to the short deployment, there was not enough data to generate a track.

The next tag to surface popped off Fish 7 (tag #18P0896) on October 26, 2019, 20 days after deployment and 78 nm from the tagging location, taking third place in the event. Following deployment, this fish traveled southwest before the tag popped off for a total estimated track length of 107 nm*. Over the course of the deployment, Fish 7 spent approximately 55% of the time within 10 m (33 ft) of the surface where the water temperature ranged between 28 – 30°C (82 – 86°F). Deeper dives were primarily between 50 – 150 m (164 – 492 ft) where the water temperature ranged between 20 – 28°C (68 – 82°F). The deepest dive of the deployment occurred on October 22, 2019 to a depth of 376 m (1,233 ft) where the water temperature was 25°C (77°F). The coldest water of the deployment was experienced on October 14, 2019 at a depth of 346 m (1,135 ft) where the temperature was 9°C (48°F).

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On December 1, 2019, the tag on Fish 4 (tag #35432) reported 104 days after deployment and 2,245 nm from the tagging location. It was later determined that this fish had been caught by a longline fishing vessel. The fish was caught on November 18, 2019 and the tag was within the vessel unable to transmit until the vessel reached port in Tahiti on December 1. Due to the tags inability to transmit at the point of capture, a valid 'popup' location was not received through satellite. Unfortunately, we were unable to calculate a point-to-point distance for this tag and were unable to 'place' the tag in the event. However, we were able to recover the tag and retrieve the full data set from the deployment which provides a significantly higher amount of depth and temperature data for analysis. Following deployment, this fish traveled east and then southeast before the fish was captured, approximately 850 nm from the tagging location. Over the course of the deployment, this fish spent approximately 70% of the time within 10 m (33 ft) of the surface where the water temperature ranged between 26 – 30°C (79 – 86°F). Deeper dives ranged between 25 – 100 m (82 – 328 ft) where the water temperature ranged between 22 – 28°C (72 – 82°F). The deepest dive occurred on November 11, 2019 to a depth of 206 m (675 ft) where the water temperature was 16°C (60°F), the coldest water encountered during the deployment.

The tag on Fish 3 (tag #35438) was the next to surface on April 11, 2020, after reaching the full-programmed deployment time of 244 days, 2,181 nm from the tagging location, taking first place in the event. Following deployment, this fish traveled south towards the Line Islands, and then began moving east while zigzagging north and south. Fish 3 then turned south and crossed the equator, then crossed back north of the equator, circled around and then crossed to the south again before the tag popped off for a total estimated track length of 10,751 nm*. Over the course of the deployment, this fish spent approximately 50% of the time within 10 m (33 ft) of the surface where the water temperature ranged between 24 – 30°C (75 – 86°F). Deeper dives were primarily between 25 – 100 m where the water temperature ranged between 20 – 30°C (68 – 86°F). The deepest dive of the deployment occurred in mid-February to a depth of 280 m (682 ft) where the water temperature was 19°C (66°F). The coldest water of the deployment was experienced at a depth of 123 m (403 ft) where the temperature was 15°C (59°F). Congratulations to the tag sponsors from Newport Game Fishing Club and Kona Game Fishing Club and tagging participants for taking first place in the event.

The final tag to surface popped off Fish 5 (tag #18P0898) on May 27, 2020 after the full-programmed deployment time of 244 days, 123 nm from the tagging location, taking second place in the event. Following deployment, this fish traveled southeast and then made a big loop circling back towards Hawaii where the tag popped off for a total estimated track length of 4,557 nm*. Over the course of the deployment, Fish 5 spent approximately 55% of the time within 10 m (33 ft) of the surface where the water temperature ranged between 24 – 27°C (75 – 80°F).

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Deeper dives were primarily between 25 – 150 m (82 – 492 ft) where the water temperature ranged between 14 – 24°C (57 – 75°F). The deepest dive occurred in early November 2019 to a depth of 256 m (840 ft) where the water temperature was 12°C (54°F), the coldest water experience during the deployment.

The tags on Fish 1 (tag #18P0879) and Fish 6 (tag #18P1131) did not report. Although this is an unfortunate result, it highlights the inherent challenges of tagging large, wide-ranging fish in the ocean.

