

Perpetuating our fishing tradition

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LAWAIA

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HANA PA'A SHOOTOUT

JASON
LUKE'S
33LB
UKU

THE SUPER
SUCKER PROJECT

THE HOUSE OF LIMU

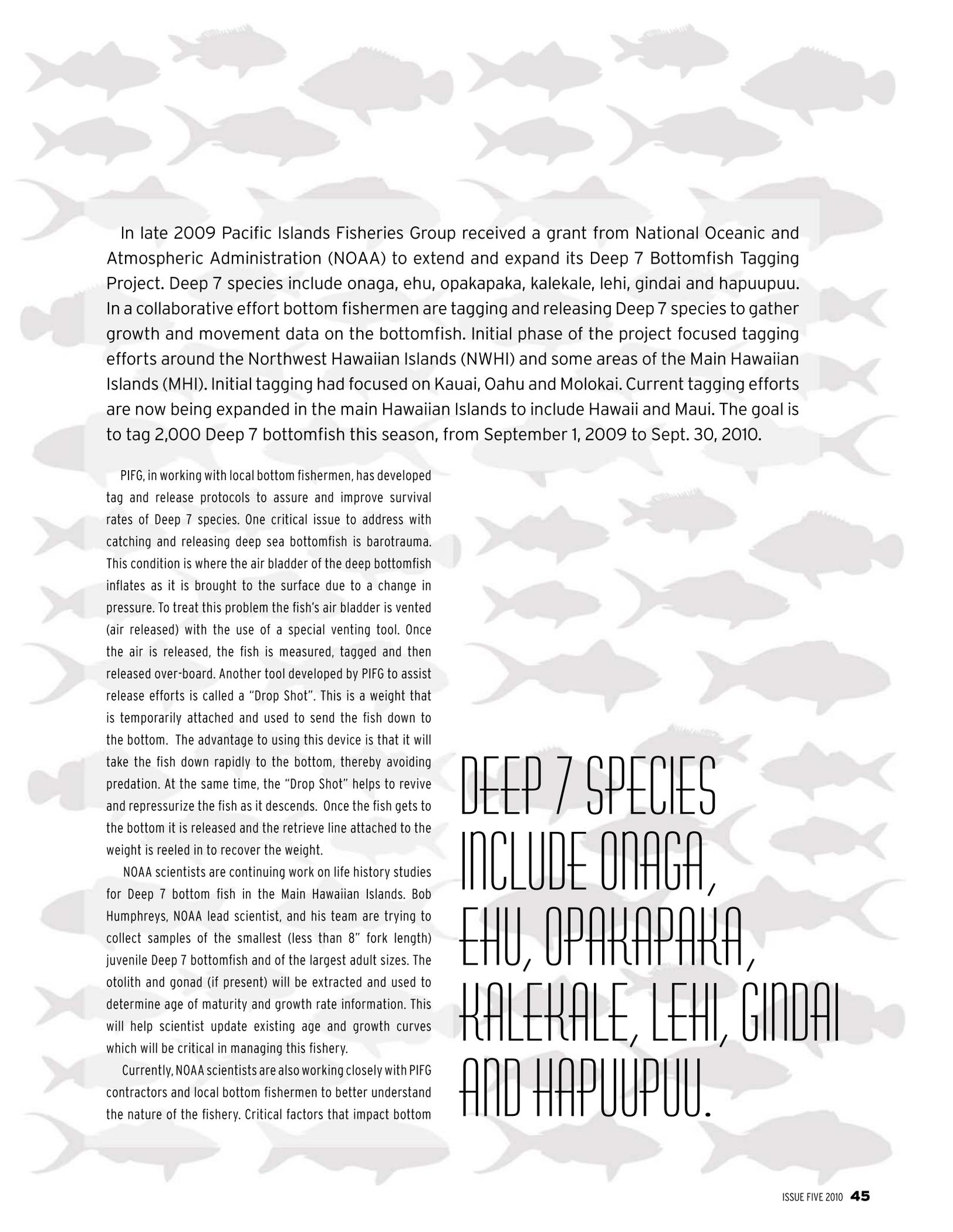
FISHING FOR SCIENCE

THE LAST LAWAIA

FISHING FOR SCIENCE



Oscar Sette



In late 2009 Pacific Islands Fisheries Group received a grant from National Oceanic and Atmospheric Administration (NOAA) to extend and expand its Deep 7 Bottomfish Tagging Project. Deep 7 species include onaga, ehu, opakapaka, kalekale, lehi, gindai and hapuupuu. In a collaborative effort bottom fishermen are tagging and releasing Deep 7 species to gather growth and movement data on the bottomfish. Initial phase of the project focused tagging efforts around the Northwest Hawaiian Islands (NWHI) and some areas of the Main Hawaiian Islands (MHI). Initial tagging had focused on Kauai, Oahu and Molokai. Current tagging efforts are now being expanded in the main Hawaiian Islands to include Hawaii and Maui. The goal is to tag 2,000 Deep 7 bottomfish this season, from September 1, 2009 to Sept. 30, 2010.

