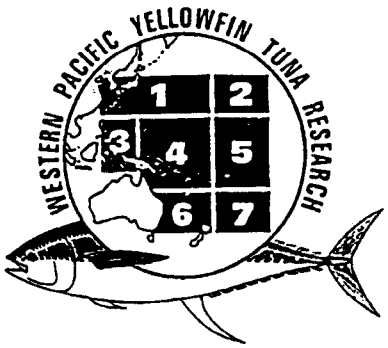

Nadi, Fiji
June 18-20, 1997

WPYRG7/8

Pelagic Fisheries Research Program

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Honolulu

Working paper for the 7th Meeting of the Western Pacific Yellowfin Tuna Research Group, Nadi, Fiji, June 18 - 20, 1997.

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The Pelagic Fisheries Research Program has executed 35 projects since 1993. A complete list of these projects is presented below. Details of these projects can be obtained by contacting the PFRP Program Manager or by contacting the principal investigators directly. Technical reports are available from the PFRP describing the results of many of the completed. In other cases, the results have been published in the primary scientific literature. The PRFP also publishes a quarterly newsletter.

New projects are initiates by the PFRP though a competitive request for proposals. Projects are solicited in all scientific disciplines relevant to rational management of fisheries for pelagic species in the western and central Pacific ocean. Collaborative projects with regional organizations are welcome. The numbers and funding level of new projects depends on the overall annual funding for the PFRP.

Current Projects:

1. Local pelagic catch and effort data analysis and integrated modeling to quantify the effects of local fisheries on fish availability. Principal investigator: C. Boggs. Collaborating investigators: D. Curran, X. He, Q. Yang.
2. Reproductive biology of yellowfin tuna,*Thunnus albacares*, in Hawaiian waters and the western tropical Pacific Ocean. Principal investigators: G. Grau, R. Shomura, D. Itano.
3. Physical characteristics of the environment influencing pelagic fishes. Principal investigator: P. Flament. Collaborating investigators: C. Lumpkin, J. Firing.
4. Hawaii fishing vessel economics. Principal investigator: S. Pooley. Collaborating investigators: R. Curtis, M. Hamilton, S. Huffman, R. Ito, M. Travis.
5. Integrative modeling in support of the Pelagic Fisheries Research Program: Spatially disaggregated population dynamics models for pelagic fisheries. Principal investigator: J. Sibert.
6. Laboratory and field research to enhance understanding of tuna movements and distributions, and to improve stock assessment methods. Principal investigators: R. Brill, G. Grau, K. Holland.
7. Integration of longline fishery performance model with environmental information. Principal investigator: C. Boggs. Collaborating investigator: K. Bigelow.
8. Evaluation of remote sensing technologies for the identification of oceanographic features critical to pelagic fish distributions around the Hawaiian archipelago. Principal investigators: G. Mitchum, J. Polovina.
9. A multilevel and multiobjective programming model of Hawaii commercial fisheries.

Principal investigators: P. Leung, S. Nakamoto, U. Chakravorty.

10. A tag and release program for the Hawaiian seamount yellowfin and bigeye tuna handline and troll fisheries. Principal investigator: K. Holland.
11. Stock and fishery dynamics of yellowfin tuna,*Thunnus albacares*, in the western and central Pacific Ocean: development of an integrated model incorporating size ands. spatial structure. Principal investigators: J. Hampton, D. Fournier.
12. A numerical investigation of ocean circulation and pelagic fisheries around the Hawaiian Islands. Principal investigators: B. Qiu, P. Flament.
13. The economics of recreational fishing for pelagics in Hawaii. Principal investigator: K. analysis of population structure in Pacific swordfish (*Xiphias gladius*) using microsatellite DNA techniques. Principal investigators: B. Block, C. Reeb.
14. Investigation of Pacific broadbill swordfish migration patterns and habitat characteristics using electronic archival tag technology. Principal investigators: C. Boggs, J. Gunn.
15. An assessment of bigeye tuna (*Thunnus obesus*) population structure in the Pacific Ocean, based on mitochondrial and microsatellite DNA variation. Principal investigators: J. Hampton, P. Grewe.
16. Estimation of bycatch and discards of sharks and other species by the Hawaii longline fishery. Principal investigator: P. Kleiber (formerly X. He).
17. Coordinated sociocultural investigation of pelagic fishermen in American Samoa and the Commonwealth of the Northern Mariana Islands. Principal investigators: R. Franco, M. Hamnett, C. Severance.
18. A sociocultural study of pelagic fishing in Guam. Principal investigators: D. Rubinstein, T. Pinhey.
19. A dynamic model to evaluate the economic effect of regulation on the Hawaii commercial multifishery. Principal investigator: U. Chakravorty.
20. Economic interactions between United States longline fisheries. Principal investigators: M. Travis, L. Strand.
21. Traditional fishery knowledge: its application to the management and development of small-scale tuna fisheries in the United States Pacific islands. Principal investigators: J. Kaneko, P. Bartram, M. Miller, J. Marks.
22. Economic contributions of Hawaii fisheries. Principal investigators: P. Leung, S. Nakamoto.
23. Aspects of the ecology of the Red Squid (*Ommastrephes bartramii*), a potential target for a major Hawaiian fishery. Principal investigators: R. Young, J. Hirota.
24. Integrated information system for pelagic fishery research and management. Principal investigator: R. Skillman.
25. Population structure and dynamics in mahimahi as inferred through mitochondrial DNA. Principal investigator: C. Reeb.

Completed Projects:

1. Analysis of Pacific blue marlin and swordfish population structure using mitochondrial and nuclear DNA technologies. Principal investigators: B. Block and J. Graves. Collaborating investigators: V. Buonaccorsi, M. McDowell, C. Reeb, P. Rosel.

2. Automated monitoring of yellowfin tuna at Hawaiian Fish Aggregation Devices and the relationship to water mass dynamics based upon satellite imagery. Principal investigator: P. Klimley. Collaborating investigator: C. Holloway.
3. Social aspects of the Hawaiian pelagic troll fishery. Principal investigator: M. Miller.
4. Structure and dynamics of the U.S. tuna market for fresh Pacific tuna and marlin. Principal investigators: J. Kaneko, P. Bartram, P. Garrod.
5. Contributions of tuna fishing and transshipment operation to local economies. Principal investigator: M. Hamnett.
6. Development of assessment model for a western Pacific yellowfin. Principal investigators: P. Kleiber, J. Sibert.
7. Design of tag-recapture experiments for estimating yellowfin tuna stock dynamics, movement and fishery interactions. Principal investigators: P. Bills, J. Sibert. Collaborating investigators: C. Boggs, P. Kleiber, J. Wetherall.
8. Feasibility of airborne laser devices for pelagic fish surveys. Principal investigators: J. Sibert, C. Schoen.
9. Three-dimensional laser confocal microscopy as a tool to age fish otoliths by optical sections: validation of daily microincrements by both injected dyes and theoretical otolith growth models. Principal investigator: R. Gauldie.