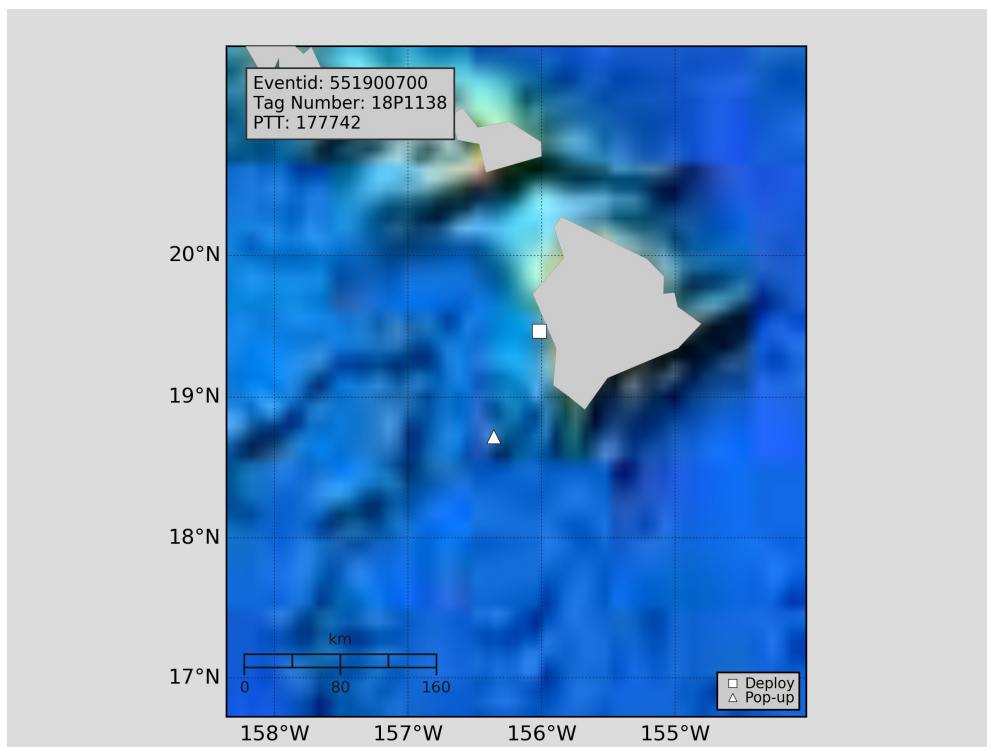
Of the three tags which had significant tracks, one moved south to cross the equator, one began south but then circled back to the Hawaiian Islands, and the third moved southeast before being caught by a longline vessel. The capture of Fish 4 by a longline vessel highlights the fact that significant portions of the blue marlin habitat in the Pacific are unprotected from international fishing fleets. Although exclusive economic zones (EEZ's) and marine protected areas (MPA's) offer some protection when near island nations in the Pacific, significant use of the 'high seas' by blue marlin leave them vulnerable to commercial fishing pressure primarily as bycatch by vessels targeting tuna and swordfish. Research efforts are currently developing to estimate the degree of overlap and interaction of pelagic fish species with international fishing fleets in order to better inform management and conservation. The multi-year dataset generated by this event is an invaluable asset which helps make these research efforts possible.

We are very excited to add data from Pacific blue marlin to the IGMR database and look forward to expanding this data set in the future. Our thanks and gratitude goes out to the tag sponsors, captains, anglers, crew, and participants in the 2019 HIBT IGMR. These datasets help us to learn about billfish behavior in an effort to increase their conservation and protect the sport we love for future generations of fishing!