PIFG, in working with local bottom fishermen, has developed tag and release protocols to assure and improve survival rates of Deep 7 species. One critical issue to address with catching and releasing deep sea bottomfish is barotrauma. This condition is where the air bladder of the deep bottomfish inflates as it is brought to the surface due to a change in pressure. To treat this problem the fish's air bladder is vented (air released) with the use of a special venting tool. Once the air is released, the fish is measured, tagged and then released over-board. Another tool developed by PIFG to assist release efforts is called a "Drop Shot". This is a weight that is temporarily attached and used to send the fish down to the bottom. The advantage to using this device is that it will take the fish down rapidly to the bottom, thereby avoiding predation. At the same time, the "Drop Shot" helps to revive and repressurize the fish as it descends. Once the fish gets to the bottom it is released and the retrieve line attached to the weight is reeled in to recover the weight.

NOAA scientists are continuing work on life history studies for Deep 7 bottom fish in the Main Hawaiian Islands. Bob Humphreys, NOAA lead scientist, and his team are trying to collect samples of the smallest (less than 8" fork length) juvenile Deep 7 bottomfish and of the largest adult sizes. The otolith and gonad (if present) will be extracted and used to determine age of maturity and growth rate information. This will help scientist update existing age and growth curves which will be critical in managing this fishery.

Currently, NOAA scientists are also working closely with PIFG contractors and local bottom fishermen to better understand the nature of the fishery. Critical factors that impact bottom

DEEP 7 SPECIES
INCLUDE ONAGA,
EHU, OPAKAPAKA,
KALEKALE, LEHI, GINDAI
AND HAPUUPUU.



PIFG WOULD LIKE TO
THANK ALL FISHERMEN
FOR THEIR TREMENDOUS
SUPPORT AND COOPERATION
IN TAGGING, RECOVERING
AND PROVIDING CRITICAL
BOTTOMFISH INFORMATION.

fishing catch per unit effort (CPUE), such as current and wind, are now being gathered on a per trip bases. Trained PIFG observers on board local bottom fishing vessels are working with fishermen to record and monitor these constantly changing conditions. NOAA scientist will try to integrate this data into CPUE models to better understand this unique fishery.

In addition to the PIFG bottomfish tagging project, Dr. Kevin Weng of Pelagic Fisheries Research Program (PFRP) has been also doing bottomfish research. They have been implanting acoustical tags in onaga, ehu and opakapaka to track movement patterns. These capsule sized acoustical tags are inserted through a small incision made into the stomach cavity of each fish. An external PIFG dart tag is then inserted below the dorsal fin of each tagged fish prior to releasing. Each acoustical tag gives off a unique signal or ping and listening receivers or stations placed along the sea floor bottom record these pings from each fish as they swim by. The listening stations are retrieved periodically to download gathered information from the data and a tracking profile of individual fish can be

developed. The information will help scientist better understand the habits and movement patterns of bottomfish and, hopefully, will shed more light on the habitats and frequency of travel of some of these bottom fish. If you should catch and recover a bottomfish with an acoustical tag, please call PIFG at (808) 265-4962. There will be a \$50.00 cash reward for this tag from PFRP.

During the current Deep 7 bottomfish season since October 20, 2009, there have been a total of 20 bottomfish recoveries. All of the bottomfish recovered were opakapaka and most were caught and tagged on the Penguin Banks. There was 1 tagged opakapaka recovered off of Maui and 1 other opakapaka recovered off of Oahu that traveled from the Penguin Banks. This brings the overall project grand total to 41 recovered bottomfish; 4 of which have crossed channels. We look forward to the upcoming bottomfish season, continued cooperation with fishermen and ultimately more recoveries. Please give us a call if you should recapture a tagged bottomfish at (808) 265-4962.

PIFG would like to thank all fishermen for their tremendous support and cooperation in tagging, recovering and providing critical bottomfish information. Special Mahalo to the following participating bottom fishermen: **KAUAI** - Greg Holzman, Jonathan Hurd, **OAHU** - Gary Dill, Leonard Yamada, Stan Fujino, Glenn Ashimine, Dennis Kamikawa, Kurt Kawamoto, Ed Ebisui, Tim Timoney, Guy Ohara, (the late) Bill Strickland, Brendt Chang, Pat Chun, John Niiyama, Brian Tyau, Jon Moribe, Derek Ganiko **MOLOKAI** - Kenneth Corder, **MAUI** - Basil Oshiro, Layne Nakagawa, John Meston, Howard Mikasa, Richard Matsumoto, **HAWAII** - Dennis Colon, Leroy Pi, Eddie Kuahiwinui Jr., Kevin Awa, Nash Kobayahi. We apologize if we have missed your name.



Layne Nakagawa