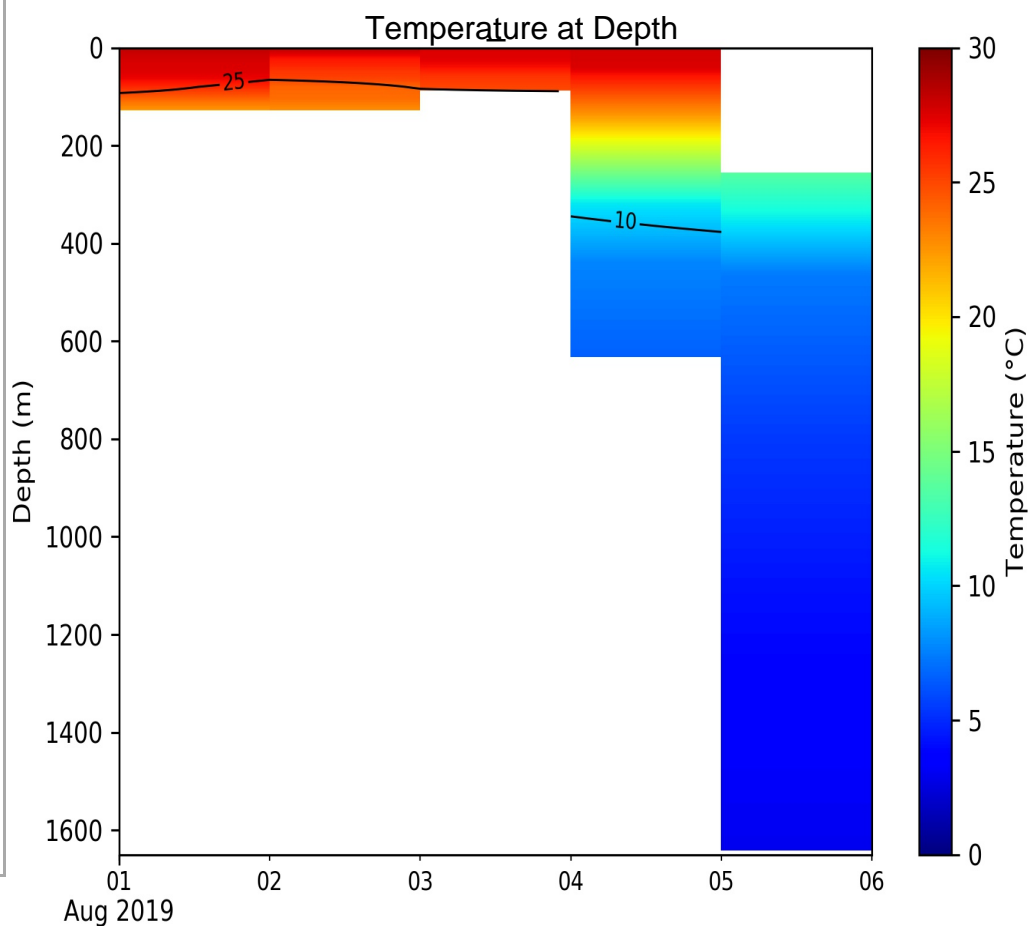
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Tag 18P1138

Fish 2

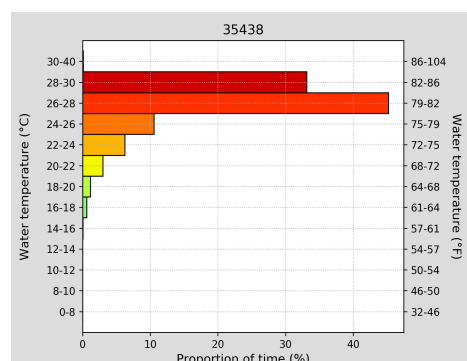
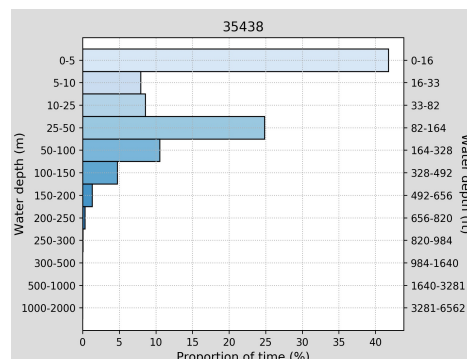
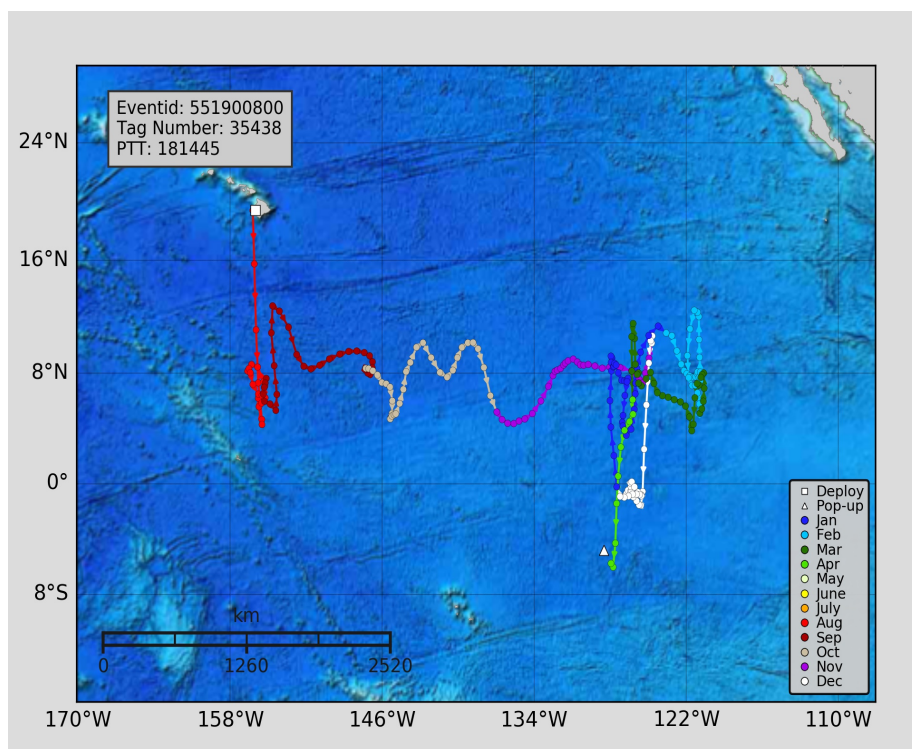


Tag number: 18P1138
Sponsor: Bob and Patti Odea
Angler: Steve Philps
Tagger: Tom Seibler
Boat: *Miss Mojo*
Species: Blue Marlin
Estimated weight: 79 kg
Deployed: 07/31/2019
Reported: 08/05/2019
Days at large: 5
Distance traveled: 49 nm
Maximum depth: 1640.0 m
Minimum temp: 3.0 °C
Maximum temp: 28.6 °C

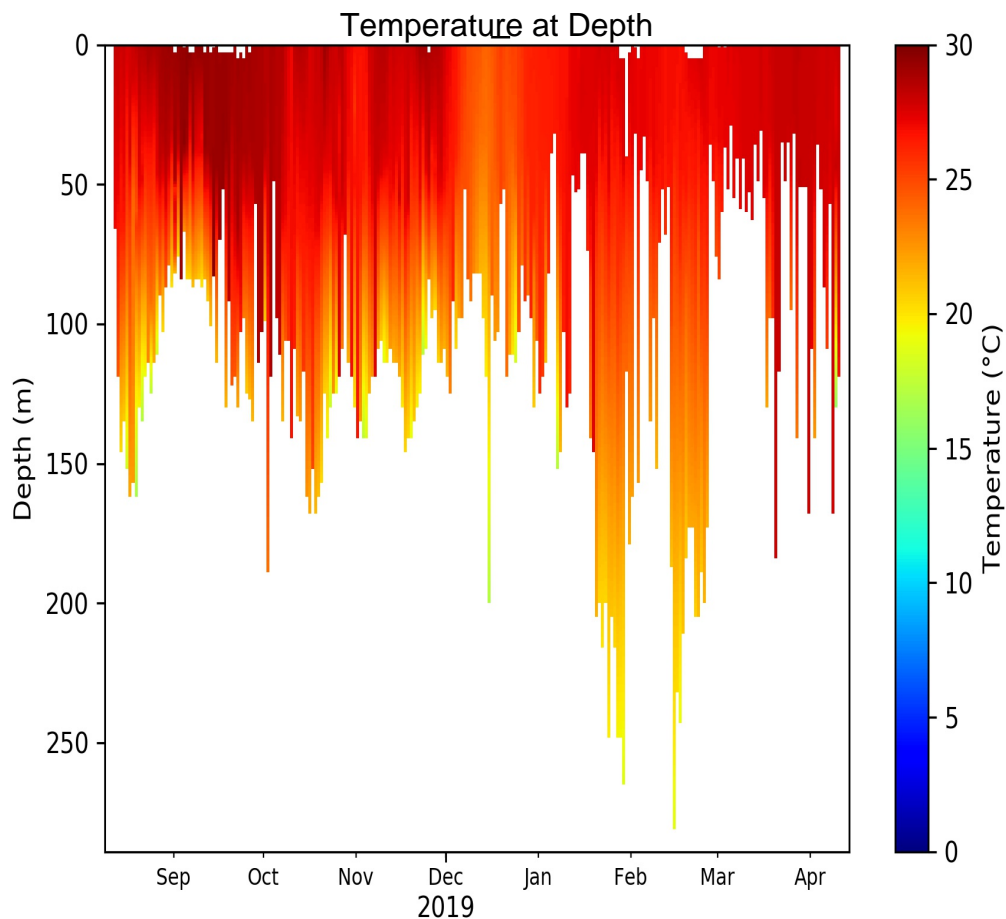


Tag 35438

Fish 3

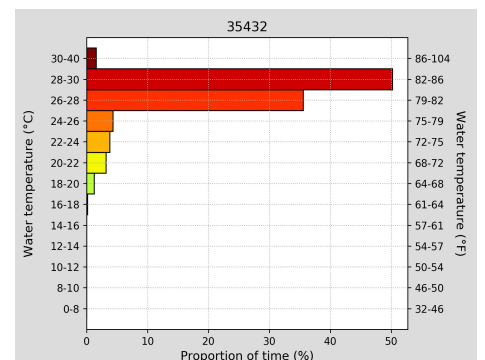
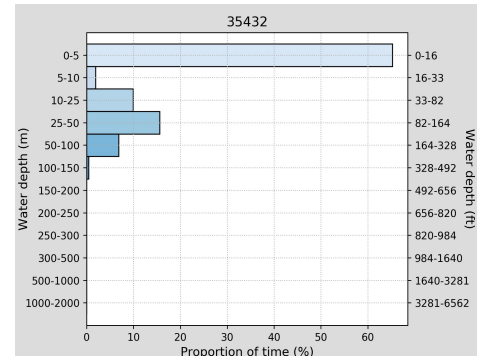
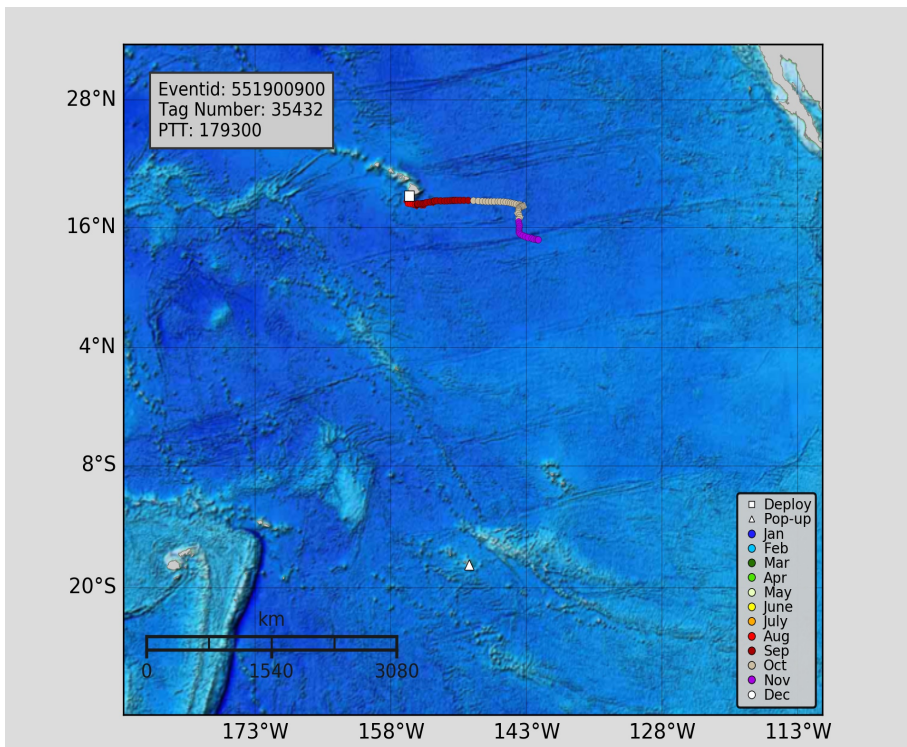


Tag number: 35438
Sponsor: Newport Game Fish Club and Kona Game Fishing Club - Taiyo
Angler: Mark Zmijewski
Tagger: Marlin Parker
Boat: *Marlin Magic II*
Species: Blue Marlin
Estimated weight: 64 kg
Deployed: 08/11/2019
Reported: 04/11/2020
Days at large: 244
Distance traveled: 2179 nm
Maximum depth: 279.7 m
Minimum temp: 14.9 °C
Maximum temp: 29.7 °C

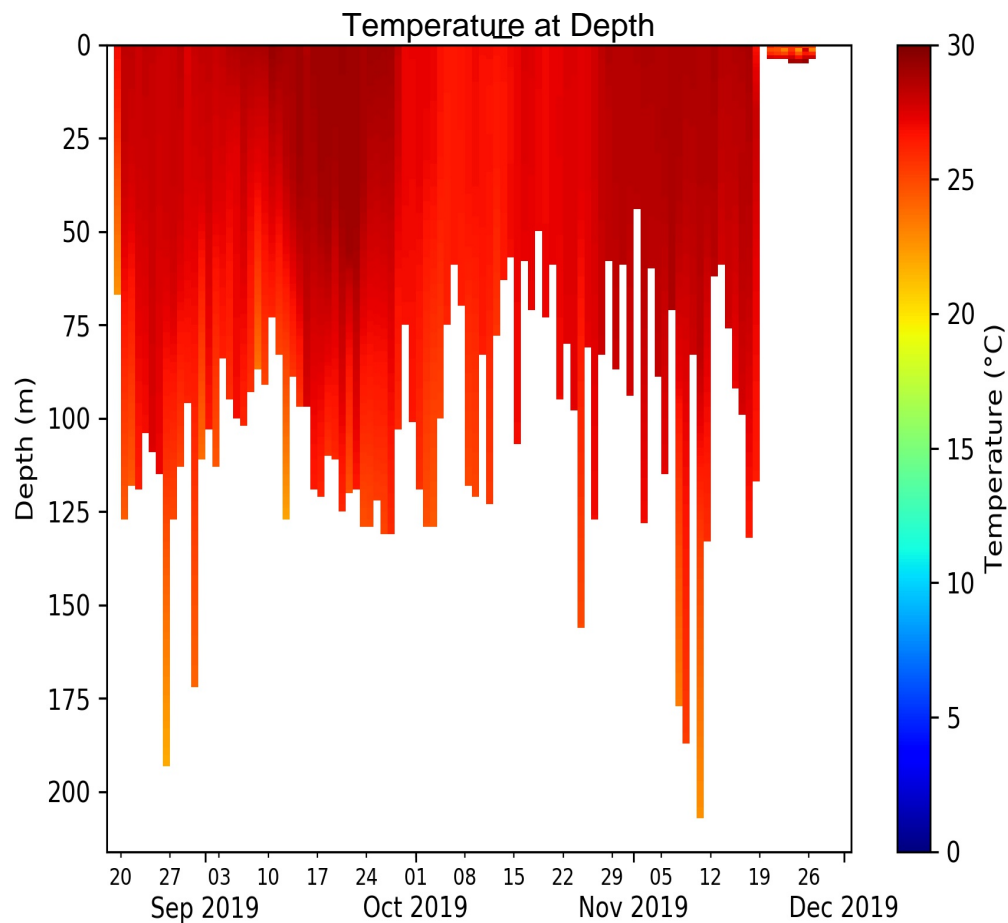


Tag 35432

Fish 4

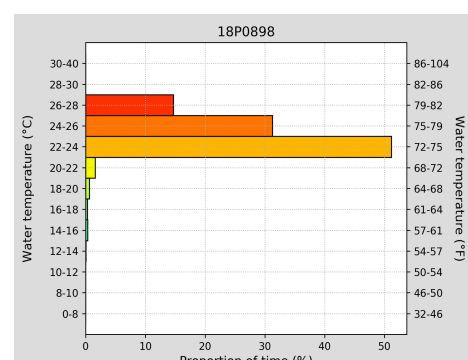
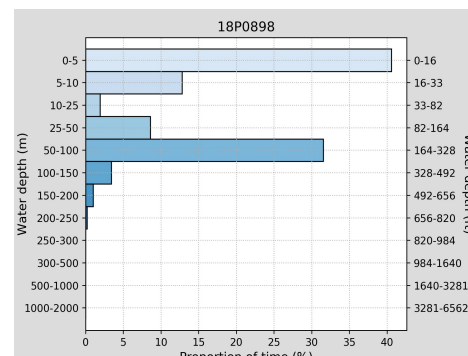
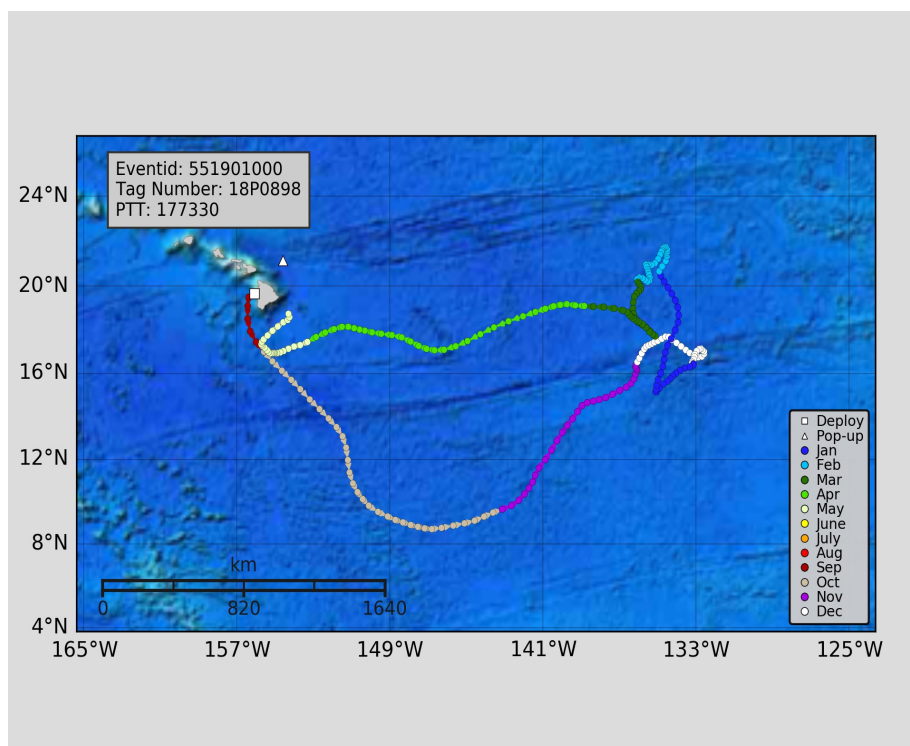


Tag number: 35432
Sponsor: Kona Game Fishing Club - Taiyo
Angler: Dan Diez
Tagger: Kevin Nakamaru
Boat: *Northern Lights*
Species: Blue Marlin
Estimated weight: 50 kg
Deployed: 08/19/2019
Reported: 12/01/2019
Days at large: 104
Distance traveled: 2235 nm
Maximum depth: 206.1 m
Minimum temp: 16.5 °C
Maximum temp: 29.9 °C

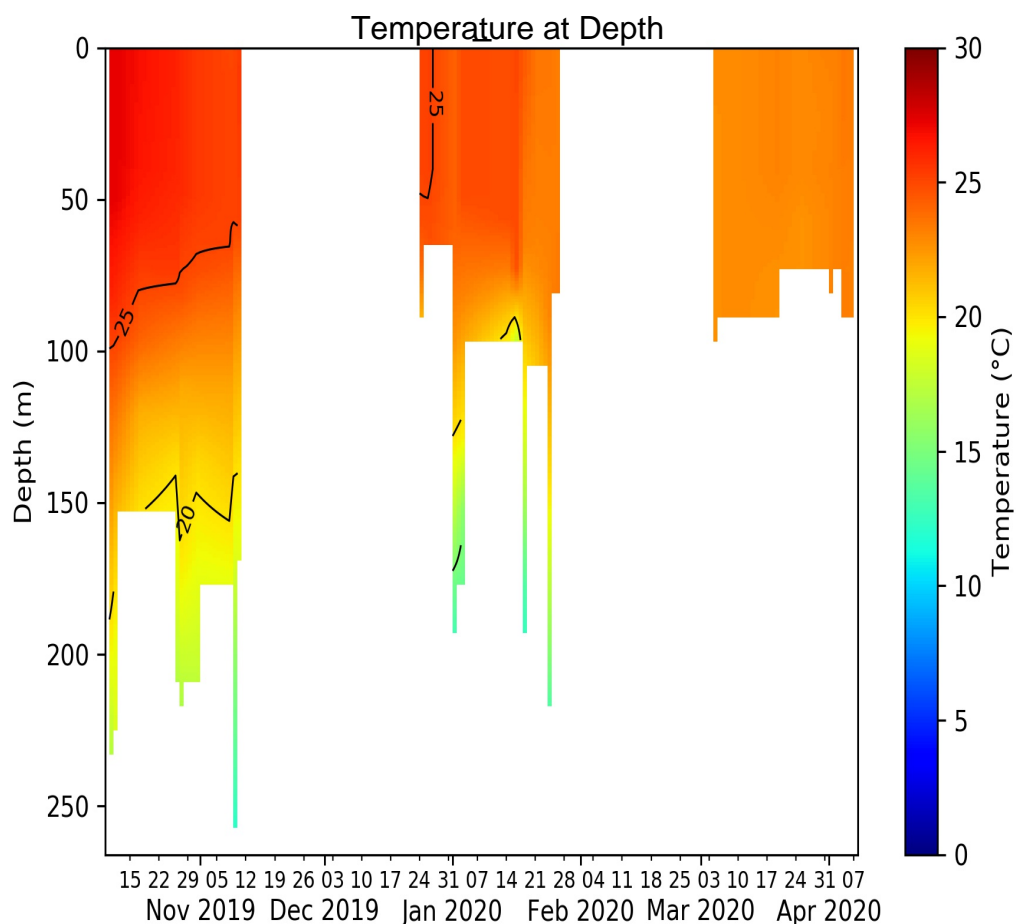


Tag 18P0898

Fish 5

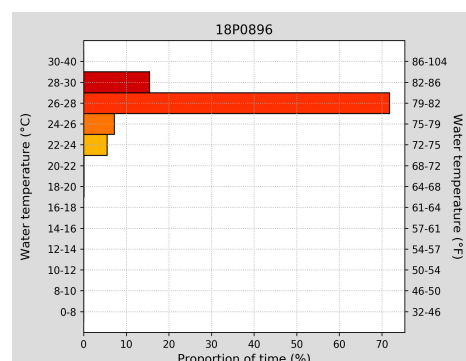
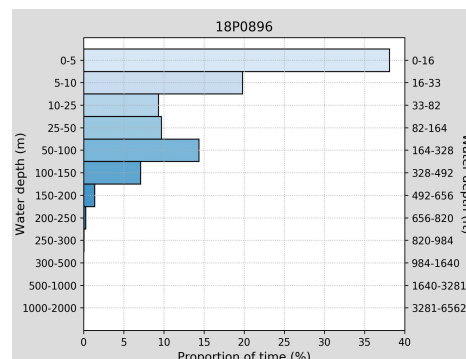
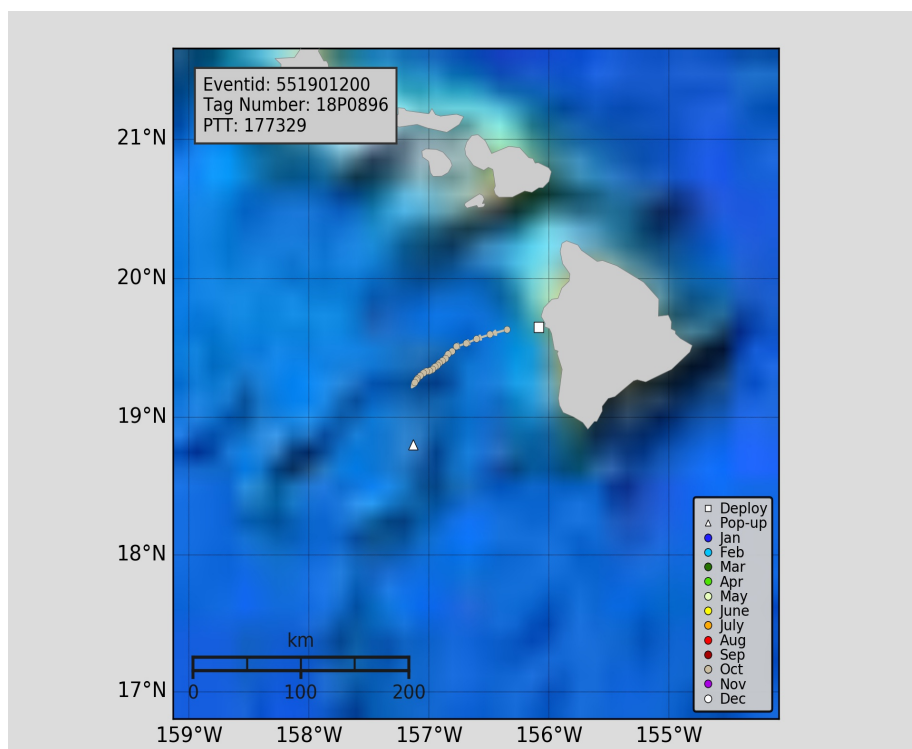


Tag number: 18P0898
 Sponsor: Rocky Franich and Saint Helens Game Fishing Club
 Angler: Ken Corday
 Tagger: Kevin Nakamaru
 Boat: *Northern Lights II*
 Species: Blue Marlin
 Estimated weight: 54 kg
 Deployed: 09/26/2019
 Reported: 05/27/2020
 Days at large: 244
 Distance traveled: 123 nm
 Maximum depth: 256.0 m
 Minimum temp: 12.2 °C
 Maximum temp: 27.4 °C



Tag 18P0896

Fish 7



Tag number: 18P0896
Sponsor: Laguna Niguel
Billfish Club, Bob Kurz Sr.
Memorial Team
Angler: Charter
Tagger: Kevin Nakamaru
Boat: *Northern Lights*
Species: Blue Marlin
Estimated weight: 50 kg
Deployed: 10/06/2019
Reported: 10/26/2019
Days at large: 20
Distance traveled: 78 nm
Maximum depth: 376.0 m
Minimum temp: 9.4 °C
Maximum temp: 30.4 °C

